

NAME OF CHILD: Adam Strain

Name: Patrick Johnston

Title: Professor

Present position and institution:

Dean, School of Medicine, Dentistry & Biomedical Sciences, Queen's University Belfast

Previous position and institution:

[As at the time of the child's death]

Assuming this refers to 1995, Senior Investigator, Medical Oncology, NCI-Navy Medical Oncology Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD.USA

Membership of Advisory Panels and Committees:

[Identify by date and title all of those between January 1995 - May 2012]

Former Membership of Committees/Boards

• Irish Association for Cancer Research	1996-2000
• United Kingdom Gene Therapy Advisory Committee	1997-2001
• Republic of Ireland National Advisory Board for Women's Cancers	1996-2000
• Health Research Board, Republic of Ireland	1997-2002
• Cancer Research Campaign Scientific Committee	1998-2002
• Cancer Research Campaign Clinical Trials Committee	1998-2002
• Cancer Research Campaign Phase I & II Drug Development Committee	1997-2002
• Option Appraisal Board Cancer Services, Northern Ireland	1997
• Cancer Commissioning Groups (EHSSB, SHSSB, WHSSB)	1996-1998
• Scottish Executive Chief Scientist's Office - Cancer Research Portfolio Steering Group	2000-2003
• Science Foundation Ireland (Founding Director)	2000-2003
• QUB Research Executive	2001-2006
• CR-UK Scientific Programme Committee	2002-2006
• Jordanian Biotechnology Scientific Advisory Board	2005
• N. Ireland (INI) Biotechnology Board	2003-2006
• QUB Academic Planning Group Medicine Board	2004-2005
• Project Board for the Republic of Ireland's National Plan for Radiation Oncology	2004-2007
• Founding Director and Chair of All-Ireland Cancer Foundation	2004-2007
• HEFCE RAE Panel Member	2005-2008
• CR-UK Experimental Medicine Centre Steering Group	2006-2009

Current Membership of Committees/Boards

United Kingdom

- MRC Translational Research Group – Chair
- MRC Strategy Board
- MRC Molecular and Cellular Medicine Research Board (MCMB) - (2006 – 2010)
- CR-UK Science Strategy Advisory Group
- CR-UK Science Executive Board
- Steering Group and Chair/Deputy Chair for the National Cancer Research Institute (NCRI) Annual Conference (2010-2013)
- Scientific Advisory Board – Beatson Research Centre, Glasgow
- Scientific Advisory Board of Biomedical Research Centre – King's College London, School of Medicine
- Scientific Advisory Board – Cambridge CR-UK Cancer Centre
- NCRI Clinical & Translational Research Board
- UK Medical Schools Council
- UK Healthcare Education Advisory Committee (UKHEAC)
- Academy of Medical Sciences/Medical Research Society Clinical Research Champions Support & Mentoring Scheme regional representative
- HEFCE REF Pilot Panel – 2010
- HEFCE REF Panel – 2014

Europe

- European Organisation for Research and Treatment of Cancer (EORTC) - Gastrointestinal Cancer Group Committee
- EORTC PAMM Group
- Scientific Advisory Board of VUmc Cancer Center Amsterdam
- Chair, International Selection Committee for the Bob Pinedo Award for Cancer Care

International

- NCI-All-Ireland Cancer Consortium Implementation Board - (2000 – 2008)
- Singapore Cancer Advisory Board - (2001 – 2007)
- Society for Translational Oncology (Founder and Co-Chair)
- Almac Diagnostics (Founder and Director)
- American Society for Clinical Oncology Scientific Program Committee
- International Academy for Advanced Oncology (IAAO), Japan - EU Board Member

Previous Statements, Depositions and Reports:

[Identify by date and title all those made in relation to the child's death]

I have never made any previous statements, depositions or reports

Professor RJ Hay, Dean, Faculty of Medicine and Health Sciences responded on 7th July 2005 in a letter entitled "Inquiry Into Hyponatraemia-related Deaths"

Professor M Savage, Director of Medical Education, School of Medicine, Dentistry and Biomedical Sciences, responded in December 2008 in a paper entitled "Education and Training in Fluid Management and Hyponatraemia in Children."

OFFICIAL USE:

List of previous statements, depositions and reports attached:

Ref:	Date:	

IMPORTANT INSTRUCTIONS FOR ANSWERING:

Please attach additional sheets if more space is required. Please identify clearly any document to which you refer or rely upon for your answer. If the document has an Inquiry reference number, e.g. Ref: 049-001-001 which is 'Chart No.1 Old Notes', then please provide that number.

If the document does not have an Inquiry reference number, then please provide a copy of the document attached to your statement.

I. QUERIES IN RELATION TO YOUR QUALIFICATIONS, EXPERIENCE, TRAINING AND RESPONSIBILITIES

(1) Please provide the following information:

- (a) State the date you were appointed Dean, School of Medicine, Dentistry & Biomedical Sciences, Queens University Belfast;

September 2007

- (b) Was there a written job description for your post in 1995? If so please provide copy of the same. If not, what were the functions and responsibilities of the post in 1995.

Job Description attached. This relates to the post held by Professor Stout which in 1995 may have been designated as Provost rather than Dean. (Ref 256/1/001 Job Description)

II. TEACHING

(2) Please state if there was any formal, codified Medical curriculum in Queen's University Belfast:

- (a) at undergraduate level before and after 1995;

Yes. Attached regulations for the undergraduate curriculum provide a description of the course:

Ref 256/1/002 Regulations: Courses in Medicine, Dentistry, Nursing, Biomedical Science and Podiatry 1995/6

Ref 256/1/003 Current Programme Specification MB BCh BAO for 2011-2012

- (b) at postgraduate level before and after 1995; Yes – currently, no information on pre-1995.

The University has overall responsibility for the training provided in the year immediately after graduation. In the 1990s this was known as the Pre-Registration Year, now Foundation Year 1. This has been managed jointly with the Northern Ireland Council for Postgraduate Medical and Dental Education/Northern Ireland Medical and Dental Training Agency.

GMC Inspections from November 1995 and October 1998 provide information on the management and nature of the Pre-Registration Year.

Ref 256/1/004 GMC Report November 1995

Ref 256/1/005 GMC Report October 1998

The training provided is determined by GMC guidance - The New Doctor. The current version is attached. (Ref 256/1/006)

The UKFPO provide a detailed curriculum available at:
<http://www.foundationprogramme.nhs.uk/>

The University is not responsible for any other postgraduate specialty training. It offers a range of taught Postgraduate Certificates, Diplomas and Masters as well as research degrees.

If so please provide details of the same for each and, if not, please explain the basis upon which the teaching programs in Queens University Belfast were developed.

- (3) In respect of the publication of the General Medical Council's document 'Tomorrow's Doctors' (copy appended) in 1993 please state:

- (a) The changes the publication of the same brought about in respect of Medical curriculum in Queens University Belfast;

The medical curriculum was revised over a three year period, changes from 1995 until full implementation are demonstrated in the attached regulations.

Ref 256/1/002 Regulations: Courses in Medicine, Dentistry, Nursing, Biomedical Science and Podiatry 1995/6

Ref 256/1/007 Regulations: Courses in the College of Medicine and Health Sciences 1997-98

Ref 256/1/008 Regulations 1999-2000

The key features of the changes required by the GMC were:

- Exposure to patients and their families from the beginning of the course
- More emphasis on communication skills, ethics, social sciences and the humanities
- Move to an outcomes based curriculum.
- Creation of Core curriculum/Special Study Modules (now called Student Selected Components).

- (b) The changes the publication of the same brought about in respect of teaching in Queens University Belfast;

A Medical Education Unit was established in 1993 to oversee the design, implementation and evaluation of the new curriculum. Staff comprised a senior clinical academic as Director and 2 non-clinical lecturers in medical education funded by the Department of Health under the Undergraduate Medical Curriculum Implementation Scheme (UMCIS). Both of these lecturers met regularly with

counterparts from other medical schools throughout the UK at events facilitated by the Department of Health, England to review progress and exchange ideas about curriculum reform.

The School established the Undergraduate Medical Education Committee (UMEC) which included heads of each Academic Department who were charged with providing regular feedback to colleagues about the review. The key features of the new curriculum were

Introduction of integrated systems based teaching

Introduction of Student Selected Components

The use of clinical case scenarios to facilitate integration of the basic sciences and clinical medicine

Early clinical contact; students commenced clinical skills training in year one

The use of Study Guides to provide students with information about the learning outcomes, learning opportunities and assessment profile for each module

- (c) What mechanisms were in place to ensure the same was disseminated and applied across Queens University Belfast;

An Away Day was held in December 1993 to inform staff of the impending curriculum review. Meetings were held twice each semester to appraise staff of progress and obtain feedback on the proposed changes; teachers from hospitals throughout the province were invited to all of these activities.

From 1993 the Away Day became an annual event held in June to update QUB and NHS staff and provide a forum for discussion and exchange of ideas.

Regular meetings were held with each academic department to discuss the impact of the curriculum review on the content and delivery of their subject area and explore opportunities for innovation and integration.

Staff from the Medical Education Unit visited hospitals throughout the province once each year to update colleagues about the progress of the review.

In 1996 just prior to the implementation of the curriculum the Dean and senior members of the Medical Education Unit delivered a presentation to the Vice Chancellor and Senior Officers of the University about the new curriculum

- (d) What mechanisms were in place to ensure the same was applied in practice by lecturers within Queens University Belfast.

An extensive Teaching the Teachers Programme was implemented to ensure staff had the skills required to deliver the innovative curriculum design and delivery techniques incorporated into the review. These workshops were also delivered in hospitals throughout the province

Funding was made available for staff to attend external courses including those organized by the Harvard Macy Centre, Boston and the Centre for Medical Education Dundee.

Following introduction of the curriculum a rigorous quality assurance process was implemented. Students completed Evaluation of Teaching Questionnaires at the end of each module. Focus groups were conducted with samples of students to gather additional qualitative data.

Between the years 2001 (first cohort of graduates to complete the curriculum based on *Tomorrow's Doctors* 1993) and 2005 PRHOs (Pre-Registration House Officers) were invited to complete a postal questionnaire at the end of the first 5 months of employment to capture information about their perception of their competence in performing a range of clinical procedures. This data formed the basis of a dissertation for a Masters in Education for the Healthcare Professions. This information was provided to the Learning and Teaching Committee.

From approximately 2001 the School has undertaken Module and Pathway Reviews as part of the University's quality assurance processes.

- (4) Please state to what extent the medical curriculum in Queens University Belfast, both before and after 1995 addressed/ addresses:

The issues raised in questions (a), (b) and (c) below have been responded to in the previous submissions by Professor Hay and Professor Savage. See also response under item 6 (a) and 10 below.

- (a) hyponatraemia or intravenous fluid prescription in children;
- (b) the prevention of hyponatraemia in adults based on the Clinical Resource Efficiency Support Team (CREST) guidelines;
- (c) the prevention of hyponatraemia in children;
- (d) the distinction between adult and paediatric medicine;

These are taught separately with a specific module on Healthcare of Children delivered in fourth year.

- (e) conducting medical and/or clinical audits;

In third, fourth and final year students are exposed to the principles of audit as they are expected to attend these during their clinical placements, as there are regular scheduled multi-disciplinary audit meetings in the clinical environment (Trust / GP). Between 1995 and approximately 2010 students conducted a final year project and many undertook an audit. All students are required to carry out an audit as part of the 4th year General Practice programme. In addition, during fourth year students are required to include a reflective entry in their portfolio about an audit they have observed during the year.

- (f) the quality, clarity and completeness of clinical case notes;

This is emphasized and assessed during the clinical placements throughout years 3, 4

and 5 as submission of case reports forms an integral component of the course. See responses to questions 5 and 6 in Professor Hay's response.

There are few records from the 1990s but an example of guidance given to students as part of the teaching in the Department of Child Health in 1995-96 is included:

Ref 256/1/009 Department of Child Health Teaching Syllabus 1995/6

Examples from the current curriculum include the case template used during third year when students have to submit 14 cases for assessment.

Ref 256/1/010 Guidelines for case submission

Ref 256/1/011 Template for third year cases

During the final year Assistantship which has been developed over the last two years students need to admit patients to the ward, complete case record forms, reflect on these, present the cases on ward rounds, and undertake work-place based assessments.

- (g) communication with families of patients before, during and after surgery;

This is the type of material that would be covered during discussion about the management of patients during tutorials when appropriate or at the bedside clinical teaching. All students complete compulsory attachments in surgery during fourth and final year.

See (i) Communication skills below.

- (h) communication with families in the event of death or poor outcome;

See (i) below regarding communication skills, consent, breaking bad news and ethics.

There is also a patient safety course at the beginning of final year which includes a review of an on-line case dealing with the impact of death during a surgical procedure due to poor team work and communication.

- (i) communication with families in respect of consent, practice and ethics;

In general terms students have had exposure to these issues both pre and Post 1995. Currently teaching includes:

Family Attachment Scheme in first year. Most of the patients who contribute to this scheme are elderly. Issues about bad news, poor outcomes and even criticisms of the health service emerge in students' visits with patients and in subsequent tutorial discussions with the GP tutors. Students are taught about obtaining consent, both verbal and written, and they also carry out with their patients a formal obtaining of written consent to view patients' notes.

Communication skills in first and second year. Students learn to deal sensitively with patients and listen to their concerns. During role plays with students and actors

students learn about obtaining consent before beginning interviews. These areas are of course elaborated in clinical skills in respect of carrying out procedures. In the first semester students have a lecture from a parent whose son died and poor communication may have contributed to the outcome.

Advanced communication skills. Students have a specific session on "breaking bad news" in fourth year. From circa 1990 this was taught as part of the General Practice module but in more recent years is delivered as part of Cancer Studies. Teaching always involved small group work and role plays. The sessions involve several role plays with actors concentrating on the issues surrounding the breaking of bad news including patient and doctor factors and the related ethical issues. The role plays give students experience of a variety of situations and the ensuing small group discussions allow students to tease out the important issues such as communication technique and the consent and ethical issues. The tutors used are senior trainees in oncology, palliative care and GP. This also links with a session in 4th year Cancer studies about bereavement and loss which covers the impact of death or serious illness in families and allows students to share their own experience of loss in small groups. In final year there is a session on coping with stress which includes guidance on talking to relatives as an F1 doctor. From circa 1990-1996 a seminar was given to 4th yr students which included a patient talking about negative experiences of medical care. From 1996 until 2005 the curriculum included a session in the 4th year General Practice module dealing with patient complaints and advice on how to reduce the chances of this happening. This talk is now contained in the GP study guide for 4th year.

During the final year Assistantship students are asked to complete a log book, one element of which is to observe consent being obtained from a patient.

- (j) training in respect of medical equipment, services and facilities.

Students are taught the use of basic medical equipment during their Clinical Skills modules in first and second year and this is developed throughout the course as part of their clinical experience. Knowledge of medical services and facilities is embedded in all aspects of the curriculum.

- (5) Please list the years, from 1995 to present, in which Queens University Belfast met GMC standards as part of the Quality Assurance of Basic Medical Education process (School Guidance; Preparing for the QABME process, GMC- copy appended).

The GMC Inspected the University in 1995, 1998 and 2005. Copies of reports with any comments regarding compliance are appended. Copies of feedback on the QABME process are also appended,

Ref 256/1/004 GMC Report November 1995

Ref 256/1/005 GMC Report October 1998

Ref 256/1/012 GMC Report 2005

Ref 256/1/013 2007-08 QABME Response

Ref 256/1/014 2008-09 QABME Response

Ref 256/1/015 2009-10 QABME Response

Ref 256/1/016 2009-10 QABME Enhanced Annual Return Feedback

Ref 256/1/017 2010-11 Medical Schools Annual Return (MSAR) Feedback (Belfast is number 2)

Since 2009 all Medical Schools have been working towards compliance with the revised version of Tomorrow's Doctors issued in that year (copy attached). From 2009 the School's submission to the GMC is uploaded through a portal.

- (6) Please state to what extent, if at all, the Queens University Belfast curriculum involves input from the following bodies:

- (a) Guidance and Audit Implementation Network (GAIN); and point (c) CREST

GAIN was established in August 2007 when the Clinical Resource Efficiency Support Team (CREST), Regional Multiprofessional Audit Group (RMAG), and the Northern Ireland Regional Audit Advisory Committee (NIRAAC) amalgamated to form a new single entity known as the Guidelines and Audit Implementation Network (GAIN). Clinical guidelines for the management of hyponatraemia in adults were initially developed and published by CREST in June 2003. Undergraduate medical student teaching reflected the broad principles contained in the original CREST document. In 2010, GAIN published a new guidance document for management of hyponatraemia in adults (on or after 16th birthday) (http://gain-ni.org/Publications/Guidelines/Hyponatraemia_guideline.pdf). In year 5 (final year of undergraduate medical curriculum) there is a compulsory fluid and electrolyte revision class for students that has been running since 2000. All four clinical cases, which make up the teaching material for this seminar, have abnormal sodium concentrations (three feature case scenarios where the patient has developed hyponatraemia and one case scenario features a patient who has developed hypernatraemia). In addition these clinical cases highlight the complex relationship of electrolyte disorders (low or high serum sodium concentrations; low or high potassium concentrations) with the body's acid-base balance and the links with underlying kidney and cardiac function. The practical uses of these clinical guidelines are described and students are directed to read current clinical guidelines on the GAIN website to reinforce the information covered in class.

A further revision lecture covering this material is provided to year 5 medical students within 2 months of the Final MB written examinations. Students are directed to read the useful clinical guidelines published by GAIN on hyponatraemia in adults, hyperkalaemia, acute kidney injury and chronic kidney disease (http://gain-ni.org/Publications/Guidelines/Hyponatraemia_guideline.pdf ; http://gain-ni.org/Publications/Guidelines/hyperkalaemia_guidelines.pdf ; <http://gain-ni.org/Publications/Guidelines/GAIN%20-%20Acute%20Kidney%20Injury%20Guideline.pdf> ; <http://gain-ni.org/Publications/Guidelines/Chronic%20Kidney%20Disease.pdf>). Teaching of the basic principles of fluid and electrolyte balance remains part of the core medical curriculum.

At all times during undergraduate teaching students are advised of the need to consult with a more senior colleague when in any doubt about appropriate management.

- (b) National Patient Safety Alerts;

Not aware of anything formal or direct. Clinical staff are made aware and where

appropriate make amendments to curriculum and teaching.

- (c) Clinical Resource Efficiency Support Team (CREST); See (a) above
- (d) The Regulation and Quality Improvement Authority;

No direct relationship. There has been input to the Medical Leaders Forum which is convened by the Department of Health and which is attended by the Dean or Director of Medical Education.

- (e) The Postgraduate Medical Education and Training Board; This Board no longer exists but staff from the School held senior posts on the Board and were also members of the Undergraduate Medical Education Committee so that they reported back on issues
- (f) The Northern Ireland Medical and Dental Training Agency;

There are close links between the School and NIMDTA which is reflected in joint membership of a variety of Committees.

Representatives of the School attend the Quality Management Group, The Faculty Development Group and the NIMDTA Foundation Board.

Representatives of NIMDTA attend a number of School Committees, including the Final Year Teaching Committee and UMEC. Staff have input to the Preparation for Practice study days run during final year and provision of careers advice. There are also links with the School as part of the Transfer of Information process regarding the educational support for graduates entering the Foundation programme.

- (g) RBHSC clinicians and staff.

NHS clinicians are involved in the delivery of the teaching. However the curriculum itself is led by Joint Appointment clinical academic staff who are jointly employed by QUB and the Belfast Health and Social Care Trust (BHSCT) working in RBHSC. They have been responsible for the delivery of core teaching in Paediatrics and are members of relevant teaching, management and assessment Committees.

And provide details of the same. If none, please provide reasons why.

- (7) Please describe the nature of any institutional links which may have existed between the RBHSC and Queen's University Belfast with respect to:
 - (a) Information sharing;
 - (b) Coordination of training, courses and updates;
 - (c) Communication between clinicians and academic staff.

See response to above (g) and below regarding SUMDE contracts. Under the SUMDE contract there is a framework which governs information sharing, co-ordination of training and communication between clinicians and academic staff.

- (8) In respect of the same the SUMDE contract, and the training agreement contract entered into

with the Northern Ireland Council for Postgraduate Medical and Dental Education, please state:

There is currently no formal contract with the Northern Ireland Medical and Dental Training Agency (previously Northern Ireland Council for Postgraduate Medical and Dental Education). With respect to the SUMDE contract, this would have been with the Royal Group of Hospitals/Belfast Trust rather than the RBHSC specifically.

Copies of example contracts are attached:

Ref 256/1/018 2002 contract

Ref 256/1/019 2004 contract

Ref 256/1/020 2011 contract

- (a) When such contracts were signed;

Contracts are intended to be signed annually but cover a five year rolling basis.

- (b) The parties to such contracts;

See examples, in essence the agreements are signed by representatives of the University, the Trust and the DHSS.

- (c) The purpose of such contracts;

To create a Framework of Agreement for Joint Working between Queen's University Belfast, Belfast Health & Social Care Trust and the Department of Health, Social Services and Public Safety.

- (d) The terms of such contracts;

See attached.

- (e) The outcomes which resulted from the same.

This has led to a close working relationship for provision of undergraduate medical education between both organizations.

- (9) In 1995 did Queens University Belfast have any mechanism in place for ensuring that any issues arising out of a serious untoward/adverse incident, such as the death of a patient following surgery in the RBHSC (or any other hospital in Northern Ireland) was reported to its staff with a view to including any lessons learned into the curriculum? If so please state:

- (a) How such information was received;

In a previous statement to the Inquiry Professor Rod Hay indicated that there is no formal system in place for ensuring that any issues arising out of a serious, untoward/adverse incident, such as the death of a patient following surgery in the RBHSC (or any other hospital in Northern Ireland) were reported to its staff with a view to including any lessons learned into the curriculum. In 1995, there were, very

close working relationships between paediatricians in the RBHSC, and Joint Appointment clinical academics (QUB RBHSC), all of whom also had NHS responsibilities. It would be inappropriate for information on such incidents to be passed on to undergraduates until proper and full investigations had been completed.

The fourth year paediatric module includes 'red flag' alerts of issues that are known to be important for the identification of rare but potentially fatal conditions eg epiglottitis. The module content cannot be driven by individual cases stories of unusual events that have occurred until it becomes certain that there is an issue and a lesson to be learnt.

More recently, information from BHSC on critical incidents/safety issues is sent to all relevant staff, including clinical academics and NHS teaching staff when BHSC deems it appropriate.

- (b) How such information was evaluated; - see above
- (c) How such information was disseminated to academic staff; - see above
- (d) How Queens University Belfast satisfied itself that such information was being taught by academic staff; - see above.
- (e) What a postgraduate clinical meeting is, in what circumstances such a meeting occurs, for what purpose, and what role it played as a vehicle for learning from an untoward incident.

Postgraduate clinical meetings are not the responsibility of the School. They were and continue to be delivered by medical staff, usually consultants, and provide learning opportunities across a wide range of specialties. In RBHSC, these have been held on a weekly basis, and usually consist of a number of case presentations around a particular theme.

The monthly audit half-day sessions were introduced about 10 years ago and include a review of child deaths and are designed to allow discussion as to cause and possible contributing factors. Audit topics are wide ranging, with the aim of improving practice and outcomes. Medical students are welcome to attend audit sessions.

- (10) Please confirm whether students receive(d) copy of the Hyponatraemia Guidelines (2007- or such earlier or later edition) and if so please provide copy of the same.

Students are not currently provided with a hard copy of the Guidelines. During the fourth year Healthcare of Children Module students are required to complete on-line training in fluid management and to include the certificate in their Log Book.

Ref 256/1/021 Extract from Student Guide Page 177

BMJ on-line Training: "Reducing the risk of hyponatraemia when administering intravenous fluids to children" can be found at: <http://learning.bmj.com/learning/search-result.html?moduleId=5003358&searchT>

Copies of guidelines are also displayed in all clinical paediatric departments across the United Kingdom.

See response to 6 (a) above, the GAIN website is highlighted as well as the relevant guidelines for hyponatraemia, hyperkalaemia, acute kidney injury and chronic kidney disease in the final year revision lecture on nephrology. This lecture is also provided online each year as a PDF for students to access as often as they wish. The GAIN website for hyponatraemia guidelines is also highlighted to students during a separate final year revision seminar on fluid and electrolytes. Therefore on two occasions in final year students are directed to read the relevant guidelines.

- (11) Please describe the mechanisms, if any, that exist(ed) for ensuring that medical students are given practical demonstrations of administration of intravenous fluids to children in children's wards throughout Northern Ireland, and the extent to which senior paediatricians, consultants and nurses are/ were engaged to teach the same.

Professor Hay addressed this in his response to the Inquiry in 2004. However, over the past 5 years, all paediatric undergraduate students take part in the IPE (Inter-professional Education) High Fidelity Simulation (SimBaby) sessions which include fluid prescribing and administration to acutely ill children. The facilitators for this teaching involve paediatricians in the RBHSC, District General Hospitals in Northern Ireland, nurse lecturers, paediatricians in training and clinical academics. The sessions are practical, in an environment which simulates a clinical area within a paediatric hospital and/or emergency department.

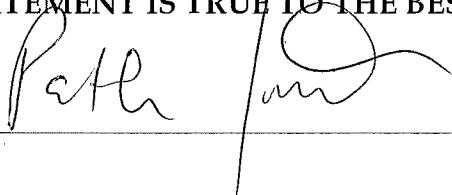
III. GENERAL

Please provide any further comments you may wish to make.

I was not employed by Queen's University in 1995 and was not working in Northern Ireland. The responses I have given reflect my knowledge of the current curriculum and my discussions with colleagues within the School who were present at that time. There is little information or documentation from the 1990s remaining and we have therefore provided what is available to us in relation to the questions posed.

THIS STATEMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF

Signed:

A handwritten signature in cursive script, appearing to read "Pat H. Jones". The signature is written in dark ink and is positioned to the right of the "Signed:" label.

Dated:

7/6/2012

Stout, Robert.
Ref 256/1/001

THE QUEEN'S UNIVERSITY OF BELFAST

JOB DESCRIPTION - PART 1
(PART 2 OVERLEAF - for University use only)

BOTH SIDES OF THIS FORM SHOULD BE TYPEWRITTEN AND RETURNED BY THE SCHOOL/DEPARTMENT TO THE PERSONNEL OFFICE, WITH THE EMPLOYEE SPECIFICATION FOR THE POST.

JOB TITLE: Provost

SPECIFIED AREA:

PERIOD OF OFFICE: Normally 5 years

OFFICE OF PROVOST:

Provosts, as the senior academic line managers, are responsible to the Vice-Chancellor and are expected to provide academic and managerial leadership for the specified areas.

MAJOR DUTIES:

1. To be the accountable managers, acting under delegated authority from the Vice-Chancellor for schools and units assigned to them including ensuring that:
 - (i) academic policies, approved by the University are developed, implemented and monitored in subjects and units in their colleges;
 - (ii) arrangements are followed for teaching quality assessments in subjects in their colleges;
 - (iii) academic standards are monitored and maintained or enhanced in their colleges;
 - (iv) agreed student load targets are met;
 - (v) agreed research targets and direction are adhered to (eg. by checking research applications);
 - (vi) appropriate staff levels and grades are maintained in these areas;
 - (vii) redistribution of resources takes place in order to meet agreed targets.
2. To be the line managers for the directors in their areas.
3. Within the University's overall plan, to develop with directors a forward plan for their areas, including:
 - (i) producing a five year rolling plan for each school, showing the planned student numbers;
 - (ii) showing within the five year plan staff changes both in level, grade and personnel;
 - (iii) new areas of research and teaching to expand and/or replace current areas.
4. To negotiate budgets for the schools in their areas with APG (or its successor).
5. To attend and hold such meetings as appropriate for the management of their areas and in particular to chair the College Boards.
6. To assist the University with its planning and management functions as appropriate, including:
 - (i) being members of the Academic Committee and any other relevant University bodies;
 - (ii) being ex-officio members of the Academic Council and any other relevant bodies in the areas for which the Provosts have responsibility;
 - (iii) being entitled to attend any necessary committees in their areas.
7. To be responsible for the career development, including promotions of academic and other staff in their areas.
8. To be responsible for all students in their college.

The University may decide to interview only those applicants who appear, from the information available, to be the most suitable, in terms of experience, qualifications and other requirements of the post.

THE QUEEN'S UNIVERSITY OF BELFAST

EMPLOYEE SPECIFICATION - PROVOST

(Typewritten or clearly printed, signed and dated please.)

Post Title: Provost

Period of Office: Normally 5 years

Specified Area:

	ESSENTIAL	DESIRABLE
1) Education and Qualifications - Primary Degree - Postgraduate (Taught/Research) - Doctoral/Fellowships - Professional - Other	Member of full-time permanent academic staff	
2) Relevant Experience - Teaching - Administration - Research Publications - Grant applications - Management - Potential - Other	Evidence of a successful academic career Evidence of successful management in an academic area	
3) Presentation - Clarity of speech - Communication/ Verbal skills - General Demeanour - Formal Presentation where appropriate	Effective communication and presentation skills Ability to represent the College within the University	

50

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	ESSENTIAL	DESIRABLE
4) Intellectual Ability - Quick on the uptake - Follows argument logically - Reasoning Ability - Balanced Judgement	Analytical and problem solving skills Thorough knowledge of the current issues in higher education Ability to think creatively	
5) Interests - Intellectual - Practical etc (Interest must be related to the job or the candidate's ability to do the job.)		Interest in the relationship between higher education and within the education and training system
6) Disposition - Job Stability in Employment - Interpersonal Skills - Collegiality	A high degree of interpersonal skills to deal with a range of human issues including the ability to motivate and lead successfully a group of individuals	
7) Motivation - What is the person's motivation in applying for this position? Will it result in a long-term commitment?	Desire to participate in enhancing the reputation of Queen's nationally and internationally Commitment to developing the role of Provost	
8) Special Factors (if applicable) eg field work, overseas travel. Irregular hours (please see notes on The Eight Point Plan enclosed.) Clean current driving licence.	Willingness to travel as required Flexible attitude to irregular and unsociable hours	

10

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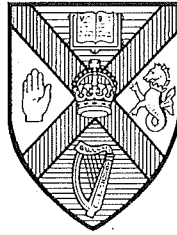
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COMPLETED BY: _____ DATE: _____

AGREED BY: _____ DATE: _____
(Personnel Office)

THE
QUEEN'S UNIVERSITY
of
BELFAST



Courses in Medicine, Dentistry,
Nursing, Biomedical Science
and Podiatry
1995/96

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In particular, not every module listed may be available every year within a course of study and changes may be made to the details of any module, including the persons teaching that module. Entry to courses may be restricted by number or quality of entrants.

Students and others who require further information should enquire as to the up-to-date position. Any queries concerning the content of this publication should be directed to the Information Office.

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Notes

1. For Entrance Requirements, General Regulations, Rules of Discipline and Fees, see Book 1 of the University Calendar.

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Modularization of Courses

As from October 1992, students entering the University have been enrolled under the new modular structure for those courses which have been modularized. Students who are completing their courses under the old regulations should refer to the 1991-92 edition of the Calendar and consult the Faculty Office for details of amendments for 1995-96. Vocational Courses in Medicine and Dentistry have not yet been modularized.

Credit for Courses

1. A student enrolled for a course or subject is required to attend such lectures, practicals and tutorials and take such examinations as the department may determine within the framework of the general regulations and to undertake such other work as may be required.

A student enrolled in a subject is deemed to have credit for that course of study for that year and for such further period as the faculty may determine unless credit has been refused or cancelled in accordance with these rules.

2. A student will not be admitted to any examination leading to a degree, diploma or certificate unless he/she has credit for the appropriate courses of study. Such credit may be refused (before examinations) or cancelled by the Faculty Students' Progress Committee in accordance with these rules and, subject to Rule 5, any such decision by the Faculty Students' Progress Committee shall be final.

3. Refusal of Credit

3.1 On the recommendation of the head of the department concerned credit for a course of study may be refused by

the relevant Faculty Students' Progress Committee on the grounds of unsatisfactory progress or unsatisfactory attendance in that course. The student as a consequence of such a refusal will not be allowed to sit the examination relating to the course in that academic year and must re-attend the course in order to redeem credit.

3.2 A Faculty Students' Progress Committee shall not refuse credit for a course of study later than two weeks before the end of the lecture term.

3.3 A recommendation for refusal of credit shall not be made by the head of department before (a) he/she has issued a written warning to a student that refusal of credit is being considered and (b) four weeks have elapsed since that warning was issued.

3.4 A student shall be notified by his faculty office when a refusal of credit is being considered by the Faculty Students' Progress Committee and shall be entitled to make oral or written representations to the Committee. He/she must be informed of the Committee's decision in writing without delay.

4. Cancellation of Credit

4.1 Credit for a course of study may be cancelled, by the Faculty Students' Progress Committee on the recommendation of the head of department concerned when a student has failed the ensuing examination and, where applicable, before the supplementary examination. (Following such cancellation a student must re-attend the course before again presenting himself for the examination.)

4.2 A recommendation for cancellation of credit must be submitted by the head of department concerned to the Faculty Students' Progress Committee within one week of the official posting of the examination results.

4.3 Credit for a course of study which does not involve an examination in the same year may be cancelled by the Faculty Students' Progress Committee on the recommendation of the director of the school concerned on the grounds of unsatisfactory progress or unsatisfactory attendance in that course. Following such cancellation the student must reattend the course before proceeding to the next year of study.

4.4 A recommendation for cancellation of credit under 4.3 must be submitted by the director of the school concerned to the Faculty Students' Progress Committee not later than 31 May.

4.5 A student must be notified by his faculty office of the recommendation to cancel credit and shall be entitled to make oral or written representations to the Faculty Students' Progress Committee when such cancellation is being considered. He/she must be informed of the Committee's decision in writing without delay.

5.1 If a student appeals to the Central Students' Progress Committee against a decision of his Faculty Students' Progress Committee that he/she be required to withdraw from the University, the Central Students' Progress Committee, in reversing that decision, has power to refuse or cancel credit.

5.2 A requirement by the Faculty Students' Progress Committee or Central Students' Progress Committee to re-enrol for a course carries with it the automatic cancellation of credit for any previous attendance at the course.

Health of Students and Patients

It is essential that patients are not exposed to infections which might be transmitted by health care workers or students. Students will be educated in good practice to protect patients during the undergraduate course. However, two conditions have caused public anxiety and special precautions must be undertaken. The procedures described below can be undertaken by the University Health Service.

Hepatitis B

This is a serious infectious disease which is rare in this country but common in parts of Africa and Asia. The infection is transmitted mainly by blood. There is a possible risk of health care staff being infected by patients and for some higher risk specialities, vaccination of health care staff is recommended. There is a much lesser risk that patients may be infected by health care staff but this could occur during certain surgical operations. It is, therefore, a requirement that all students of Medicine, Dentistry, Nursing and Podiatry should be immunised and show that they are not carriers of the infection.

The following are University regulations:

- i. All students entering the Faculty of Medicine to study Medicine, Dentistry, Nursing and Podiatry will be required at the time of registration to provide evidence that they have been successfully vaccinated against Hepatitis B and that they are not infectious carriers. The University reserves the right to re-test any student.
- ii. Any student wishing to study Medicine, Dentistry, Nursing or Podiatry who is an infectious carrier of Hepatitis B will not be allowed to enter the course.

HIV and AIDS

The risk of HIV infection being transmitted from a health care worker to a patient is very small. Nevertheless, it is imperative that any medical or dental students who think that they might have been infected with HIV should seek appropriate diagnostic testing and counselling and, if found to be infected, have regular medical supervision. Medical or dental students who are HIV positive must also seek specialist advice on the extent to which their undergraduate course should be modified in order to protect patients. It would be a disciplinary offence for medical or dental students who know or believe themselves to be infected with HIV to put patients at risk by failing to seek appropriate counselling or by failing to act upon it when given.

Students who become infected with HIV will receive the confidentiality and support afforded to other patients. Only in the most exceptional circumstances, where the release of the student's name is essential for the protection of patients, may a student's HIV status be disclosed without his or her consent.

Examinations

Details of dates of degree examinations will be posted on the University notice boards. The second professional

examination is held in December of the second year and the supplementary examination in September of the following year.

The third professional examination is held in June of the third year, and the supplementary examination in September of the same year.

The final professional examination is held in the second and third week in June of the fifth year and the supplementary examination in December of the same year.

Supplementary Examinations

To be allowed to enter for a supplementary examination a student must have either failed at the previous examination or have been prevented by illness from sitting that examination.

Degrees in the Faculty of Medicine

1. There shall be fourteen degrees¹ of the University in the Faculty of Medicine, viz.

- Bachelor of Medicine (MB)
- Bachelor of Surgery (BCh)
- Bachelor of Obstetrics (BAO)
- Bachelor of Medical Science (Pass) ((BMedSc) (Pass))
- Bachelor of Medical Science (BMedSc) (Pod)
- Bachelor of Health Studies (BSc)
- Doctor of Medicine (MD)
- Master of Surgery (MCh)
- Master of Medical Science (MMedSc)
- Bachelor of Dental Surgery (BDS)
- Bachelor of Medical Science (BMedSc)
- Master of Dental Surgery (MDS)
- Master of Science in Nursing (MSc (Nursing))
- Master of Science in Midwifery (MSc (Midwifery))
- Master of Arts (Medicine, Law & Ethics)

2. The degrees of MB, BCh, BAO is the primary degree in medicine, surgery and obstetrics in the Faculty of Medicine, and shall be conferred at the same time and after the same course of study. No student shall be admitted to the final examination for these degrees until he/she has shown (1) that he/she is a matriculated student of the University, (2) that he/she has completed the prescribed courses of study in the Faculty of Medicine extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

3. The degree of BDS is the primary degree in dentistry in the Faculty of Medicine. No student shall be admitted to the final examination for this degree until he has shown (1) that he/she is a matriculated student of the University, (2) that he/she has completed the prescribed courses of study in the School of Dentistry in the Faculty of Medicine extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

4. Neither the primary degrees of MB, BCh, and BAO in the Faculty of Medicine, nor the primary degree of BDS in the Faculty of Medicine shall be conferred upon any person who has not attended in the University during three academic years the courses of study prescribed for such degrees. The University may accept, for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

5. Every candidate for the primary degrees in Medicine and the primary degree in Dentistry shall be required to show that he/she attained the age of 21 years on or before the day of graduation.

6. The degree of BMedSc is a primary degree in the School of Biomedical Science within the Faculty of Medicine for students not following vocational courses and shall be conferred upon matriculated students of the University who have pursued approved courses of study and passed the prescribed examinations for the degree. It may be taken either as an ordinary degree or as a degree with honours.

7. The degree of BMedSc shall not be conferred upon persons who have not attended in the University during at least three academic years the courses of study prescribed for the degree.

8. Bachelor of Medical Science (Pass). Candidates eligible for the degree of Bachelor of Medical Science (Pass) are enrolled medical and dental students who have passed Second and Third Professional Examinations and are in good academic standing but subsequently withdraw from the University before taking the Final Professional Examination. The degree will only be awarded to those candidates who withdraw from the degree courses leading to MB BCh BAO or BDS. Candidates who have failed the Final Professional Examination will not be eligible for the award of this degree. The degree will be conferred at the graduation ceremony following the candidate's withdrawal from the course.

9. The degree of Bachelor of Medical Science (Podiatry) is the primary degree in Podiatric Medicine in the Faculty of Medicine. No student shall be admitted to the final examination for this degree unless he/she (i) is a matriculated student of the University, (ii) has completed the prescribed course of study and (iii) has passed the relevant examinations.

10. The degree of Bachelor of Health Studies for Nurses, Midwives and Health Visitors is a primary degree of the School of Nursing within the Faculty of Medicine. The Degree is a top-up degree for those nurses, midwives and health visitors who have acquired 240 credit points at Level 2. The degree will be offered part-time over two years.

Intercalated Degree

A student of Medicine or Dentistry who has passed the Second Medical/Second Dental Examination or the Third Medical/Third Dental Examination, and who has completed satisfactorily the course of studies for second/third year medical or dental students, may, after a further year's study in certain subjects, present themselves for the degree of Bachelor of Medical Science (Intercalated) (BMedSc) or Bachelor of Science (Intercalated) (BSc). This degree will be available in the following subject areas:

Anatomy
 Medical Genetics
 Pathology
 Physiology
 Therapeutics & Pharmacology
 Biology
 Biochemistry

The consent of the heads of departments concerned and of the Dean of the Faculty of Medicine is required before enrolment.

On completion of an intercalated BSc or BMedSc selected students may study for a PhD before returning to their medical or dental studies.

Bachelor of Medical Science (Intercalated) in Therapeutics and Pharmacology

This one year intercalated course is open to students of Medicine who have satisfactorily completed the Third Medical Examination and to students of Dentistry who have successfully completed the Third Dental Examination.

The student is required to study the principles of Pharmacology, Clinical Pharmacology, Therapeutics and Medical Computing and Statistics. A research project will form a central part of the course and will extend throughout the honours year. Each student after discussion of available options will be allocated to a research project under the supervision of a senior member of staff. The results of the research project will be presented as a short thesis.

The degree will be awarded on the basis of continuous assessment, the research project and an examination.

Higher Degrees

For information on higher degrees in the Faculty of Medicine – MD, MCh, MMedSc, DipMH, MDS, MSc (Nursing) and MSc(Midwifery), MA (Medicine, Law & Ethics) – see Book 3 of the Calendar.

MEDICINE

Degree in Medicine

General

Exemption from the Pre-Medical Year will normally be granted to candidates who have obtained satisfactory grades in GCE Advanced Level Chemistry and two other appropriate subjects.

Only students preparing for their degree in The Queen's University of Belfast are accepted.

Applications for admission must be made through the Universities and Colleges Admissions Service.

Medical students must register their addresses at the Student Accommodation Office of the University and at the Faculty of Medicine Office, 71 University Road, Belfast. Change of address must be notified promptly.

Intending students should consult the pamphlet on Entrance Requirements, General Regulations for Students, General Information for Students and Fees, obtainable from the Bursar, to ensure that (a) they are qualified to matriculate in the Faculty, and (b) they have completed the necessary entrance requirements.

Regulations for Degrees of Bachelor of Medicine, Bachelor of Surgery and Bachelor of Obstetrics

1. Unless exemption has been approved, every candidate for the degrees of MB, BCh and BAO shall be required to have satisfied the examiners in the several subjects of four examinations, namely:

The pre-medical examination,
 The second medical examination,
 The third medical examination,
 The final medical examination.

Examinations will be held twice during the year. A candidate will not be allowed to present himself for more than one of the medical examinations at the same time.

Graduates in Dentistry, wishing to be accepted for entry to Clinical Medical studies, must first pass an examination in Anatomy, in which emphasis will be placed on those parts of the Second MB Anatomy curriculum which are not covered in the Second BDS course.

Students who obtain satisfactory grades in GCE Advanced level in Chemistry and two other appropriate subjects will normally be granted exemption from the pre-medical examination.

Five academic years must elapse between the date of matriculation and the date of the final medical examination.

2. A candidate who fails to complete the Pre-Medical Examination by September of his/her pre-medical year must appear before the Faculty Students' Progress Committee as unsatisfactory. The Faculty Students' Progress Committee (see Calendar) may request him/her to withdraw from the University.

A candidate who does not pass all three subjects of the Second Medical Examination by the second attempt must appear before the Faculty Students' Progress Committee and will normally be asked to withdraw from the University.

A candidate who does not pass all three subjects of the Third Medical Examination by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

No candidate may enter for the Final Medical Examination until he/she has completed not less than three years of clinical training in the University.

A candidate who does not pass all subjects of the Final Examination by the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

Unless there are extenuating circumstances, a student may only repeat one complete year during his/her undergraduate medical studies.

3. **Honours.** Honours will be awarded to candidates who achieve distinctions in all parts of the final medical examination and also to those candidates who achieve an aggregate of five distinctions including at least one from each of the Professional Medical Examinations.

Distinction. A candidate will be awarded the degrees of MB, BCh, BAO with distinction in any subject in the Final Medical Examination in which he/she achieves the appropriate standard.

A candidate will also be awarded distinction in any subject in a professional examination of the Faculty in which he/she achieved the appropriate standard. The award of distinction will only be made if the candidate has achieved a pass standard in all subjects of the examination at the first attempt.

Sponsio Academica

All graduands in medicine are required to make the following declaration before graduation:

I do solemnly declare that as a graduate of the Faculty of Medicine of The Queen's University of Belfast, I will exercise my profession to the best of my knowledge and ability for the good of all persons whose health may be placed in my care and for the public weal; that I will not knowingly or intentionally do any thing or administer any thing to any person to their hurt or prejudice for any consideration or motive whatsoever; that I will hold in due regard the honourable obligations of the medical profession doing nothing inconsistent therewith; and I do also declare that I will keep silence about those things which I have seen or heard while visiting the sick; and I do further declare that I will be loyal to my University and endeavour to promote its welfare and maintain its traditions.

Order of Study and Examinations

Pre-Medical Year

Note: Exemption from Pre-Medical Year courses will normally be granted to candidates who have obtained satisfactory grades in GCE Advanced Level Chemistry and two other appropriate subjects.

Students in the Faculty of Medicine who are not granted exemption from Pre-Medical Year will take courses in Biology, Chemistry and Physics, or such other exemption subjects as shall be agreed by the Adviser of Studies and the Faculty of Medicine.

June Examination in Biology, Chemistry, Physics, or exemption subjects

September Supplementary examinations.

A student who fails to satisfy the examiners in the subjects of the Pre-Medical Examination may not proceed to First Year studies.

First Year

Anatomy, Biochemistry, Physiology, Measurement in Medicine, Medical Genetics and Family Attachment.

June End of course examination in Measurement in Medicine and in Medical Genetics.

A candidate will not be permitted to sit the Second Medical Examination unless a satisfactory standard has been reached in all class tests which are not part of a professional examination.

Second Year

First Term

Anatomy, Biochemistry and Physiology.

Second Medical Examination.

Second and Third Terms

Pathology, Microbiology, Pharmacology, Clinical Biochemistry, Lifestyle and Health, Epidemiology and Public Health and the Introductory Clinical Course.

A candidate who fails two of the three subjects of the Second Medical Examination at the first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter first year.

A candidate who fails all three subjects of the Second Medical Examination at the first attempt must appear before the Faculty Students' Progress Committee and will be required to re-enter first year and resit all three subjects in December of the following year.

Class tests conducted throughout the year will contribute to a proportion of the marks in the Third Medical Examination.

No student will be allowed to proceed to Third Year studies until all subjects of the Second Medical Examination have been passed.

Third Year

Medical clerkships/ surgical dresserships.

Co-ordinated lecture course.

Demonstrations and revision tutorials in Microbiology.

Practical classes and Tutorials in Pathology.

Forensic Medicine.

Third Medical Examination.

The subjects of this examination will be Pathology, Microbiology and Therapeutics and Pharmacology. It will be held in June of the third year and a supplementary examination will be held the following August.

A candidate who fails two of the three subjects of the Third Medical Examination at the first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter third year.

A candidate who fails all three subjects of the Third Medical Examination at the first attempt must appear before the Faculty Students' Progress Committee and will be required to re-enter third year and resit all three subjects the following June.

A candidate who is repeating third year and re-sitting one or more subjects of the Third Medical Examination must attend all relevant third year lectures and all classes and ward rounds. A candidate who fails to satisfy the examiners in all the subjects of the Third Medical examination before September of the Third Year will not

Summary of Curriculum

The following is a synopsis of the scheme of study for the degrees of MB, BCh, BAO of the University:

<i>Year</i>	<i>Lectures and Laboratory Work</i>	<i>Clinical Work</i>	<i>Examinations</i>
<i>Pre-Medical</i>	Physics Chemistry Biology		<i>June:</i> Physics, Chem., Biology <i>Sept:</i> Supplementary Pre-Medical exam.
<i>1st</i>	Anatomy Physiology Biochemistry Medical Genetics Family Attachment Project Measurement in Medicine		
<i>2nd</i>	FIRST TERM Anatomy Clinical Physiology Applied Biochemistry First Aid/Cardiopulmonary Resuscitation Family Attachment Project		<i>November:</i> 2nd Medical exam. in Anatomy, Physiol. and Biochem.
	SECOND AND THIRD TERMS Pathology Microbiology Pharmacology Clinical Biochemistry Life Style and Health (Psychology and Sociology Applied to Medicine) Epidemiology & Public Health Anaesthetics Practicals/Lectures/Tutorials	Introductory Clinical Course	<i>Aug:</i> Supplementary 2nd Medical exam.
<i>3rd</i>	Co-ordinated Lecture Course, practicals and demonstrations: Pathology Microbiology Medicine Surgery Therapeutics Clinical Biochemistry Forensic Medicine	Medical Clerkship Surgical Dressership	<i>June:</i> 3rd Medical exam. Pathology Microbiology Therapeutics and Pharmacology <i>Aug:</i> Supplementary 3rd Medical exam.
<i>4th</i>	Haematology Obstetrics & Gynaecology Paediatrics Psychiatry Anaesthetics	Psychiatry Epidemiology & Public Health General Practice Otorhinolaryngology Ophthalmology Dermatology Geriatric Medicine Oncology Rheumatology Orthopaedic/Fractures Urology/Nephrology Anaesthetics General Medicine	
<i>5th</i>	No formal teaching but clinical symposia, ward rounds, tutorials, all in subjects of Final Medical examination	<i>Compulsory Pupilships in:</i> Medicine Surgery Obstetrics and Gynaecology Child Health Psychiatry Attachments in	<i>June:</i> Final Medical exam. Medicine and Surgery Obstetrics, Gynaecology and Child Health Supplementary Final Medical exam. in December

be allowed to proceed to Fourth Year studies. Class tests conducted throughout the year will contribute to a proportion of the marks in this examination.

Fourth Year

Attachments in Mental Health, Epidemiology & Public Health, General Practice, Geriatric Medicine, Otorhinolaryngology, Ophthalmology, Dermatology, Medicine, Rheumatology, Oncology, Orthopaedics/Fractures, Urology/ Nephrology, Anaesthetics.

Practical classes in Laboratory Medicine.

A candidate may not proceed to Fifth Year studies unless a satisfactory standard has been reached in all subjects and courses which are taught and assessed in Fourth Year.

Fifth Year

Throughout the year there are compulsory resident pupilships in Obstetrics and Gynaecology, Medicine, Surgery, Psychiatry, Child Health and attachments in General Practice. Further teaching is available through conferences, grand rounds and tutorials.

The subjects for the Final Medical Examination are Medicine, Surgery, Obstetrics, Gynaecology and Child Health. The examination is held in June of the Fifth Year and a supplementary examination is held the following December.

A candidate may not sit for the Final Medical Examination until he/she has completed satisfactory assessments in all the subjects of the Final Medical Examination.

A candidate who fails in any subject of the Final Medical Examination shall not be re-admitted to the examination unless he/she furnishes evidence of having studied that subject for such a period as the Faculty of Medicine, on the report of the examiners, may prescribe.

The Medical Act 1983

Note: By the provisions of the Medical Act 1983 a graduate must obtain certificates of satisfactory service over twelve months as a resident house officer. This normally consists of six months in both Medicine and Surgery in hospital posts approved by the University, before becoming eligible for full registration as a Medical Practitioner. Details of the requirements may be obtained at the Faculty Office, 71 University Road.

Lectures and Subjects of Examinations

Biology

See Faculty of Science Section of Calendar.

Chemistry

See Faculty of Science Section of Calendar.

Physics

See Faculty of Science Section of Calendar.

Anatomy

The curriculum in Anatomy includes basic structure and development of the human body, basic and applied neuroanatomy and its clinical application. Class tests contribute to the marks in the Second Medical Examination held after four terms.

Students who perform well in this examination may be invited to read for either an Honours BSc or a BMedSc in Anatomy in an intercalated year.

Physiology

The general principles of Human Physiology are taught, together with the application of physiological principles to clinical problems, through lectures, practical classes and tutorials. Class tests are held during the course which leads to the Second Medical Examination at the end of the fourth term. Performance in practical and theoretical work during the course contributes to the final assessment.

Students who perform well in this examination may be invited to read for either an Honours BSc or a BMedSc in Physiology in an intercalated year.

Biochemistry

The correlation of chemical structure and metabolic function is related to the application of biochemical principles in basic and clinical medical science.

Students who perform well in this examination may be invited to read for either an Honours BSc or a BMedSc in Biochemistry in an intercalated year.

Medical Genetics

In the first year a course of lectures and tutorials on the principles of Human Genetics is given leading to an end-of-course examination. In the fifth year, during the course in Child Health, students will have the opportunity to attend the genetic counselling clinics. There are opportunities for elective attachments, particularly during the summer vacation of the third year. Students who perform well in the Second or Third Medical Examination may be invited to read for either an Honours BSc or a BMedSc in Medical Genetics in an intercalated year.

Pathology

Lectures are given on the principles of pathology during the second and third terms of the second year accompanied by practical classes and tutorials. In the third year the teaching of systematic pathology continues through each term as part of the co-ordinated third year lecture programme. There are weekly practical classes, twice weekly lunch time television demonstrations and weekly tutorials in the Hilary and Trinity terms. Throughout the course, students are attached in groups to individual tutors who supervise their studies. There are opportunities for elective attachments in the second and third years. Students who perform well in the Third Medical Examination may be invited to read for either an Honours BSc or a BMedSc in Pathology in an intercalated year.

Clinical Biochemistry

Lectures in Clinical Biochemistry are given during the third term of 2nd year and the first and second terms of 3rd year. Instruction is given in the biochemical mechanisms underlying disease states and students are introduced to the practical biochemical assessment of specific clinical conditions. There are opportunities for elective attachments for those interested in both the clinical and laboratory aspects of Clinical Biochemistry. An end of course examination is held at the end of the lecture course.

Microbiology and Immunobiology

In the second year the lectures, complemented by practical classes, deal with the general properties of micro-organisms and the principles of immunology. In the third year the lectures, many of which are integrated in the Combined Clinical Course, deal with medically applied aspects of microbiology and immunology. Students who perform well in the Third Medical Examination may be invited to read for either an Honours BSc or a BMedSc in Microbiology in an intercalated year.

Therapeutics and Pharmacology

The aim of this course is to ensure that the prescribing of drugs for the treatment of disease (therapeutics) will be based on a sound knowledge of basic and clinical pharmacology. The principal course of lectures on both pharmacology and elementary therapeutics is given in the second and third terms of second year as part of the Introductory Clinical Course. Two class tests are held in second year and the marks contribute to the Third MB examination results. Further lectures in therapeutics are given as part of the Combined Clinical Course in third year. The Third MB examination is held at the end of third year and includes a 'special topic' which will have been researched by self directed learning during the third year. Students who perform well in the Third Medical Examination may be invited to read for an honours BMedSc in an intercalated year.

Forensic Medicine

Lectures in Forensic Medicine are given during the third year. The course is designed to familiarize the student with the law relating to medical practice and ethics, to teach the cause and circumstances of sudden and violent deaths and to develop a knowledge of the common poisons. An end of course examination is held in 3rd year to satisfy the examiners that the student has the knowledge required for general medical practice.

Anaesthetics

Practical classes in resuscitation are given in the second and fourth years and lectures on Anaesthesia in the second year. All students rotate through a two week clinical clerkship in Anaesthetics in the fourth year.

Epidemiology and Public Health

In Epidemiology and Public Health the principles of measuring the distribution and determinants of disease in the population are taught. Particular emphasis is placed

on disease prevention and the promotion of health. In Measurement in Medicine key concepts underlying the application of statistical methods in medicine are explained. Both subjects stress the assessment of medical evidence. Examinations are set separately.

Medicine

Instruction in clinical medicine takes place in 2nd through to final year, based on lectures, tutorials and ward attachments.

In second year an introductory clinical course in association with General Practice and Psychiatry concentrates on Communication Skills and patient examination techniques. This is based on clinical demonstrations and ward attachments. Third year involves the Combined Clinical Lecture Course and junior clerkships in major teaching hospitals. Fourth year includes an eight week block with clinical attachments to district general hospitals. Rheumatology is taught in this period. Final year must include a 6-week residential clerkship in recognised hospitals and additional elective periods in general medical units or associated medical specialities. Specific attachments are subject to course assessment and must be satisfactorily completed before entering the final qualifying examination.

The final examination is combined with Surgery and the written, clinical and oral aspects relating to Medicine include General Practice, Geriatric Medicine and Psychiatry.

Oncology

A series of lectures covering the broad principles of Oncology is given as part of the co-ordinated course. This is supplemented with additional lectures, multidisciplinary seminars, case presentations and teaching ward rounds at Belfast City Hospital and the Radiotherapy Centre.

Child Health

A six-week course is organized during the final year. Additional instruction relating to the newborn is given during the final year in conjunction with Obstetrics. Special attention is paid to small group teaching.

Apprenticeship instruction is actively encouraged and students are attached to the Royal Belfast Hospital for Sick Children and to a peripheral hospital for parts of the course. During these attachments they are expected to clerk all admissions. They must also complete a log book of cases clerked, practical procedures performed and tutorials attended. In addition, they are asked to submit a detailed case report on a single child, setting it in the context of the family and the supporting hospital and community services. At the end of their course, students are examined on their theoretical knowledge and clinical skills.

Clinical cases, oral and written questions on Child Health are included in the Final Examination with Obstetrics and Gynaecology.

Psychiatry and Medical Psychology

Medical Psychology, the study of the psychological processes involved in being ill and becoming a patient,

takes place during the Second Year Clinical Introductory Course. Psychiatry, embracing diagnosis, causation and treatment of mental illness, is taught during the fourth year as part of a joint teaching programme with the Departments of General Practice and Geriatric Medicine. In the final year there is a three weeks' resident pupilship in Psychiatry.

Geriatric Medicine

Geriatric medicine is taught in a four-week clerkship in fourth year and includes two and one-half week clinical attachments to Geriatric Medical Units in Northern Ireland.

General Practice

Students are introduced to General Practice and community care in the first and second years (see also under Medicine). Fourth and final year teaching offer a series of interdisciplinary seminars on important clinical and ethical issues. Students are also attached to teaching practices throughout Northern Ireland where they see patients under the supervision of the general practitioner and also in collaboration with the primary care team. A range of assessments of students are made in the light of the department's educational objectives. The ability to recognise and manage common clinical problems together with the development of appropriate communication skills is central to the department's efforts.

Surgery

Surgery is taught in each of the four clinical years. In the second year, as part of the Introductory Clinical Course, the student learns the principles of history taking and physical examination in surgical patients. The 'Core Surgical Curriculum' in the third year lasts for 12 weeks and involves 8 weeks general surgery and 4 weeks in speciality surgery (including radiology and A & E), with limited exposure to some of the surgical sub-specialties. The emphasis is on involvement with the ward team so that the principles of general surgery are learned through structured bedside teaching and exposure to clinical material. In the final year the student is required to spend six weeks as a surgical resident pupil. Approved surgical electives may be taken between 3rd and 4th years, 4th and 5th years or during the Final year.

Orthopaedic Surgery

Lectures on disorders of the locomotor system are given in the co-ordinated lecture course in Third year. In the fourth year all students have a four week clinical attachment covering fractures and orthopaedics.

Audio-visual presentations are available from the Department.

Obstetrics and Gynaecology

Students are introduced to Obstetrics & Gynaecology by a short course of lectures at the end of their fourth year.

During the fifth year, students are required to undertake a six week course which includes practical instruction and clinical teaching in the wards, clinics, operating theatres and delivery unit, as well as regular tutorials. During this course, students will also attend clinics in sexually

transmitted disease. Students are required to complete a log of their clinical experience during the course. An OSCE is held at the end of the course and if a satisfactory standard is obtained, the student will be exempted from further clinical assessment in the final examination.

Students are encouraged to supplement this six week course by a further two week residential attachment in a peripheral obstetric unit.

Ophthalmology

During the fourth year students spend four weeks at the Eye & Ear Clinic, Royal Victoria Hospital. During this period each student attends outpatient clinics, casualty department and ophthalmic wards. Formal lectures and tutorials are given in Anatomy, Physiology and important clinical topics.

The student is expected to become competent in the basics of Ophthalmology and be familiar with the management of ocular emergencies and the diagnosis of visual loss. A multiple choice and short essay question paper and objective structured clinical examination (OSCE) are held at the end of the course.

Otorhinolaryngology

Continuous four-weekly courses, including tutorials and clinical instruction, are held throughout fourth year. Emphasis is given to practical instruction in the Clinics, Wards and Operating Theatre. As part of the course students are seconded to ENT units throughout Northern Ireland. Each group of students is assessed on completion of the course.

Haematology

Several lectures are given in second year to introduce students to the subject of Haematology. A series of lectures is given as part of the Third Year Co-ordinated Lecture Course and practicals are arranged in conjunction with the Pathology teaching programme. Exercises in Laboratory techniques are arranged in the fourth year and this includes a visit to the Blood Transfusion Service. Students also attend the Haematology Ward at various stages of the curriculum.

DENTISTRY

General

Exemption from the Pre-Dental Year will normally be granted to candidates who have obtained satisfactory grades in GCE Advanced Level Chemistry and two other appropriate subjects.

Only students preparing for their degree in Queen's University are accepted.

Applications for admission must be made through the Universities and Colleges Admissions Service.

Dental students must register their addresses at the University Student Accommodation Office and at the Dental School Office. Changes of address must be notified promptly.

Intending students should consult the pamphlet on Entrance Requirements, General Regulations for Students, General Information for Students and Fees, to ensure that they are qualified to be considered for matriculation and admission.

Degree in Dental Surgery

1. The degree of BDS shall be the primary degree in dentistry in the Faculty of Medicine. Students shall not be admitted to the final examination for this degree until they have shown (1) that they are matriculated students of the University, (2) that they have completed the prescribed courses of study in the School of Clinical Dentistry in the Faculty of Medicine extending over a period of not less than five academic years and (3) that they have passed the several examinations prescribed.

2. The primary degree of BDS in the School of Clinical Dentistry in the Faculty of Medicine shall not be conferred upon persons who have not attended in the University during at least three academic years the courses of study prescribed for such degrees. The University may accept, for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

3. Candidates for the primary degree in Dentistry shall be required to show that they have attained the age of 21 years on or before the day of graduation.

Regulations for Degree of Bachelor of Dental Surgery

1. Students who intend to proceed to the degree of Bachelor of Dental Surgery must satisfy the entrance requirements prescribed by the Faculty of Medicine.

2. Students who obtain satisfactory grades in GCE Advanced Level in Chemistry and two other appropriate subjects will normally be granted exemption from the pre-dental examination.

3. A minimum of five years must elapse between the date of matriculation and the date of the Final Dental Examination.

4. Candidates who fail any examination may be required to appear before the Faculty Students' Progress Committee.

5. Candidates who have not successfully completed any examination after two attempts will normally be asked to withdraw from the University.

6. Candidates who have not passed all subjects of the Final Dental Examination after the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

7. Candidates may not sit the Final Dental Examination until they have completed not less than three years and one term of clinical training in the University.

8. Unless there are extenuating circumstances students may repeat only one complete year during the undergraduate course.

Supplementary Examinations

9. Entry to a supplementary examination will only be permitted on the basis of failure in the previous examination, illness, or other extenuating circumstances.

Distinctions and Honours

10a. Candidates will be awarded a Distinction in any subject or subject groupings in a professional dental examination of the Faculty in which the appropriate standard is achieved.

The subject groupings of the examinations are as follows:

2nd BDS – Anatomy & Dental Anatomy
Physiology
Biochemistry

3rd BDS – Pathology
Microbiology
Pharmacology
Medicine & Surgery

Final BDS – Restorative Dentistry
Orthodontics and Paediatric & Preventive
Dentistry
Dental Surgery
Practice of Dentistry

10b. In all professional examinations the award of a Distinction will only be made if the candidate has achieved a pass standard in all subjects of the examination at the first attempt

10c. An Honours degree will be awarded to candidates who attain the required standard at the Final Dental Examination and also to those candidates who achieve an aggregate of six distinctions including at least one from each of the Professional Dental Examinations.

Regulations Governing Medical Graduates of the Queen's University Taking BDS

Graduates in Medicine of the Queen's University of Belfast may present themselves for the final examination for the degree of BDS provided they have:

- (1) Attended the prescribed courses of study in the following subjects: Dental Anatomy, Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics and Radiology), Dental Prosthetics (including Dental Materials), Conservative Dentistry, Periodontics, Orthodontics, Paediatric and Preventive Dentistry.
- (2) Passed such class tests as may from time to time be prescribed.
- (3) Attended such other courses as may from time to time be prescribed.

Certificates of Attendance in the various courses and the Subjects of Examinations

Students shall not be admitted to any examination for a degree or diploma unless they have credit for the course of study in the subjects in which they present themselves

² e.g. include Human Biology, Physics and Mathematics.

at examination. Students are not entitled to credit for any course unless they have fulfilled such conditions of attendance as may be prescribed at the beginning of the course, and have pursued their studies to the satisfaction of the professor, lecturer or recognized teacher in the subject in charge of the course. In the case of practical or laboratory classes, notebooks may be required for inspection by the examiners. Further certificates may be required for students sitting supplementary examinations.

Class certificates will be awarded on satisfactory results in the Third Year Clinical Examination at the end of Third Year and the Fourth Year Clinical Examination at the end of Fourth Year. A candidate may not sit the Fourth Year Clinical Examination until he/she has successfully completed the Third Year Clinical Examination. A candidate may not sit the Final Examination until he/she has successfully completed the Fourth Year Clinical Examination.

Sponsio Academica

All graduands in dentistry are required to make the following declaration before graduation:

I do solemnly declare that, as a graduate of the Faculty of Medicine of The Queen's University of Belfast, I will exercise my profession to the best of my knowledge and ability for the good of all persons whose health may be placed in my care and for the public weal; that I will not knowingly or intentionally do any thing or administer any thing to any person to their hurt or prejudice for any consideration or motive whatsoever; that I will hold in due regard the honourable obligations of the medical profession doing nothing inconsistent therewith; and I do also declare that I will keep silence about those things which I have seen or heard while visiting the sick; and I do further declare that I will be loyal to my University and endeavour to promote its welfare and maintain its traditions.

Higher Degrees

For information on higher degrees in the School of Dentistry – MDS, MMedSc and PhD – see Book 3 of the Calendar.

Subjects of Examinations

For Degree of Bachelor of Dental Surgery

Pre-dental Examination

The subjects of the pre-dental examination shall be Biology, Chemistry and Physics. Candidates who fail to complete the Pre-Dental Examination by September of the pre-dental year will be brought before the Faculty Students' Progress Committee as unsatisfactory. The Faculty Students' Progress Committee (see General Regulation 9, Calendar Book 1, p. 13) may require them to withdraw from the University.

Second Dental Examination

The subjects of the second dental examination shall be:

- (1) Anatomy and Practical Anatomy, Dental Anatomy
- (2) Physiology and Practical Physiology
- (3) Biochemistry and Practical Biochemistry
- (a) The examination shall be held in December of the second year.
- (b) The examinations in Anatomy, Physiology and Biochemistry shall consist of written, practical and oral examinations.
- (c) The certificate for Practical Anatomy must show that students have attended during four terms and that the prescribed parts of the body have been dissected in a satisfactory manner before students can present themselves for examination.
- (d) A candidate will not be permitted to sit the Second Dental Examination unless a satisfactory standard has been reached in all class tests which are not part of the professional examination.
- (e) A candidate who fails two of the three subjects of the Second Dental Examination at the first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter first year.
- (f) A candidate who fails all three subjects of the Second Dental Examination at the first attempt must appear before the Faculty Students' Progress Committee and will be required to re-enter the first year and resit all three subjects in December of the following year.
- (g) No student will be allowed to proceed to Third Year Studies until all subjects of the Second Dental Examination have been passed.

Third Dental Examination

The subjects of the third dental examination shall be:

- (1) Pathology
- (2) Microbiology
- (3) Pharmacology
- (4) Medicine
- (5) Surgery.

The examination shall consist of two parts.

The Part I examination in Pathology, Microbiology and Pharmacology will be held in December of the third year.

The Part II examination in Medicine and Surgery will be held in June of the third year.

The examination in Pathology shall consist of (1) a written examination, (2) a practical examination and (3) an oral examination.

The examination in Microbiology shall consist of (1) a written examination and (2) an oral examination.

The examination in Pharmacology shall consist of (1) a written examination and (2) an oral examination.

The examination in Medicine and Surgery shall consist of (1) a written examination, (2) a clinical examination and (3) an oral examination.

A candidate who fails all three subjects of the Third Dental Examination Part I, at the first attempt must appear before the Faculty Students' Progress Committee and will be required to re-enter second year and resit all three subjects in December of the following year.

Summary of Curriculum

The following is a synopsis of the scheme of study for the degrees of BDS of the University:

Year	Lectures and Laboratory Work	Clinical Work	Examinations
<i>Pre-Medical</i>	Physics Chemistry Biology		<i>June:</i> Physics, Chemistry Biology <i>September:</i> Supplementary Pre-Dental exam.
<i>1st</i> <i>Direct Entry</i>	Anatomy Dental Anatomy Physiology Biochemistry Histology Medical Genetics	Clinical Visits to School of Clinical Dentistry	
<i>2nd</i>	FIRST TERM Anatomy Dental Anatomy Oral Physiology Applied and Oral Biochemistry First Aid/Cardiopulmonary Resuscitation Measurement in Medicine	Clinical Visits to School of Clinical Dentistry	<i>December:</i> 2nd Dental exam. in Anatomy. Physiology Biochemistry
	SECOND AND THIRD TERMS Pathology Microbiology Pharmacology Behavioural Science Epidemiology Introduction to Dental Health and Prevention	Introductory Clinical Course	<i>Sept:</i> Supplementary 2nd Dental exam.
<i>3rd</i>	Co-ordinated Lecture Course, Practicals and demonstrations: Pathology Microbiology Pharmacology Medicine Surgery Introductory Course in Restorative Dentistry Dental Surgery Orthodontics Paediatric and Preventive Dentistry	Medical and Surgical Clerkships Dental Dressership	<i>December:</i> 3rd Dental exam. Part I in Pathology Microbiology Pharmacology <i>June:</i> 3rd Dental exam. Part II in Medicine Surgery <i>June:</i> Third Dental exam. Supplementary Part I in: Pathology Microbiology Pharmacology <i>December:</i> Supplementary 3rd Dental exam. Part II in Medicine, Surgery
<i>4th</i>	Co-ordinated Lecture Course in: Dental Surgery Conservative Dentistry Prosthetics Periodontics Orthodontics Paediatric and Preventive Dentistry Radiology General Anaesthesia Ethics	Clinical Dresserships in: Dental Surgery Conservative Dentistry Prosthetics Periodontics Orthodontics Paediatric and Preventive Dentistry General Anaesthesia Radiology	<i>February:</i> Fourth Year Clinical Examination' <i>June:</i> Supplementary Fourth Year Clinical Examination
<i>5th</i>	Co-ordinated Lecture Course in: Dental Surgery Conservative Dentistry Prosthetics Periodontics Orthodontics Paediatric and Preventive Dentistry Radiology Ethics	Clinical Dresserships in: Dental Surgery Conservative Dentistry Prosthetics Periodontics Orthodontics Paediatric and Preventive Dentistry Radiology General Anaesthetics Community Dentistry	<i>February:</i> Fifth Year Clinical Examination' <i>June:</i> Final Dental Examination <i>June:</i> Supplementary Fifth Year Clinical Examination <i>December:</i> Supplementary Final Dental Examination

A candidate who fails two of the three subjects of the Third Dental Examination Part I, at the first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter second year and resit those two subjects in December of the following year.

A candidate who fails one of the three subjects of the Third Dental Examination Part I at the first attempt, must resit and pass that subject at the Supplementary Examination in June. A candidate resitting one subject of the Third Dental Examination Part I, will be permitted to sit Part II of the examination in June of the Third year.

A candidate who fails the Third Dental Examination Part II, at first attempt, will be required to resit the examination in December and in the event of failure at the second attempt must appear before Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who does not pass any one of the four subjects of the Third Dental Examination by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate may not sit for the final examination until he/she has completed the whole of the third dental examination.

Fourth Year Clinical Examination

Class certificates will be awarded on satisfactory results in this Class Examination held in the Hilary term.

This will be mainly a clinical/practical examination and will include the theory of Applied Dental Materials.

Subjects of the Examination:

- Dental Surgery
- Conservative Dentistry
- Dental Prosthetics
- Periodontics
- Orthodontics
- Paediatric and Preventive Dentistry
- Applied Dental Materials

A supplementary examination will be held in June of the fourth year. Students may not proceed to the Fifth Year Final Clinical Examination until they have successfully completed the Fourth Year Clinical Examination.

Fifth Year Clinical Examination

Class certificates will be awarded on satisfactory results in this Class Examination in which there will be a clinical/practical emphasis. This Class Examination will be held in the Hilary Term.

Subjects of the Examination:

- Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics and Radiology)
- Dental Prosthetics
- Conservative Dentistry
- Periodontics
- Orthodontics
- Paediatric and Preventive Dentistry
- Dissertation.

Candidates who fail in more than two clinical subjects will repeat the whole Examination in June of the fifth year. This will postpone sitting the Final Examination until December.

Candidates who fail one or two subjects will repeat those subjects in conjunction with the Final Dental examination in June.

Final Dental Examination

This professional examination will be held in June of the fifth year. The emphasis in the final examination will be on whole patient care. The examination will consist of the following subject groups and may include written papers, clinicals and orals:

- Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics, Radiology, Dental Ethics and Dental Jurisprudence)
- Restorative Dentistry (including Conservative Dentistry, Dental Prosthetics and Periodontics)
- Orthodontics and Paediatric and Preventive Dentistry Practice of Dentistry.

Candidates who fail the final examination in June will repeat the examination in December.

Details of Courses of the BDS Curriculum

Biology

See Faculty of Science Section of Calendar.

Chemistry

See Faculty of Science Section of Calendar.

Physics

See Faculty of Science Section of Calendar.

Anatomy

Four terms: general principles of human structure and development. Emphasis on the anatomy of the head and neck and dentition; leading to the second dental examination.

Physiology/Oral Physiology

The general principles of Human Physiology and Histology

are taught through lectures, practical classes and tutorials.

Biochemistry/Oral Biochemistry

The correlation of chemical structure and metabolic function is related to the application of biochemical principles in basic and clinical sciences.

Medical Genetics

In their first year a course of lectures and tutorials on the principles of Human Genetics is given leading to an end-

of course examination. In the fifth year instruction will be given in Clinical Genetics, with particular reference to diagnosis of hereditary disorders, and the antenatal diagnosis of congenital abnormalities affecting especially the head and neck.

Pharmacology for Dental Students

A course of lectures in Pharmacology will be given over three terms in the second and third years.

Pathology and Microbiology for Dental Students

A course of study in Pathology and Microbiology will be given extending over three terms of the second and third years.

Medicine and Surgery for Dental Students

Systematic lectures in Medicine and Surgery will be given as well as clinical work in the wards during the third year.

Dental Prosthetics and Materials Science

The science and application of dental materials is studied as an integrated course with basic dental techniques laying the foundation for sound clinical practice.

Periodontics

Lectures, demonstrations and clinics are given in the diagnosis and treatment of periodontal diseases, in the third, fourth and fifth years.

Conservative Dentistry

The course covers the restoration of diseased, damaged and missing teeth in adult patients, and the prevention of further disease, in the context of achieving dental health.

Dental Surgery and Pathology

Lectures, demonstrations and clinics are given in Dental Surgery and Pathology. The course in dental surgery extends over the third, fourth and fifth years and includes Oral Medicine, Oral Surgery, Oral Pathology, Anaesthetics, Jurisprudence, Ethics and Radiology.

Orthodontics

The Orthodontics course includes lectures, tutorials, laboratory techniques and clinical practice throughout the clinical years.

Paediatric and Preventive Dentistry

The course in Paediatric & Preventive Dentistry consists of lectures, tutorials, seminars, practical classes and clinical work and takes place throughout all the clinical years.

Dissertation

During the fourth and fifth years of the course, students will undertake a Project involving a literature review and clinical and/or laboratory investigations. This will be presented in the Hilary term of the fifth year.

Practice of Dentistry

Students will gain experience throughout the clinical course in whole patient care and will be introduced to Community and General Dental Services by visits out with the Dental School. These aspects of experience will be supplemented by lectures and tutorials during the final term.

NURSING

BSc (Hons) in Health Studies

Regulations for the BSc (Hons) in Health Studies for Nurses, Midwives and Health Visitors

1. The BSc (Hons) in Health Studies for Nurses, Midwives and Health Visitors is a primary degree of the School of Nursing within the Faculty of Medicine. The Degree is a top-up degree for those nurses, midwives and health visitors who have 240 credit points, 120 of which must have been acquired at Level 2. The degree will be offered part-time over 2 years.

2. The Degree shall be conferred upon candidates who have successfully completed 6 modules at Level 3. Two modules will be chosen from the Core Modules and Two from the list of Optional Modules in each year. Modules may be chosen from others offered in the University in conjunction with the Adviser of Studies.

3. Entrance Requirements

(a) Candidates must be registered with the United Kingdom Central Council as nurses, midwives or health visitors.

(b) In addition, Candidates must have:

(i) The Diploma in Nursing Studies or the Diploma in the Advanced Study of Health Care for Nurses, Midwives and Health Visitors validated by Queen's.

or

(ii) An equivalent qualification or Diploma awarded by another approved University or institution.

4. In line with the General Regulations of the University students must obtain the approval of the School's Adviser of Studies for the Modules that he/she intends to pursue. No change in the Modules for which the student is registered may be made without the approval of the Adviser of Studies. Changes in Modules will not normally be permitted after the second week of the relevant semester.

5. Students must successfully complete all modules. The outline of the method of assessment in each case is available in the individual module descriptions.

6. Award of Bsc in Health Studies (Hons)

A candidate for the Degree who has satisfied the examiners shall be placed in one of three classifications, the Second Class being in two divisions and the names in each Class or Division shall be arranged in alphabetical order. A Candidate who is not placed and who is not awarded an aegrotat degree may at the discretion of the examiners be awarded a pass degree. The classification of Honours in the Bsc Degree will be decided by aggregating the results from the five best Modules undertaken by the candidate, subject to passing these five Modules at the first sitting.

7. All Modules must be passed. Repeat assessments will be available. In the case of satisfactory completion of a repeat assessment a mark of 40% will be awarded.

8. A student whose progress is unsatisfactory at any point in this degree course may be required to appear before the Faculty Students' Progress Committee which may specify conditions under which the student may continue the course or require them to withdraw from the University. A student who is dissatisfied with the decision of the Committee may appeal to the Central Students' Progress Committee, the decision of which shall be final.

Pathways – BSc (Hons) in Health Studies for Nurses, Midwives and Health Visitors

The Degree shall be conferred upon candidates who have successfully completed six modules at Level 3. Two modules will be chosen from the Core Modules and one from the list of Optional Modules in each year. Modules may be chosen from others offered in the University in conjunction with the Adviser of Studies.

Modules available are:

110NUR301	Research Methods and Statistics (Core)
110NUR302	Professional and Managerial Issues of Health Care (Core)
110NUR304	Theoretical Basis of Nursing (Optional)
210NUR305	Family Health and Family Dynamics (Optional)
110NUR306	Health Promotion and Empowerment (Core)
210NUR307	The Therapeutic Nature of Nursing (Optional)
210NUR309	Community Health and Client Care (Optional)
110NUR310	Teaching and Assessing for Nurses, Midwives and Health Visitors (Core)
210NUR311	Ethical Issues in Clinical Nursing (Core)
210NUR312	Nursing and Technology (Optional)

Further details of all modules are in Calendar Book II.

BIOMEDICAL SCIENCE

Regulations for the BMedSc(Hons) Degree

1. The degree of BMedSc is a primary degree of the School of Biomedical Science within the Faculty of Medicine for students not following vocational courses and shall be conferred upon registered students of the University who have pursued approved courses of study and passed prescribed examinations for the degree. The degree may be taken full-time or part-time either as a degree with honours (single mode only) or as an ordinary degree.

2. The degree shall be conferred normally upon persons who have attended the University during at least three academic years and successfully completed the courses of study prescribed for the degree. Nevertheless, a student may be permitted to study for up to a year of his/her degree course at another University if he/she satisfies the Faculty that he/she can do so under conditions of which the Faculty approves.

3. Students must satisfy the entrance requirements prescribed by the Faculty of Medicine. These requirements are listed in more detail under the degree pathways, but as a general guide, the maximum choice of modules in the School is available to students offering an approved pass in A level Chemistry (or its equivalent). (Enquiries from candidates not offering Chemistry or from those offering alternative qualifications will nevertheless be welcome and should be addressed to the Faculty of Medicine Office or the Adviser of Studies).

4. In line with the general regulations of the University, a student must obtain the approval of the School's Adviser of Studies for the modules that he/she intends to pursue. No change in the modules for which a student is registered may be made without the approval of the Adviser. Changes in modules will not normally be permitted after the second week of the relevant semester.

5. Students should be aware that the method of assessment may vary from one module to another. An outline of the method of assessment in each case is available in the individual module descriptions. Further details of the methods of assessment will be provided at the start of each module by staff involved in co-ordinating the teaching.

6. The General Regulations of the University provide for monitoring the academic progress of students. The onus is on students to familiarize themselves with these regulations and to be aware of consequences of unsatisfactory progress.

(Students encountering problems with their progress for whatever reason are encouraged to discuss them with their Adviser when they arise as this may help to solve the problems and remove the need for further action. Interviews with Advisers are treated confidentially.)

7. Subject to prerequisites being met and to the approval of the Adviser of Studies, from Level 0 to Level 2, students may substitute up to two of their modules taken within the School by the same number of modules from elsewhere. The modules selected will normally be at an equivalent or higher level. Substitutions will not normally be permitted as part of coursework in Level 3.

8. Under certain circumstances, a student may be permitted to transfer from other courses in the Faculty of Medicine to be taken by such students will depend on the standard of previous examination results.

Level 1

9. Students registered for the BMedSc degree must take six Level 1 modules, normally three in each semester. Two of these modules must be 110BMS101 and 210BMS102 (Human Structure and Function modules). Subject to prerequisites being met and to timetabling constraints, the remaining modules may be taken in any Faculty.

10. Regulation 9 notwithstanding, students wishing thereafter to take Level 2 and Level 3 Clinical Science modules and/or Level 2 Introductory Molecular Biology must also take 110BCH102 and 210BCH103 (Level 1 Biochemistry) in the Faculty of Science.

Level 2

11. Entry to Level 2 is normally by the satisfactory completion of six appropriate Level 1 modules.

Students registered in other Faculties who have taken and passed appropriate Level 1 courses may apply to the Faculty of Medicine to transfer to Level 2 of the BMedSc course. Such applicants must also obtain permission to be released from their courses from their Faculty.

12. Students must take two Level 2 modules in each of Anatomy and Physiology from the range offered within the School of Biomedical Science. Subject to timetabling and prerequisites being met, the two remaining modules may be taken in any Faculty.

13. Students may obtain an ordinary degree after completion of at least one year of Level 2 if they have satisfied the following conditions:

- have completed 3 years of approved full-time study within the University
- have satisfactorily completed the minimum number of modules required by the University's general regulations for an ordinary degree.

14. Successful candidates may be awarded an ordinary degree with commendation on the recommendation of the Board of Examiners.

Level 3

15. Entry to Level 3 is normally by the satisfactory completion of six appropriate Level 2 modules. Students shall not normally be permitted to present themselves for the honours examination more than one year after entry to Level 3.

16. Students must take all six of their Level 3 modules from the range offered within the School. These must include the double thesis module (320BMS307) and Scientific Methods, Research Techniques and Statistics (110BMS301).

17. Students who have presented themselves for the Honours examination in any year may not normally present themselves again for examination in that subject.

18. Students who have satisfied the examiners for Honours will be placed in one of three classes, the second being in two divisions, and the names in each class or

division being placed in alphabetical order. Students who are not placed in a degree classification may, at the discretion of the examiners be awarded a pass degree.

The classification of the degree will be based on assessments of the best six Level 3 modules (subject to regulation 16).

19. The General Regulations of the University apply to supplementary and repeat examinations.

Modules in Biomedical Science

The following modules are offered:

Level 0

No specific modules are offered at Level 0. However, students seeking entry to the degree who are inappropriately qualified may take approved Level 0 courses in the Faculty of Science. These include 110BSC001; 210BSC002; 110CHM001; 210CHM002.

Level 1

110BMS101	Human structure and function; principles
210BMS102	Human structure and function; systematic body systems

NB. These modules are obligatory for all Level 1 students registered for the BMedSc degree.

Level 2

110BMS201	Regional Gross and Microscopic Anatomy 1
110BMS202	Regional Gross and Microscopic Anatomy 2
210BMS203	Regional Gross and Microscopic Anatomy 3
210BMS204	Regional Gross and Microscopic Anatomy 4
210BMS205	Biomedical Electron Microscopy
110BMS206	Tissue Interactions
110BMS207	Cardiovascular and Respiratory Physiology
210BMS208	Exercise and Applied Physiology
210BMS209	Neuromuscular Physiology
210BMS210	Cell Mechanisms
110BMS211	Physiology and Pharmacology
210BMS212	Introductory Molecular Biology
110BMS213	Clinical Science 1: The Science of Human Disease ¹

Level 3

110BMS301	Scientific Methods, Research Techniques and Statistics
210BMS302	Neuroscience
210BMS303	Developmental Studies
110BMS304	Histology and Ultrastructure
210BMS305	Advanced Cardiovascular Physiology
110BMS306	Advanced Cell Physiology
320BMS307	Research Project and Thesis (Double module)
110BMS308	Clinical Science 2 ¹

¹ Taught in the School of Clinical Medicine at Levels 2 & 3.
N.B. For module prerequisites see Book II of the Calendar.

Entrance requirements

Normal Faculty entrance requirements apply for Level 0 and Level 1. All applicants must have a minimum of GCSE passes in Chemistry and Biology (or their equivalents, including Dual Award Science). They must also have a minimum of three 'A' level passes normally at Grade C or better (or their equivalents), normally in Science subjects², with Chemistry and Biology preferred. Degree pathways for applicants not offering Chemistry are available but the choice of modules in the School at Level 2 and Level 3 will be restricted.

Pathways - Biomedical Science

BMedSc (Honours)

The core of any chosen pathway will consist of modules in Anatomy and Physiology. The range of modules offered will allow students to take pathways with additional emphasis on Clinical Medical Science. Students opting not to take Clinical Medical Science modules will take modules in advanced Anatomy and Physiology.

In certain circumstances, the order in which modules are taken may be flexible. Students should consult the degree regulations and the Adviser of Studies for details.

Level 1

Six modules are taken, including:

110BMS101	Human Structure and Function: principles
210BMS102	Human Structure and Function: systematic body systems and four others

Notes:

1. Relevant Science modules which are compatible with the BMedSc timetable include those at Level 1 in Biochemistry; Psychology; History and Philosophy of Science.
2. Other modules may be taken in any Faculty providing they are not limited by timetabling constraints etc. Subject to the approval of the Adviser of Studies, these may be taken at a higher level.
3. Students wishing to take modules in Clinical Science 1 & 2 (110BMS213 & 110BMS308); and in Introductory Molecular Biology (210BMS212) must also take Level 1 Biochemistry (110BCH102 & 210BCH103).

Level 2

Entry to Level 2 is normally by the satisfactory completion of six Level 1 modules which must include 110BMS101 and 210BMS102.

Students must take modules:

110BMS201	Regional Gross and Microscopic Anatomy 1
210BMS203	Regional Gross and Microscopic Anatomy 3
and TWO from	
110BMS207	Cardiovascular and Respiratory Physiology

110BMS208	Exercise and Applied Respiratory Physiology
210BMS209	Neuromuscular Physiology
110BMS210	Cell Mechanisms
110BMS211	Physiology and Pharmacology

and TWO others. Subject to the approval of their Adviser of Studies and subject to timetabling compatibility, these may be taken in any Faculty.

Notes:

1. Only those students who satisfactorily complete Level 1 Biochemistry modules may elect to take 210BMS212 and/or 110BMS213 (Introductory Molecular Biology; and Clinical Science 1 respectively).
2. Students wishing to take Clinical Science 2 (110BMS308) at Level 3 must take Introductory Molecular Biology (210BMS212) and Clinical Science 1 (110BMS213) at Level 2. They are also advised to take Physiology and Pharmacology (110BMS211) at Level 2.

Level 3

Entry to Level 3 is normally by the satisfactory completion of six Level 2 modules.

Students must take modules 110BMS301 and 320BMS307 (Double thesis module); and three other modules from the range offered within the School.

Other modules selected must normally include one each of the Anatomy and Physiology courses plus ONE other module from the list.

The classification of the degree will be based on assessment of the six best Level 3 modules.

PODIATRY

Regulations for Degree of Bachelor of Medical Science (Podiatry)

Throughout this degree course, the assessment of podiatric subjects will ensure that students demonstrate practical competence in all relevant aspects of podiatric medicine. Those students who successfully complete the course to the required standard will have passed all the examinations required for State Registration by the Chiropodists Board of the Council for the Professions Supplementary to Medicine and will, therefore, be eligible for entry to the Society of Chiropodists.

1. All first and second year courses will be taken in the University. During 1995-96, third year courses will be organised by the Belfast Institute of Further and Higher Education under the regulations pertaining for 1994-95 (see 1994-95 version of this booklet). Thereafter, third year courses will be as stipulated in this 1995-96 version.

2. The course will be a three year full time study programme.

3. The degree of BMedSc (Podiatry) shall not be conferred upon persons who have not attended in the University, during at least three academic years, the courses of study prescribed for the degree.

4. Applications for admission must be made through the Universities and Colleges Admissions Service. The health

regulations and precautions described on page 161 for medical and dental students will also apply to Podiatry students. Students must register their addresses at the Faculty of Medicine Office, 71 University Road, Belfast. Any change of address must be notified promptly.

5. No person shall be admitted as a matriculated student of the University who is under the age of seventeen years on October 15 of the year in which he/she enters.

6. Formal teaching throughout the 3 years of the degree course will be carried out within the normal University semester system. However, additional practical podiatric experience will be gained by compulsory attendance at the outpatient clinic for clinical experience modules (4 weeks duration) during the summer vacation. Students will be required to attend one such module between Level 1 and Level 2, and one between Level 2 and Level 3. This is to enable students to accumulate the total hours of clinical experience required by the Chiropodists Board for eligibility for State Registration.

7. Students will be required to sit class tests and submit course work, where these are specified, as part of individual courses. They will also be required to sit such examinations in the subjects of the course as may be required of them by the University. Unless otherwise stated, the pass mark will be 40%.

The total mark awarded for the examination in any subject may include a contribution from class tests and course work.

8. Supplementary examinations will be held before the beginning of the succeeding academic year and normally only one resit of any examination will be permitted.

9. Under the general regulations of the University, students whose progress is deemed unsatisfactory shall normally be required to appear before the Faculty Students' Progress Committee, which may specify conditions under which he/she may continue his/her studies (if necessary by repeating a year) or may require the student to withdraw from the University. A student who is dissatisfied with the decision of the Faculty Students' Progress Committee that he/she must withdraw may appeal to the Central Students' Progress Committee, whose decision shall be final.

10. Candidates will normally be required to repeat a year if they fail the examinations in 5 or more courses at the first attempt: such candidates will not be permitted to sit supplementary examinations. All courses passed may be carried forward.

11. A student may normally only repeat one complete year during his/her undergraduate podiatry studies.

12. Students entering Level 2 must normally have passed the examinations in all Level 1 subjects. Students entering Level 3 must normally have passed the examinations in all Level 2 subjects.

13. A student shall not normally be allowed to present himself/herself for the honours examination more than one year after he/she first enters the final year.

14. A student may only present himself/herself once for the honours examination and must pass the examinations in all Level 3 courses at the first attempt to be awarded an honours degree in Podiatry.

15. A candidate who has satisfied the examiners for honours shall be placed in one of three classes, the

second class being in two divisions, the names in each class or division being placed in alphabetical order. Such classification shall be based on the work of the student in his/her Level 3 studies. A candidate who does not attain honours may be awarded a pass degree.

16. A candidate who does not pass all the Level 3 examinations at the first attempt will not be awarded an Honours degree. He/she may be permitted by the Faculty Students' Progress Committee to present himself/herself for supplementary examinations and if these are successfully completed may be awarded an ordinary degree only.

Course of Study

Students must study all the courses listed below.

Level 1

Human Structure and Function 1 and 2

These courses consist of Modules 110BMS101 Principles and 210BMS102 Systematic Body Systems, taught in the first and second semesters respectively. Further details including information on assessment are given in Book II of the Calendar (Book of Modules).

Biochemistry

This introductory course of lectures and tutorials is specially tailored to cover the basic concepts of biochemistry relevant to Podiatry. It will be taught in the first semester and assessed by a 3 hour written examination at the end of the first semester.

Psychology

This course is Module 110PSY101 Basic Psychology. It will be taught in the first semester and further details including information on assessment are given in Book II of the Calendar (Book of Modules).

Clinical Studies 1 and 2

These courses introduce students to the concepts of the clinical environment and the skills required for treating podiatric patients. They will be taught over the first and second semesters with Orthotics teaching included in the second semester. Assessment towards the end of the first semester will be by a written assignment and practical examination. If a candidate fails one or more of these assessments, they must be repeated. A student may not proceed to Clinical Studies 2 until Clinical Studies 1 has been successfully completed. Continuous assessment in Orthotics will contribute 20% of the total assessment in Clinical Studies 2. The remaining 80% will be contributed by a practical examination of clinical skills at the end of the semester. Both components must be passed to constitute an overall pass in Clinical Studies 2. A student must register at least an 80% attendance record in both these courses to be allowed to present himself/herself for the end of semester assessments of clinical skills.

Podiatric Medicine 1 and 2

These courses will be taught over the first and second semesters and will deal with materia medica, podology, and biomechanics. They will be assessed by a 3 hour written examination at the end of each semester.

Anatomy of the lower limb

This course will be taught in the second semester, relating structure and function and including dissection of the lower limb and surface anatomy. An end of course practical assessment will contribute 20% of the total marks awarded. A 2 hour written examination at the end of the semester will contribute the remaining 80%.

Pharmacology 1

This course will be taught in the second semester. The aim is to provide a sound pharmacological basis on which to build a rational approach to therapeutics. There will be an end of semester written examination.

Summer Clinical Elective

Students must attend a four week clinical experience module over the vacation period (between mid-June and late September). There will be no formal assessment, but at least an 80% attendance record must be registered before the student will be permitted to commence second year studies. Each student will be required to keep a clinical log-book which must be handed in at the end of the module.

Level 2

Clinical Science 1

This course is Module 110BMS213 and is taught in the first semester. It is an introduction to the laboratory clinical sciences of pathology, microbiology, immunology and medical genetics. Further details are given in Book II of the Calendar (Book of Modules).

Pharmacology 2

This course in the first semester. At its conclusion, students should know the general principles of pharmacology and be able to assess the described properties and therapeutic claims made for any new drug or group of drugs. End of semester assessment will be a written examination.

Clinical Studies 3 and 4

These courses will be taught over the first and second semesters. They will further develop the student's clinical podiatric skills and will include orthotics teaching. Also included are short courses in local analgesia and sterile procedures with end of course assessments. Continuous assessment in clinical evaluation and orthotics will contribute 20% of the total assessment in Clinical Studies 3 and 4. The remaining 80% will be contributed by a practical examination of clinical skills at the end of each semester. Both components must be passed to constitute an overall pass in Clinical Studies 3 or 4. A student must register at least an 80% attendance record in both these courses to be allowed to present himself/herself for the end of semester assessments of clinical skills.

Podiatric Medicine 3 and 4

These courses will be taught over the first and second semesters covering clinical evaluation, podology, biomechanics and pathological conditions specifically related to the lower limb. This knowledge should enable students to start making recommendations for patient management in their clinic sessions. Assessment will be

by a 3 hour written examination at the end of each semester.

Medicine

This course will be taught in the second semester covering disorders of the main body systems. Students will be expected to develop a knowledge of medical conditions, their manifestations, and their effects on the lower limbs. In addition to lectures, the course includes attendance at clinical ward rounds. End of semester assessment will be a 3 hour written examination.

Surgery

This course will be taught in the second semester and will cover surgical topics closely related to podiatric problems. Ethical issues and the development of correct theatre practice and protocol are also covered. End of semester assessment will be a 3 hour written examination.

Behavioural Science

This course builds on the basic knowledge gained during Level 1 Psychology and contains a longitudinal study of a particular family assigned to pairs of students. Students must visit the family on a minimum of three occasions over the year. This should enable them to understand and observe the interaction between patient environment, family lifestyle and podiatric problems. Students will be required to keep a case history of their studies. In the second semester, topics particularly relevant to Podiatry will be covered in tutorial sessions with assessment by a 2 hour end of semester written examination.

Summer Clinical Elective

Students must attend a clinical experience module over the summer vacation (from mid-June to late September). There will be no formal assessment, but at least an 80% attendance record must be registered before the student will be permitted to commence third year studies. Each student will be required to keep a clinical log-book which must be handed in at the end of the module.

Level 3

Scientific Methods and Research Techniques

This course provides the background necessary for students to carry out a research project and will be taught in the first semester. It comprises the Scientific Methods component of Module 110BMS301 (see Book II of the Calendar, Book of Modules) and an introduction to use of statistical methods and computing in Medicine. Assessment will be by a 3 hour examination at the end of the first semester.

Dermatology

This course will be taught to students in rotation over the first and second semesters and covers the recognition, treatment and/or referral of dermatological conditions including those arising from bacterial, viral and fungal infections, other common skin diseases and skin markers of systemic disease. The course consists of a 3 week attachment (mornings only) with an end of course assessment. There will be a 2 hour written examination at the end of the second semester.

Podiatric Medicine 5 and 6

This course will run through the first and second semesters and cover podology (especially in relation to high risk patients), radiology, sports medicine and the relevance of podiatric medicine to the care of young and elderly patients. Assessment will be by a 3 hour written examination at the end of each semester.

Elective Study Units

Students will select one of the following elective units for study. Each unit considers in greater depth one of the areas introduced in Podiatric Medicine 5 and 6. Assessment will be an in course assignment.

Developmental Podiatric Medicine: This unit deals the embryology, growth and development of the foot, history taking and examination of children, gait analysis and further aspects of paediatric orthopaedics.

Sports Medicine: The course includes the physiological and psychological benefits of sport. Disorders arising in the spine, trunk and lower limbs from sporting activity will be considered along with the appropriate use of footwear as a preventative measure.

Radiology: This course includes the effects of radiation on living tissues, the law and radiation control and the interpretation of X-rays.

Clinical Studies 5 and 6

This course running throughout the first and second semesters consists of clinical practice, clinical placements and surgical techniques. Students will rotate through a clinical placements programme, which will include specialised treatment regimes. Students should also develop the skills required for soft tissue surgery. Assessment at the end of each semester will be by practical examination of clinical skills. A student must register at least an 80% attendance record in both these courses to be allowed to present himself/herself for the end of semester assessments of clinical skills.

Professional modules

A series of compulsory short modules will be provided during the second semester dealing with specialist areas relating to podiatric practice. There will be an end of course assessment

- (a) Professional Issues – including the role of professional bodies and International and European co-operation.
- (b) Practice Management – including the processes involved in running a small business.
- (c) The Law and the Podiatrist – relating to the legal framework within which the podiatric profession operates and including the relevance of liability and negligence.
- (d) The National Health Service – including the general structure and organisation of the NHS and the role of podiatric practitioners within it.

Research Project

Students will carry out a research project over the first and second semesters. It may range in style from a literature review to data collection and analysis. The specific project undertaken will be chosen after consultation between the student and prospective supervisor, taking account of the research and clinical objectives of the School of

Biomedical Science and the College of Health Sciences. On completion of the project the student must submit a written dissertation on the work carried out. An oral presentation of the work will also form part of the assessment at the end of the second semester.

Regulations for the End-on Degree of Bachelor of Medical Science (Podiatry)

1. The end-on degree of Bachelor of Medical Science (Podiatry) will be conferred upon registered students of the University who have pursued approved courses of study and passed the required examinations. The degree may be taken full-time over a period of one year, or part-time completing the programme in not more than three years.
2. For part-time students, the order in which the courses are taken will depend on the selected day release programme decided upon by the Adviser of Studies and the student.
3. Students entering the course must hold a Diploma in Podiatric Medicine and be State Registered.
4. Courses will be taught within the normal University semester system.
5. Students will be required to sit class tests and submit course work, where these are specified, as part of individual courses. They will also be required to sit such examinations as may be required of them by the University. Unless otherwise stated, the pass mark will be 40%. The total mark awarded for the examination in any subject may include a contribution from class tests and course work.
6. Supplementary examinations will be held before the beginning of the succeeding academic year. Normally no student will be allowed more than two attempts at any examination.
7. Under the general regulations of the University, students whose progress is deemed unsatisfactory shall normally be required to appear before the Faculty Students' Progress Committee, which may specify conditions under which he/she may continue his/her studies (if necessary by repeating a course) or may require the student to withdraw from the University. A student who is dissatisfied with the decision of the Faculty Students' Progress Committee that he/she must withdraw may appeal to the Central Students' Progress Committee, whose decision shall be final.
8. The final degree classification will depend on the overall performance in the six required courses. A candidate who has satisfied the examiners for honours shall be placed in one of three classes, the second class being in two divisions, the names in each class or division being placed in alphabetical order. A candidate who is not placed in a degree classification may, on the decision of the examiners, be awarded a pass degree.

Course of Study

Scientific Methods and Research Techniques

This course provides the background necessary for students to carry out a research project and will be taught in the first semester. It comprises the Scientific Methods component of Module 110BMS301 (see Book II of the Calendar, Book of Modules) and an introduction to the use of statistical methods and computing in Medicine. Assessment will be by a 3 hour examination at the end of the first semester.

Cardiovascular and Respiratory Physiology

This course is Module 110BMS207 and is taught in the first semester. Further details are given in Book II of the Calendar (Book of Modules).

Anatomy of the lower limb

This course will be taught in the second semester, relating structure and function and including dissection of the lower limb and surface anatomy. Continuous assessment will contribute 20% of the total marks awarded. A 2 hour written examination at the end of the semester will contribute the remaining 80%.

Specialised Podiatry Units

Students will select two of the following elective units for study during the first semester. Assessment will be by a 3 hour written examination at the end of the semester.

Developmental Podiatric Medicine: This unit deals the embryology, growth and development of the foot, history taking and examination of children, gait analysis and further aspects of paediatric orthopaedics.

Sports Medicine: The course includes the physiological and psychological benefits of sport. Disorders arising in the spine, trunk and lower limbs from sporting activity will be considered along with the appropriate use of footwear as a preventative measure.

Radiology: This course includes the effects of radiation on living tissues, the law and radiation control and the interpretation of radiographs leading to appropriate diagnoses.

Research Project

Students will carry out a research project over the first and second semesters. It may range in style from a literature review to data collection and analysis. The specific project undertaken will be chosen after consultation between the student and prospective supervisor, taking account of the research and clinical objectives of the School of Biomedical Science and the College of Health Sciences. On completion of the project the student must submit a written dissertation on the work carried out. An oral presentation of the work will also form part of the assessment at the end of the second semester.

Programme Code : S118100CZ 11/12

Programme Title : Medicine

Awarding Institution

Queen's University Belfast

Teaching Institution

Programme Accredited By

General Medical Council

Final Award

MB BCh BAO

UCAS Code

MEDICINE [A100]

QAA Benchmarking Group

Medicine (Hons)

Educational Aims Of Programme

1. Provide a high quality educational programme for undergraduate medical students that meets the current General Medical Council recommendations and publications including Tomorrow's Doctors, The New Doctor, Good Medical Practice, Quality Assurance Codes of Practice and Benchmark Statements for Medicine.
2. Provide an educational environment within which students can develop enthusiasm for and interest in medicine, and realise their full potential by fostering the development of intellectual, scientific, clinical and technical skills
3. Prepare students for independent and life-long learning by encouraging self-directed study
4. Foster learning through the study of original research evidence
5. Provide a framework of opportunities for early patient contact in the primary and secondary healthcare sectors around which students can build a scientific picture of a holistic approach to medicine
6. Through the interprofessional education programme provide students with opportunities to recognize the contribution of other health care professionals to the health care team
7. Through the Student Selected Component programme provide students with an opportunity to study subjects in depth and enhance their understanding of the scientific principles underpinning the practice of medicine
8. Through the intercalated degree programme, develop within students, a refined critical ability and increased confidence in scientific presentation, and further encourage a self-directed approach to increasing knowledge of the current scientific principles underlying health, disease and treatment

For current general University entry requirements for this pathway go to <http://www.qub.ac.uk/ado>

Criteria For Admission (Subject Specific Requirements) To Programme

For current general University and specific entry requirements for this pathway go to <http://www.qub.ac.uk/ado/>

Subject specific requirements for this pathway are:

A-Level: Chemistry and at least one other science chosen from Physics, Biology and Maths (NB only 1 mathematics subject can count at A-level and General Studies is not acceptable).

AS Level: Biology to at least AS level is required and a non-science is recommended.

GCSE: Physics (or Double Award Science) if not taken to AS level or A-level.

Candidates must take the UKCAT test.

Admission is subject to satisfactory police and health checks, see General Regulations of the University with regard to health of students and patients.

Students offering qualifications other than those specified above may be required to undertake a Pre-Medical year.

Additional Relevant Information

General Information

On completion of the MB, Bch, BAO degree programme graduates will be employed as Foundation Doctors. This is a two year training programme for newly qualified doctors. On satisfactory completion of Foundation One doctors proceed to Foundation Two. During this two year training period graduates are granted provisional registration with the General Medical Council. On satisfactory completion of Foundation Two doctors are granted full registration with the General Medical Council.

Opportunities to Study for an Intercalated Degree Programme

Students have the option of studying for an intercalated degree leading to a B.Sc (Hons) degree. Students may avail of this opportunity on completion of either year two or year three of the undergraduate medical programme.

Opportunities to Study Abroad

Students may avail of opportunities to participate in the Erasmus Programme during years three or years four. This programme offers students an opportunity to study one clinical subject at a European Medical School.

Support for Students and their Learning

In addition to University student support services, students and their learning are supported in the following ways:

School support services

1. Student support WEB site
2. Medical Student Support Scheme
3. Specialist advice/support is available for female students requiring support/advice
4. Pastoral tutor in each hospital

Support for Learning

1. Study guides outlining the learning and assessment requirements are available for all parts of the course
2. A core skills course is offered to all first year students, that includes learning skills, computer and other IT skills, group working, core statistical skills as well as skills in evaluative and reflective writing and other modes of communication
3. Advice on study skills and examination technique is provided.

For Further Information Refer To:

Centre for Medical Education
Whitla Medical Building
Lisburn Road
Belfast BT9 7BL www.qub.ac.uk/schools/mdbs
Tel: +44 (0) 28 90972450
medicaled@qub.ac.uk

Programme Structure, Levels, Modules and Credits

Year 1

Students will take nine modules during first year plus a core skills module and the Personal and Professional Development Portfolio.

Status	Code	Title	Pre-Requisites	CATS	STATUS
compulsory	MED1013	Genes Molecules and Processes: Foundations of Clinical Practice 1	All pre-requisites for entry to first year medicine	20	LIVE
compulsory	MED1014	Cells Tissues and Organs: Foundations of Clinical Practice 2	All pre-requisites for entry to first year medicine	20	LIVE
compulsory	MED1015	Systems People and Populations: Foundations of Clinical Practice 3	- All pre-requisites for entry to first year medicine	20	LIVE
compulsory	MED1022	Core Generic Skills and Introductory Clinical Experience	All pre-requisites for entry to first year medicine	0	LIVE
compulsory	MED1016	Anatomical Basis of Clinical Practice	All pre-requisites for entry to first year medicine	10	LIVE
compulsory	MED1017	Physiological Basis of Clinical Practice	All prerequisites for entry to first year medicine	10	LIVE
compulsory	MED1018	Clinical Skills and Experience	All pre-requisites for entry to first year medicine	10	LIVE
compulsory	MED1019	Principles of Disease and Treatment	All pre-requisites for entry to first year medicine	10	LIVE
compulsory	MED1020	Concepts in People and Populations	All pre-requisites for entry to first year medicine	10	LIVE
compulsory	MED1021	Student Selected Component	All pre-requisites for entry to first year medicine	10	LIVE
compulsory	MED1012	Personal and Professional Development Portfolio	None	0	LIVE

Year 2

Students will take 8 modules during second year along with the Personal and Professional Development Portfolio and the End of Phase Integrated Exam.

Status	Code	Title	Pre-Requisites	CATS	STATUS
compulsory	MED2012	Anatomical Basis of Clinical Practice	Successful completion of first year medicine modules	20	LIVE
compulsory	MED2013	Physiological Basis of Clinical Practice	Successful completion of all first year medicine modules	20	LIVE
compulsory	MED2014	Principles of Disease and Treatment	Successful completion of all first year medicine modules	20	LIVE
compulsory	MED2015	Concepts in People and Populations	Successful completion of all first year medicine modules	20	LIVE
compulsory	MED2016	Student Selected Components	Successful completion of all first year medicine modules	10	LIVE
compulsory	MED2017	Student Selected Components	Successful completion of all first year medicine modules	10	LIVE
compulsory	MED2019	Clinical Skills and Experience	Successful completion of all first year medicine modules	10	LIVE
compulsory	MED2020	Clinical Skills and Experience	Successful completion of all first year medicine modules	10	LIVE
compulsory	MED2018	Personal and Professional Development Portfolio	Successful completion of all first year medicine modules	0	LIVE
compulsory	MED2011	End of Phase Integrated Examination	Successful completion of all first year medicine modules	0	LIVE

Intercalated Degree

Year 3

All students are required to take four modules and the Personal and Professional Development Portfolio.

Status	Code	Title	Pre-Requisites	CATS	STATUS
compulsory	MED3012	Student Selected Component	Successful completion of all modules on the second year pathway for medicine	10	LIVE
compulsory	MED3013	Student Selected Components	Successful completion of all modules on the second year pathway for medicine	10	LIVE
compulsory	MED3014	Scientific Basis of Clinical Practice	Successful completion of all modules on the second year pathway for medicine	20	LIVE
compulsory	MED3015	Clinical Practice	Successful completion of all second year subjects on the pathway for medicine	80	LIVE
compulsory	MED3016	Personal and Professional Development Portfolio	Successful completion of all second year subjects on the pathway for medicine	0	LIVE

Year 4

Status	Code	Title	Pre-Requisites	CATS	STATUS

Clinical Rotation One

compulsory	MED4012	Ageing and Health, Fractures and Radiology	Successful completion of the first three years of the undergraduate medical curriculum.	25	LIVE
compulsory	MED4013	Psychiatry	Successful completion of the first three years of the undergraduate medical curriculum	25	LIVE
compulsory	MED4014	General Practice and Cancer Studies	Successful completion of the first three years of the undergraduate medical curriculum	25	LIVE

Clinical Rotation Two

compulsory	MED4015	Healthcare of Children	Successful completion of the first three years of the undergraduate medical curriculum	25	LIVE
compulsory	MED4016	Perioperative and Emergency Medicine	Successful completion of the first three years of the undergraduate medical curriculum	25	LIVE
compulsory	MED4017	Obstetrics and Gynaecology	Successful completion of the first three years of the undergraduate medical curriculum	25	LIVE
compulsory	MED4018	Fourth Year Integrated OSCE (Rotation One)		0	LIVE
compulsory	MED4019	Fourth Year Integrated OSCE (Rotation Two)		0	LIVE

Year 5

Status	Code	Title	Pre-Requisites	CATS	STATUS
compulsory	MED5003	Overseas Elective	The first four years of the medical curriculum.	25	LIVE
compulsory	MED5004	Medical Attachment	Completion of the first four years of the undergraduate medical curriculum.	15	LIVE
compulsory	MED5005	Surgery Attachment	Completion of the first four years of the undergraduate medical curriculum.	15	LIVE
compulsory	MED5006	Specialty Clinical Attachments	Successful completion of the first four years of the undergraduate medical curriculum.	15	LIVE
compulsory	MED5008	Final MB Part 2	Successful completion of Final MB Part I and	0	LIVE

			all other elements of the medical curriculum apart from clinical assistantship.		
compulsory	MED5009	Final MB Part I: Medicine and Surgery	Successful completion of the first four phases of the undergraduate medical curriculum.	0	LIVE
compulsory	MED5010	Final MB Part I: Reproductive Medicine	Successful completion of the first four phases of the undergraduate medical curriculum.	0	LIVE
compulsory	MED5011	Final MB Part 1: Healthcare of Children	Successful completion of the first four phases of the undergraduate medical curriculum.	0	LIVE
compulsory	MED5012	Personal and Professional Development Portfolio	None	0	LIVE
compulsory	MED5013	Preparation for Practice	Successful completion of the first three years of the undergraduate medical course	0	LIVE
Compulsory	MED5014	Clinical Assistantship	Successful completion of the first four years of the undergraduate medical curriculum	50	

Awards, Credits and Progression of Learning Outcomes

The following regulations should be read in conjunction with the University's general regulations.

Examinations

1. The degrees of MB BCH BAO are the primary degrees in medicine, surgery and obstetrics and shall be conferred at the same time and after the same course of study. No student shall be admitted to the Final Part II examination for these degrees until he/she has shown (1) that he/she is a matriculated student of the University, (2) that he/she has satisfactorily completed the prescribed courses of study in the School extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

2. The primary degrees of MB BCH and BAO shall not be conferred upon any person who has not attended in the University during three academic years the courses of study prescribed for such degrees. The University may accept for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

3. Attendance: Students are expected to attend all scheduled sessions and other forms of instruction as defined by the programme of study. This is a general University regulation. The pathway of medicine includes practical as well as theoretical elements. Practical courses may include clinical procedures for which a student must be present to enable the School to discharge its statutory duty regarding satisfactory standards of training for the care and safety of patients. Students are thus expected to record a satisfactory level of attendance at all classes, whether or not this is stated in the individual course study guides. As a general guide, all absences must normally be accounted for. For students experiencing genuine difficulties eg illness, a minimum attendance of 75% will be expected. Attendance at less than 75% of timetabled classes will be regarded as unsatisfactory but students should note that some modules require a higher percentage attendance. In cases of occasional absence, students must normally consult the module co-ordinator and/or their Adviser of Studies (or equivalent) prior to the absence for advice on remedial action. Where a student's attendance is unsatisfactory, Advisers of Studies (or equivalent) will normally interview the student and advise on the best course of action. Should a student refuse to accept this advice their case will be referred to the School Student Progress Committee which after considering any mitigating circumstances shall have powers to decide on such matters as repetition of course, or parts thereof, refusal of entry to examinations, periods of temporary withdrawal, or permanent withdrawal from the course.

4. Every candidate for the primary degrees in Medicine shall be required to show that he/she attained the age of 21 years on or before the day of graduation.

5. It should be noted that modules referred to in the medical course are clinical modules and not standard University modules as defined in Book 2 of the Calendar.

6. The degree of BMedSc Honours is only available to medical or dental students who successfully completed a minimum of the first three years of the course but do not complete the full degree for whatever reason. The degree of BMed Sc Honours is only awarded on the recommendation of the Board of Examiners.

7. Every candidate for the degrees of MB, BCH and BAO shall be required to have satisfied the examiners in the various courses within the five years of the degree programme. No candidate may enter for the Final Part II examinations until he/she has satisfactorily completed all parts of the medical curriculum in the University with the exception of the assistantship.

8. Notwithstanding the Regulations for formal written examinations, students will not normally be permitted to enter an OSCE after the appointed time.

9. Where a student has attained an overall pass mark for a module but has not achieved a satisfactory performance in all the specified compulsory elements the result may at the discretion of the Board of Examiners be recorded as incomplete.

10. In all cases of failure or incompleteness, the Board of Examiners will be responsible for deciding whether the whole module or only specified components should be repeated. The Board of Examiners will forward the names of any student whose progress is unsatisfactory to the School Student Progress Committee.

11. Students will not be permitted to proceed from one year of the course to the next unless a satisfactory performance has been achieved in all elements of the preceding year.

12. Unless there are extenuating circumstances, a student may repeat only one academic year during the undergraduate medical course.

13. A student will not normally be permitted to take more than 7 years from the date of first registration in the undergraduate medical course to complete the course (excluding the Pre-Medical year or Intercalated Degrees).

14. Standard setting: The undergraduate medical course has standard setting for all core examinations.

15. Serious Concern Reporting: During OSCE based assessments in the clinical years of the course examiners may use a Serious Concern Reporting card to record instances of unprofessional behaviour or clinical practice that may compromise patient safety. These cards will be reviewed by the Board of Examiners. Where the student has achieved an overall pass in the examination but there remains serious cause for concern, the examiners may decide to refer a candidate's result pending feedback and remediation. Where the student has failed the examination there will be separate feedback and remediation relating to the specific concern, over and above that required for repeat of the examination. In exceptional circumstances at Final MB Part II the Examination Board may decide to fail a candidate if the concern regarding patient safety is such that the student should not be permitted to progress to graduation.

16. Distinction:

Distinctions will normally be awarded to the top 10% of students (approximately) achieving an average of 70% and above, based on the weighted marks in the core modules:

From 2009-10

One for Years 1 & 2 combined;

One for Year 3

One for Year 4 on the basis of the Combined OSCE results

One for Child Health and Obstetrics and Gynaecology awarded on the results for those subjects in Final MB Part I

One for Medicine and Surgery awarded at Final MB Part II based on the marks achieved in Medicine and Surgery at Parts I and II.

17. Honours: Students who obtain a total of three or more distinctions will be awarded the degrees of MB BCh BAO with Honours.

18. Student Selected Components

18.1 For students entering the course prior to 2008:

Student Selected Components will not be included in the award of distinctions. A credit will be awarded to all students who achieve an overall mark of at least 70% at first attempt at SSCs in Phase 1 and II of the course.

18.2 For students entering the course from 2008:

Student Selected Components will not be included in the award of distinctions. An award of Merit will be given to the top 10% of students based on an aggregate of all the marks achieved in the Student Selected Components within the medical course.

18.3 Attendance: Students are required to attend at least 75% of all classes. Those who fail to satisfy the attendance requirements will normally be required to submit an additional piece of coursework. If a student's mark is referred due to poor attendance, he/she will not normally be eligible for the award of a credit for that SSC and will not be eligible for the award of Merit in that Phase.

19. Sponsio Academica

All graduates in medicine are required to make the following declaration before graduation:

"I do solemnly declare that as a graduate in Medicine of Queen's University Belfast, I will exercise my profession to the best of my knowledge and ability for the good of all persons:

I will make the care of my patients my first concern, keep my professional knowledge up to date, and recognise the limits of my professional competence;

I will treat every patient politely, with respect and dignity;

I will treat my patients considerately, respect their views, provide them with information and involve them in decisions about their care;

I will work with colleagues in the healthcare professions in ways that best serve my patients' interests;

I will respect and aid those learning to acquire skills and competences for the care of patients;

I will be honest and trustworthy, respect and protect confidential information, ensure that my personal beliefs do not prejudice my patients care, act quickly to protect my patients from risk, and will not abuse my position as a doctor.

In all these matters I will never discriminate unfairly against my patients or colleagues.

I will hold in due regard the honourable obligations of the medical profession doing nothing inconsistent therewith.

Above all I dedicate my professional life to the service of those entrusted to my care."

20. By the provisions of the Medical Act 1983 a graduate must obtain certificates of satisfactory service over twelve months as a resident Foundation doctor. Details of the requirements may be obtained from the Northern Ireland Medical and Dental Training Agency.

First Year (New Curriculum)

1. All students will be required to take 9 modules and complete a Personal and Professional Development Portfolio.
2. Examinations will be held at the end of each semester with resit examinations in August.
3. Candidates who fail the end of semester examinations will be allowed to proceed to resit examinations in August.
4. Candidates who fail any module after the second attempt will be called before School Student Progress Committee and will normally be required to withdraw from the course.
5. Candidates permitted a third attempt must pass or will be called before School Student Progress Committee and will normally be required to withdraw.
6. Candidates who are required to repeat the year and have to repeat the student selected component and who elect to take a different student selected component in their repeat year will be allowed only one attempt at the examination of this/these module(s).
7. The Personal and Professional Development Portfolio must be submitted in May. Candidates who have not reached a satisfactory standard in the portfolio at first attempt will be permitted to resubmit the portfolio for the resit examinations in August.

Second Year (New Curriculum)

1. All students will be required to take 8 modules, the end of Phase Integrated Examination and complete a Personal and Professional Development Portfolio.
2. Examinations will be held at the end of each semester with resit examinations in August.
3. Candidates who fail the end of semester examinations will be allowed to proceed to resit examinations in August.
4. Candidates who fail any module after the second attempt will be called before School Student Progress Committee and will normally be required to withdraw from the course.
5. Candidates permitted a third attempt must pass or will be called before School Student Progress Committee and will normally be required to withdraw.
6. Candidates who are required to repeat the year and have to repeat the student selected component and who elect to take a different student selected component in their repeat year will be allowed only one attempt at the examination of this/these module(s).
7. The Personal and Professional Development Portfolio must be submitted in May. Candidates who have not reached a satisfactory standard in the portfolio at first attempt will be permitted to resubmit the portfolio for the resit examinations in August.

Third Year

1. All students are required to take four modules: two Student Selected Components, the Scientific Basis of Clinical Practice, the Clinical Practice Module and a Personal and Professional Development Portfolio.
2. Student Selected Components will be taught in three week blocks at the start of each semester and assessed on completion.
3. The Scientific Basis of Clinical Practice and the Clinical Practice Module are taught throughout the year and examined at the end of the second semester.
4. The Personal and Professional Development Portfolio must be submitted in May. Candidates who have not reached a satisfactory standard in the portfolio at first attempt will be permitted to resubmit the portfolio for the resit examinations in August.
5. Resit examinations will be held in August.
6. Standard setting will be used to determine the pass mark for core modules and the overall result of the module(s) will then be adjusted if required to a 50% pass mark.
7. The assessment of the Clinical Module will consist of 14% Case Studies, 1% Dermatology MCQ, 25% for the written examination and 60% for the OSCE. Candidates must obtain a standard set pass mark for the OSCE and pass the module overall. A candidate who achieves a final mark of above 50% but fails the module because of a poor performance in the OSCE will be permitted to resit only that element.
8. Regulations governing progress:
 - 8.1 Candidates will be expected to attend a minimum of 75% of clinical sessions in each discipline within the Clinical Module and those whose attendance causes concern will be called to School Student Progress Committee. If it is not possible to redeem the attendance candidates may be required to re-enter third year in order to retake all the classes and examinations of this module.
 - 8.2 Any candidate who obtains an overall result of less than 40% in the Clinical Module will be called to School Student Progress Committee in July and will normally be required to re-enter third year to repeat all the classes and examinations associated with the module.

8.3 Candidates will be permitted to proceed to August resit examinations if:

- they have failed only one module (except where regulations 8.2 applies)
- they have failed any combination of modules that does not include the Clinical Module

8.4 Candidates who are required to repeat the year and have to repeat the Student Selected Component and who elect to take a different Student Selected Component in their repeat year will be allowed only one attempt at the examination of this/these modules.

8.5 Candidates who have not passed any module after two attempts will be called to appear before the School Student Progress Committee and will normally be required to withdraw.

Fourth Year

1. Students will be expected to complete six clinical modules, two Fourth Year Integrated OSCEs and a Personal and Professional Development Portfolio.
2. Students will take three clinical modules in rotation each semester which will be assessed at the end of each module.
3. Students will take one of the Fourth Year Integrated OSCEs at the end of each semester.
4. The Personal and Professional Development Portfolio must be submitted in May. Candidates who have not reached a satisfactory standard in the Portfolio at first attempt will be permitted to resubmit the Portfolio for the resit examinations in October.

5. Progress Regulations (Excluding Portfolio):

- 5.1 A candidate who fails one of the Fourth Year Integrated OSCEs and/or one or two clinical modules in any rotation may proceed to the resit examinations in October.
- 5.2 A candidate who fails any other combination of clinical modules and OSCEs will be called before School Students Progress Committee and will normally be required to repeat the year. Such candidates will be required to re-attend all the classes and examinations of any modules they have failed and the classes associated with any OSCEs.
- 5.3 All students will be permitted to proceed to the Overseas Elective. Progress Committee meetings will be held in late August and early November.
- 5.4 The Portfolio must be passed in order for the student to progress to the next stage of the course.
- 5.5 A candidate who fails the repeat examination in any of these modules or OSCE examinations will be called to the School Student Progress Committee and normally required to withdraw from the course.

Final Year

1. During Final Year students will be required to pass the following compulsory elements:

- One Student Selected Component which will consist of a clinical attachment which may be taken overseas;
- Attachments in Medicine and Surgery. Each module will consist of a three week attachment in the first semester
- Final MB Part I written examinations
- Final MB Part II clinical examinations
- An eleven week period of Clinical Assistantship following Final MB Part II
- a Personal and Professional Development Portfolio
- Specialty Clinical Attachments which will consist of two one week specialty attachments and a week in the Clinical Skills Education Centre.

2. In addition to these students will be expected to attend a Preparation for Practice course and undertake a formative assessment in Therapeutics and Pharmacology.

3. Progress Regulations

- 3.1 Candidates who fail one of the three compulsory modules in the first semester will, where possible within the constraints of the timetable, be provided with the opportunity to satisfactorily complete the module prior to the Final MB Part II Examinations.
- 3.2. Candidates who fail more than one module in the first semester will be called before School Student Progress Committee and will not be permitted to take Final MB Part II until these subjects have been successfully repeated.
- 3.3 Candidates who are unsuccessful at their repeat attempt will be called before the School Student Progress Committee and will normally be required to withdraw.
- 3.3. Candidates must pass all of the first semester modules and Final MB Part I examinations prior to taking Final MB Part II.
- 3.4. Final MB Part I written examinations will be taken in November/December with resit examinations in January. A Candidate who fails any subject of Final MB Part I written examinations on a second occasion will be called before the School Student Progress Committee and will normally be required to withdraw.
- 3.5. Final MB Part II clinical examinations will be taken in February with resit examinations in June. Candidates who fail any part of the Final MB Part II examinations after the second attempt will be called before the School Student Progress Committee and will normally be required to withdraw.
- 3.6. Candidates must successfully complete the Clinical Assistantship prior to graduation. A period of remedial study is available for candidates who have not met the appropriate standard by the end of the eleven week period. Candidates who fail to satisfactorily complete this module prior to graduation will be called before School Student Progress Committee and will normally be required to repeat Final Year. Candidates who fail to complete this module satisfactorily after a repeat year of study will be called before School Student Progress Committee and will normally be required to withdraw from the course.
- 3.7 Candidates must successfully complete a Personal and Professional Development Portfolio prior to graduation. A candidate who fails to achieve a satisfactory standard after two attempts will be called before School Student Progress Committee and may be required to withdraw.

Learning Outcomes: Knowledge and Understanding

On successful completion of a programme of study for the MB BCH BAO degree, a student should be able to describe the:

1. Scientific concepts underpinning normal structure and function of the body systems
2. Importance of molecular, biochemical and cellular mechanisms in the maintenance of homeostasis
3. Aetiology and mechanisms of disease
4. Causes of disease and the associated risk factors and disease prevention
5. Development of disease related changes to structure and function
6. Pharmacological principles of drug therapy, their efficacy in the treatment and relief of symptoms and associated adverse reactions
7. Principles of non-pharmacological treatments and their function in the management of illness and disability
8. Procedures for disease surveillance and screening, control of communicable diseases, organisation and structure of the NHS
9. Principles of healthcare planning, service prioritization, and health economics
10. Principles of demography and biological variability
11. Ethical and legal principles underpinning the practice of medicine
12. Disease prevention, assessment of health needs and health promotion
13. Development of age related change to structure and function
14. Principles of treatment and rehabilitation of patients with impairment, disability or handicap
15. Social and psychological factors that impact on relationships between the individual and family/partners, and others in society
16. Psychological consequences of illness for the patient, family and society.
17. Demonstrate an awareness of understanding the healthcare needs of a diverse multicultural population.

Teaching and Assessment Methods: Knowledge and Understanding

Teaching Methods:

- Seminars
- Lectures
- Case based tutorials
- E-learning resources
- Case presentations
- Role play
- Self-directed learning

Assessment Methods:

- Written examinations (short answer questions, multiple choice questions, extended matching items, modified essay, short essay)
- Essays
- Case reports
- Oral presentations
- Log books
- Portfolios

Learning Outcomes: Subject-specific Skills

On successful completion of the programme of study for the MB BCh BAO degree a student should be able to:

1. Perform clinical procedures routinely carried out by Foundation One Doctors
2. Recognise and carry out the initial treatment of the following emergency situations:
3. Cardiac arrest, anaphylactic shock and the unconscious patient
4. Obtain and record a comprehensive patient-centred history
5. Perform a relevant and systematic physical and mental state examination appropriate for the patient's age, gender, culture and the clinical environment
6. Define problems and reach a differential diagnosis
7. Select appropriate investigations and interpret the results
8. Make appropriate clinical decisions based on findings and evidence
9. Plan a patient management strategy ensuring that it is appropriate for the patient's age and social circumstances
10. Discuss a management plan with the patient and/relative/carer
11. Make appropriate referrals
12. Obtain informed consent from a patient
13. Demonstrate appropriate listening skills
14. Provide concise jargon free explanations to patients, carers and other members of the health care team
15. Negotiation and mediation skills
16. Demonstrate the skills necessary to provide feedback on performance and deliver a teaching session

Teaching and Assessment Methods: Subject-specific Skills

Teaching Methods:

- Demonstrations
- E-learning resources
- Teaching videos
- Simulation
- Role Play
- Clinical attachments located in hospital wards, out-patient clinics, day procedure and primary care
- Self directed learning

Assessment Methods:

- Objective Structured Clinical Examinations
- Case presentations

Learning Outcomes: Cognitive Skills

On successful completion of the programme of study for the MB BCh BAO degree, a student should be able to:

1. Demonstrate the ability to solve basic clinical problems
2. Recognise the signs and symptoms of commonly presenting illnesses and diseases

Teaching and Assessment Methods: Cognitive Skills

Teaching Methods:

- Lectures
- Case based tutorials
- Case presentations
- E-learning resources
- Teaching videos
- Simulation
- Clinical attachments
- Self directed learning

Assessment Methods:

- Objective Structured Clinical Examinations
- Case presentations

Learning Outcomes: Transferable Skills

On successful completion of the programme of study for the MB BCH BAO degree, a student should be able to:

1. Demonstrate effective oral and written communication skills including the presentation of reflective and scientific information
2. Use information technology in particular the recording of information and data retrieval
3. Apply scientific research principles and audit
4. Problem solving and critical analysis of information
5. Work effectively as a team member
6. Manage time effectively and prioritize tasks
7. Develop own knowledge and skills in clinical medicine, and contribute to the development of others, through active participation in teamwork and group learning opportunities.

Teaching and Assessment Methods: Transferable Skills

Teaching Methods:

- Tutorials
- Seminars
- Demonstrations
- Self Directed Learning

Assessment Methods:

- Oral presentations
- Group and individual projects
- Essays
- Dissertations
- Poster presentations
- Debates
- Microteaching
- Portfolios

Date of Last Revision: 17.05.11

CONFIDENTIAL

**REPORT OF THE VISIT TO QUEEN'S UNIVERSITY OF BELFAST
FACULTY OF MEDICINE**

27-28 November 1995

We should like to express our thanks to the Dean of Medicine, the Postgraduate Dean and all those who spent time organising the visit programme and discussing the undergraduate curriculum and the pre-registration year with us.

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Introduction

1. This visit was undertaken as part of the programme of informal, non-statutory, visits to medical schools designed to monitor progress towards the implementation of the recommendations contained in *Tomorrow's Doctors*, issued at the end of 1993. The implementation of the Recommendations on General Clinical Training, issued in 1992, was also considered during the visit.
2. The visiting team was led by Professor George. The other members were Dr Appleyard, Professor Cohen and Dr Pearsall. All the visitors were members of the Education Committee (1994 - 1995).
3. The visit lasted two days. The first day was devoted to the undergraduate curriculum and the second day was concerned with the pre-registration house officer (PRHO) year, known in Northern Ireland as the junior house officer (JHO) year.
4. This report is in two parts. In the first part we consider the implementation of the recommendations in *Tomorrow's Doctors*. In the second part we look at the implementation of the Recommendations on General Clinical Training.

Part 1: The Undergraduate Curriculum

Background information

5. The Faculty Office provided us with background information before the visit took place. As well as the completed 'database document', we were sent papers covering curriculum matters and student support. Further documents were given to us during the visit.

Form of the visit relating to the undergraduate curriculum

6. The day began with an overview from the senior staff of the Medical Faculty. We then met the Curriculum Project Management Group who explained the development of the curriculum. After we visited an exhibition mounted for us on innovations in the undergraduate curriculum, we talked to students from each year of the course.

The design of the new curriculum

7. The new curriculum, known as Curriculum 2000, is divided into four phases: Phase 1 (Years One and Two), Phase 2 (Year Three), Phase 3 (Year 4) and Phase 4 (Year 5). The Faculty follows the University system of semesters and modules. Phase 1 will be introduced in 1996. Phases 2 to 4 will evolve in parallel.

8. The Faculty developed the aims and objectives of the new curriculum with the aid of three groups of graduates (from 20 years ago, from 10 years ago and junior house officers (JHOs)).

9. The core course has been developed on a systems basis, with courses in areas, not specific to a particular system, such as pathology and child health, interwoven in the curriculum. Special study modules will be undertaken in all phases. Students will complete their written examinations at the end of Phase 3. Phase 4 will be devoted to special study modules and an apprenticeship scheme which will allow students to spend twenty weeks with JHOs on the wards in preparation for their own JHO year. An overview of the new curriculum can be found at Annex A.

10. In Phase 1, students will be expected to assimilate a basic, core knowledge of normal human structure and function, common problems of dysfunction related to body systems and the psychological and social consequences of medical problems. They are also expected to develop the appropriate skills to equip them to begin to function as 'active learners'. These skills will include data acquisition and processing skills, epidemiological and statistical methods and group work and presentation skills. Communication skills and clinical skills training will also begin in phase 1. Students are attached to a family in the first year and have to write a report on their experiences.

11. Phase 2 will be driven by students' clinical experiences. Students will rotate through a series of clinical attachments which will provide opportunities for the study of abnormal structure and function of body systems. Disease processes will be investigated in greater depth than in Phase 1. Therapeutics and ethical considerations will be considered. Clinical science teaching will complement clinical experience.

12. In Phase 3 clinical experience will be gained through specialty attachments supplemented by attachments to specialties with a pan-system perspective such as general practice and accident and emergency medicine.

13. In Phase 4 students will have the opportunity to participate in a six-week overseas elective and to carry out a clinical research project, as well as the 20-weeks experience with JHOs mentioned in paragraph 10 above. Attachments will, as far as possible, be tailored to individual students' needs. Workshops and seminars will cover topics relating to working in the Health Service and the legal constraints on medical practice.

General Conclusions

14. The Medical Faculty is developing a new style curriculum, building on what they see as the best elements of the current course, introducing more problem-based teaching and drawing on the themes set out in *Tomorrow's*

Doctors. In paragraphs 17 - 25, we have highlighted areas of good practice, as well as a few areas which might benefit from further attention.

Response to the recommendations

15. The Medical Faculty's response to each of the recommendations in *Tomorrow's Doctors* is summarised in the chart below:

Recommendation	Response	Source
1. The burden of factual information imposed on students in undergraduate medical curricula should be substantially reduced.	Formal contact time has been reduced by almost one third. The core curriculum will constitute no more than three quarters of curricular time. Overlaps in the curriculum are being identified and rationalised.	Database Document (section 3.2) Senior Staff Curriculum Project Management Group

Recommendation	Response	Source
2. Learning through curiosity, the exploration of knowledge, and the critical evaluation of evidence should be promoted and should ensure a capacity for self-education; the undergraduate course should be seen as the first stage in the continuum of medical education that extends throughout professional life.	During Phase 1, students will be introduced to skills and methodologies which will equip them to become 'active learners'. Special study modules (SSMs) are introduced in Phase 1. Earlier SSMs involve strong direction from staff but the self-directed learning aspect will increase with time. Students will have access to an electronic learning diary on which to record their experience against the aims and objectives of the various modules. Study guides are being produced which include self-assessment opportunities and group or individual projects. There is already a course on critical reading and students have open access to a computer centre. Able students have the opportunity to do an intercalated degree.	Database Document (sections 6.1 and 6.3) New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group Medical Students

Recommendation	Response	Source
3. Attitudes of mind and of behaviour that befit a doctor should be inculcated, and should imbue the new graduate with attributes appropriate to his/her future responsibilities to patients, colleagues and society in general.	Overall attitudinal objectives have been set for the course. However, staff acknowledge that this is a difficult area to address which needs further development. Students receive instruction in holistic patient management and have a week long course in Ethics. Attitudes are also covered in the 'Medicine and Society' Course. The Joint fourth year course in general practice, mental health and geriatrics covers attitudes as do the clinical skills objectives.	Database Document (section 11.4) New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group Medical Students
4. The essential skills required by the graduate at the beginning of the pre-registration year must be acquired under supervision and proficiency in these skills must be rigorously assessed.	The competencies required of the JHO have been drawn up. Students will be introduced to clinical skills early in the course. These will be developed steadily. Students will have finished the core by the end of Phase 3 and Phase 4 will be entirely devoted to clinical work in which the core knowledge, skills and attitudes will be applied.	New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group

Recommendation	Response	Source
5. A 'core curriculum' encompassing the essential knowledge and skills and the appropriate attitudes to be acquired at the time of graduation should be defined.	The core curriculum has been defined and will constitute no more than three quarters of curricular time. Overlaps in the curriculum are being identified and rationalised. All core material will be encountered in the first four years (see Recommendation 4 on the previous page). The aims and objectives of the course together with a summary of the content of each of the four phases can be found at Annex B.	Database Document (section 3.2) New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group
6. The 'core curriculum' should be augmented by a series of 'special study modules' which allow students to study in depth areas of particular interest to them, that provide them with insights into the scientific method and the discipline of research, and that engender an approach to medicine that is questioning and self-critical.	Special study modules are introduced from the beginning of the course and will form 25% of the overall programme. They will be timetabled, taught and of a high intellectual standard. Students will be able to choose one topic from eight offered in each case (see Annex C for examples). Special study modules in the early part of the course will contain more taught elements with some project work but the major project work will occur in Phases 2-4.	Database Document (section 3.2) New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group

Recommendation	Response	Source
7. The 'core curriculum' should be system-based, its component parts being the combined responsibility of basic scientists and clinicians integrating their contributions to a common purpose, thus eliminating the rigid pre-clinical/clinical divide and the exclusive departmentally based course.	The core curriculum has been designed as a system-based course. The order in which the systems will be taught has been defined. Topics such as pathology, microbiology and therapeutics will be linked to the systems as they are taught. However, the Faculty staff are concerned to emphasise the treatment of the patient as a whole and are finding ways of ensuring that the system-based course does not endanger that philosophy. The Faculty has a high proportion of medically qualified teachers of sciences basic to medicine and is keen to build on this by involving them in integrated teaching during the predominantly clinical years. Students are introduced to clinical settings from the beginning of the course through the Family Attachment scheme when they are attached to a family with a long-term health problem for the first year of the course.	Database Document (section 3.1) New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group

Recommendation	Response	Source
8. There should be emphasis throughout the course on communication skills and the other essentials of basic clinical method.	Communication skills are introduced in the first year in the introductory week and through the family attachment, where they constitute a large part of the aims of the attachment. There are two sessions on interviewing skills in the introduction to clinical skills course. The 'Joint' Course (mentioned at Recommendation 3 above) devotes considerable time to communication skills, particularly in areas such as bereavement counselling. The Faculty has drawn up very detailed objectives for students in communication skills.	New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group Medical Students
9. The theme of public health medicine should figure prominently in the curriculum, encompassing health promotion and illness prevention, assessment and targeting of population needs, and awareness of environmental and social factors in disease.	Public Health will be introduced early in the course and linked to the system-based teaching. There will be a further public health course in the fourth year and this will be assessed as part of the clinical attachment. A course outline including detailed aims and objectives has been drawn up.	Database Document (section 3.1) New Medical Undergraduate Curriculum (Draft Document) Senior Staff Curriculum Project Management Group

Recommendation	Response	Source
10. Clinical teaching should adapt to changing patterns of health care and should provide experience of primary care and of community medical services as well as of hospital based services.	The Faculty hopes that 40% of the introductory clinical course will take place in primary care. Sixteen GPs have been recruited and will be taught how to teach clinical skills to students. Some hospital teaching will take place in outpatients. Multicultural education is covered in the 'Medicine and Society' course.	Database Document (section 3.3) New Medical Undergraduate Curriculum (Draft Document) Senior Staff

Recommendation	Response	Source
11. Learning systems should be informed by modern educational theory and should draw on the wide range of technological resources available; medical schools should be prepared to share these resources to their mutual advantage.	Two lecturers in medical education have been recruited. A wide range of educational methods are used. An open access computer centre is available and a number of CAL packages are being developed including the electronic diary (mentioned at Recommendation 2 above). As the majority of students are not computer literate a computer course will be introduced early in the course. Study guides which include self-assessment questions and project work are being prepared. A clinical skills laboratory is being developed.	Database Document (section 6.1) Senior Staff Curriculum Project Management Group

Recommendation	Response	Source
12. Systems of assessment should be adapted to the new style curriculum, should encourage appropriate learning skills and should reduce emphasis on the uncritical acquisition of facts.	A wide range of assessment methods is used including observed long cases (which address communication skills), Objective Structured Clinical Examinations (particularly liked by the students as feedback was built in to the OSCE), modified essay questions and log books. The assessment system will be adapted so that there is increasing emphasis on continuous and end of course assessment. The Faculty intends to make 40% of the assessment formative and 60% summative. They acknowledge that attitudes are difficult to assess.	Database Document (section 11) Senior Staff Curriculum Project Management Group Medical Students
13. The design, implementation and continuing review of curricula demand the establishment of effective supervisory structures with interdisciplinary membership and adequate representation of junior staff and students.	The supervisory structure is described at Annex D. The Faculty Curriculum Policy Committee includes representatives from the students, junior doctors and consultants from the major teaching hospitals as well as representatives from dentistry and nursing.	Senior Staff

16. Other matters raised during the first day of the visit are summarised below:

Student Support	Students are all allocated a personal tutor for the course. The success of this system depends largely on the tutor concerned. New students are linked to a second year student on arrival. First year students are issued with a Faculty Handbook, which tells students how they can get help on a number of issues, as well as with a handbook written by a student on the course which covers the first week, new forms of learning, academic facilities, time management, welfare and social societies.	Database Document (section 10) Senior Staff Curriculum Project Management Group Medical Students

Feedback to Students	Students are given feedback at the OSCE which they appreciate. Otherwise they must obtain their marks from the Faculty Office. The Faculty Tutorial Scheme is intended to provide feedback on all assessments and professional examinations at regular intervals throughout the curriculum. However, the students reported that any further feedback depended on the tutor and was, therefore, somewhat random.	Database Document (section 11) Senior Staff Curriculum Project Management Group Medical Students
Staff Development	The Faculty runs workshops on a variety of topics such as assessment methods, curriculum design and development, factors that influence student learning, how to design and deliver a lecture, presentation skills and small group teaching. There has been a good uptake. The Dean said that he foresaw a time when only those who had been on courses would be allowed to teach. Programmes for teachers in peripheral hospitals were in the process of being organised.	Database Document (section 8) Senior Staff Curriculum Project Management Group

Quality Control	Students are asked to comment on the course and their views are taken on board. One senior member of staff visits each group of students at the peripheral hospitals. The medical educationalists observe the teaching of students in order to monitor quality. Sub-committees of the education committees for the pre-clinical and clinical schools meet regularly to review the quality of the teaching and assessment programmes. The Faculty has an Audit Officer	Database Document (section 6.2) Senior Staff Curriculum Project Management Group Medical Students

Areas of good practice

17. *Objectives of course:* The objectives of the course have been clearly defined in terms of attitudes, skills and knowledge.

18. *Teaching methods:* The Faculty has developed a number of innovative student-centred teaching methods and courses. Examples include the electronic diary, the critical reading course and study guides which include individual and group project work.

19. *Early clinical contact:* Students are attached to a family during their first year of the course. A booklet on the attachment gives them clear guidance about what is expected of them and they are able to discuss the family with the family's GP.

20. *Teaching in the community:* The Faculty has taken on board the changing pattern of health care and plans have been made to move 40% of clinical teaching into the community and into outpatients.

21. *Assessment of clinical skills and communication skills:* The Faculty has designed a good method for assessing clinical skills through the OSCE, which includes feedback. The observed long case examination is also a sound method of testing communication skills, particularly history taking.

22. *Joint Course:* The Joint Course in General Practice, Geriatric Medicine and Mental Health is to be commended for its coverage of communication skills such as breaking bad news and counselling, teamwork and leadership skills and health promotion.

Areas for further consideration

23. *Feedback to students:* Although there is a Faculty Tutorial Scheme in place to provide feedback, the students clearly feel that they do not have enough guidance on how they are progressing. We suggest that the students' concerns in this area should be explored with them.

24. *Assessing attitudes:* We recognise that this is the most difficult area to assess but would like further thought to be given to how the Faculty will address this.

25. *Overall assessment scheme:* We think that a good start has been made in devising an assessment scheme which mirrors the integrated nature of the course but perceive that the details of the scheme have to be developed.

Part II: General Clinical Training

Background Information

26. We received the Database Document and a range of other documents, including a survey of pre-registration posts.

Form of the visit relating to general clinical training

27. We met members of the Pre-registration Committee, the Dean of Medicine and the Postgraduate Dean. We also met educational supervisors from hospitals with pre-registration house officer posts. In Belfast, educational supervisors fulfil the role of clinical tutor and there is one per hospital. House officers also have supervising consultants for each post but we did not meet them. In the afternoon we talked to junior and senior house officers from a variety of hospitals associated with the Medical Faculty.

Organisation of the pre-registration house officer year

28. The Dean of Medicine has responsibility for all matters related to the pre-registration year within the University. He chairs the Pre-registration Committee. The Postgraduate Dean holds 50% of the budget and is employed as the Chief Executive of the Northern Ireland Council for Postgraduate Medical and Dental Education (which reports to the Department of Health and Social Services and is responsible for co-ordinating postgraduate education and training in Northern Ireland).

29. The Pre-registration Committee deals, on behalf of the University, with all matters concerning the pre-registration year, including the approval of hospitals, the recognition of posts, the monitoring of posts and the appointment of educational supervisors. It comprises the Professor of Medicine and the Professor of Surgery as well as the Dean of Medicine and the Postgraduate Dean. There are two additional members and two co-opted members. An Educational Supervisors' Committee reports to it and educational supervisors have an annual meeting with the Pre-registration Committee.

30. Pre-registration house officer posts are found in both teaching hospitals and peripheral hospitals. There are 173 JHO posts for 140 graduates from the university. The extra posts are filled by graduates from Northern Ireland who trained on the mainland or by graduates from Southern Ireland.

General conclusions

31. We note that there are significant problems in relation to general clinical training, as is the case for many other universities. However, the house officers we met said that they enjoyed their work. In paragraphs 33 - 40, we have

highlighted some areas of good practice and areas for further consideration.

Response to topics for exploration

32. The Medical School's response to the topics for exploration is summarised in the chart below:

Topic for Exploration	Response	Source
Aims and Objectives of JHO year	The aims and objectives of the JHO year are to experience medical practice under close supervision in order to consolidate the knowledge, skills and attitudes learned on the undergraduate course. The emphasis should be on education as experience alone is not sufficient.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors

Topic for Exploration	Response	Source
JHO Posts	JHOs remain in the same hospital for the year. The JHOs said that they would like a system which involved working in a teaching hospital for half the year and in a peripheral hospital for the other half. Rotations vary. In some hospitals JHOs do 6 months' general surgery and 6 months' general medicine. In others they do 5 10-week rotations (general medicine and general surgery and linked specialties). There are also 3 x 4 month rotations (general medicine, general surgery and one specialty in either medicine or surgery). There are no posts in general practice, paediatrics or obstetrics and gynaecology. Hospitals wishing to have a post approved must send a detailed description of the post and the related educational activities. They must also state how the new post would affect the educational content of the other posts. A team from the university only visits the hospital if there are queries. The university is attempting to reduce posts involving partial shifts. Posts are checked formally by the Pre-Registration Committee every 5 years. Informal visits by 2 retired consultants (co-opted onto the pre-registration committee) will now take place more frequently, particularly where problems have been encountered. Each hospital holds a fair in the September before the JHO year so students can consider which posts they would like to apply for.	Dean and Postgraduate Dean Pre-Registration Committee

Topic for Exploration	Response	Source
JHO Posts contd	In October of each year, posts are advertised and a UCAS-type application system is put in place. Each student chooses three hospitals and the application form is sent to the hospital of first choice. If it rejects the the candidate, the form is sent to the hospital of second choice. Each hospital has its own selection procedure but interviews are all held in the same week.	
Feedback from JHOs on Posts	Questionnaires are sent to JHOs in June of the JHO year. There is a 50% rate of return. The low return rate may be caused by the JHOs' fear that they will be identified if they make critical comments and that this will affect their future careers. The completed questionnaires are analysed and problems raised are investigated.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers
Transition from Medical Student to JHO	Phase 4 of the new curriculum will involve a 20-week clinical apprenticeship with JHOs so that students can assimilate the day-to-day life of a JHO. All hospitals have specific induction programmes lasting one day or spread over the first few weeks. These offer practical advice about the hospital and half a day shadowing the outgoing JHO.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers

Topic for Exploration	Response	Source
Educational Supervision	Students have one educational supervisor for the year, but have a different supervising consultant for each firm. There is no formal training for educational supervisors. Educational supervisors have regular meetings with the JHOs but this system does not offer sufficient feedback to the JHO in every case. The JHOs said that they would welcome more meetings to discuss progress. In the larger hospitals, the educational supervisors chair committees to discuss JHO problems and the JHOs have a committee of their own. The hospital educational supervisors have authority over the supervising consultants and should act if the supervising consultant fails to fulfil his or her educational responsibilities. JHOs said they were required to cover up to 80 beds at night, sometimes in wards with which they were unfamiliar. Senior staff were always in the hospital but JHOs were often reluctant to call them. Although ward clerks and phlebotomists were employed, JHOs were regularly undertaking tasks of no educational value.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers

Topic for Exploration	Response	Source
Formal Educational Sessions	Not all hospitals have weekly formal educational sessions for house officers, including one major teaching hospital. Where these sessions did take place, the JHOs could not always find the time to attend and rarely left their bleeps with colleagues. In the larger teaching hospitals there were opportunities to attend general educational meetings and postgraduate meetings.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers
Monitoring Progress of JHOs	JHOs are expected to complete log books although they found these of variable usefulness. The educational supervisors monitor the progress of JHOs and complete an appraisal form mid-way and at the end of each 6-month period. The university keeps statistical records of the career paths of their graduates.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers
Careers Advice	The Northern Ireland Council for Postgraduate Medical and Dental Education produces a booklet setting out the requirements for different specialties and this is given to all JHOs. A careers symposium is held one evening. Attendance is low and a survey showed that the reasons for non-attendance rarely involved professional commitments. The JHOs normally obtained careers advice informally from educational supervisors but SHOs were offered formal appointments to discuss their careers.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers

Topic for Exploration	Response	Source
Support for JHOs	The quality of support for JHOs varied from hospital to hospital. Hospitals with partial shift systems made it particularly difficult for JHOs to feel part of a team. Relationships with nurses were often poor. Pastoral care is the responsibility of educational supervisors.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers
Accommodation and Catering	Accommodation is inspected and generally of a high standard. There are no catering facilities at night. Microwaves are often available, however. Security is a major problem in some hospitals where JHOs have to walk in isolated parts of the hospital alone at night. Security guards are employed but not always available immediately.	Dean and Postgraduate Dean Pre-Registration Committee Educational Supervisors Junior and Senior House Officers

Areas of good practice

33. *Applications for posts:* we commend the application system for posts, which gives students the chance to choose posts in an informed manner and ensures that all students are given an equal chance of success.

34. *Informal monitoring of posts:* we were impressed by the plans for the informal monitoring of posts which we think will assist in solving problems at an early stage.

35. *Northern Ireland Council handbook:* we thought that this booklet, which sets out the requirements for all the specialties, was very useful to JHOs in planning their career paths.

Areas for further consideration

36. *Transition from medical student:* we applaud the clinical attachments proposed for Phase 4 of the new curriculum. However, we suggest that the Faculty considers adapting the 20 week period to allow time for students to shadow the JHO they will replace and/or for students to undertake paid

assistantships.

37. *Formal educational sessions:* we were surprised to find that some hospitals did not have regular formal educational sessions specifically for JHOs and would suggest that the university asks hospitals with this policy to consider introducing such sessions.

38. *Educational supervisors:* the assistance given to JHOs by educational supervisors appeared variable. We would like to see more consistency in their approach to the post, both in relation to the supervision of JHOs and to supervising consultants.

39. *Night cover:* Some JHOs reported that they were in charge of up to 80 beds at night, often in wards with which they were unfamiliar. We would like consideration to be given to how this situation could be alleviated.

40. *Security:* JHOs felt vulnerable in hospital grounds and corridors when called out at night. Although security guards are available, there is often a delay before they arrive. We would like consideration to be given to alternative solutions to this problem such as providing beds within the hospital for staff on call.

Overall Conclusion

41. We were impressed with the thought which is going into devising the new integrated undergraduate curriculum and particularly liked the plans for introducing more teaching in the community.

42. We are aware that, as in most universities, there are many problems with the JHO year. However, we were pleased to note that the JHOs we met were actually enjoying their work and had not thought of giving up medicine as a career.

Recommendations

43. We recommend that:

Undergraduate Curriculum

- a. The School ensures that students at all levels are given sufficient feedback on their performance.
- b. Further thought be given to the assessment of attitudes and to the details of the overall assessment scheme.

General Clinical Training

- c. Thought be given first to introducing a shadowing scheme for final year students where the students follow the JHO they are to replace, and second to offering student assistantships.
- d. House Officers should not be given responsibilities beyond their ability and experience, and should be encouraged to seek help from more senior staff within the hospital if this should be necessary.
- e. Consideration be given to introducing regular training sessions for educational supervisors.
- f. Regular formal, bleep-free, educational sessions be introduced at all hospitals specifically for JHOs.
- g. Consideration be given to alternative solutions to the problem of ensuring the security of JHOs at night, such as providing a bed in the hospital building.

Curriculum 2000 (Overview)

Annex A

Years	Phases	Time	Content
1&2	1	60 wks	Cells & Tissues Introductory Clinical Systems Course 1 Special Study Module (3)
3	2	38 wks	Systems Course 2 Clinical / Pathology, Micro. & Therapeutics Special Study Modules (2)
4	3	36 wks	Emergency Medicine Child Health Obstet., Gynae. & STD Mental & Public Health Geriatric Med & General Practice General Medicine & Surgery
5	4	36 wks	Elective (SSM 1) Clinical Project (SSM 2) Apprenticeship Seminars & Study Days

Phases of the Programme

The five year undergraduate course will be divided into four consecutive phases. Each phase must be completed satisfactorily before progression to a subsequent phase.

Phase 1 (years 1 and 2)

This phase encompasses the study of normal human structure and function at the molecular and cellular levels and through the study of body systems. Common problems of dysfunction related to body systems will be presented to develop understanding of general pathological processes. The psychological and social consequences of medical problems will also be explored.

During this phase students will be introduced to appropriate skills and methodologies which will equip them to begin to function as 'active learners'. These skills will include data acquisition and processing skills, epidemiological and statistical methods, group work and presentation skills.

Communication skills training and clinical skills training will also begin in phase 1. Students will have the opportunity to attend hospital and community clinical settings from the beginning of the course.

Phase 2 (year 3)

This phase of the course will be driven by students' clinical experiences. Students will rotate through a series of clinical attachments which will provide opportunities for the study of abnormal structure and function of body systems. Clinical science teaching will complement clinical experiences. The epidemiology, aetiology, and natural history of disease processes will be investigated in greater depth than in phase 1. The principles of therapeutics will be included in a consideration of the medical management of specific disease processes. The ethical implications of medical

interventions will be considered and the psychological and social consequences both of disease and medical intervention will be reviewed.

In the special studies programme students will undertake an individual (or small group) project in an area of interest to them. This will consolidate their understanding of research methods and will demonstrate their self-directed study skills.

Phase 3 (year 4)

During this year students will continue to gain clinical experience through speciality attachments. Attachments will be to specialities with a pan-system perspective such as General Practice and Accident and Emergency Medicine. These attachments will require students to demonstrate an integration of the knowledge and skills previously built up in the systems phases.

Phase 4 (year 5)

There will be the opportunity to participate in an overseas elective and to carry out a clinical research project as part of this phase. During the final part of the undergraduate course there will be increased opportunity to gain experience in General Practice settings. There will also be opportunities to 'work shadow' pre-registration house officers. Students will, as far as possible, be able to tailor their attachments to suit their particular needs and interests. A number of topics relating to working in the Health Service and the legal restraints on medical practice will be presented in the form of workshops and seminars.

Special Study Modules

Semester 2

- (1) The Pharmacology of Plants
- (2) History of Medicine
- (3) Women and Medicine
- (4) Medicine in Art
- (5) Environmental Law
- (6) Anthropology of Ireland
- (7) Psychology of Music
- (8) Mood, Emotion & Cognition

Semester 3 &4

- (1) Biomedical electron microscopy
- (2) MRI and CT scanning
- (3) Sports Medicine
- (4) Ultrasound applied to Medicine
- (5) Introductory molecular biology
- (6) Drugs and society
- (7) Measurement of Drug Action
- (8) Medical Informatics

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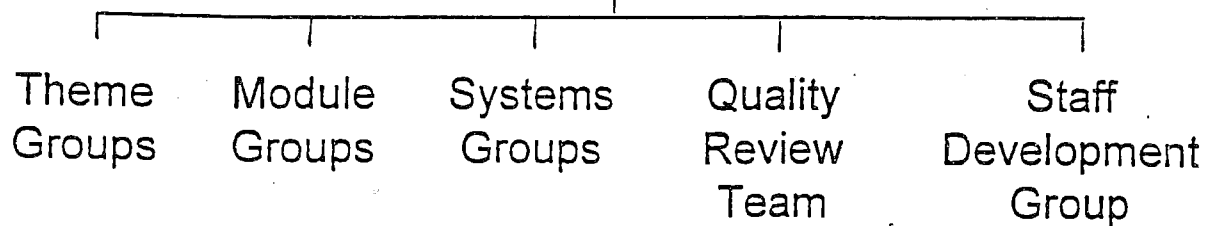
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MEDICAL EDUCATION UNIT



Honorary Director
(Prof W Thompson)



Lecturers in Medical Education
(Ms M Boohan)
(Mrs H McNally)

Report of visit to Queen's University Belfast Faculty of Medicine and Health Sciences

27-28 October 1998

We should like to express our thanks to the Dean of the Faculty of Medicine and Health Sciences, the Postgraduate Dean and all those who spent time organising the visit programme and discussing the undergraduate curriculum and the pre-registration year with us.

Introduction

1. Our visit had a dual purpose:

- a. to review progress made by the Faculty towards implementing the recommendations in *Tomorrow's Doctors* since our last visit in 1995, with a focus on the predominantly clinical years of the course;
- b. to monitor progress towards implementing our guidance on the pre-registration year, as set out in *The New Doctor*.

2. Our team was led by Professor Sir Charles George, Chairman of the Education Committee. The other members were Professor James Drife and Professor David Hatch, both members of the Education Committee.

3. Our visit lasted two days, with the first day devoted to the undergraduate curriculum and the second day to the arrangements made for general clinical training. On both days we worked in collaboration with a team from the Quality Assurance Agency (QAA) which was simultaneously conducting a review of medicine at the University. We have provided information about the nature of this collaborative working where this is pertinent.

4. Our report is in two parts, reflecting the nature of our visit. In part one we look at the further progress made towards implementing the recommendations in *Tomorrow's Doctors*. We also discuss the Faculty's plans for future development. Where appropriate, we refer to the principal recommendations in *Tomorrow's Doctors* in the section headings. In part two of our report we consider the arrangements for general clinical training in the light of our guidance in *The New Doctor*.

5. In both parts of our report we have identified areas of good practice and issues where further progress is required.

Part 1: The undergraduate curriculum

Background information

6. Prior to our visit the Faculty provided us with a completed questionnaire and other supporting information including the Self Assessment Document prepared for the QAA reviewers. The Faculty also made available to the QAA copies of the questionnaire which it had compiled for us.

Form of the visit relating to undergraduate medicine

7. The day began with a meeting with key staff. These included members of the Medical Education Unit (MEU), which is charged with the task of overseeing the development and implementation of curricular initiatives. Later we met members of the Undergraduate Medical Education Committee (UMEC), the body responsible for endorsing the overall strategy and recommendations of the MEU. We also had a lengthy and enjoyable dialogue with a large group of students representing each year of the curriculum.

8. We were joined at all these meetings by members of the QAA team, who wished to pursue issues relevant to their consideration of undergraduate medical education.

9. During the day we were also able to view some of the excellent clinical facilities available to students and to study some of the documentation prepared by the Faculty for the QAA visitors.

The current curriculum

Summary of recent curricular developments

10. When we last visited in November 1995, the Faculty was just completing its latest and most radical curricular review, with the intention of introducing a new curriculum in September 1996. On our return visit we were able to see the tremendous changes which had been made over the past three years. The new curriculum has been swiftly and successfully introduced so that from September 1998, all students were following the new course. This has been achieved by rolling out years one and three of the new curriculum simultaneously.

11. Among the many features of the new course, we noted in particular the following points:

- didactic teaching has been substantially reduced and has been replaced by self-directed learning activities
- case-based learning is now used for both basic science and clinical teaching
- clinical and basic science subjects have been integrated vertically and horizontally throughout the programme
- the curriculum has been organised and delivered as a systems course with a "first pass" through the systems of the body in years one and two, and a "second pass" through these in year three
- approximately 25% of curricular time has been allocated to Special Study Modules (SSMs)
- basic clinical skills training begins in year one
- students are introduced to basic clinical examination and communication skills in a Clinical Skills Education Centre
- community-based clinical settings play an important role in the teaching of clinical skills
- during year three the teaching of laboratory sciences has been integrated with the teaching of clinical subjects in the peripheral hospitals
- students complete the core curriculum by the end of year four
- during their final year students spend four weeks "shadowing" the PRHO in the unit in which they will be employed following graduation. They will carry out under supervision a range of tasks commonly performed by preregistration house officers.

12. We were greatly impressed by the changes which had been made since our last visit and the positive way in which these had been managed.

Structure and content of the curriculum

13. An overview of the curriculum, describing its structure and content, is at Annex A.

14. The curriculum is delivered in five consecutive phases.

15. Phase one accounts only for the first semester of year one but introduces students to the scientific basis of medicine whilst allowing them the opportunity to acquire self-directed learning skills. Communication skills training begins during this phase, as does the Early Medical Contact Programme, during which students pay regular visits to a family under the supervision of a general practitioner. One or more members of the family will be suffering from a chronic illness or disability.

16. Extending throughout the second semester of year one and all of year two, phase two encompasses the study of the normal structure and function of each body system. Clinical skills training begins and students complete three SSMs during this phase.

17. In phase three (year three) students study each of the body systems again, but this time the focus

is on abnormal structure and function. Clinical skills are further developed, and two more SSMS are undertaken.

18. During phase four (year four) students gain further clinical experience in a series of specialty attachments. By the end of this phase the core curriculum will have been completed.

19. At the beginning of the autumn semester of phase five (year five) students sit their final written examination. Following their six week overseas elective, students must submit a project on an aspect of clinical medicine which interests them. A series of elective clinical attachments is undertaken in the spring semester but we were told that students must spend at least two weeks attached to both a medical and a surgical unit. In addition to the four-week PRHO "shadowing", the Faculty arranges a number of study days during the spring semester. The topics chosen are pertinent to the work of a PRHO and include:

- Medico-legal aspects of medical practice
- Stress management
- HIV and other infectious diseases
- Professional practice of medicine
- Use of the laboratory and common problems in electrolyte and acid base management
- Prescribing

20. Students must complete each phase satisfactorily in order to progress successfully through the course.

21. The following themes have also been integrated throughout the teaching programme:

- Clinical method, practical skills and practical care
- Communication skills
- Human biology
- Human disease
- Man in Society
- The public health
- Handicap, disability and rehabilitation
- Finding out: research and experimentation
- Medical ethics
- Clinical Pharmacology and Therapeutics

22. The Faculty has appointed co-ordinators to monitor the integration of the themes of communication skills, the public health, handicap, disability and rehabilitation, medical ethics and clinical pharmacology and therapeutics in the curriculum.

23. We were pleased to note that the curriculum had been based on the recommendations in *Tomorrow's Doctors* and that clear aims and objectives had been set for each component of the course.

The management of change (Principal Recommendation 13)

Supervisory structures

24. A diagram, prepared by the Faculty, outlining the way in which the undergraduate curriculum is managed, is included at Annex B.

25. Effective supervisory structures are essential to drive through curricular change. We were satisfied that the Faculty had robust mechanisms in place to oversee the curriculum and to monitor the quality of student learning opportunities. These are known to both staff and students.

26. Overall responsibility for the curriculum is vested in the Undergraduate Medical Education

Committee (UMEC), under the chairmanship of the Dean of Faculty. The Medical Education Unit (MEU) has the task of ensuring the implementation of UMEC's policies. Specifically the MEU's remit is to:

- plan and co-ordinate delivery of the undergraduate curriculum
- conduct an annual review of the curriculum in the light of staff and student feedback and to report to UMEC
- to undertake research in medical education
- to arrange for staff development in medical education.

27. A co-ordinator has been appointed for each phase of the course and an organiser for each course module. We were told that co-ordinators and module organisers meet regularly. As a result of DHSS funding the Faculty has recently been able to appoint a SUMDE (Supplement for Undergraduate Medical and Dental Education - equivalent to SIFT or ACT) Co-ordinator to monitor the quality of undergraduate teaching in hospitals.

The contribution of students and junior doctors

28. One of the most agreeable and interesting features of our visit was the time we spent with the students. They were an articulate and highly motivated group who were clearly enjoying and benefiting from their studies in Belfast. We believe that the Faculty has acted with great wisdom in seeking and taking account of student input in planning, implementing and managing change.

29. In addition to having a voice on UMEC and the Joint Consultative Committees, students have, with junior doctors, been able to influence curricular development.

30. At an early point in its curricular review, the Faculty conducted a survey of recent graduates, seeking information about the value, quality and relevance of the education and training they had received at Queen's University. The outcome of these enquiries, and input from student representation on the Faculty Curriculum Policy Committee which was in being at that time, helped to inform certain aspects of curricular development. We understand that the Faculty also took pains regularly to brief students who would be directly affected by any proposed change.

31. Students currently complete evaluation forms on their experience as they progress through the course. The student perception is that the Faculty is responsive to criticism and proposals for change, and takes action where necessary.

Staff development

32. Both University and Faculty are committed to promoting staff development and training.

33. In addition to running a series of courses on a range of educational topics for staff, the University Staff Training and Development Unit requires all newly appointed academic staff to attend its induction course. Every encouragement is also given to staff to complete the recently established Certificate and Masters programme on Education for the Health Professions. We were told that staff are asked to attend at least two educational events in every five years and that financial support was made available to those wishing to attend courses on a wide range education, management and professional development themes organised by bodies allied to medical education and training in the UK and overseas. Some members of staff are developing their learning from these courses by initiating research projects in medical teaching methods and we learned that two members of staff have been awarded Harvard Macy Scholarships.

34. Within the Faculty the Medical Education Unit has conducted an extensive staff development training programme related to teaching within the new curriculum. This was attended by 80% of staff, including NHS colleagues. We understand that all tutors involved in the delivery of self-directed learning are required to attend a one-day workshop on experiential learning.

35. We were left in no doubt of the importance attached to teaching within the Faculty, having learned of recent promotions of both medical and dental staff to professorial posts predominantly on the basis of teaching ability.

Aspects of the core curriculum (Principal Recommendations 1,2,5 and 7)

Defining the core curriculum

36. We were impressed by the positive changes which have stemmed from redefinition of the core curriculum. The introduction of a system-based teaching programme, integrated both horizontally and vertically, has facilitated the removal of much redundant material from the course. Formal teaching time has been reduced by one-third throughout the curriculum and we were told that there are now only twenty-seven weeks of teaching in year one. Currently there are no more than five lectures in any one week. This has freed up valuable time for small group teaching and has permitted further development of communication skills teaching as well as the introduction of Special Study Module (SSM) programme.

37. The core curriculum itself is described in the study guides for each component of the course. Integrated across disciplines, they define the knowledge, skills and attitudinal objectives to be met on completion of each stage of the programme. We were assured that curricular review remains very much an ongoing process, with new study guides being produced annually following discussion by teaching quality groups and staff/student consultative committees.

Integration of clinical teaching and basic science

38. During the second semester of year one and throughout years two and three the curriculum is taught as a systems course. During their first study of each of the body systems in years one and two students are introduced to the basic principles of pathology, biochemistry, medical genetics and pharmacology relevant to each body system. This integration continues in year three, where clinical science is integrated with clinical teaching. We were told that in the later stages of the course basic scientists contribute to teaching (for example in obstetrics and child health in year four) and scientific aspects of medicine are taught to students as part of their clinical education.

39. Clinical skills teaching is integrated with teaching on the systems course and begins during phase two, in February of year one.

Learning through curiosity

40. In describing the philosophy underpinning the curriculum, the Faculty has stipulated two main aims: "to foster the development of self-directed learning skills and to encourage learning through curiosity." A variety of methods is used to realise these goals.

41. Study guides, stating the objectives of each component of the course as well as methods of assessment and relevant reading lists, encourage students to take responsibility for their own learning. Participation in student-led tutorials, Special Study Modules (SSMs) and the use of clinical scenarios during facilitated tutorials are designed to stimulate student curiosity as is the preparation and presentation of essays and project reports. In years three and four students are expected to research the material for their case presentations/reports. Lectures are used sparingly, with the object of introducing students to key concepts and principles. Staff are encouraged to make lectures interactive, where possible, to discourage passive learning. Students are expected to broaden their learning base through private study, tutorial discussions, laboratory work and clinical experience.

42. Students in good standing have the opportunity to intercalate a year of study leading to the award of a Bachelor of Science degree on completion of either phase two or three of the curriculum.

43. The subjects offered at the end of phase two are:

- anatomy
- biochemistry
- medical genetics
- physiology

In addition to the above subjects students completing phase three may study for a Bachelor of science degree in microbiology or therapeutics and pharmacology.

44. We were disappointed to learn that recently there had been a decrease in the number of students taking up this option. We were told that this might have been attributable to student concern about rejoining a new curriculum but we also acknowledge that during the simultaneous rolling out of years one and three of the new curriculum opportunities for intercalation have necessarily been constricted. As all students have been following the new curriculum since September 1998 we would hope that the take-up rate will now increase. However, some students with whom we spoke considered that their opportunities to undertake intercalated degrees were still limited. We would encourage the Faculty to promote this option more vigorously as we believe that it provides students with the opportunity to develop generic skills not readily acquired in the standard five-year course.

Special Study Modules (Principal Recommendation 6)

45. Students must undertake five SSMs during phases two and three and are required to prepare and present a project in phase five on an aspect of clinical medicine which is of interest to them. The SSM programme is delivered primarily as a taught course, with a co-ordinator assigned to each SSM to provide support and two general co-ordinators who oversee the programme for phases two and three respectively. Students completing the clinical project are allocated a supervisor.

46. In addition to the maximum of six hours' contact time assigned each week to the SSM programme, students are expected to dedicate forty-eight hours per semester to private study for this part of the course.

47. Each semester students have the opportunity to select from a choice of six to eight modules. A list of SSMs offered during phases two and three can be found at Annex C. Students complete a form indicating their first, second and third choices of module from those available. In the event of a module being oversubscribed all students enter a "lottery". Those who are unsuccessful are considered for their second or third choice and, we were told, arrangements are made to ensure that they will be allocated their preferred SSM in the subsequent semester. However, some students with whom we spoke complained that they had not received their first choice of SSM in consecutive semesters. The Faculty has acknowledged the problem and we were assured that steps had already been taken to prevent its recurrence. Students are now weighted according to their first, second and third choice in the Faculty computer database.

48. The number of students admitted to each SSM varies between ten and fifty, depending on the resources available.

49. The Faculty expects that on completion of the SSM programme students will have enhanced their skills in information-retrieval and evaluation, oral and written presentation, teamworking and self-directed learning. To ensure that these expectations are met, end-of-semester examinations will no longer be used to assess competence in SSMs. From January 1999 assessment will be formative, through project work, essays and literature evaluations. The assessment methods and objectives of each SSM are contained in the study guides but common to all students is the requirement that they undertake and satisfactorily complete the entire SSM programme if they wish to proceed to the next phase of the course. Separate criteria have been established for assessment of the preparation and presentation of the seven-thousand word clinical project in phase five, using a five point rating scale.

50. Credits are allocated to students on the basis of outstanding performance in SSMs and each year the Faculty awards a prize to the student who has amassed most credits. We were also informed that the SSM in medical informatics had been awarded the 1997 National Informatics Prize sponsored by the NHS Education Programme.

51. Whilst we were pleased to note the high profile accorded to SSMs in the new curriculum, we discovered that it was theoretically possible for students to complete the SSM programme by confining their study to one particular subject area. We therefore invite the Faculty to review its requirements, ensuring that students are obliged to study in breadth as well as depth.

Delivery of curriculum (Principal Recommendation 11)

Teaching methods

52. Teaching is delivered and learning is encouraged through a variety of methods. These are chosen on the bases of their appropriateness for the subject material, class size and learning objectives. Teaching methods include:

- small group work
- tutorials
- laboratory practicals
- simulated clinical skills training
- early clinical contact in the community
- clinical attachments in hospitals and primary care settings
- computer assisted learning (CAL)
- lectures and discussion classes
- SSMs and project work
- work-shadowing of preregistration house officers (PRHOs)

53. As an example of innovation during the clinical years we commend the perioperative and emergency medicine programme in phase four. By the end of their eight-week attachment to the accident and emergency wards students are expected to be able to:

- demonstrate competence in advanced cardiopulmonary resuscitation
- recognise a seriously ill patient and demonstrate an understanding of the principles of initial management
- demonstrate an understanding of the principles of fracture management and healing
- interpret biochemical, haematological, radiological and other information
- demonstrate an understanding of the physiological and pharmacological principles of good perioperative care.

Computing facilities

54. We were told that there are in excess of 500 personal computers (PCs) for all students of the University, housed in eight Open Access Centres (OAC) which provide a standard working environment at all locations. Two OACs are located within the medical school itself. Although students believe the number of PCs available to be sufficient, some concerns were voiced about the speed and reliability of the system.

55. The well-equipped Clinical Skills Education Centre has its own CD-ROM network, as has the anatomy museum.

56. That aside the Faculty regards its Computer Assisted Learning (CAL) facilities as limited and is anxious to develop these further. Currently CAL is used as part of the anatomy teaching programme in years one and two and to teach musculoskeletal medicine in year three. A CAL Project Officer has been

appointed to integrate and extend CAL facilities and to support the creation of Electronic Study Guides. We also understand that an ambitious project has recently commenced with the object of integrating all IT-based learning resources with curricular themes and topics, using IT and Internet technology. The first phase of this project will provide all students with core information on each module for the entire undergraduate curriculum through the medical web pages.

Other learning resources

57. In 1996 the Clinical Skills Education Centre (CSEC) was founded in a converted ward in Belfast City Hospital. This facility is managed by a senior lecturer, with three nurses employed on a part-time basis as teaching assistants. The CSEC is used extensively for basic clinical skills and communication skills training and for Objective Structured Clinical Examinations (OSCEs).

58. In addition to the Medical Library on the Royal Victoria Hospital site and the Biomedical Library located in Belfast City Hospital, students have access to library facilities in each of the peripheral teaching hospitals. We learned that the Faculty had recently secured funding to build a new library on the Royal Victoria Hospital site. Work on this is expected to begin in spring 1999.

59. The Faculty is justifiably proud of the fact that it uses all thirty-four hospitals within the province to provide clinical teaching. This is particularly evident in year three of the curriculum where clinical training is integrated with the teaching of laboratory medicine. In this way the Faculty has been able to deliver a systems-based course by means of dispersed teaching facilities. A video link has been established between the medical school and Altnagelvin Hospital, Londonderry enabling students to receive core teaching outside Belfast and yet maintain contact with academic departments. This project is currently being piloted but if successful the plan is to extend the video link to other major sites such as Antrim and Craigavon Hospitals.

Keeping up to date with educational theory and practice

60. The Faculty is conscious of the need for all its staff to keep up to date with current educational theory and practice. The MEU is a key player in this area, running a series of seminars on various aspects of medical education. As mentioned earlier in the report, staff are encouraged to attend these educational events and others organised by both national and international medical education networks and professional associations.

Changing patterns of health care (Principal Recommendation 10)

61. The Queen's curriculum allows students ample experience of primary care and of community medical services.

62. Twenty-four general practices within the Greater Belfast area are used to provide places for students undertaking the thirty hours Early Medical Contact Programme in phases one and two. Currently half of the Introductory Clinical Skills Course in phase two is delivered in a primary care setting and we learned that the Faculty hope eventually to offer the whole of this course in this environment. In phase four students complete a four-week attachment in Primary Care, the first week being spent in the Department of General Practice and the other three in one of the ninety approved general practices across the province. The Ageing and Health attachment is taught in collaboration with the Primary Care attachment and is also of four weeks' duration. During this attachment students work as part of a clinical team and, as such, are expected to examine patients, attend ward rounds and meetings, and to accompany consultants on domiciliary assessment visits. As part of the eight-week Health of Children attachment, also in phase four, students spend some time in the community child health service. Teaching in outpatient and community facilities as well as ward-based teaching, is used to deliver this programme. We learned that in phase five students have the opportunity to undertake an elective in primary care and that this discipline is formally assessed in the final written and clinical

examinations.

63. Staff told us that the shortened stay of patients in hospitals now means that clinical teaching in hospitals is no longer the instructive tool it used to be. For this, and other reasons, the Faculty has moved more teaching into primary care and indeed hopes to increase this amount still further.

64. The efforts which the Faculty has made to ensure that students gain experience in general practice and of community medical services are commendable. We would, however, suggest that it gives some consideration to using hospital-based day case procedures to enhance the learning experience of its students.

The goals of undergraduate education - attitudes, skill and knowledge

Attitudes (Principal Recommendation 3)

65. The Faculty has defined the aims and objectives of the undergraduate programme in terms of knowledge, skills and attitudes. This definition is attached at Annex D.

66. The Science, Society and Medicine module in phase one introduces students to the sociological, ethical and scientific aspects of medical practice. The delivery of this module includes a weekly keynote lecture, seminars and tutorials. The first lecture is given by the Dean, who acquaints students with the principles underpinning *Good Medical Practice*. The issues raised are subsequently discussed by students during tutorials. We were pleased to see *Duties of a Doctor* and *Good Medical Practice* being used in this way, to provide a focus for legal and ethical matters. We were also told that some of the Special Study Days in phase five are given over to consideration of the issues raised in *Duties of a Doctor* and to offering advice on how to manage stress at work.

67. Other topics covered in the Science, Society and Medicine module include: the role of the GMC, ethical principles of medical practice (truth telling, confidentiality and consent), the structure and delivery of health care in the UK, alternative medicine, the role of social, cultural and psychological factors in the experience of health and illness and the ethics of medical research. The Faculty has appointed a theme leader to ensure that medical ethics continues to play an important role throughout the course particularly during phase four where it is a feature of the specialty attachments.

68. Students are given an early opportunity to meet and to develop appropriate attitudes towards the chronically sick and their carers during the Early Medical Contact Programme in phases one and two. Clinical skills training also begins early in the course, during the second semester of year one, and extends throughout year two. Students' attitudes to patients and to clinical activities are carefully monitored and assessed during this early clinical skills programme and they receive guidance on how appropriate attitudes to patients are best inculcated.

69. During the primarily clinical years of the course students are taught by a wide range of clinical teachers in a variety of settings. The students with whom we spoke were aware of the importance of having good role models as teachers and clinicians and were easily able to identify those whom they considered were not adequately fulfilling this role. The Faculty has shown itself to be responsive to student comment and criticism and operates a rigorous and extensive feedback system for clinical teaching, with students completing course evaluation questionnaires at the end of each semester. It is often the junior medical staff who act as role models for students. Because at Queen's the vast majority of students are from Northern Ireland and the majority of junior medical staff are Queen's graduates, the Faculty believes that this provides a strong incentive for appropriate role modelling.

70. Following our visit in 1995 we suggested that the Faculty should give further thought to the assessment of attitudes in the undergraduate course. We believe that the Faculty has made a useful start in tackling this difficult task. Attitudes can be formatively assessed during the small-group

discussions which take place on a range of ethical issues during the Science, Society and Medicine module in phase one. Students must also complete two essays during this module. The first is assessed formatively with students receiving individual feedback on their work. The second essay is summatively assessed with the mark contributing to the final assessment score for the module. In phases two, three and four the Faculty makes extensive use of Objective Structured Clinical Examinations (OSCEs) to assess attitudes whilst in the final examinations this purpose is served both by setting Modified Essay Questions designed to elicit attitudinal responses and by observing the behaviour of students towards patients as they undertake their structured long case assessment.

Essential skills (Principal Recommendations 4 and 8)

Study skills

71. During phases one and two students receive experiential training in the acquisition of self-directed study skills which will allow them to develop the competencies required of effective active learners. These skills include the use of the library and information technology, essay writing and critical evaluation of literature. The SSM programme permits further development of self-directed learning skills, in particular information retrieval and evaluation. Regular assessments requiring problem-solving and decision-making ability as well as recall of factual information ensure that students continue to practise and hone their study skills throughout the course. The clinical project in the final year allows them the opportunity to deploy the data retrieval and analysis skills which they have acquired earlier in the course.

IT skills

72. Although in recent years the Faculty has found that most students are computer-literate on admission to medical school, it requires all students to complete a course on basic computing in one of the University's Open Access Computer centres as part of the Science, Society and Medicine module in phase one. The course comprises training in the use of Word, Excel and Electronic Mail. Students are required to construct and send an email message as a mark of their competence. It is Faculty policy that all written and project course work must be wordprocessed.

73. The Faculty also runs a highly successful SSM on Medical Informatics (see paragraph 50).

Communication skills

74. Communication skills training enjoys a high profile in the Queen's curriculum, and is integrated throughout the undergraduate programme. The Faculty has also appointed a theme leader to monitor its delivery.

75. The facilities in the Clinical Skills Education Centre are used for communication skills training in phases one and two, when students attend six workshops. These small group sessions are facilitated by specially trained staff and provide students with an opportunity to practise basic communication skills in a safe environment and to receive constructive feedback on performance. During phase one students also attend a lecture given by a member of staff from the Eastern Health and Social Services Council. The Council represents patients' interests and the lecture highlights the significance of effective communication in preventing problems arising in the doctor-patient relationship.

76. By the end of their phases one and two communications skills training the Faculty expects each student to be able to:

- describe the range of communication channels used by the doctor
- demonstrate an understanding of the importance of good communication skills in health care
- demonstrate proficiency in the following communication skills-
 - appropriate introduction to patients

history taking
explaining
use of open and closed questions

- demonstrate an understanding of the difficulties experienced by health care professionals when breaking bad news to patients
- discuss the problems associated with the consultation where more than one family member is present

77. Communication skills continues to be taught as a theme throughout the rest of the course, particularly in some of the later specialty attachments such as psychiatry, child health and care of the elderly. OSCEs are used to assess competence in communication skills on completion of these attachments.

78. The students with whom we spoke thought that communication skills training was well delivered and enjoyed due prominence in the curriculum.

Clinical skills

79. The Introductory Clinical Skills Course extends throughout phase two and is delivered partly in the Clinical Skills Education Centre and partly in one of the approved general practices in the Greater Belfast area, where students complete a clinical attachment. The focus is on the individual student and every effort is made to ensure that each is given the opportunity to learn and practise the basic clinical examination techniques relevant to each body system. Clinical and communication skills are assessed by an OSCE at the end of each semester during this phase. During subsequent phases of the course students' clinical skills training is specialty-based, with OSCEs again employed to assess competence. The curriculum has been deliberately constructed so that all core material is completed by the end of year four, leaving the final year free of theoretical teaching and allowing students to concentrate on developing their clinical skills in preparation for the preregistration house officer year.

Teamworking

80. The Queen's curriculum affords students ample opportunities to develop interprofessional team working skills as, apart from the SSM programmes, medical and dental students follow the same course in phases one and two. We learned that the medical school has recently secured the contract for preregistration nurse education in Northern Ireland. A Project Officer is soon to be appointed to develop a multidisciplinary education programme for students of medicine, dentistry and nursing.

81. Other opportunities for the acquisition of teamworking skills occur in the preparation and presentation of projects and other course work and in laboratory training. Students work in groups whilst undertaking their clinical attachments and some clinical specialties stipulate that course work must be completed and presented in groups or pairs.

Aspects of the knowledge base

Public health medicine (Principal Recommendation 9)

82. Although public health medicine is not taught as a distinct subject, issues associated with it such as health promotion, illness prevention and the environmental and social factors in health and disease are addressed in the Science, Society and Medicine module in phase one and by some of the clinical departments in the course of their teaching.

83. We consider that public health medicine should be accorded a higher profile than it currently enjoys in the curriculum. We suggest that thought be given to ways of integrating it more widely throughout the curriculum, and especially in the systems courses. Aware of this shortcoming, the Faculty has recently appointed a Professor of Public Health Medicine whom it has charged with this task.

Multicultural medicine/alternative medicine

84. Northern Ireland is not to any great extent a multicultural society and this has caused the Faculty difficulty in introducing multicultural medicine into the curriculum. We understand that currently the only opportunity for students to gain experience of the practice of medicine in other cultures is during their overseas electives. We were told that the Faculty is drawing up plans for incorporation of a multicultural medicine programme in the Queen's curriculum and we strongly support this initiative.

85. A discussion session on alternative medicine forms part of the Science, Society and Medicine module in phase one.

Assessment of the process and the product (Principal Recommendation 12)

The outcome of the course

86. The Faculty derives the overall goals and objectives of the course from those identified in *Tomorrow's Doctors*. As the aims and objectives of each stage of the course are set out in the excellent study guides students can gauge their progress against the objectives and attainments expected of them on completion of the course.

87. The Faculty believes, and we have no reason to dispute this, that the rigour of its assessment scheme allows only graduates who are fit for purpose to proceed to the preregistration year.

The scheme of assessment

88. When we visited in 1995 we commented favourably on the assessment scheme which the Faculty had devised but noted that details of the scheme had yet to be developed.

89. We were therefore pleased to find that an assessment policy document, setting out the Faculty's philosophy on assessment and describing the weighting of marks for each assessment had recently been produced. A copy is at Annex E. The paper also contains details of the Standard Grading System endorsed by the University for all assessments in the medical curriculum, with the exception of the criteria for assessment of the clinical project in phase five which is attached at Annex F. By way of additional background information, a copy of the Faculty's Regulations governing the admission of candidates to its examinations in medicine is enclosed at Annex G.

90. The assessment scheme is well publicised with details of each assessment appearing in the appropriate study guide. Certainly the students with whom we spoke had a clear understanding of the various assessment methods and the weighting of marks applied at different stages of the course.

91. Currently, the final written examinations are undertaken in September, at the very start of the final year. We were told that this arrangement had been made to allow students more time to focus on developing their clinical skills in preparation for the preregistration house officer year. A few students complained to us that this reorganisation of the Final year made for a summer heavy with revision. We are, however, making no suggestions for change to the current arrangements, which appeared to work well for other students.

92. The Faculty is to be commended for designing a scheme of assessment which reflects the integrated curriculum and matches the knowledge, skills and attitudinal objectives of the course. As such, it is consistent with the current thinking of the Education Committee.

Preparation for the preregistration year

93. The policy of completing all core material in the curriculum by the end of year four means that students can devote their time in the final year to refining the skills which they will need to function successfully as preregistration house officers. Final year students spend four weeks shadowing the

preregistration house officer in the unit in which they will be employed following graduation. Students are resident for the duration of this shadowing attachment and must perform a series of tasks routinely undertaken by a preregistration house officer. These tasks (for example, signing death certificates, coping with medical and surgical emergencies) are carried out under the supervision of a preregistration house officer or other junior medical staff. Most of these tasks are listed in a log diary (also known as the Student Doctor Log for Preregistration House Officer Workshadowing) which must be completed by the student on execution of each of the prescribed tasks. A brief description of the work undertaken to complete the task must be entered in the appropriate section of the diary, signed by the student and countersigned by the supervising member of staff. The diary must be completed to the satisfaction of the Medical Education Unit (MEU), which has responsibility for monitoring this component of the course. We understand that the diary is returned to the student by the MEU to keep as a personal and permanent record of achievement.

94. The feedback we received from preregistration house officers and junior medical staff suggested that they found the 'shadowing attachment' in year five to be invaluable preparation for their work as pre-registration house officers.

Other issues

Student support

95. The students whom we met spoke positively about the systems put in place to ensure they were well supported academically and personally. They particularly liked and took full advantage of the 'open door' policy operated by the Faculty, whereby students have direct access to academic, administrative and pastoral staff. This policy includes the Dean who will see any student on request.

96. New medical students have the benefit of two induction programmes on arrival at Queen's. The first is organised by the University during the week prior to the beginning of the first semester and takes in all new students to Queen's. The second is run by the Faculty over the first three days of the first semester and includes a formal welcome from the Dean, a supervised visit to one of the major teaching hospitals in Belfast and the completion of a first aid course. During this programme the 'parenting' scheme is introduced in which second year students befriend and look after new first year students. This scheme appeared to work successfully. The scheme was established at the instigation of the Belfast Medical Students Association in 1997, and is funded by the Faculty.

97. Each student is assigned to a medically qualified member of the academic staff who acts as a personal tutor, providing support, of a pastoral rather than an academic nature, throughout the course. We were told that this system had been successful in identifying and resolving many personal and academic difficulties. In cases where this has not proved possible, the Dean will invariably become involved, usually interviewing the student personally. The Faculty Office maintains and monitors the records of students at risk.

98. A range of measures is deployed to provide students with academic support. So that there is no sudden exposure to clinical work, this is introduced gradually to new students, primarily through the Early Medical Contact Programme in the first semester and the Introductory Clinical Skills Course in the second semester. The study guides contain detailed information about each aspect of the course whilst the Medical Education unit provides students with a focal point of contact for advice about the new curriculum. A consultant has been appointed in each hospital to act as a coordinator for each part of the course whom students can approach for information and advice.

99. We were told that students working in the community and in peripheral hospitals have established strong links with local clinicians who can provide support if this is required.

100. These measures allow the poorly performing students to be identified quickly and immediate

support to be given. We were told that students failing examinations in any part of the course are given individual attention. We were left with the overall impression that in the rare event of students requiring additional support, they knew where to look for, and were confident of finding this.

Feedback to students

101. After our visit in 1995 we passed on to the Faculty the students' concern that they did not receive sufficient guidance on how they were progressing throughout the course. In our view and, more importantly, that of the students, the Faculty has done much to allay this concern.

102. In July 1998 the Faculty published guidance setting out the standards to be achieved in the provision of feedback both for staff to students and for students to staff throughout the entire course. Its key aims are that feedback should:

- be regular, frequent and prompt
- accompany the return of students' assessed work
- be specifically related to defined course objectives and assessment criteria.

103. A copy of the Faculty's Guidance on Feedback in Education and Training is attached at Annex H.

104. The principles set out in this document appeared to be being observed. Students considered that generally the quality and immediacy of feedback had improved substantially. They commented in particular on the rapid feedback they received after the OSCE in general practice and the helpful progress reports they received half-way through some of the long clinical attachments, for example in obstetrics and gynaecology where their performance is formatively assessed at the mid-point and summatively assessed at the end of the eight week attachment. This contrasted very favourably with the tardiness of the feedback during some of the clinical attachments in the old, pre-1996 course. We learned that staff, too, are encouraged to take time out and evaluate collectively the quality of their teaching. This happens at the mid-point of phase one when module co-ordinators draw all the tutors together for a meeting to comment on how the course is proceeding and to identify and resolve any problems. We thought this was an excellent initiative.

105. Students also considered that they were kept well abreast of curricular developments and able to influence these if necessary. Using money provided from the Supplement for Undergraduate Medical and Dental Education (SUMDE) the Faculty is able to keep students and staff informed of the progress of the new curriculum by regularly printing and distributing a newsletter. Each section of the course is evaluated by student questionnaires, completed anonymously at the end of every module. This information is made available to the teaching and student body. Students are also well represented on the focus groups, which meet annually to address specific issues, and on the Phase Quality Assurance Committees (PQAC) which meet at least once a term to discuss problems related to the delivery or quality of the course. The minutes of PQAC meetings are posted on noticeboards and are available on the student website so students can see the outcome of issues which they have raised.

Quality control

106. The quality management structure of the curriculum is described in the diagram at Annex B.

107. The Teaching and Learning Committee (TLC) includes staff and students in its membership and has overall responsibility for monitoring the quality of teaching and learning in the Faculty. Overall responsibility for the curriculum is vested in the Undergraduate Medical Education Committee (UMEC), under the chairmanship of the Dean of Faculty Both the TLC and UMEC report to the College of Medicine and Health Science Board and are ultimately answerable to the central university structures.

108. External examiners play a key role in the quality assurance process, formally monitoring and reporting on methods and standards of assessment. Their reports are considered by the Phase Teaching

Committees and by the appropriate Examination Board, a statutory body that also reviews examination regulations and scrutinises results. Action on any recommendations or comments is reported to the Academic Council.

109. We understand that peer review of courses and modules has now been instituted and the Faculty hope in the future to develop further peer review of individual teaching.

110. Although Northern Ireland employers do not produce formal reports on the quality of graduates we were told that informal comments made by clinicians to academic colleagues indicate that they are very satisfied with the medical graduates of Queen's University. This confirmed our own experience when we spoke to employers.

Areas of good practice

111. *Supervisory structures:* We were satisfied that the Faculty had robust mechanisms in place to oversee the course and to monitor the quality of student teaching. We believe that the effectiveness of its supervisory structures has been a key factor in the Faculty's rapid and successful implementation of the new curriculum.

112. *Perioperative and emergency medicine:* We thought that this attachment was an innovative way of introducing students to a variety of patient conditions on the accident and emergency wards.

113. *Clinical Skills Education Centre:* This is an excellent, well-maintained resource which is used extensively for basic clinical skills and communication skills training.

114. *Liaison with peripheral hospitals:* We were impressed by the use which the Faculty makes of all hospitals in the province to provide clinical teaching.

115. *Attitudes:* We believe that the Faculty has made a useful start in tackling the very difficult task of assessing and influencing attitudes. We were particularly struck by the appreciation by students of the importance of having good role models as teachers and clinicians.

116. *Communication skills:* We commend the care taken to integrate the teaching of communication skills throughout the curriculum. It is perceived by students as being essential to their professional development.

117. *Study guides:* These have proved to be invaluable resources for students. Professionally designed, they describe the aims, objectives and assessment criteria for each component of the course.

118. *Assessment:* The Faculty are to be commended for devising a scheme of assessment which reflects the integrated curriculum and matches the knowledge, skills and attitudinal objectives of the course.

119. *Student support:* We congratulate the Faculty on the steps it has taken to provide academic and personal support for its students.

120. *Feedback to students:* We were pleased to note a substantial improvement in the quality and immediacy of feedback to students since our last visit in 1995. In particular we would compliment the Faculty on the provision of individual feedback on student performance midway through some of the long clinical attachments. We know that this is greatly valued by students.

Areas for further consideration

121. *Special Study Modules:* Whilst we were pleased to note the high profile accorded to SSMs in the new curriculum, we did discover that it was theoretically possible for students to complete the SSM programme by confining their study to one particular subject area. We would therefore invite the Faculty to review this matter so that students are required to study in breadth as well as depth.

122. On the matter of students complaining that they had not received their first choice of SSM in consecutive semesters, we have been assured that this difficulty has now been resolved. Students are now weighted accordingly to their choice of SSM in the Faculty's computer database.

123. *Intercalated degrees:* We were disappointed to learn that there had been a recent decrease in the number of students undertaking intercalated degrees, and would encourage the Faculty to promote this option more vigorously now that the new curriculum has been fully implemented.

124. *Computer facilities:* Although the student perception is that the number of personal computers is sufficient, there were some complaints about the speed and reliability of the system. The Faculty might wish to explore ways of improving the efficiency of the system.

125. *Changing patterns of healthcare:* The efforts which the Faculty has made to ensure that students gain experience in general practice and of community health services are commendable. We would, however, suggest that it gives some consideration to using hospital-based day case procedures to enhance the learning experience of its students. We believe that these procedures have particular value in enabling students to understand the concept of "patient care pathways".

126. *Public health medicine:* We consider that public health teaching should enjoy a higher profile in the curriculum and should be delivered in a more integrated way throughout the course. We understand that the Faculty is committed to raising the profile of this important discipline.

127. *Multicultural medicine:* We understand that the Faculty is exploring ways of increasing the preparation of its students for medical practice in a multicultural society. At present this aspect of the curriculum is under-represented for understandable reasons.

Conclusion

128. It soon became apparent to us that much had been achieved in the intervening three years since our last visit, culminating in the successful implementation of an integrated, systems-based, curriculum which all students are now following.

129. This is no mean achievement and we were therefore rather surprised that the Faculty did not seek to publicise the full extent of their success in the documentation sent to us prior to the visit. We shall display no such reticence. We congratulate the Faculty on all the hard work, commitment and imagination invested in developing and introducing so rapidly a new curriculum, based around the recommendations of *Tomorrow's Doctors*. In successfully managing this enormous change the Faculty is also to be commended for actively seeking and taking account of the views and comments of its students. We look forward to hearing about further progress in a year's time.

Part 2 : General Clinical Training

Background information

130. Prior to the visit we were provided with helpful background information about general clinical training within the province. This included a summary, reproduced at Annex I, showing the extent to which the recommendations in *The New Doctor* have been implemented.

Form of the visit relating to general clinical training

131. The day started with a meeting of the Pre-Registration Committee (PRC) which is the body responsible for overseeing all matters concerning the pre-registration year with the University. This was followed by an overview of general clinical training provided by the Dean and the Postgraduate Dean.

We also had discussions with several NHS trust chief executives and medical directors. After lunch we talked with a group of educational supervisors from a variety of hospitals within the province, and met with PRHOs and SHOs from a number of locations and specialties. We finished by feeding back our general impressions of the day to the Pre-Registration Committee.

132. We were joined for some of these meetings by colleagues from the QAA team.

Organisation and management of the PRHO year

133. There are currently 11 NHS trusts involved in the training of PRHOs within the deanery.

Supervisory structures

134. We were told that the Northern Ireland Council for Postgraduate Medical and Dental Education (NICPMDE), whose brief is to provide advice to the Department of Health and Social Services on issues relating to postgraduate medical and dental education, is responsible for the overall management of the pre-registration year within the province. The Pre-Registration Committee (PRC), supported by the Dean and the Postgraduate Dean, takes responsibility for general clinical training on behalf of the University.

135. The main functions of the PRC are to:

- oversee all University-related matters concerning the PRHO year
- inspect and approve all PRHO posts in the province
- approve non-Northern Ireland posts offered to Queen's University, Belfast graduates
- address and resolve all education and training problems concerning PRHOs
- ensure that hospitals observe the GMC recommendations on general clinical training and the DHSS New Deal regarding junior doctors' hours

136. Meeting generally at three monthly intervals, the PRC reports to the Faculty of Medicine, the Department of Health and Social Services and NICPMDE.

137. We were disappointed to learn that there is no PRHO on the membership of the PRC.

138. We were interested to learn that the Committee had co-opted two retired honorary professors to its membership. They make frequent informal visits as a team to hospitals discussing current problems and possible solutions with PRHOs and consultants, and reporting back regularly to the PRC. We were told that this informal approach had engendered more positive feedback from PRHOs than the more formal visits mounted by the PRC.

The approval of posts

139. The PRC organises visits to every hospital involved in the training of PRHOs on a five year rolling programme. The criteria for approval of individual posts are based on those set out in *The New Doctor*.

140. The opinions of PRHOs are sought by the PRC at each formal inspection visit and during the more frequent, informal visits made by the two co-opted members of the Committee. Until recently a confidential questionnaire was sent annually to all PRHOs seeking their detailed and frank views on the quality of their training but this practice had now ceased due to a low response rate (average 30% return) and the lack of resources necessary to follow up the comments made. We understand that work is currently in progress to develop a new questionnaire. The deanery hopes to improve the response rate by inviting PRHOs to return this questionnaire before completion of their training is officially certified.

Communicating the aims and objectives of the PRHO year

141. A copy of *The New Doctor* is given to all PRHOs at the start of their general clinical training so that

they are aware of the aims and objectives of the PRHO year.

142. There is an educational supervisor appointed to each hospital engaged in the training of PRHOs. The Faculty sees the educational supervisor as providing a key channel of communication between the PRC, PRHOs and NHS trusts. Regular meetings of educational supervisors are organised at which education and training for PRHOs are discussed. Whilst we commend this initiative, we were disappointed to learn that some educational supervisors did not communicate all relevant information to PRHOs and trusts as expected.

143. Sessions with the supervising consultant, designed to provide feedback on PRHO performance are scheduled to take place at the end of each attachment, but practice appears to vary from post to post. Some hospitals have designed a feedback form giving both the consultant's and the PRHO's views on the trainee's performance in post. However, most PRHOs receive little or no feedback on completion of an attachment. The Faculty is keen to address this problem but is awaiting the issue of a national PRHO assessment form, currently being developed by the Conference of Postgraduate Medical Deans. We would wish to see trainees receiving structured feedback on their performance early on as well as at the end of their attachments, so satisfactory progress can be confirmed. Regular meetings with educational supervisors also allow any deficiencies to be quickly identified and addressed.

The selection of PRHOs

144. The Faculty operates a centralised PRHO matching scheme to facilitate the appointment of PRHOs but we understand that responsibility for this will soon be assumed by the NICPMDE. The matching scheme comprises a three-stage exercise, whereby candidates apply to three hospitals in Northern Ireland in order of preference. If unsuccessful at the first stage of interviews, candidates proceed to their second choice provided there are still posts available at that hospital. There is flexibility built into the scheme so that candidates can amend their choice of hospital at this point. The process continues until all PRHOs are appointed or all posts are filled. Graduates from other medical schools than Queen's have an equal opportunity of appointment to a PRHO post in Northern Ireland under current employment and equal opportunities legislation.

145. In the event of a final year student being unable to secure a PRHO post locally, we were told that the Faculty would contact other deaneries throughout the UK to assist the student in finding a post. If this proved unsuccessful an approach could be made to the DHSS to support the creation of a supernumerary post. PRHOs intending to complete their general clinical training outside the UK must approach the deanery to obtain prior approval of the proposed training programme.

Monitoring the quality of PRHO posts

146. Within the deanery two types of visit are undertaken to assess the quality of general clinical training:

- a. Formal inspections mounted by the PRC.
- b. Informal visits carried out by the two co-opted members of the PRC.

147. Each hospital involved in the training of PRHOs receives at least one inspection visit from the PRC every five years, and more frequently if the need arises. Prior to each visit the hospital receives notification of the key areas which the PRC will be specifically addressing together with a synopsis of the recommendations in *The New Doctor*.

148. In the course of the visit the PRC team meets with PRHOs in post, supervising consultants, the educational supervisor for the hospital, and the Director of Clinical Services before having a final discussion session with the educational supervisor, the Director of Clinical Services and the Chief Executive of the Trust. This session allows the PRC to provide feedback on its findings and to explore with the Trust solutions to problems which have been identified.

149. After each visit the PRC sends a report to the hospital formally conveying its conclusions and recommendations. The hospital is given an agreed timescale to respond to the recommendations and is required to report back to the PRC on the action which it has taken.

150. In addition to the formal inspection programmes, the PRC makes excellent use of the skills and experience of two retired professors of medicine and surgery whom it has co-opted to the Committee. They make frequent visits to hospitals, particularly if concerns have been expressed to the PRC by educational supervisors or PRHOs. We commend this initiative, and offer it as a model for consideration by other medical schools.

151. It seemed to us that effective systems had been established to ensure that all PRHO posts conform to an appropriate standard. We were told that approval had been withdrawn from five posts in the last three years and that other posts, deemed to be too specialised for general clinical training, had been reallocated elsewhere within trusts.

Components of a high quality PRHO post

Induction

152. Each hospital administers its own formal induction programme following a format prescribed by the University. These programmes usually take place on the first Tuesday in August and are generally regarded as helpful by PRHOs.

153. We have already referred in paragraphs 93 and 94 of our report to the four week attachment when final year students shadow the PRHO in the unit where they will be employed following graduation. The Faculty considers that this initiative has been successful in meeting its objective of preparing final year students for the demands of the pre-registration year. Having spoken to PRHOs and educational supervisors, we would strongly support this view.

Educational opportunities

154. The Faculty believes that it has successfully raised the educational profile of PRHOs as far as trusts are concerned so that clinical directors now perceive PRHOs as trainees rather than as merely providing a service. All hospitals involved in PRHO training run formal educational programmes. These are usually arranged by the educational supervisor though it is not uncommon for PRHOs to choose topics for the programme and to lead educational sessions themselves. These programmes may be delivered in a variety of ways (e.g. formal teaching sessions, ward rounds, audit meetings) and their educational content is subject to regular review by the PRC.

155. We were told in our discussions with PRHOs that the aim of the deanery is to provide one hour's formal learning and two hours experiential learning per week for all PRHOs, but in practice this was variable. We were, nevertheless, pleased to learn that one hospital dedicated four hours per week to assisting PRHOs in the development of their clinical skills.

156. The majority of PRHOs were appreciative of these educational opportunities but many were unable to take advantage of these due to pressure of work. The PRC has proposed various strategies in an attempt to improve attendance at educational sessions, but these have met with limited success. Hospitals have been encouraged to identify bleep-free time and some have instituted an arrangement whereby SHOs hold bleeps for PRHOs. We were told that in other hospitals, though they had been granted time off to attend educational sessions, PRHOs were reluctant to leave the ward if there was no medical cover available. Trusts have also been asked to schedule these sessions at lunchtime - with the inducement of lunch included.

157. Some hospitals keep a register of PRHO attendance at educational sessions, which is regularly

reviewed. If there is evidence of a particularly poor record of attendance, the reasons for this will be discussed at a one-to-one session between the educational supervisor and the individual in question.

158. One of the main issues addressed during PRC visits is whether PRHOs are still carrying out repetitive and menial tasks of little or no educational value (e.g. routinely taking bloods, finding beds, or portering specimens or drugs). In our discussions with the Chief Executives of Trusts there was a general acknowledgement of the difficulty of recruiting a sufficient number of skilled nurses to carry out such duties. Daisy Hill Hospital had produced an innovative solution to this problem by appointing six healthcare workers to assist nurses with their duties. This, in turn, freed up time to allow nurses to relieve PRHOs of some of the tasks assigned to them. Funding had been found to allow all six healthcare workers to undertake thirteen weeks of professional training to enable them to assist the nursing staff in this way. We commend this imaginative use of resources.

159. We thought that the PRC and the deanery had worked hard since our last visit to improve the educational experience of the PRHO year. The PRHOs appreciated the efforts which had been made in this respect but many still considered that they were routinely required to carry out inappropriate tasks. They particularly welcomed the introduction of a phlebotomy service, (though this was not available at weekends) and the appointment of bed managers and nurse-practitioners. However, some areas of difficulty were still evident. Although access to IT facilities was generally good we heard that at one hospital PRHOs could not access patients' records at the weekend as the network was shut down over this period. PRHOs also related to us the problems which they still encountered at many hospitals in obtaining the results of radiological investigations.

Educational supervision

160. Under the terms of a formal contract drawn up between the Trust and the Northern Ireland Council for Postgraduate Medical and Dental Education (NICPMDE) an educational supervisor is employed at each hospital engaged in PRHO training. The appointment of each educational supervisor is recognised by the PRC.

161. Educational supervisors are encouraged to attend training courses organised by various postgraduate bodies including the National Association of Clinical Tutors. We learned that NICPMDE is currently running a 'Teaching the Teacher' training programme. This comprises a two day structured workshop focusing on the acquisition of basic teaching, assessment and appraisal skills. The first programme is specifically aimed at educational supervisors.

162. Should a problem with an educational supervisor be reported by a PRHO or another member of staff, the PRC will intervene, interviewing those concerned in an attempt to resolve the difficulty. In general PRHOs appeared reasonably satisfied with their educational supervisors though some lapses in communication were apparent. We were very disappointed to learn that in the relatively small group of PRHOs with whom we spoke, two had not met their educational supervisor and one did not know their educational supervisor's name.

Clinical training and supervision

163. The PRC uses its visits programme to ensure that core generic clinical training, as defined in *The New Doctor*, is provided. We were told that if a clinical supervisor is not performing satisfactorily, the PRC issues a preliminary warning to the trust. If this does not result in an improvement in performance, recognition is withdrawn from posts under the clinical supervisor's supervision.

164. PRHOs were positive about the clinical supervision they received. Those whom we met had never been placed in a position where they were unable to seek direct support or guidance from a senior colleague.

Monitoring the progress of PRHOs

165. We were told that PRHO performance is continuously monitored, and if any deficiencies are noted these will be discussed with the PRHO by the educational supervisor and remedial action agreed. Depending on the nature of the deficiency this may involve referral to an occupational health doctor for counselling or, in the case of a problem with interpersonal skills, specific retraining will be arranged. The term of service for any PRHO undertaking a lengthy period of retraining is likely to be extended to take account of this period.

166. If more serious problems are identified, such as unsatisfactory clinical performance, the educational supervisor and/or the clinical tutor will notify the Dean or Postgraduate Dean. The PRHO in question will be interviewed by the Dean who generally consults the PRC for advice and guidance. Disciplinary matters are usually considered first under the internal procedures of individual hospitals before they are reported to the PRC.

167. Each hospital is responsible for monitoring the sickness record of every PRHO it employs. As a general rule, the matter is referred to the PRC for consideration in the event of a PRHO being absent from post for more than a month due to ill health. Should absence continue for a period in excess of six weeks, it is recommended that the term of pre-registration training be extended.

Professional development and personal well-being

Careers advice

168. Each December a Pre-Registration Careers Symposium is organised by the NICPMDE where PRHOs meet specialty advisers across the various disciplines. These symposia are perceived to be useful by PRHOs and are generally well supported, with a 75% attendance rate reported last year.

169. The PRC encourages clinical tutors, educational supervisors and supervising consultants to provide personal and careers advice on request. These sources are used variably by PRHOs with some preferring to seek informal careers advice from other trainees and junior doctors.

170. The NICPMDE also produces an annual careers booklet. At the time of our visit the 1998/1999 version had just been printed and we can confirm that it is an excellent guide, offering detailed careers information to PRHOs. Unfortunately it had not yet been circulated to any of the PRHOs with whom we spoke. We are sure that steps will soon be taken to remedy this.

Support for PRHOs

171. The PRHOs see the induction programme as a useful orientation exercise, when they meet their educational supervisor and clinical tutor and are informed of the various support facilities available to them. Educational supervisors are expected to offer both pastoral and careers advice but we learned that the experience of PRHOs was variable. Often PRHOs will approach the Faculty Office or NICPMDE directly for advice and information.

172. We were told that support services vary between different Trusts but the larger hospitals all employ an occupational health doctor to provide counselling and support for PRHOs.

173. In terms of general support for PRHOs we noted that at some hospitals regular monthly meetings took place involving nurses, junior doctors and consultants. We commend this initiative which facilitates discussion of various work issues in an open and informal manner.

Accommodation, catering and personal safety

174. The standard of accommodation is monitored on the PRC inspection visits and by means of confidential questionnaires completed by PRHOs. Any unsatisfactory comments or findings are taken up with the Chief Executive and Medical Director of the Trust. Our attention was drawn to current issues

relating to unsatisfactory accommodation, on-call facilities and personal safety which, we were assured by the deanery, are being actively addressed. Catering is considered to be a problem in hospitals throughout Northern Ireland, and the serving of hot food after 6pm is acknowledged to be a rarity. We were assured that steps have been taken to provide alternative solutions to catering problems where possible, and microwave ovens and vending machines have been installed in many hospitals.

175. Personal safety, rather than accommodation or catering issues, appeared to give PRHOs more grounds for concern. Although action taken by the PRC meant that Belfast City Hospital now provides a safer working environment for PRHOs, this was not perceived to be the case for the Royal Victoria Infirmary.

176. Dealing with aggressive, intoxicated and/or psychiatrically disturbed patients in casualty was highlighted as a problem affecting many PRHOs. We were told that an excellent protocol for coping with and caring for aggressive, intoxicated and disturbed patients is in use at the Mater Hospital and we suggest that this could be implemented in all Northern Ireland hospitals.

Contractual matters

177. The hours worked by all junior medical staff, and especially PRHOs, are monitored by the Department of Health Task Force. The leader of the Task Force is invited to PRC meetings in order to exchange information, whilst local implementation groups have been established within each trust to ensure that each post conforms with the requirements of The New Deal.

178. We were informed that NICPMDE intends to hold a workshop early in 1999 with the aim of raising awareness of and highlighting specific issues surrounding The New Deal for consideration by local implementation groups.

Plans for further development

179. The NICPMDE is currently bidding for four additional house officer posts beginning in August 1999 and a further four in August 2000. We learned that the bid to fund two additional posts for August 1998 was unsuccessful, but the Royal Group of Hospitals Trust found funding for these posts from its own reserves.

180. The deanery is intent on increasing the complement of PRHO posts throughout the province in the next few years by at least ten posts to take account of recent increases in the undergraduate intake and welcome decreases in the numbers of students leaving the course. The deanery anticipates that over the next four years the number of graduates will exceed the number of PRHO posts available in Northern Ireland.

181. The deanery regrets that there are no PRHO posts in general practice in Northern Ireland, as experience of primary care would enhance the educational content of the PRHO year. PRHO rotations into general practice would also relieve some of the resource pressures on trusts.

182. We understand that there are sufficient numbers of GP trainers in the province to accommodate any reasonable increase in the amount of teaching which this initiative would require. We hope that resource or legislative issues do not prove a long-term barrier to the provision of PRHO training in general practice in Northern Ireland.

Areas of good practice

183. *Formal and informal monitoring of posts:* It seemed to us that effective formal systems had been established to ensure that all PRHO posts conform to an appropriate standard.

184. In addition to the formal inspection programmes, the PRC makes good use of the skills and experience of two retired professors of medicine and surgery whom it has co-opted to the Committee.

They make frequent informal visits to hospitals, particularly if concerns have been expressed to the PRC by educational supervisors or PRHOs. We commend this initiative, and offer it as a model for consideration by other medical schools.

185. *Preparation for the PRHO year:* The feedback we received from pre-registration house officers and junior medical staff suggested that they found the 'shadowing attachment' in year five to be invaluable preparation for their work as pre-registration house officers.

186. *Support for PRHOs:* In terms of general support for PRHOs we noted that at some hospitals regular monthly meetings took place involving nurses, junior doctors and consultants. We commend this initiative which facilitated discussion of various work issues in an open and informal manner.

187. *Helping to relieve PRHOs of inappropriate duties:* In our discussions with the Chief Executives of Trusts there was a general acknowledgment of the difficulty of recruiting a sufficient number of skilled nurses. Daisy Hill Hospital had produced an innovative solution to this problem by appointing six healthcare workers to assist nurses with their duties so that, in turn, they had more time to relieve PRHOs of some of the tasks assigned to them. We commend this imaginative use of resources.

188. *Clinical supervision:* PRHOs were positive about the clinical supervision they received and knew who to contact if they needed more clinical support or advice.

Areas for further consideration

189. *Educational sessions:* Although all hospitals now arrange formal educational programmes, PRHO attendance has been variable, largely, we were told, due to pressure of work and a reluctance to leave the ward without medical cover. Trusts may wish to consider how this situation could be alleviated so that trainees are able to attend scheduled educational sessions.

190. *Inappropriate duties:* Although it was evident that the PRC and the deanery had worked hard since our last visit to improve the educational experience of the PRHO year, many PRHOs still considered that they were routinely required to carry out inappropriate tasks. The PRC will wish to continue to explore solutions to this problem with PRHOs and trust managers.

191. *Educational supervisors:* The Faculty sees the educational supervisor as providing a key communication link between the PRC, PRHOs and NHS trusts, but we were told that some educational supervisors performed inconsistently in this role. We were also disappointed to learn that in the relatively small group of PRHOs with whom we spoke, two had not met their educational supervisor and one did not know their educational supervisor's name. We hope that consideration will be given to ways of improving the consistency of educational supervisors, particularly in the area of communication.

192. *Feedback to PRHOs:* Feedback is variable and we learned with some disappointment that most PRHOs receive little or no feedback on completion of an attachment. We would wish to see trainees receiving structured feedback on their performance early on as well as at the end of their attachments so satisfactory progress can be confirmed and any deficiencies can be identified and resolved. The Faculty is keen to address this problem and may wish to consider short-term initiatives to improve the quality of feedback whilst it awaits the issue of a national PRHO assessment form.

193. *Personal safety:* Whilst we congratulate the PRC and trusts on the steps taken since our last visit to improve personal safety, this remains a live issue for some trainees, particularly when they are called out at night. Further consideration may need to be given to providing beds within all hospitals for staff on call.

194. Dealing with aggressive, intoxicated and/or psychiatrically disturbed patients in casualty was highlighted as a problem affecting many PRHOs. We were told that an excellent protocol for coping with and caring for aggressive, intoxicated and disturbed patients is in use at the Mater Hospital and we

suggest that this could be implemented in all Northern Ireland hospitals.

Conclusion

195. We thought that much had been done since our last visit to improve the quality of life for PRHOs and were especially pleased to note the attention paid to the recommendations in *The New Doctor* in effecting these changes. The deanery is keen to press ahead with other initiatives and we look forward to hearing about these in the future.



The New Doctor

Guidance on foundation training

PMETB

General
Medical
Council

Regulating doctors
Ensuring good medical practice

The duties of a doctor registered with the General Medical Council

Patients must be able to trust doctors with their lives and health. To justify that trust you must show respect for human life and you must:

- Make the care of your patient your first concern
- Protect and promote the health of patients and the public
- Provide a good standard of practice and care
 - Keep your professional knowledge and skills up to date
 - Recognise and work within the limits of your competence
 - Work with colleagues in the ways that best serve patients' interests
- Treat patients as individuals and respect their dignity
 - Treat patients politely and considerately
 - Respect patients' right to confidentiality
- Work in partnership with patients
 - Listen to patients and respond to their concerns and preferences
 - Give patients the information they want or need in a way they can understand
 - Respect patients' right to reach decisions with you about their treatment and care
 - Support patients in caring for themselves to improve and maintain their health
- Be honest and open and act with integrity
 - Act without delay if you have good reason to believe that you or a colleague may be putting patients at risk
 - Never discriminate unfairly against patients or colleagues
 - Never abuse your patients' trust in you or the public's trust in the profession.

You are personally accountable for your professional practice and must always be prepared to justify your decisions and actions.

The New Doctor

The New Doctor

Published September 2009

General
Medical
Council

Regulating doctors
Ensuring good medical practice

General Medical Council 01

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Outcomes for provisionally registered doctors with a licence to practise

- 1 The Medical Act 1983 empowers the General Medical Council (GMC) to recognise programmes for provisionally registered doctors with a licence to practise. To be recognised, a programme must provide a provisionally registered doctor with an acceptable foundation for future practice as a fully registered medical practitioner.
- 2 The GMC determined that from 1 August 2007, doctors with provisional registration with a licence to practise in foundation year one (F1 doctors) must demonstrate the following outcomes in order to be eligible to apply for full registration.
- 3 These outcomes must be demonstrated on different occasions and in different clinical settings as a professional in the workplace demonstrating a progression from the competence required of a medical student. They do not preclude doctors gaining additional appropriate experience; in fact progression is encouraged.
- 4 The GMC has approved the content of programmes for provisionally registered doctors by approving the *Foundation Programme Curriculum* published by the Academy of Medical Royal Colleges Foundation Committee. The outcomes have been mapped on to the *Foundation Programme Curriculum*. A programme delivering the *Foundation Programme Curriculum* will enable F1 doctors to meet these outcomes for full registration, subject to satisfactory provision by postgraduate deaneries in the United Kingdom, which will be determined as part of our Quality Assurance of the Foundation Programme (QAFP).

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- 5 The outcomes are structured under the seven headings of *Good Medical Practice*.

Good clinical care

- 6 F1 doctors must:
- (a) demonstrate that they recognise personal and professional limits, and ask for help from senior colleagues and other health and social care professionals when necessary.
 - (b) know about and follow our guidance on the principles of *Good Medical Practice* and the standards of competence, care and conduct expected of doctors registered with the GMC. Our ethical guidance is available on our website at www.gmc-uk.org/guidance.
 - (c) demonstrate that they are taking increasing responsibility, under supervision and with appropriate discussion with colleagues, for patient care, putting the patient¹ at the centre of their practice by:
 - (i) obtaining an appropriate and relevant history and identifying the main findings
 - (ii) carrying out an appropriate physical and mental health examination
 - (iii) using their knowledge and taking account of relevant factors including physical, psychological and social factors to identify a possible differential diagnosis
 - (iv) asking for and interpreting the results of appropriate investigations to confirm clinical findings in a timely manner
 - (v) establishing a differential diagnosis where possible and considering what might change this

-
- (vi) demonstrating knowledge of treatment options and the limits of evidence supporting them
 - (vii) asking for patients' informed consent (under supervision) in accordance with GMC guidance²
 - (viii) helping patients to make decisions on their immediate and longer-term care (including self care) taking into account the way the patient wants to make decisions (through shared decision-making, or by the doctor explaining the options and the patient asking the doctor to decide, or by the doctor explaining the options and the patient deciding)
 - (ix) using medicines safely and effectively (under supervision) including giving a clear explanation to patients
 - (x) demonstrating an understanding of the safety procedures involved in prescribing controlled drugs
 - (xi) keeping (or arranging for the keeping of) accurate and clear clinical records that can be understood by colleagues
 - (xii) demonstrating that they can perform core clinical and procedural skills safely. These core clinical and procedural skills are set out in the Appendix
 - (xiii) demonstrating knowledge and application of the principles and practice of infection control to reduce the risk of cross-infection.
-
- (d) demonstrate that they are recognising and managing acutely ill patients under supervision. This includes showing that they are able to manage a variety of situations where a patient requires resuscitation.
 - (e) demonstrate that they promote, monitor and maintain health and safety in the clinical setting. Demonstrate knowledge of systems of

quality assurance, including clinical governance. They must be able to demonstrate an application of the principles of risk management to their medical practice. This includes knowledge and explanation of the procedure for reporting adverse incidents and the procedures for avoiding them. This also includes following safe practices relating to dangers in the workplace.

- (f) manage their own time under supervision, and develop strategies with other healthcare workers to maximise efficient use of time.
- (g) demonstrate that they are able to take appropriate action if their own health, performance or conduct, or that of a colleague (including a more senior colleague), puts patients, colleagues or the public at risk.
- (h) demonstrate that they can recognise and use opportunities to promote health and prevent disease and show that they are aware of worldwide health priorities and concerns about health inequalities.

Maintaining good medical practice

7 F1 doctors must:

- (a) develop a portfolio that includes a variety of evidence (including workplace-based assessments, involvement in educational and clinical teaching sessions, and reflections on experiences with patients and colleagues) to demonstrate:
 - (i) achievement of the requirements in this guidance, including workplace-based assessments
 - (ii) ability to identify, document and meet their educational needs
 - (iii) learning through reflection on their practice
 - (iv) knowledge of the theory of audit, including change management

-
- (b) be able to explain how to contribute to audit and how the results of audit can improve their practice and that of others.
 - (c) internalise the importance of continuing professional development and self-directed learning and demonstrate this through the assessment process. This will include the need to respond constructively to appraisals and performance reviews.

Teaching and training, appraising and assessing

8 F1 doctors must:

- (a) teach their peers and medical and other health and social care students under guidance, if required to do so, using appropriate skills and methods.
- (b) contribute to the appraisal, assessment or review of students and other colleagues they work with.

Relationships with patients

9 F1 doctors must:

- (a) demonstrate knowledge of the theory and demonstrate the ability to ensure that effective relationships with patients are established and maintained. This includes creating an environment where the doctor can encourage and support the patient to share all information relevant to the consultation.
- (b) introduce themselves to patients and colleagues with appropriate confidence and authority ensuring that patients and colleagues understand their role, remit and limitations.

- (c) demonstrate that they recognise that patients are knowledgeable about themselves and the effect their health has on their daily life. They should use this expertise to encourage and support patients to be involved in their own care. Relatives, or others caring for those with long-term health conditions, are often knowledgeable in this area too. F1 doctors should be aware that carers, supporters and advocates (who speak on behalf of patients) often have to be included in the information given to patients. In the case of people with communication difficulties or difficulties processing information, carers, supporters and advocates must be kept informed about diagnosis and medical care, subject to GMC guidance on confidentiality.
- (d) demonstrate that they encourage and support effective communication with people, both individually and in groups, including people with learning disabilities and those who do not have English as their main language.
- (e) demonstrate that they are sensitive and respond to the needs and expectations of patients, taking into account only where relevant, the patient's age, colour, culture, disability, ethnic or national origin, gender, lifestyle, marital or parental status, race, religion or beliefs, sex, sexual orientation, or social or economic status.
- (f) demonstrate that they respect and uphold patients' rights to refuse treatment or take part in teaching or research.
- (g) demonstrate sound knowledge concerning confidentiality (including GMC guidance on confidentiality, Caldicott and data protection issues).

Working with colleagues

10 F1 doctors must:

- (a) work effectively as a member of a team, including supporting others, handover and taking over the care of a patient safely and effectively from other health professionals.
- (b) demonstrate respect for everyone they work with (including colleagues in medicine and other healthcare professions, allied health and social care workers and non-health professionals) whatever their professional qualifications, age, colour, culture, disability, ethnic or national origin, gender, lifestyle, marital or parental status, race, religion or beliefs, sex, sexual orientation, or social or economic status.
- (c) demonstrate that they can communicate in different ways, including spoken, written and electronic methods. They must use communication methods that meet the needs and contexts of individual patients and colleagues, including those within the team, or in other disciplines, professions and agencies where appropriate.
- (d) share appropriate information, where necessary, with a patient's permission, with other members of the healthcare team to provide the best possible information and treatment.
- (e) demonstrate that they listen to and take into account the views of other health professionals and agencies and, where appropriate, share information with other professionals and agencies in accordance with GMC guidance on consent.

Probity

11 F1 doctors must:

- (a) be honest in their relationships with patients (and their relatives and carers), professional colleagues and employers.
- (b) be able to complete or arrange for the completion of legal documents correctly such as those certifying sickness and death (or arranging for these documents to be filled in) and liaise with the coroner or procurator fiscal where appropriate.
- (c) demonstrate knowledge of and be able to apply relevant legislation to their day-to-day activities.

Health

12 F1 doctors must:

- (a) demonstrate knowledge of their responsibilities to look after their health, including maintaining a suitable balance between work and personal life, and knowing how to deal with personal illness to protect patients.
- (b) take responsibility, in line with *Good Medical Practice*, for their own health in the interests of public safety. If they know, or have reasons to believe, that they have a serious condition which could be passed on to patients, or that their judgement or performance could be significantly affected by a condition or illness (or its treatment), they must take and follow advice from a consultant in occupational health or from another suitably qualified doctor on whether, and in what ways, they should change their clinical contact with patients. They must not rely on their own assessment of the risk to patients.

Standards for training for the foundation programme

- 13 The following paragraphs set out the standards expected for the delivery of training in the foundation programme. The standards are grouped under nine 'domains'. For each domain there are one or more broad 'standards' which align with the *Generic standards* for training, with two additional standard statements specifically for foundation doctors alone. Under the standards there are 'criteria' by which we will determine whether foundation training is meeting the standards, and the 'evidence' used for this. The 'guidance' expands upon the criteria, and these paragraphs contain some important principles and requirements.
- 14 Postgraduate deaneries in the United Kingdom are responsible for providing programmes for provisionally registered doctors and will be held accountable under QAFP for meeting the standards for training for the foundation programme.

Domain 1 – Patient safety

Responsibility

- 15 All doctors, employers and deaneries or the organisation(s) responsible for administering the quality management system.

Standards

- 16 The duties, working hours and supervision of trainees must be consistent with the delivery of high-quality, safe patient care.
- 17 There must be clear procedures to address immediately any concerns about patient safety arising from the training of doctors.

Criteria

18 These standards will be demonstrated in working systems which must ensure:

- (a) supervision is in place to ensure that foundation doctors are fit for purpose.
- (b) assessment systems are in place to ensure that foundation doctors are fit for purpose. Identification is required (as early as possible) of foundation doctors whose conduct gives cause for concern or whose health is affected to such a degree that it could harm the public.
- (c) provision of support for foundation doctors where appropriate.
- (d) foundation doctors who are a risk to patients are not signed off for full registration with the GMC and do not successfully pass the assessment requirements for foundation year two (F2). Information about these foundation doctors should be passed to the GMC for consideration about fitness to practise.
- (e) foundation doctors only undertake tasks which they are competent in or are learning to be competent in with adequate supervision.

Evidence

19 Deanery quality data (including inspections, visits, reports and surveys), deanery or university guidance on fitness to practise policies and their implementation, visits by the regulatory bodies, data from foundation doctors and local faculty³, and possibly data from other healthcare regulators and organisations.

Guidance

- 20 All those⁴ who teach, supervise, give counselling to, employ or work with foundation doctors are responsible for protecting patients. Patients will be protected through explicit and accountable supervision. Where there are serious concerns about a foundation doctor's performance, health or conduct, immediate steps must be taken to investigate the concerns to identify whether they are well founded and to protect patients. The foundation doctor's educational supervisor and, where appropriate, the organisation responsible for the quality management systems for foundation programmes must be informed. The GMC must be informed as appropriate.
- 21 Foundation doctors must never be put in a situation where they are asked to work beyond their competence without appropriate support and supervision from the clinical supervisor. Patient safety must be paramount at all times.
- 22 Those responsible for training have a responsibility to share information with relevant individuals about foundation doctors that is relevant to their development as doctors, both before and during the foundation placements. Where possible, the foundation doctor should agree to this. If the foundation doctor does not agree, or is not able to do so, those responsible for training must consider the foundation doctor's rights to confidentiality and any serious risk posed to patients, the public, themselves or colleagues when deciding whether to share information with other people involved in training the foundation doctor.

¹⁴ General Medical Council

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- 23 Foundation doctors in F1 or F2 cannot be allowed to continue training if they pose a risk to patients or the public. In some circumstances, if the foundation doctor is not able or not willing to agree to such relevant information being revealed to the educational supervisor and the doctor responsible for directing their clinical training, they should not be able to continue training. In these circumstances, that information should be passed to the GMC and to the foundation doctor. Further information on this subject is provided in GMC guidance *Confidentiality: Protecting and providing information*. Advice should be sought from the deanery, the GMC, a relevant defence organisation, and the employer as appropriate.
- 24 By confirming that a foundation doctor has met all the necessary outcomes of training, the person appointed for this purpose is confirming that the foundation doctor has achieved the required outcomes of training and practices in line with the principles of professional practice set out in *Good Medical Practice*.
- 25 Those supervising foundation doctors must provide honest and justifiable comments when giving references for, or writing reports about, them and include all relevant information which relates to the foundation doctor's competence, performance and conduct.

Domain 2 – Quality assurance, review and evaluation

Responsibility

- 26 Deaneries or other organisations responsible for administering the quality management system, employers, foundation doctors and local faculty.

Standard

- 27 Postgraduate training must be quality managed locally by deaneries, working with others as appropriate, but within an overall delivery system for postgraduate medical education for which deans are responsible.

Criteria

- 28 This standard will be demonstrated by systems that encompass:
- (a) Information about roles and responsibilities of all those involved in the foundation programme, including lines of authority, which must be available and clearly disseminated to foundation doctors, deaneries and other relevant bodies. The roles and responsibilities of the following will be included:
 - (i) postgraduate deans
 - (ii) universities
 - (iii) relevant schools and committees or other organisational structures (for example, foundation schools)
 - (iv) employers
 - (v) educational supervisors
 - (vi) clinical supervisors
 - (vii) foundation doctors.

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- (b) Identification, monitoring and resolution of issues and dissemination of outcomes in areas including:
- (i) entry to the foundation programme
 - (ii) quality of training experience (including induction, ongoing training, supervision, content of job)
 - (iii) appraisal
 - (iv) assessment
 - (v) supervision.

Evidence

- 29 Deanery quality data (including inspections, visits, reports and surveys), information about administration of quality management systems.

Guidance

- 30 Programmes should include placements which are long enough to allow foundation doctors to become members of the team and allow team members to make reliable judgements about foundation doctors' abilities, performance and progress.
- 31 There must be a standard learning agreement for each placement within the programme.
- 32 F1 doctors must have written approval from their university to accept a programme completing basic medical education.

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- 33 Programmes should ensure that foundation doctors have appropriate learning opportunities to meet the learning outcomes for this period of training and are able to demonstrate this.
- 34 There should be clear quality control standards and systems in place for the workplace-based assessment process, which are fit for purpose.
- 35 There should be clear quality control standards and systems in place to ensure the appraisal process takes place.
- 36 There must be procedures in place to check the quality of training and assessments and to ensure that standards are being maintained.
- 37 The methods used to check the quality of approved training programmes should take account of the views of foundation doctors and local faculty leading the delivery of foundation training, using a deanery-wide process.

Domain 3 – Equality, diversity and opportunity

Responsibility

- 38 All doctors, employers and the organisation responsible for administering the educational quality management system.

Standard

- 39 Postgraduate training must be fair and based on principles of equality.

Criteria

- 40 Data about equality and diversity issues should be collected routinely and analysed; and recommendations developed, implemented and monitored.
- 41 Data about training healthcare staff in issues of equality and diversity should be collected routinely and fed into the quality management system where appropriate.
- 42 Data about how issues are identified or fed into the quality management system and how outcomes are disseminated.

Evidence

- 43 Deanery quality data, policies and how their implementation is monitored at employer level.

Guidance

- 44 Guidance about equality and diversity issues should pervade the other domains and all activities.

Domain 4 – Recruitment, selection and appointment

Responsibility

- 45 Deaneries and local faculty and, through these, employers, for ensuring fitness for the post.

Standard

- 46 Processes for recruitment, selection and appointment must be open, fair and effective.

Criteria

- 47 Information about selection procedures should be published.
- 48 Those responsible for selection should include people with a range of expertise and knowledge. They should be trained to apply selection guidelines consistently and fairly. They must be trained to be able to promote equality and diversity (considering people's different backgrounds and circumstances) and follow current equal opportunities legislation and good practice.
- 49 There should be transparent information provided for those within programmes about choices in the programme and how they are allocated.
- 50 Appointments to local faculty should be made against a set of defined and published criteria. While recognising that appointments are often volunteered for and that time is challenging, it is important for these educational appointments to be carried out to a particular standard to help raise the quality of the educational experience in service.
- 51 The appointment process should demonstrate that foundation doctors are fit for purpose and able, subject to a good induction and ongoing training, to undertake the duties expected from them in a supportive environment. The process should build on experiences gained at medical schools to support fitness for purpose in the working environment.

Evidence

- 52 Data analysis about selection into programmes, how selections for placements are made and about recruitment procedures for local faculty.

Guidance

- 53 Further guidance is provided in the operational frameworks.
- 54 Educational supervisors must have specific training for their role. This might include training in educational principles as well as specific skills training. They should also have access to training in the tools for assessment.
- 55 The legal responsibility for confirming the requirements of full registration for UK graduates remains with their medical school. Appropriate mechanisms should be in place to ensure that the responsibility for signing the Certificate of Experience is clear.

Domain 5 – Delivery of curriculum including assessment

Responsibility

- 56 A postgraduate dean is accountable for ensuring the delivery of the curriculum including assessment. Employers, commissioners and funders, local faculty, foundation doctors⁵ and the Academy of Medical Royal Colleges Foundation Committee also share responsibility for delivering the curriculum.

Standards

57 The requirements set out in the approved curriculum must be delivered and assessed.

58 The approved assessment system must be fit for purpose.

Criteria

59 These standards will be demonstrated through the following criteria:

- (a) a clear programme description that outlines how the competences, including general professional competences, will be covered in the placements and what evidence and information will inform a judgement about the performance of the foundation doctor.
- (b) sufficient practical experience must be available to support acquisition of competences as set in the curriculum.
- (c) the assessment system defined in the curriculum must be implemented.
- (d) formal educational documentation as determined by the deanery or foundation school including appraisal must be completed within each post.
- (e) foundation doctors must have regular feedback on their performance within each post as defined by the deanery or local foundation school.

Evidence

- 60 Approval of the *Foundation Programme Curriculum* against the outcomes for F1, along with the standards for training. Data from deaneries, local faculty and foundation doctors should also be included. Visits will be carried out to local faculty and foundation doctors to determine if these standards are being met.

Guidance

- 61 A system should be in place to ensure that foundation doctors receive regular formative feedback as defined by the deanery or foundation school.
- 62 A range of methods of assessment should contribute to the overall judgement made about the performance of a foundation doctor.
- 63 Training and learning can be delivered in a number of ways but must be relevant and must meet the learning needs of the foundation doctor. Training must provide the following:
- (a) learning based on experience that provides clinical training in a range of practices and procedures.
 - (b) regular, formal educational sessions that cover topics of value and interest to foundation doctors, who must be facilitated to attend.
 - (c) opportunities for self-directed learning so that foundation doctors can develop the skills and habits they need to learn by themselves.
 - (d) opportunities to reflect on learning and practice and to discuss issues with their educational supervisor and other colleagues.
 - (e) opportunities to demonstrate a progression of learning from medical school through the foundation programme.

- 64 Foundation doctors must be able to suggest topics to be included in their training programmes. They must also be able to comment on the order of topics so that their training meets their needs. In formal educational sessions, foundation doctors must not be on duty and should give their pagers to someone else so that they can take part.
- 65 Training can take place in a variety of health and social care settings, including hospitals, general practice and community-based medical services that allow foundation doctors to gain the necessary competences.
- 66 Foundation doctors will work and learn in interprofessional and interdisciplinary healthcare teams. It is important that their knowledge and skills are used appropriately so that, working with colleagues, they can provide high-quality patient care and complete training successfully. Foundation doctors must not regularly carry out tasks that do not need them to use their medical expertise and knowledge, or that have little educational value.
- 67 Those responsible for training and their service partners should, where appropriate, provide opportunities for foundation doctors to train with other health and social care professionals. This will help mutual understanding of roles and responsibilities.

Assessment and appraisal

- 68 A judgement must be made to confirm that all the outcomes set by the regulatory bodies have been met, based on a variety of assessments, reports and other observations and information.

The principles of assessment

69 Those responsible for designing assessment must set up valid methods for assessing foundation doctors' suitability for full registration, completion of foundation training, and entry to specialty training.

These must include the following:

- (a) A clear, documented and published process for assessing foundation doctors' performance, including information about completing and putting forward:
 - (i) confirmation of satisfactory service or equivalent at the end of each placement within a programme that includes the outcomes met during the placement, the outcomes not met during the placement, and the outcomes not dealt with during the placement
 - (ii) a Certificate of Experience for doctors who have completed the first year of the programme successfully enabling them to apply for full registration.
- (b) A clear, documented and published system for dealing with foundation doctors who have not completed training successfully, including:
 - (i) appeal procedures
 - (ii) processes for identifying and providing any further training needed
 - (iii) counselling for those who are not able to progress to full registration.

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- 70 Assessments may be carried out in a variety of ways, but must be carried out to the same standard. This will allow foundation doctors with a disability to show that they have achieved the outcomes. Those responsible for assessment must be aware of and apply legislation and good practice relating to the assessment of those with a disability.

Assessing performance

- 71 The following paragraphs set out a suggested model for assessing foundation doctors.

The assessment process

- 72 When they start each placement, foundation doctors and their educational supervisors must agree how the learning objectives for this period of training will be met and confirm how formative feedback and summative judgements will be made. Educational supervisors must then make sure that foundation doctors' performance is appraised at appropriate intervals. Feedback about performance helps to identify strengths and weaknesses, both in foundation doctors and in the training provided, allowing changes to be made. Foundation doctors must have opportunities to discuss issues or problems, and to comment on the quality of the training and supervision provided. Educational supervisors must make sure that all doctors and other health and social care workers who have worked with the foundation doctor have an opportunity to provide constructive feedback about the doctor's performance.

- 73 Foundation doctors must maintain a personal record of educational achievement to describe and record their experiences, and to identify strengths and weaknesses. This portfolio should include summaries of feedback from the educational supervisor, significant achievements or difficulties, reflections of educational activity, and the results of the foundation programme assessments. It will help the foundation doctor to demonstrate progression during their foundation training. This will emphasise the importance of maintaining a portfolio of evidence of achievement that may be part of the evidence, in due course, to retain their licence to practise. It will also provide those responsible for training with evidence that can be used to assess performance and progress, only during the foundation programme. Whilst the primary purpose of the portfolio in the foundation programme is to help the doctor record and reflect on their progress and achievements, those sections of the portfolio which record the assessments, progress and achievements of the doctor during the programme may also be used as part of the selection process for specialty training.

Assessment based on evidence of performance

- 74 At the end of each placement, the educational supervisor, in conjunction with the deanery, must assess whether the foundation doctor has met the necessary outcomes. The educational supervisor must only confirm satisfactory service if the foundation doctor has met the necessary outcomes.

- 75 When an educational supervisor assesses the performance of a foundation doctor, the following sources of documented evidence should be used:
- (a) evidence of direct observation of the foundation doctor's performance.
 - (b) reports from colleagues about the foundation doctor's performance.
 - (c) discussions with the foundation doctor about their performance.
 - (d) the foundation doctor's portfolio.
- 76 Also, there may be other sources of evidence that will provide a valuable insight into the competence of the foundation doctor. These sources should be recorded and may include:
- (a) feedback from patients who have been in contact with the foundation doctor.
 - (b) the outcome of audits.
- 77 Those responsible for training must:
- (a) have a clear process for developing the measures for assessment that will be used for assessing the foundation doctor's progress and performance.
 - (b) publish the assessment measures that educational supervisors will use to assess the foundation doctor's progress and performance.
 - (c) provide educational supervisors with guidance and training in deanery procedures when using these measures.
 - (d) define the process that educational supervisors undertake to apply the measures consistently and fairly.

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- (e) make sure that educational supervisors identify the evidence on which the Certificates of Experience and achievement of F2 competences have been completed.

- 78 A named representative of the university, normally, but not necessarily, the postgraduate dean, must be responsible for filling in the Certificate of Experience based on the confirmation of satisfactory services, or equivalent, signed by educational supervisors.

Domain 6 – Support and development of trainees, trainers and local faculty

Responsibility

- 79 Deaneries, employers, trainers and local faculty and foundation doctors.

Standards

- 80 Trainees must be supported to acquire the necessary skills and experience through induction, effective educational supervision, an appropriate workload, personal support and time to learn.
- 81 Support, training and effective supervision must be provided for foundation doctors.
- 82 Support, training and effective oversight must be provided for local faculty.⁶

Criteria

- 83 Prior to taking up their first F1 placement, new doctors should wherever practicable have a period working with the F1 who is in the post they will take up. The 'shadowing' period should normally last at least one week and take place as close to the point of employment as possible, and is distinct from the general induction sessions provided for new employees and foundation doctors.
- 84 There must be an ongoing induction and training programme for foundation doctors and local faculty. This must also include handover of patient care by foundation doctors.
- 85 There should be a review and handover process by supervisors concerning their foundation doctors.
- 86 Foundation doctors must have a designated educational supervisor.
- 87 Foundation doctors must sign a summary of agreed educational objectives and assessments for the placement at the start of each post.
- 88 Foundation doctors must have a log or a learning portfolio relevant to their current programme, which they discuss and review with their educational supervisor (or representative).
- 89 Foundation doctors must meet with their educational supervisor on a regular basis during the placement, to discuss their progress, outstanding learning needs and how to meet them.

-
- 90 Foundation doctors must have a means of feeding back in confidence their concerns and views about their training and education experience to an appropriate member of a local faculty.
- 91 Foundation doctors must have access to career advice.
- 92 The procedure for assessing appropriate study leave must be published, fair and practical.
- 93 Trainers must be appropriately appointed, trained and appraised against their educational activities.⁷

Evidence

- 94 Evidence will include deanery quality data.

Guidance

- 95 Formal induction and ongoing training for foundation doctors should include:
- (a) service and individual placement issues (including their status as new doctors and their role in the interprofessional and interdisciplinary team, health and safety matters, and the name of the person responsible for these issues within the employing, clinical governance and audit arrangements).
 - (b) educational issues (GMC ethical guidance; outcomes in *The New Doctor*; information about the foundation programme; how performance and progress will be assessed; educational and clinical

supervision including the name and contact details of the educational supervisor for each placement and how clinical supervision will be provided and by whom; how the quality of training is monitored; health and safety at work, including the doctor's own healthcare; and educational opportunities available in the placement and the programme).

- (c) formal handover and local induction at the beginning of the placement.
- (d) effective handover procedures during the placement.
- (e) information about flexible training, and about returning to training for graduates or foundation doctors who have taken a career break for any reason and for those who have had a career break due to health problems or a disability.
- (f) information about what to do when there are any problems, and about the support networks available (including occupational health, counselling and disability services). There should be named contacts for doctors in difficulty.
- (g) information about how foundation doctors should register with a local general practitioner and the importance of looking after their own health.

- 96 Systems should be in place to ensure appropriate support for the academic and welfare needs of foundation doctors.
- 97 Local faculty must have access to a summary of the support that is provided to them and information about how to access such support to help them to undertake their roles and responsibilities effectively.

-
- 98 Foundation doctors must have a summary of agreed educational objectives and assessments for each placement and must review the summary with their educational supervisor during the placement.
- 99 Those responsible for training must also provide guidance to:
- (a) graduates or those already in foundation training who want to carry out flexible training as a foundation doctor.
 - (b) graduates or foundation doctors who have taken a career break after graduation but want to return to training.
 - (c) graduates or foundation doctors who need a break after graduation because of health problems or a disability.
- 100 The foundation programme involves taking increased responsibility for patients, under the supervision of more experienced doctors. Those responsible for training and their service partners must make sure that foundation doctors have appropriate clinical and educational supervision at all times. Foundation doctors must:
- (a) receive educational and clinical supervision that is appropriate to their experience.
 - (b) receive appraisal (a positive process to provide structured and constructive feedback on the foundation doctor's performance, chart their continuing progress and identify their development needs).
 - (c) never be expected to carry out unsupervised tasks that they do not have enough experience for

-
- (d) always have direct access to a senior colleague who can advise them in any clinical situation. Foundation doctors must never be left in a situation where their only help is outside the hospital or the place where they work.
- 101** There must be a named educational supervisor for each placement. The foundation doctor must be told the name and contact details of the educational supervisor. Educational supervisors must be involved in teaching and training foundation doctors and must help with their professional and personal development.
- 102** Educational supervisors must tell the NHS employer and those responsible for training of any serious weaknesses in a foundation doctor's performance that have not been dealt with, and any problems with training programmes. Foundation doctors should be told the content of any information about them that is given to someone else. Where appropriate⁸, and with the foundation doctor's knowledge, relevant information must be given to the educational supervisor for their next placement so that appropriate training and supervision can be arranged. Information that would always be passed on would normally include assessment results and basic local information.
- 103** There must be at least one clinical supervisor in each training placement, who is responsible for teaching and supervising foundation doctors. The clinical supervisor may be the educational supervisor or another person. The foundation doctor must be told the name and contact details of the clinical supervisor. Clinical supervisors must make sure that the interests of patients are protected at all times.

³⁴ General Medical Council

Domain 7 – Management of education and training

Responsibility

- 104 A postgraduate dean is accountable for the management of education and training. Local faculty and employers are also responsible.

Standard

- 105 Education and training must be planned and maintained through transparent processes which show who is responsible at each stage.

Criteria

- 106 Foundation programmes must be supported by a management plan at deanery or foundation school level with a schedule of responsibilities and defined processes to ensure the maintenance of standards in the arrangement and content of training programmes to ensure effective delivery.

Evidence

- 107 Deanery policies, management plans and service level agreements with the organisations employing doctors.

Guidance

- 108 Management of education and training in the foundation programme should be dealt with specifically in this domain.

Domain 8 – Educational resources and capacity

Responsibility

109 Deaneries and employers.

Standard

110 The educational facilities, infrastructure and leadership must be adequate to deliver the curriculum.

Criteria

111 Foundation doctors must have access to appropriate learning resources and facilities, including libraries, IT facilities and facilities for a range of investigations and teaching accommodation.

112 The fitness for purpose of the facilities must be regularly reviewed and recommendations made where appropriate.

113 A suitable ratio of trainers and foundation doctors.

Evidence

114 Data and information from deaneries, trusts and boards and other organisations that collect this information across the four countries of the United Kingdom.

Guidance

- 115 Foundation doctors must have opportunities to develop and improve their clinical and practical skills in an appropriate environment (where they are supported by teachers) before they use these skills in clinical situations. Skills laboratories and centres provide an excellent setting for this training.
- 116 Working in an environment that is committed to care based on evidence and research can help foundation doctors to understand the importance of developing research and audit skills to improve their practice. It also helps to make sure that those responsible for their learning are aware of current developments in clinical theory and practice.

Domain 9 – Outcomes

Responsibility

- 117 Foundation doctors, educational supervisors, local faculty and deaneries.

Standards

- 118 The impact of the standards must be tracked against trainee outcomes and clear linkages should be reflected in developing standards.
- 119 The outcomes for F1 and competences for the foundation programme are published. All doctors should meet these outcomes and competences before successfully completing the foundation programme.

The New Doctor

Criteria

- 120** Undertaking a foundation programme that meets the requirements of the approved *Foundation Programme Curriculum* will normally confirm that these outcomes are being delivered.

Evidence

- 121** Deanery quality data, including data from local faculty and foundation doctors.

The legal framework for programmes for provisionally registered doctors

- 122 The powers and duties of the GMC in regulating medical education are set out in the Medical Act 1983.
- 123 From the introduction of the licence to practise, any person whose fitness to practise is not impaired and who holds one or more primary United Kingdom qualification and has satisfactorily completed an acceptable programme for provisionally registered doctors is entitled to be registered under section 3 of the 1983 Act as a fully registered medical practitioner.
- 124 All training programmes for provisionally registered doctors must deliver the outcomes and meet the standards in the *The New Doctor*.⁹
- 125 From 1 August 2007, F1 doctors are required to meet the outcomes in *The New Doctor* before being eligible to apply for full registration.¹⁰
- 126 Provisionally registered doctors will be able to demonstrate they have met the outcomes for full registration by successfully completing the requirements of the F1 *Foundation Programme Curriculum* published by the Academy of Medical Royal Colleges Foundation Committee.¹¹
- 127 To obtain full registration a programme for provisionally registered doctors of 12 months' duration must be completed.¹²
- 128 Satisfactory completion of a programme for provisionally registered doctors is confirmed by the completion of the Certificate of Experience, in the form determined by the GMC¹³ and available on the GMC website. Universities, or their designated representative in postgraduate deaneries or

foundation schools, will be required to certify that provisionally registered doctors have met the outcomes for full registration set by the GMC and have completed a programme for provisionally registered doctors of 12 months before full registration is granted.

- 129** Bodies that may provide, arrange or be responsible for programmes for provisionally registered doctors are postgraduate deaneries in England, Northern Ireland (the Northern Ireland Medical and Dental Training Agency), Scotland and Wales (the School of Postgraduate Medical and Dental Education at Cardiff University).¹⁴ Postgraduate deaneries will be held accountable under the Quality Assurance of the Foundation Programme (QAFP) for meeting the Standards for Training for the Foundation Programme.¹⁵

Appendix: Core clinical and procedural skills for provisionally registered doctors¹⁶

1. Venepuncture
2. IV cannulation
3. Prepare and administer IV medications and injections
4. Arterial puncture in an adult
5. Blood culture from peripheral sites
6. Intravenous infusion including the prescription of fluids
7. Intravenous infusion of blood and blood products
8. Injection of local anaesthetic to skin
9. Injection – subcutaneous (eg insulin or LMW heparin)
10. Injection – intramuscular
11. Perform and interpret an ECG
12. Perform and interpret peak flow
13. Urethral catheterisation (male)
14. Urethral catheterisation (female)
15. Airway care including simple adjuncts (eg Guedal airway or laryngeal masks)

Endnotes

- 1 In this document, the term 'patient' or 'carer' should be understood to mean the term 'patient', 'patient and parent', 'guardian', 'carer', and/or 'supporter' or 'advocate' where relevant and appropriate.
- 2 See GMC guidance '*Consent: patients and doctors making decisions together*, 2008, paragraphs 26-27.
- 3 The term 'local faculty' denotes those involved in the delivery of postgraduate medical education locally: clinical tutors, GP vocational training scheme tutors, GP trainers, college tutors, programme directors, directors of medical education, and others with specific roles in educational supervision.
- 4 This includes universities with a medical school.
- 5 Foundation doctors have responsibilities which impact on the delivery of the curriculum, for example, providing feedback, participating in assessment and appraisal, and completing the portfolio.
- 6 Standard 82 and criterion 93 may be met by demonstrating compliance with the Standards for trainers contained in the PMETB *Generic standards for training*, including paragraphs 6.25 to 6.35 in relation to those who deliver foundation training.
- 7 As above in endnote 6.
- 8 It is difficult to envisage a situation where such action would not be appropriate.

⁴² General Medical Council

- 9 See section 3(1)(a) of the 1983 Act. The GMC has approved the *Foundation Programme Curriculum* and specified the outcomes to be met by provisionally registered doctors. Section 10A(2)(c) provides that the GMC may determine the content and standard of programmes for provisionally registered doctors.
- 10 See section 10A(2)(c) of the 1983 Act. The GMC agreed the outcomes on 6 December 2006.
- 11 The GMC approved the *Foundation Programme Curriculum* on 6 December 2006.
- 12 See section 10A(2)(a) of the 1983 Act.
- 13 Section 10A(e) empowers the GMC to determine the arrangements for certification that a person has satisfactorily completed a programme for provisionally registered doctors.
- 14 Section 10A(2)(b) of the 1983 Act.
- 15 The GMC agreed the standards for training for the foundation programme on 13 March 2007.
- 16 The core clinical and procedural skills were amended on 29 July 2009. The amended requirements are effective from August 2010 when the revised *Foundation Programme Curriculum* comes into effect. Before August 2010 the core clinical and procedural skills that must be demonstrated are those in the *Foundation Programme Curriculum* published in 2007.

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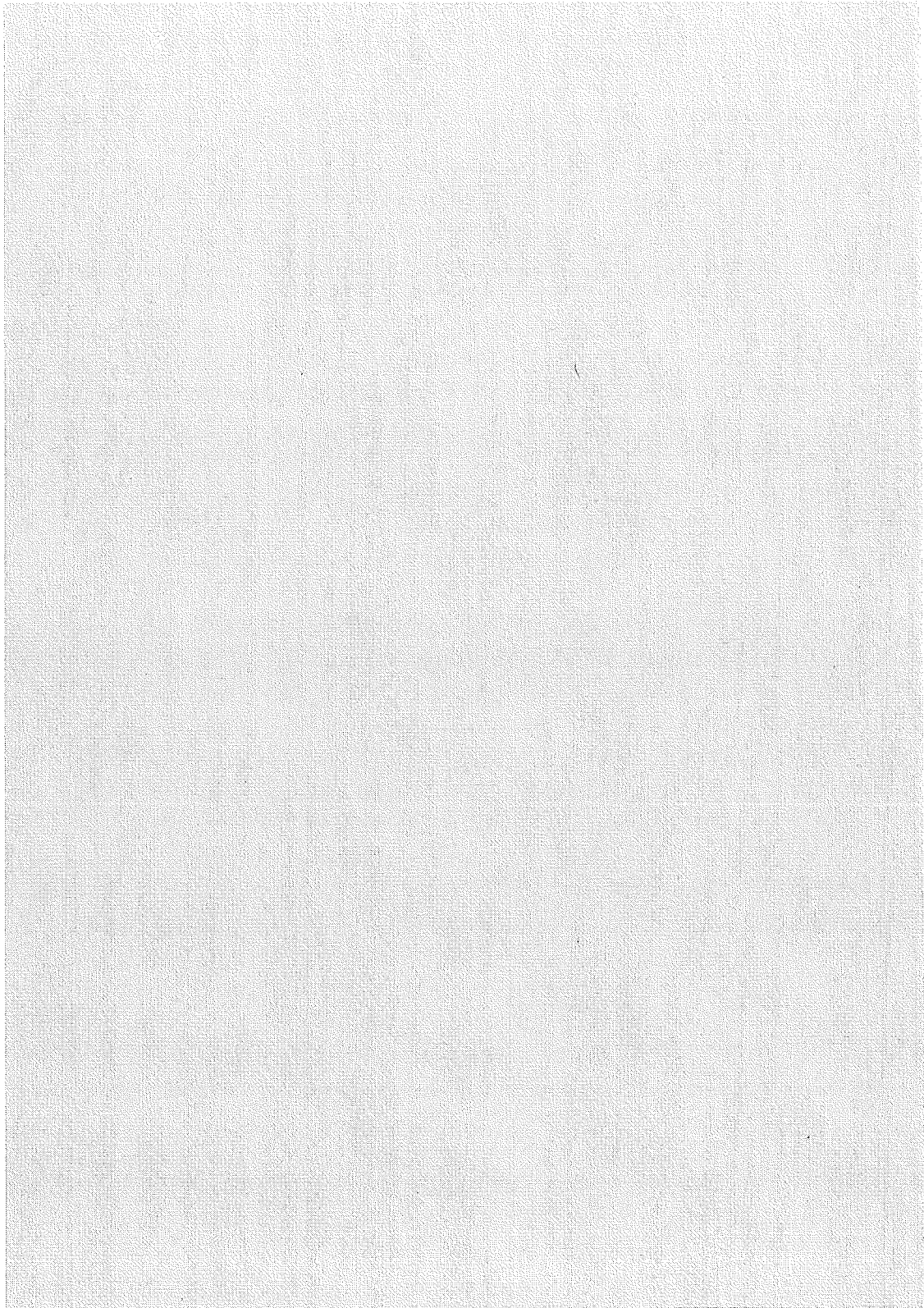
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The New Doctor

48 General Medical Council



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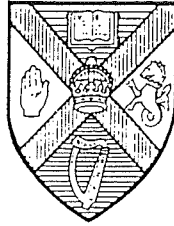
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THE
QUEEN'S UNIVERSITY
of
BELFAST



COURSES IN
THE COLLEGE OF MEDICINE AND
HEALTH SCIENCES

1997-98

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MODULARIZATION OF COURSES

As from October 1992, students entering the University have been enrolled under the new modular structure for those courses which have been modularized. Students who are completing their courses under the old regulations should refer to the 1991-92 edition of the Calendar and consult the Faculty Office for details of amendments for 1996-97. Vocational Courses in Medicine and Dentistry have not yet been modularized.

HEALTH OF STUDENTS AND PATIENTS

It is essential that patients are not exposed to infections which might be transmitted by health care workers or students. Students will be educated in good practice to protect patients during the undergraduate course. However, two conditions have caused public anxiety and special precautions must be undertaken. The procedures described below can be undertaken by the University Health Service.

Hepatitis B

This is a serious infectious disease which is rare in this country but common in parts of Africa and Asia. The infection is transmitted mainly by blood. There is a possible risk of health care staff being infected by patients and for some higher risk specialities, vaccination of health care staff is recommended. There is a much lesser risk that patients may be infected by health care staff but this could occur during certain surgical operations. It is, therefore, a requirement that all students of Medicine, Dentistry, Nursing and Podiatry should be immunised and show that they are not carriers of the infection.

The following are University regulations:

- i. All students entering the Faculty of Medicine to study Medicine, Dentistry, Nursing and Podiatry will be required at the time of registration to provide evidence that they have been successfully vaccinated against Hepatitis B and that they are not infectious carriers. The University reserves the right to re-test any student.
- ii. Any student wishing to study Medicine, Dentistry, Nursing or Podiatry who is an infectious carrier of Hepatitis B will not be allowed to enter the course.

HIV and AIDS

The risk of HIV infection being transmitted from a health care worker to a patient is very small. Nevertheless, it is imperative that any medical or dental students who think that they might have been infected with HIV should seek appropriate diagnostic testing and counselling and, if found to be infected, have regular medical supervision. Medical or dental students who are HIV positive must also seek specialist advice on the extent to which their undergraduate course should be modified in order to protect patients. It would be a disciplinary offence for medical or dental students who know or believe themselves to be infected with HIV to put patients at risk by failing to seek appropriate counselling or by failing to act upon it when given.

Students who become infected with HIV will receive the confidentiality and support afforded to other patients. Only in the most exceptional circumstances, where the release of the student's name is essential for the protection of patients, may a student's HIV status be disclosed without his or her consent.

Resit Examinations

To be allowed to enter for a resit examination a student must have either failed at the previous examination or have been prevented by illness from sitting that examination.

DEGREES IN THE FACULTY OF MEDICINE

1. There shall be fourteen degrees¹ of the University in the Faculty of Medicine, viz.

- Bachelor of Medicine (MB)
- Bachelor of Surgery (BCh)
- Bachelor of Obstetrics (BAO)
- Bachelor of Medical Science (Pass) ((BMedSc) (Pass))
- Bachelor of Medical Science (BMedSc) (Pod)
- Bachelor of Health Studies (BSc)
- Doctor of Medicine (MD)
- Master of Surgery (MCh)
- Master of Medical Science (MMedSc)
- Bachelor of Dental Surgery (BDS)
- Bachelor of Science (Hons) in Health Studies for Nurses, Midwives and Health Visitors (BSc)
- Bachelor of Medical Science (BMedSc)
- Master of Dental Surgery (MDS)
- Master of Science in Nursing (MSc (Nursing))
- Master of Science in Midwifery (MSc (Midwifery))
- Master of Arts (Medicine, Law & Ethics)

2. The degrees of MB, BCh, BAO ~~is~~ are the primary degrees in medicine, surgery and obstetrics in the Faculty of Medicine, and shall be conferred at the same time and after

the same course of study. No student shall be admitted to the final (Final Part II examination for those students on the Revised Curriculum) examination for these degrees until he/she has shown (1) that he/she is a matriculated student of the University, (2) that he/she has satisfactorily completed the prescribed courses of study in the Faculty of Medicine extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

3. The degree of BDS is the primary degree in dentistry in the Faculty of Medicine. No student shall be admitted to the final examination for this degree until he/she has shown (1) that he/she is a matriculated student of the University, (2) that he/she has satisfactorily completed the prescribed courses of study in the School of Dentistry in the Faculty of Medicine extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

4. Neither the primary degrees of MB, BCh, and BAO in the Faculty of Medicine, nor the primary degree of BDS in the Faculty of Medicine shall be conferred upon any person who has not attended in the University during three academic years the courses of study prescribed for such degrees. The University may accept, for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

5. For the degree of MB BCh BAO students must normally attend all clinical sessions in the subjects of the undergraduate medical curriculum to be allowed to present themselves for the assessments in those subjects. For students who do not attend all sessions, any remedial action required will be decided by the relevant Course Co-ordinator and the Adviser of Studies.

6. Every candidate for the primary degrees in Medicine and the primary degree in Dentistry shall be required to show that he/she attained the age of 21 years on or before the day of graduation.

7. The degree of BMedSc is a primary degree in the School of Biomedical Science within the Faculty of Medicine for students not following vocational courses and shall be conferred upon matriculated students of the University who have pursued approved courses of study and passed the prescribed examinations for the degree. It may be taken either as an ordinary degree or as a degree with honours.

8. The degree of BMedSc shall not be conferred upon persons who have not attended in the University during at least three academic years the courses of study prescribed for the degree.

9. Bachelor of Medical Science (Pass). Candidates eligible for the degree of Bachelor of Medical Science (Pass) are enrolled medical and dental students who have passed Second and Third Professional Examinations and are of good academic standing but subsequently withdraw from the University before taking the Final Professional Examination. The degree will only be awarded to those candidates who withdraw from the degree courses leading to MB BCh BAO or BDS. Candidates who have failed the Final Professional Examination will not be eligible for the award of this degree. The degree will be conferred at the graduation ceremony following the candidate's withdrawal from the course.

10. The degree of Bachelor of Medical Science (Podiatry) the primary degree in Podiatric Medicine in the Faculty of Medicine. No student shall be admitted to the final examination for this degree unless he/she (i) is a matriculated student of the University, (ii) has completed

prescribed course of study and (iii) has passed the relevant examinations.

11. The degree of Bachelor of Science in Health Studies for Nurses, Midwives and Health Visitors is a primary degree of the School of Nursing within the Faculty of Medicine. The Degree is a top-up degree for those nurses, midwives and health visitors who have acquired 240 credit points at Level 12. The degree will be offered part-time over two years.

INTERCALATED DEGREE

A student of Medicine or Dentistry who has passed the Second Medical/Second Dental Examination or the Third Medical/Third Dental Examination, and who has completed satisfactorily the course of studies for second/third year medical or dental students, may, after a further year's study in certain subjects, present themselves for the degree of Bachelor of Science (Intercalated) (BSc). This degree will be available in the following subject areas:

- Anatomy
- Medical Genetics
- Microbiology
- Pathology
- Physiology
- Therapeutics & Pharmacology
- Biochemistry

The consent of the heads of departments concerned and of the Dean of the Faculty of Medicine is required before enrolment.

On completion of an intercalated BSc or BMedSc selected students may study for a PhD before returning to their medical or dental studies.

NEW CURRICULUM: *Students wishing to undertake an intercalated degree will have the opportunity to take Anatomy, Physiology, Biochemistry or Medical Genetics after Phase 1 or Phase 2. Therapeutics and Pharmacology, Microbiology, or Pathology may be taken after Phase 2.*

SPONSIO ACADEMICA

All graduands in medicine are required to make the following declaration before graduation:

I do solemnly declare that as a graduate of the Faculty of Medicine of The Queen's University of Belfast, I will exercise my profession to the best of my knowledge and ability for the good of all persons whose health may be placed in my care and for the public weal: that I will not knowingly or intentionally do any thing or administer any thing to any person to their hurt or prejudice for any consideration or motive whatsoever: that I will hold in due regard the honourable obligations of the medical profession doing nothing inconsistent therewith: and I do also declare that I will keep silence about those things which I have seen or heard while visiting the sick: and I do further declare that I will be loyal to my University and endeavour to promote its welfare and maintain its traditions.

Higher Degrees

For information on higher degrees in the Faculty of Medicine – MD, MCh, MMedSc, DipMH, MDS, MSc (Nursing) and

MSc(Midwifery), MA (Medicine, Law & Ethics) – see Book 3 of the Calendar.

MEDICINE

(CURRENT & REVISED CURRICULA)

EXAMINATIONS

Details of dates of degree examinations will be posted on the University notice boards.

The third professional examinations are held during third year with Microbiology examined after the end of the first term, Therapeutics and Pharmacology after the end of the second term and Pathology in June with resit examinations in all three subjects held in August of the same year.

The final professional examination (current curriculum) is held at the end of the fifth year and the resit examination in December of the same year.

Revised Curriculum: For those students entering fourth year in 1997-98, the first part of the Final examination will be held in the September immediately following fourth year with resit examinations in December of the same year. Final Part II examinations will be held at the end of Final Year with resit examinations in December of that year.

DEGREES IN MEDICINE

General

Exemption from the Pre-Medical Year will normally be granted to candidates who have obtained prescribed grades in GCE Advanced Level Chemistry and two other appropriate subjects.

Only students preparing for their degree in The Queen's University of Belfast are accepted.

Applications for admission must be made through the Universities and Colleges Admissions Service.

Medical students must register their addresses at the Student Accommodation Office of the University and at the Faculty of Medicine Office, 71 University Road, Belfast. Change of address must be notified promptly.

Intending students should consult the pamphlet on Entrance Requirements, General Regulations for Students, General Information for Students and Fees, obtainable from the Student Records Office, to ensure that (a) they are qualified to matriculate in the Faculty, and (b) they have completed the necessary entrance requirements.

REGULATIONS FOR DEGREES OF BACHELOR OF MEDICINE, BACHELOR OF SURGERY AND BACHELOR OF OBSTETRICS

1. Unless exemption has been approved, every candidate for the degrees of MB, BCh and BAO shall be required to have satisfied the examiners in the several subjects of four examinations, namely:

- The pre-medical examination,
- The second medical examination,
- The third medical examination,
- The final medical examination.

Examinations will be held twice during the year. A candidate will not be allowed to present himself/herself for more than one of the medical examinations at the same time.

Students who obtain prescribed grades in GCE Advanced level in Chemistry and two other appropriate subjects will normally be granted exemption from the pre-medical examination.

Five academic years must elapse between the date of matriculation and the date of the final medical examination. (Final Part II examinations for those students on the Revised Curriculum).

2. A candidate who fails to complete the Pre-Medical Examination by September of his/her pre-medical year must appear before the Faculty Students' Progress Committee as unsatisfactory. The Faculty Students' Progress Committee (see Calendar) may request him/her to withdraw from the University.

A candidate who does not pass all three subjects of the Third Medical Examination by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

No candidate may enter for the Final Medical Examination until he/she has completed not less than three years of clinical training in the University.

A candidate who does not pass all subjects of the Final Examination by the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

REVISED CURRICULUM: A candidate who does not achieve a satisfactory performance in all subjects of the Final Part I examinations by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who does not achieve a satisfactory performance in all subjects of the Final Part II examinations by the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

Unless there are extenuating circumstances, a student may only repeat one complete year during his/her undergraduate medical studies.

A student will not normally be permitted to take more than 7 years from the date of first registration in the undergraduate medical course to complete the course (excluding the Pre-Medical year or Intercalated Degrees)

3. *Honours.* Honours will be awarded to candidates who achieve distinctions in all parts of the final medical

examination and also to those candidates who achieve an aggregate of five distinctions including at least one from each of the Professional Medical Examinations.

Distinction. A candidate will be awarded the degrees of MB, BCh, BAO with distinction in any subject in the Final Medical Examination in which he/she achieves the appropriate standard.

A candidate will also be awarded distinction in any subject in a professional examination of the Faculty in which he/she achieved the appropriate standard. The award of distinction will only be made if the candidate has achieved a pass standard in all subjects of the examination at the first attempt.

ORDER OF STUDY AND EXAMINATIONS CURRENT AND REVISED CURRICULA

Students entering the Pre-Medical, first or second year courses should refer to regulations for the New Medical Curriculum (pgxx).

REVISED CURRICULUM

To apply to those students entering Third Year in 1996 and 1997 and expected to graduate in the year 1999 and 2000.

To facilitate the establishment of the new medical curriculum which will be phased in with students entering first year in 1996, some interim changes have been made to the order in which clinical subjects are studied. All clinical subjects will be taught before Final year leaving this as a clinical apprenticeship year. This will entail Obstetrics and Gynaecology and Child Health being taught in fourth year and Ophthalmology, Dermatology, Rheumatology, and Orthopaedics moving from fourth to third year. To ease the burden of examinations in Third Year the Third Medical examinations have been separated with Microbiology examined after the end of the first term, Therapeutics and Pharmacology after the end of the second term and Pathology in June. Final Examinations will be taken in two parts, with Final Part I written examinations in the September immediately following fourth year and Final Part II clinical examinations at the end of fifth year.

Third Year

REVISED CURRICULUM

Medical clerkships/ surgical dresserships.
Co-ordinated lecture course.

Attachments in Ophthalmology, Dermatology, Rheumatology, and Orthopaedics.

Demonstrations and revision tutorials in Microbiology.
Practical classes and Tutorials in Pathology.

Forensic Medicine.

Third Medical Examination.

The subjects of this examination will be Pathology, Microbiology and Therapeutics and Pharmacology. Microbiology will be examined after the end of the first term and Pathology in June of third year and Therapeutics and Pharmacology after the end of the second term. Examinations in all three subjects will be held the following August. A candidate who fails two of the three subjects of the Third Medical Examination at the first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter third year and the two subjects at the appropriate time.

A candidate who fails all three subjects of the Third Medical Examination at the first attempt must appear before the Faculty Students' Progress Committee and will be required to re-enter third year and resit each at the appropriate time.

A candidate who is repeating third year and re-sitting one or more subjects of the Third Medical Examination must attend all relevant third year lectures and all classes and clinical attachments. A candidate who fails to satisfy the examiners in all the subjects of the Third Medical examination before September of the Third Year will not be allowed to proceed to Fourth Year studies. Class tests conducted throughout the year will contribute to a proportion of the marks in this examination.

Fourth Year

REVISED CURRICULUM for students entering Fourth year in September 1997 or 1998.

There will be four main courses to be assessed at the end of each course:

Mental Health - 6 weeks

Pregnancy, childbirth and women's diseases - 8 weeks

Primary health care and ageing and health - 8 weeks

Health and Disease in Childhood - 8 weeks

Students will also attend clinical attachments and take class tests in the following subjects:

Cancer Studies - 2 weeks

ENT - 2 weeks

Fractures - 2 weeks

Anaesthetics - 2 weeks

Final Part 1 written examinations will be held in the September immediately following fourth year with resit examinations in December of the same year.

1. Failure in One or Two of the Four Main Courses

1.1 A candidate who has not achieved a satisfactory performance in one or two of the four main courses at the first attempt will be required to undertake a further clinical examination(s) in September as a component of the Final Part 1 examinations.

1.2 A candidate who fails to achieve a satisfactory performance in the further clinical examination of one course will be required to repeat the course and take a further clinical examination in December and will not be permitted to take Final Part 11 examinations until December of the following year.

1.3 A candidate who fails to achieve a satisfactory performance in two of the September clinical examinations must appear before the Faculty Students' progress Committee and will normally be required to re-enter fourth year and repeat the outstanding courses.

1.4 A candidate who fails to achieve a satisfactory performance after repeating the course must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

2. Failure in More Than Two of the Four Main Courses.

2.1 A candidate who does not achieve a satisfactory performance in more than two of the four main courses at first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter fourth year and repeat the outstanding courses.

2.2 A candidate who fails to achieve a satisfactory performance after repeating any of these courses will be required to undertake a further clinical examination(s) in September as a component of the Final Part 1 examinations.

2.3 A candidate who fails to achieve a satisfactory performance in the September clinical examinations must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

3. Failure in Final Part I Written Examinations

A candidate who has failed any part of the Final Part I examinations after the second attempt must appear before the Faculty Students' progress Committee and will normally be required to withdraw from the University.

4. Failure in Class Tests

Candidates who do not achieve a satisfactory performance in any of the class tests during fourth year will be allowed to proceed to final year but will not be allowed to proceed to Final Part 11 examinations with any component of fourth year outstanding.

Fifth Year

CURRENT CURRICULUM

Throughout the year there are compulsory resident pupilships in Obstetrics and Gynaecology, Medicine, Surgery, Psychiatry, Child Health and attachments in General Practice. Further teaching is available through conferences, grand rounds and tutorials.

The subjects for the Final Medical Examination are Medicine, Surgery, Obstetrics, Gynaecology and Child Health. The examination is held in June of the Fifth Year and a resit examination is held the following December.

A candidate may not sit for the Final Medical Examination until he/she has completed satisfactory assessments in all the subjects of the Final Medical Examination.

A candidate who fails in any subject of the Final Medical Examination shall not be re-admitted to the examination unless he/she furnishes evidence of having studied that subject for such a period as the Faculty of Medicine, on the report of the examiners, may prescribe.

REVISED CURRICULUM students entering Final Year in August 1998, or 1999 will be required to satisfactorily complete two special study units which will consist of a clinical attachment, which may be taken overseas and a clinical project. Elective clinical attachments will be available in all subjects of the Final Part II examinations.

Candidates must achieve a satisfactory performance in all parts of fifth year before proceeding to Final Part II examinations.

Candidates will be required to undertake Final Part II examinations in June with resit examinations in December. Candidates who have failed any part of the Final Part II examinations after the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University..

THE MEDICAL ACT 1983

Note: By the provisions of the Medical Act 1983 a graduate must obtain certificates of satisfactory service over twelve months as a resident Pre-Registration House Officer. This normally includes at least four months in both Medicine and Surgery in hospital posts approved by the University. Details of the requirements may be obtained at the Faculty Office, 71 University Road.

LECTURES AND SUBJECTS OF EXAMINATIONS CURRENT AND REVISED CURRICULA

PREMEDICAL YEAR

Biology

See Faculty of Science Section of Calendar.

Chemistry

See Faculty of Science Section of Calendar.

Physics

See Faculty of Science Section of Calendar.

FIRST AND SECOND YEAR

See Lectures and Subjects of Examinations of the New Curriculum

THIRD YEAR - REVISED CURRICULUM

Pathology

In the third year the teaching of systematic pathology continues through each term as part of the co-ordinated third year lecture programme. There are weekly practical classes, twice weekly lunch time television demonstrations and weekly tutorials in the Hilary and Trinity terms. Throughout the course, students are attached in groups to individual tutors who supervise their studies. There are opportunities for elective attachments in the second and third years. Students who perform well in the Third Medical Examination may be invited to read for either an Honours BSc in Pathology in an intercalated year.

Clinical Biochemistry

Lectures in Clinical Biochemistry are given during the first and second terms of 3rd year. Instruction is given in the biochemical mechanisms underlying disease states and students are introduced to the practical biochemical assessment of specific clinical conditions. There are opportunities for elective attachments for those interested in both the clinical and laboratory aspects of Clinical Biochemistry. An end of course examination is held at the end of the lecture course.

Microbiology and Immunobiology

In the third year the lectures, many of which are integrated in the Combined Clinical Course, deal with medically applied aspects of microbiology and immunology. Students who perform well in the Third Medical Examination may be invited to read for either an Honours BSc or a BMedSc in Microbiology in an intercalated year.

Therapeutics and Pharmacology

The aim of this course is to ensure that the prescribing of drugs for the treatment of disease (therapeutics) will be based on a sound knowledge of basic and clinical pharmacology. Marks from two class tests held in second year contribute to the Third MB examination results. Further lectures in therapeutics are given as part of the Combined Clinical Course in third year. The Third MB examination in Therapeutics and Pharmacology, held after the end of the second term of Third Year includes a 'special topic' which will have been researched by self directed learning during the third year. Students who perform well in the Third

Medical Examination may be invited to read for an honours BSc in an intercalated year.

Forensic Medicine

Lectures in Forensic Medicine are given during the first term of third year. The course is designed to familiarize the student with the law relating to medical practice and ethics, to teach the cause and circumstances of sudden and violent deaths and to develop a knowledge of the common poisons. An end of course examination is held in 3rd year to satisfy the examiners that the student has the knowledge required for general medical practice.

Medicine

Third year involves the Combined Clinical Lecture Course and clinical attachments in major teaching hospitals. Specialties covered include neurology, metabolic medicine, cardiology and dermatology

Surgery

The 'Core Surgical Curriculum' in the third year lasts for 12 weeks and involves 8 weeks general surgery and 4 weeks in speciality surgery (including radiology and A & E), with limited exposure to some of the surgical sub-specialties. The emphasis is on involvement with the ward team so that the principles of general surgery are learned through structured bedside teaching and exposure to clinical material.

Musculoskeletal Disorders

Lectures on disorders of the locomotor system are given in the co-ordinated lecture course in Third year

Ophthalmology

Students undertake clinical attachments at the Eye & Ear Clinic, Royal Victoria Hospital. During this period each student attends outpatient clinics, casualty department and ophthalmic wards. Formal lectures and tutorials are given relevant anatomy, physiology and important clinical topics. The student is expected to become competent in the basic of Ophthalmology and be familiar with the management of ocular emergencies and the diagnosis of visual loss.

FOURTH YEAR - REVISED CURRICULUM

Mental Health and Cancer Studies

Psychiatry: The aim of this course is to provide students with an understanding of the principal psychiatric illnesses as well as an understanding of the relationship between physical illness and psychological functioning. The main skills to be developed during the course are the ability to take a psychiatric history and examine the mental state, the ability to compile an appropriate clinical summary, differential diagnosis and treatment plan from this. Issues relating to attitudes and ethical and legal aspects will be discussed. The course will be provided through a one year teaching programme, based at the academic department of Mental Health, followed by a five week attachment to a psychiatric unit and will include some teaching in relation to Child Psychiatry and Learning Disability.

Oncology: This is a new multidisciplinary course combining direct patient involvement with lectures and tutorials. Issues such as causes of cancer, diagnosis, treatment, communication, support (medical, nursing, psychological, social, pastoral), palliative care and research are covered. The aim is to give a broad view of a specialty wrestling with a disease which affects one in three people during lifetime and kills one in four of the population.

Pregnancy Childbirth and Women's Diseases

The undergraduate course in this subject will last for eight weeks. Students will be attached to one of four hospitals in the province. Instruction will be given through teaching ward rounds and recognised case based tutorials which are standardised across the units. At the end of the course students will take an objective structured clinical examination.

Primary Health Care and Ageing and Health

These disciplines will be taught in an 8-week clerkship in 4th year. This will include a series of large group sessions covering important clinical and ethical issues. For part of the clerkship, students will have individual attachments to a General Practice and a Geriatric Medical Unit. There will be a range of assessments of students including an OSCE based on each department's educational objectives.

Health and Disease in Childhood

Three weeks of the course will be based at the Royal Belfast Hospital for Sick Children. Students will be attached for remaining 5 weeks to paediatric Unit. At the end of the course students will take an OSCE.

ENT, Fractures and Anaesthetics

This 8 week course includes anaesthetics, fractures and Otorhinolaryngology. Practical classes in resuscitation are given and all students rotate through two week clinical attachments in anaesthetics and fractures. The four week ENT course places emphasis on practical instruction in the Clinics Wards and Operating Theatre. As part of the course students are seconded to ENT units throughout Northern Ireland.

FINAL YEAR - CURRENT CURRICULUM

Obstetrics and Gynaecology

During the fifth year, students are required to undertake a six week course which includes practical instruction and clinical teaching in the wards, clinics, operating theatres and delivery unit, as well as regular tutorials. During this course, students will also attend clinics in sexually transmitted disease. Students are required to complete a log of their clinical experience during the course. An OSCE is held at the end of the course and if a satisfactory standard is obtained, the student will be exempt from further clinical assessment in the final examination.

Students are encouraged to supplement this six week course by a further two week residential attachment in a peripheral obstetric unit.

Medicine

Final year must include a 6-week residential attachment in a recognised hospital which is subject to course assessment and must be satisfactorily completed before entering the final qualifying examination. Additional elective periods in general medical units or associated medical specialties are available.

Surgery

The emphasis is on involvement with the ward team so that the principles of general surgery are learned through structured bedside teaching and exposure to clinical material. In the final year the student is required to spend six weeks on a residential attachment in a recognised hospital.

Psychiatry

Psychiatry, embracing diagnosis, causation and treatment of mental illness, is taught. There is a three week resident attachment.

Child Health

Three weeks of the course will be based at the Royal Belfast Hospital for Sick Children. Students will be attached for the remaining three weeks to a paediatric unit. At the end of each course students will take an OSCE. Those students who achieve the OSCE validated mark will be exempted from a further clinical examination in Paediatrics and Child Health in the Final examination. In addition, a detailed case commentary, prepared and completed during the three week residency will contribute 10% to the Final MB mark.

REGULATIONS FOR THE NEW UNDERGRADUATE MEDICAL CURRICULUM

To apply to those students entering first year in 1996.

General Regulations for Degrees of Bachelor of Medicine, Bachelor of Surgery and Bachelor of Obstetrics

1. Students who obtain prescribed grades in GCE Advanced Level Chemistry and two other appropriate subjects will normally be accepted into Phase 1 of the medical course. Those accepted who offer alternative qualifications will normally be required to complete a Pre-Medical year in the Faculty of Science.

2. Every candidate for the degrees of MB, BCh and BAO shall be required to have satisfied the examiners in the various courses within the four phases of the degree programme.

Phase 1: End of semester examinations with resit examinations in August each year (3 units examined each semester)

Phase 2: End of semester examinations with resit examinations in August (3 units examined each semester)

Phase 3: Final Part 1 examinations held in the September after Phase 3 with resit examinations in December

Phase 4: Final Part II examinations held in June of Final Year with resit examinations in December.

No candidate may enter for the Final Part II examinations until he/she has completed not less than Phases 2, 3 and all attachments of Phase 4 of the medical curriculum in the University.

3. A student who fails to achieve a satisfactory performance in all the subjects of the Pre-Medical examinations by September of the pre-medical year must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who does not achieve a satisfactory performance in all subjects of the Phase 1 examinations by

the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who does not achieve a satisfactory performance in all subjects of the Phase 2 examinations by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who does not achieve a satisfactory performance in all subjects of the Final Part I examinations by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who does not achieve a satisfactory performance in all subjects of the Final Part II examinations by the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

Students will not be permitted to proceed to the next phase of the course unless a satisfactory performance has been achieved in all units of the preceding phase.

4. Unless there are extenuating circumstances, a student may repeat only one academic year during the undergraduate medical course.

5. A student will not normally be permitted to take more than 7 years from the date of first registration in the undergraduate medical course to complete the course (or 8 years in the case of students who have taken an Intercollegiate Degree).

6. Distinction: Distinctions will be awarded on the basis of performance in core subjects at each of the four Phases. A Special Study Unit may be awarded with credit. A distinction will be awarded to any candidate who achieves credit in four or more of the six special study units.

7. Honours: A student achieving three or more distinctions will be awarded honours.

ORDER OF STUDY AND EXAMINATIONS

1. Pre-Medical Year

Students offering qualifications other than GCE Advanced Level Chemistry and two other appropriate subjects may be required to undertake a Pre-Medical Year. Such students will take appropriate courses in the Faculty of Science to include the subjects of Biology, Chemistry and Physics as shall be agreed by the Adviser of Studies and the Faculty of Medicine.

Examinations will be held at the end of each Semester with resit examinations in August in accordance with the regulations of the Faculty of Science. A candidate who fails to achieve a satisfactory performance in all the subjects of the Pre-Medical examinations by September of his/her pre-medical year must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate who fails to achieve a satisfactory performance in the subjects of the Pre-Medical examinations may not proceed to Phase 1.

2. PHASE 1: First and Second Year

The Phase 1 curriculum is comprised of two parts:

- 9 core units which are taken by all students

- 3 special study units which are selected by the students (1 taken in each of the second, third and fourth semesters).

All students must study and sit examinations in three units each semester: that is 12 units in total during Phase 1.

Semester One	Weighting
Cell and Molecular Biology	1.0
Cells and Patients	1.0
Science, Society and Medicine	1.0
Semester Two, Three and Four	
Systems Course	1.5
Clinical Skills	0.5
Special Study Module	1.0

2.1 First Year:

Examinations will be held at the end of each semester with resit examinations in August.

Candidates who have failed to achieve a satisfactory performance in the end of semester examinations in one or two units will be allowed to proceed to resit examinations in August.

Candidates who have failed to achieve a satisfactory performance in the end of semester examinations in more than two units must appear before Faculty Students' Progress Committee and will normally be required to re-enter first year and repeat the outstanding units.

Candidates who have to repeat the special study unit may elect to take a different special study unit in their repeat year but will be allowed only one attempt at the examination of this unit.

Candidates who have failed to achieve a satisfactory performance in any unit after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

2.2 Second Year:

Examinations will be held at the end of each semester with resit examinations in August.

Candidates who have failed to achieve a satisfactory performance in the end of semester examinations in one or two units will be allowed to proceed to resit examinations in August.

Candidates who have failed to achieve a satisfactory performance in more than two units in the end of semester examinations must appear before Faculty Students' Progress Committee and will normally be required to re-enter second year and repeat the outstanding units.

Candidates who have to repeat one or more special study unit(s) may elect to take a different special study unit(s) in their repeat year but will be allowed only one attempt at the examination of this unit.

Candidates who have failed to achieve a satisfactory performance in any unit after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

3. PHASE 2: Third Year

All students are required to take three units in each of the clinical semesters of 19 weeks (16 weeks teaching and 3 weeks revision/assessment).

Students will be required to complete Systems Course (2 units), Clinical Course (2 units) and two Special Study Units. Examinations will be held at the end of each clinical semester with resit examinations in August.

Candidates who have failed to achieve a satisfactory performance in the end of semester examinations in one

two units will be allowed to proceed to resit examinations in August.

Candidates who have failed to achieve a satisfactory performance in more than two units in the end of semester examinations must appear before the Faculty Students' Progress Committee and will normally be required to re-enter third year and repeat the outstanding units.

Candidates who have to repeat one or more special study unit(s) may elect to take a different special study unit(s) in their repeat year but will be allowed only one attempt at the examination of this unit.

Candidates who have failed to achieve a satisfactory performance in any unit(s) after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

4. PHASE 3: Fourth Year

Students must complete five courses:

Psychiatry and Oncology

Pregnancy, childbirth and women's diseases

Primary health care, and health care of elderly people

Health care of infants and children

Emergency Medicine

Clinical examinations will be held at the end of each course.

1. Failure in One or Two of the Five Courses

1.1 A candidate who fails to achieve a satisfactory performance in one or two of the five main courses at the first attempt will be required to undertake a further clinical examination (s) in September as a component of the Final Part 1 examinations.

1.2 A candidate who fails to achieve a satisfactory performance in the further clinical examination of one course will be required to repeat the course and take a further clinical examination in December and will not be permitted to take Final Part II examinations until December of the following year.

1.3 A candidate who fails to achieve a satisfactory performance in two of the September clinical examinations must appear before the Faculty Students' Progress Committee and will normally be required to re-enter fourth year and repeat the outstanding courses.

1.4 A candidate who fails to achieve a satisfactory performance after repeating the course must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

2. Failure in more the Two of the Five Main Courses

2.1 A candidate who does not achieve a satisfactory performance in more than two of the five main courses at first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter fourth year and repeat the outstanding courses.

2.2 A candidate who fails to achieve a satisfactory performance after repeating any of these courses will be required to undertake a further clinical examination (s) in September as a component of Final Part 1 examinations.

2.3 A candidate who fails to achieve a satisfactory performance in the September clinical examinations must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

3. Final Part 1 examinations will be held in the September after Phase 3 with reset examinations in December. A candidate who has failed any part of the Final Part 1 examinations after the second attempt must appear before

the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

5. PHASE 4: Fifth Year

During Phase 4 students will be required to satisfactorily complete two special study units which will consist of a clinical attachment, which may be taken overseas, and a clinical project. Students will also be required to attend compulsory clinical attachments in Medicine, Surgery and General Practice. Elective clinical attachments will be available in all subjects of the Final Part II examinations.

Candidates must achieve a satisfactory performance in all parts of Phase 4 before proceeding to Final Part II examinations.

Candidates will be required to undertake Final Part II examinations in June with resit examinations in December. Candidates who have failed any part of the Final Part II examinations after the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

LECTURES AND SUBJECTS OF THE NEW UNDERGRADUATE MEDICAL CURRICULUM

PHASE ONE: YEAR ONE

Cell and Molecular Biology

Unit Co-ordinator: Dr MRH Lewis

Available in: Year 1 Semester 1

Content: Biological molecules; elementary treatment of structure and metabolism of carbohydrates, lipids and proteins, vitamins and co-enzymes; nucleic acids; membranes and receptors; patterns of genetic inheritance; human chromosomal abnormalities; introduction to molecular genetics.

Objective: To introduce students to the biological basis of life. To provide an elementary overview of biochemistry and human genetics.

Study Skills Acquired: Use of the library and use of computer-based learning materials.

Teaching Methods: Lectures (35 hours); Tutorials (10 hours); Discussion classes/Seminars (10 hours)

Compulsory Elements: Written Examination

Assessment (%) Written Examination 100%

Examination Profile: Paper 1; Duration 2; % of Aggregate 100

Cells and Patients

Unit Co-ordinator: Professor K.E. Carr

Available in: Year 1 Semester 1

Content: Normal and abnormal cellular and tissue patterns, through the study of microscope slides, pictures and reference material. Relationship of these patterns to prospective or retrospective case material. Correlation of organelle structure with the study of biochemical processes.

Objective: To develop the basic skills of observation, description, recording and interpretation, both as part of a small group and as an individual. To assess aspects of a

clinico-pathological problem, describing the tissue effects of basic pathological processes in simple anatomical terms.

Study Skills Acquired: Systematic description, comparison of normal and abnormal tissue patterns, working in groups, time management, presentational skills, use of source reference material, abstraction of information from the recent scientific literature.

Teaching Methods: Lectures (12 hours); Practicals (24 hours); Tutorials (12 hours); Patient demonstrations (2 hours).

Compulsory Elements: Attendance at practical classes and tutorials; patient demonstrations; written examination

Assessment (%): Practical examination (60), Written examination (40)

SCIENCE, SOCIETY AND MEDICINE

Unit Co-ordinator: Dr M.E. Cupples and Dr D. Wilson
Available in Year 1 Semester 1

Content: Introduction to the relationship between science and medicine and between medicine and social issues. Concepts of health; Medical and scientific ethics; Evidence-based medicine.

Objective: To develop practical computing skills. To provide a philosophical understanding of the place of scientific research in medicine. To explore the relationship between medicine and society through consideration of contemporary patterns of living.

Study Skills Acquired: Basic word-processing and use of spreadsheets. Accessing the scientific literature; critical appraisal of published scientific work. Participation in and chairmanship of small groups. Ability to write informed, cogent and literate essays.

Teaching Methods: Practical Computing classes (4 hours); Lectures (12 hours); Seminars (20 hours); Tutorials (36 hours); Private study (36 hours)

Compulsory Elements: Tutorial attendance; essay submission; written examination.

Assessment (%): Computer-based assignment (10); Written examination (60) Essays (30)

Examination Profile: Paper 1; Semester 1; Duration 2; % of Aggregate 80

SYSTEMS COURSE 1

Unit Co-ordinator: Professor J.R. Hayes
Available in Year 1 Semester 2

Content: Human biology of body systems - blood, cardiovascular, respiratory and renal systems. Introduction to epidemiology. Introduction to health psychology. Mechanisms of disease.

Objective: To introduce the anatomical and physiological basis of human biology and the relationship of this to disease processes. To promote an understanding of pharmacological effects on body systems. To develop an awareness of psychosocial aspects of health.

Study Skills Acquired: Dissection; Group work; Observation skills.

Teaching Methods: Lectures (46 hours); Discussion classes (30 hours); Tutorials (24 hours); Practical classes (80 hours)

Compulsory Elements: Practical classes; Written examination; Essay submission.

Assessment (%): Written examination 60; Practical 20; Essay 20

Examination Profile: Paper 1: Semester 2; Duration 2; % of Aggregate 35. Paper 2; Semester 2; Duration 2; % Aggregate 35

INTRODUCTORY CLINICAL SKILLS

Unit Co-ordinator: Professor W. Thompson
Available in Year 1 Semester 2

Content: Communication skills; Family attachm programme; Introduction to systematic history taking; Introduction to systematic physical examination.

Objective: To introduce the clinical skills of history taking and examination. To develop student communication skills
Study Skills Acquired: Presentation skills. Accurate recording

Teaching Methods: Tutorials (24 hours); Vocational experience (24 hours)

Compulsory Elements: Tutorial attendance; Vocational experience.

Assessment (%) Objective structured clinical examination (OSCE) 100

Examination Profile: There is no written examination

SPECIAL STUDY UNITS

During the first semester information will be provided on number of Special Study Units. Students can then select the Special Study Unit they wish to take.

PHASE ONE: YEAR TWO

Descriptions of the Units to be taken in second year will be provided in the course handbook at the start of the year.

DENTISTRY

General

Exemption from the Pre-Dental Year will normally be granted to candidates who have obtained prescribed grade in GCE Advanced Level Chemistry and two other appropriate subjects.

Only students preparing for their degree in Queen's University are accepted.

Applications for admission must be made through the Universities and Colleges Admissions Service.

Dental students must register their addresses at the University Student Accommodation Office and at the Dental School Office. Changes of address must be notified promptly.

Intending students should consult the pamphlet on Entrance Requirements, General Regulations for Students, General Information for Students and Fees, to ensure that they are qualified to be considered for matriculation and admission.

DEGREE IN DENTAL SURGERY

1. The degree of BDS shall be the primary degree in dentistry in the Faculty of Medicine. Students shall not be admitted to the final examination for this degree until they have shown (1) that they are matriculated students of the University, (2) that they have completed the prescribed

courses of study in the School of Clinical Dentistry in the Faculty of Medicine extending over a period of not less than five academic years and (3) that they have passed the several examinations prescribed.

2. The primary degree of BDS in the School of Clinical Dentistry in the Faculty of Medicine shall not be conferred upon persons who have not attended in the University during at least three academic years the courses of study prescribed for such degrees. The University may accept, for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

3. Candidates for the primary degree in Dentistry shall be required to show that they have attained the age of 21 years on or before the day of graduation.

REGULATIONS FOR DEGREE OF BACHELOR OF DENTAL SURGERY

1. Students who intend to proceed to the degree of Bachelor of Dental Surgery must satisfy the entrance requirements prescribed by the Faculty of Medicine.

2. Students who obtain prescribed grades in GCE Advanced Level in Chemistry and two other appropriate subjects will normally be granted exemption from the pre-dental examination.

3. A minimum of five years must elapse between the date of matriculation and the date of the Final Dental Examination.

4. Candidates who fail any examination may be required to appear before the Faculty Students' Progress Committee.

5. Candidates who have not successfully completed any examination after two attempts will normally be asked to withdraw from the University.

6. Candidates who have not passed all subjects of the Final Dental Examination after the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

7. Candidates may not sit the Final Dental Examination until they have completed not less than three years and one term of clinical training in the University.

8. Unless there are extenuating circumstances students may repeat only one complete year during the undergraduate course.

Resit Examinations

9. Entry to a resit examination will only be permitted on the basis of failure in the previous examination, illness, or other extenuating circumstances.

Distinctions and Honours

10a. Candidates will be awarded a Distinction in any subject or subject groupings in a professional dental examination of the Faculty in which the appropriate standard is achieved.

The subject groupings of the examinations are as follows:

2nd BDS	Anatomy & Dental Anatomy Physiology Biochemistry
3rd BDS	Pathology Microbiology Pharmacology Medicine & Surgery
Final BDS	Restorative Dentistry Orthodontics and Paediatric &

Preventive Dentistry
Dental Surgery
Practice of Dentistry

10b. In all professional examinations the award of a Distinction will only be made if the candidate has achieved a pass standard in all subjects of the examination at the first attempt

10c. An Honours degree will be awarded to candidates who attain the required standard at the Final Dental Examination and also to those candidates who achieve an aggregate of six distinctions including at least one from each of the Professional Dental Examinations.

REGULATIONS GOVERNING MEDICAL GRADUATES OF THE QUEEN'S UNIVERSITY TAKING BDS

Graduates in Medicine of the Queen's University of Belfast may present themselves for the final examination for the degree of BDS provided they have:

- (1) Attended the prescribed courses of study in the following subjects: Dental Anatomy, Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics and Radiology), Dental Prosthetics (including Dental Materials), Conservative Dentistry, Periodontics, Orthodontics, Paediatric and Preventive Dentistry.
- (2) Passed such class tests as may from time to time be prescribed.
- (3) Attended such other courses as may from time to time be prescribed.

CERTIFICATES OF ATTENDANCE IN THE VARIOUS COURSES AND THE SUBJECTS OF EXAMINATIONS

Students shall not be admitted to any examination for a degree or diploma unless they have credit for the course of study in the subjects in which they present themselves at examination. Students are not entitled to credit for any course unless they have fulfilled such conditions of attendance as may be prescribed at the beginning of the course, and have pursued their studies to the satisfaction of the professor, lecturer or recognized teacher in the subject in charge of the course. In the case of practical or laboratory classes, notebooks may be required for inspection by the examiners. Further certificates may be required for students sitting resit examinations.

Class certificates will be awarded on satisfactory results in the Third Year Clinical Examination at the end of Third Year and the Fourth Year Clinical Examination at the end of Fourth Year. A candidate may not sit the Fourth Year Clinical Examination until he/she has successfully completed the Third Year Clinical Examination. A candidate may not sit the Final Examination until he/she has successfully completed the Fourth Year Clinical Examination

Faculty of Medicine and Health Sciences

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Health Of Students and Patients

It is essential that patients are not exposed to infections which might be transmitted by health care workers or students. Students will be educated in good practice to protect patients during the undergraduate course. However, two conditions have caused public anxiety and special precautions must be undertaken. The procedures described below can be undertaken by the University Health Service.

Hepatitis B

This is a serious infectious disease which is rare in this country but common in parts of Africa and Asia. The infection is transmitted mainly by blood. There is a possible risk of health care staff being infected by patients and for some higher risk specialities, vaccination of health care staff is recommended. There is a much lesser risk that patients may be infected by health care staff but this could occur during certain surgical operations. It is, therefore, a requirement that all students of Medicine, Dentistry, Nursing and Podiatry should be immunised and show that they are not carriers of the infection.

The following are University regulations:

- All students entering the Faculty of Medicine and Health Sciences to study Medicine, Dentistry, Nursing and Podiatry will be required at the time of registration to provide evidence that they have been successfully vaccinated against Hepatitis B and that they are not infectious carriers. The University reserves the right to re-test any student.
- Any student wishing to study Medicine, Dentistry, Nursing or Podiatry who is an infectious carrier of Hepatitis B will not be allowed to enter the course.

HIV and AIDS

The risk of HIV infection being transmitted from a health care worker to a patient is very small. Nevertheless, it is imperative that any medical or dental students who think that they might have been infected with HIV should seek

appropriate diagnostic testing and counselling and, if found to be infected, have regular medical supervision.

Medical or dental students who are HIV positive must also seek specialist advice on the extent to which their undergraduate course should be modified in order to protect patients. It would be a disciplinary offence for medical or dental students who know or believe themselves to be infected with HIV to put patients at risk by failing to seek appropriate counselling or by failing to act upon it when given.

Students who become infected with HIV will receive the confidentiality and support afforded to other patients. Only in the most exceptional circumstances, where the release of the student's name is essential for the protection of patients, may a student's HIV status be disclosed without his or her consent.

Degrees In The Faculty Of Medicine and Health Sciences

1. There shall be seventeen degrees of the University in the Faculty of Medicine and Health Sciences, viz.

Bachelor of Medicine (MB)
Bachelor of Surgery (BCh)
Bachelor of Obstetrics (BAO)
Bachelor of Medical Science (Ordinary) ((BMedSc) (Ordinary))
Bachelor of Medical Science (BMedSc) (Pod))
Doctor of Medicine (MD)
Master of Surgery (MCh)
Master of Medical Science (MMedSc)
Bachelor of Dental Surgery (BDS)
Bachelor of Science (Hons) in Health Studies for Nurses, Midwives and Health Visitors (BSc)
Bachelor of Science (Anatomy)
Bachelor of Science (Physiology)
Bachelor of Science (Biomedical Science)
Bachelor of Sciences (Intercalated Degrees)
Master of Science in Nursing (MSc (Nursing))
Master of Science in Midwifery (MSc (Midwifery))
Master of Arts (Medicine, Law & Ethics)

2. The degrees of MB, BCh, BAO are the primary degrees in medicine, surgery and obstetrics in the Faculty of Medicine and Health Sciences, and shall be conferred at the same time and after the same course of study. No student shall be admitted to the Final Part II examination for these degrees until he/she has shown (1) that he/she is a matriculated student of the University, (2) that he/she has satisfactorily completed the prescribed courses of study in the Faculty of Medicine and Health Sciences extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

3. The degree of BDS is the primary degree in dentistry in the Faculty of Medicine and Health Sciences. No student shall be admitted to the final examination for this degree until he/she has shown (1) that he/she is a matriculated student of the University, (2) that he/she has satisfactorily completed the prescribed courses of study in the School of Dentistry in the Faculty of Medicine and Health

Sciences extending over a period of not less than five academic years and (3) that he/she has passed the several examinations prescribed.

4. Neither the primary degrees of MB, BCh, and BAO in the Faculty of Medicine and Health Sciences, nor the primary degree of BDS in the Faculty of Medicine and Health Sciences shall be conferred upon any person who has not attended in the University during three academic years the courses of study prescribed for such degrees. The University may accept, for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

5. For the degree of MB BCh BAO students must normally attend all clinical sessions in the subjects of the undergraduate medical curriculum to be allowed to present themselves for the assessments in those subjects. For students who do not attend all sessions, any remedial action required will be decided by the relevant Course Co-ordinator and the Adviser of Studies.

6. Every candidate for the primary degrees in Medicine and the primary degree in Dentistry shall be required to show that he/she attained the age of 21 years on or before the day of graduation.

7. It should be noted that modules referred to in the medical and dental courses are clinical modules and not standard University modules as defined in Book I of the Calendar (p. 18).

8. The degree of BSc is a primary degree within the Faculty of Medicine and Health Sciences for students not following vocational courses and shall be conferred upon matriculated students of the University who have pursued approved courses of study and passed the prescribed examinations for the degree. It may be taken either as an ordinary degree or as a degree with honours.

9. The degree of BSc shall not be conferred upon persons who have not attended in the University during at least three academic years the courses of study prescribed for the degree.

10. Bachelor of Medical Science (Ordinary Degree). Candidates eligible for the Ordinary Degree of Bachelor of Medical Science are enrolled medical and dental students who have passed all Examinations up to the start of fourth year but subsequently either choose to withdraw or fail to complete the medical or dental course satisfactorily.

11. The degree of Bachelor of Medical Science (Podiatry) is the primary degree in Podiatric Medicine in the Faculty of Medicine and Health Sciences. No student shall be admitted to the final examination for this degree unless he/she (i) is a matriculated student of the University, (ii) has completed the prescribed course of study and (iii) has passed the relevant examinations.

12. The degree of Bachelor of Science in Health Studies for Nurses, Midwives and Health Visitors is a primary degree of the School of Nursing within the Faculty of Medicine and Health Sciences. The Degree is a top-up degree for those nurses, midwives and health visitors who have acquired 240 credit points at Level 2. The degree will be offered part-time over two years.

Intercalated Degree

A student of Medicine or Dentistry who has completed satisfactorily the course of studies for second/third year, may, after a further year's study in certain subjects, present themselves for the degree of Bachelor of Science (Intercalated) (BSc). This degree will be available in the following subject areas:

Anatomy
Medical Genetics
Microbiology
Physiology
Therapeutics & Pharmacology
Biochemistry

The consent of the heads of departments concerned and of the Dean of the Faculty of Medicine and Health Sciences is required before enrolment.

On completion of an intercalated BSc selected students may study for a PhD before returning to their medical or dental studies.

Sponsio Academica

All graduands in medicine are required to make the following declaration before graduation:

I do solemnly declare that as a graduate of the Faculty of Medicine and Health Sciences of The Queen's University of Belfast, I will exercise my profession to the best of my knowledge and ability for the good of all persons whose health may be placed in my care and for the public weal; that I will not knowingly or intentionally do any thing or administer any thing to any person to their hurt or prejudice for any consideration or motive whatsoever; that I will hold in due regard the honourable obligations of the medical profession doing nothing inconsistent therewith; and I do also declare that I will keep silence about those things which I have seen or heard while visiting the sick; and I do further declare that I will be loyal to my University and endeavour to promote its welfare and maintain its traditions.

Higher Degrees: For information on higher degrees in the Faculty of Medicine and Health Sciences – MD, MCh, MMedSc, DipMH, , MSc (Nursing) and MSc(Midwifery), MA (Medicine, Law & Ethics) – see Book 3 of the Calendar.

Faculty Regulations For The Undergraduate Medical Curriculum

General Regulations for Degrees of Bachelor of Medicine, Bachelor of Surgery and Bachelor of Obstetrics

1. Students who obtain prescribed grades in GCE Advanced Level Chemistry and two other appropriate subjects will normally be accepted into Phase 1 of the medical course. Those accepted who offer alternative qualifications will normally be required to complete a Pre-Medical year.

2. Every candidate for the degrees of MB, BCh and BAO shall be required to have satisfied the examiners in the

various courses within the ~~four~~^{five}-phases of the degree programme.

- Phase 1: End of semester examinations with resit examinations in August.
(3 modules examined at the end of the first semester)
- Phase 2: End of semester examinations with resit examinations in August each year.
(3 modules examined each semester)
- Phase 3: End of semester examinations with resit examinations in August.
- Phase 4: Final Part 1 examinations held in the September after Phase 4 with resit examinations in January
- Phase 5: Final Part II examinations held in June of Final Year with resit examinations in December.

No candidate may enter for the Final Part II examinations until he/she has satisfactorily completed not less than Phases 3, 4 and all attachments of Phase 5 of the medical curriculum in the University.

3. Candidates obtaining less than 40% in any part of an integrated examination in core subjects will normally fail the examination even if they achieve an overall pass mark of 50%.

4. Where a student has attained an overall pass mark for a module but has not achieved a satisfactory performance in all the specified compulsory elements the result may at the discretion of the Board of Examiners be recorded as incomplete.

5. In all cases of failure or incompleteness, the Board of Examiners will be responsible for deciding whether the whole module or only specified components should be repeated. The Board of Examiners will forward the names of any student whose progress is unsatisfactory to the Faculty Students' Progress Committee.

63. Students will not be permitted to proceed from one year of the course to the next unless a satisfactory performance has been achieved in all elements of the preceding year.

74. Unless there are extenuating circumstances, a student may repeat only one academic year during the undergraduate medical course.

85. A student will not normally be permitted to take more than 7 years from the date of first registration in the undergraduate medical course to complete the course (excluding the Pre-Medical year or Intercalated Degrees).

~~6. Distinction: Distinctions will be awarded on the basis of performance in core subjects at each of the second, third, and fifth Phases. A Special Study Module may be awarded with credit. A distinction will be awarded to any candidate who achieves credit in four or more of the six Special Study Modules.~~

~~7. Honours: on successful completion of Final Part II, a student achieving three or more distinctions will be awarded honours.~~

9. Distinction: Distinctions will be awarded on the basis of performance

One for Phases 1 & 2 combined

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- One for Phase 3
- One for Obstetrics and Gynaecology awarded at Final MB Part I
- One for Medicine and Surgery awarded at Final MB Part II

Students must pass all assessments at first attempt to be eligible for a distinction.

10. Honours: Students who obtain a total of three distinctions throughout the course, or who achieve both distinctions in Final MB, will be awarded the degrees of MB BCh BAO with Honours.

Students who entered the course prior to 1996 should consult regulations for Honours and Distinction in Calendar Book I 1995-96.

11. Special Study Modules will not be included in the award of distinctions. A credit will be awarded to all students who achieve an overall mark of at least 70% in the Special Study Modules of Phases 2 and 3.

Order Of Study And Examinations

1. Pre-Medical Year

Students offering qualifications other than GCE Advanced Level Chemistry and two other appropriate subjects may be required to undertake a Pre-Medical Year. Such students will register with the Faculty of Medicine and Health Sciences but take appropriate modules in the Faculty of Science and Agriculture. These will include Chemistry and other modules as agreed by the Adviser of Studies.

Examinations will be held at the end of each Semester with resit examinations in August in accordance with the regulations of the Faculty of Science and Agriculture. A candidate who does not pass all the modules of the Pre-Medical examinations by September of his/her pre-medical year must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

A candidate may not proceed to Phase 1 before achieving a satisfactory standard in all the modules examined in the Pre-Medical year.

2. Phases 1 and 2: First and Second Year

The Phase 1 curriculum comprises three modules of equal value:

- 110MED107 Cell and Molecular Biology
- 110MED108 Cells and Patients
- 110MED109 Science, Society and Medicine

All students must study these three modules and sit examinations at the end of the first semester.

The Phase 2 curriculum comprises two parts:

- 6 compulsory modules which are taken by all students
- 3 special study modules which are selected by the students (1 taken in each of the second, third and fourth semesters).

All students must study and sit examinations in three modules each semester: that is 9 modules in total during Phase 2.

Phase 2: Semesters Two, Three and Four

The following modules are taught in each semester:

	Semester 2	Semester 3	Semester 4
Systems Course	215MED104,	115MED201,	215MED204
Clinical Skills	205MED105,	105MED202,	205MED205
Special Study	210MED106,	110MED203,	210MED206

2.1 First Year:

Examinations will be held at the end of each semester with resit examinations in August.

Candidates who fail the end of semester examinations in one or two modules will be allowed to proceed to resit examinations in August.

Candidates who fail the end of semester examinations in more than two modules must appear before Faculty Students' Progress Committee and will normally be required to re-enter first year and repeat the outstanding modules.

Candidates who are required to repeat the year and have to repeat the special study module may elect and who elect to take a different special study module in their repeat year—but year will be allowed only one attempt at the examination of this module—this/these module(s).

Candidates who have not passed any module after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

2.2 Second Year:

Examinations will be held at the end of each semester with resit examinations in August.

Candidates who fail the end of semester examinations in one or two modules will be allowed to proceed to resit examinations in August.

Candidates who fail more than two modules in the end of semester examinations must appear before Faculty Students' Progress Committee and will normally be required to re-enter second year and repeat the outstanding modules.

Candidates who are required to repeat the year and have to repeat one or more special study module(s) may elect and who elect to take a different special study module(s) in their repeat year—but year will be allowed only one attempt at the examination of this module—this/these module(s)(e).

Candidates who have not passed any module after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

3. Phase 3: Third Year

All students are required to take three modules in each of two clinical semesters of 19 weeks (16 weeks teaching and 3 weeks revision/assessment)

Students will be required to complete Systems Course 2 (2 modules), Clinical Course (2 modules) and two Special Study Modules. Examinations will be held at the end of each clinical semester with resit examinations in August.

Candidates who fail the end of semester examinations in one or two modules will be allowed to proceed to resit examinations in August.

Candidates who fail more than two modules in the end of semester examinations must appear before the Faculty Students' Progress Committee and will normally be required to re-enter third year and repeat the outstanding modules.

Candidates who are required to repeat the year and have to repeat one or more special study module(s) may elect to take a different special study module(s) in their repeat year but will be allowed only one attempt at the examination of this module(s).

Candidates who have not passed any module(s) after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

All students are required to take six modules: 2 compulsory Systems Modules, 2 compulsory Clinical Modules and two Special Study Modules.

3.1 Systems Modules

Module title	Semester One	Semester Two
Systems (A)	100MED302	200MED302
Systems (B)	100MED305	200MED305

A student will be required to take a Systems module in each semester with the examinations in January and June respectively and, if necessary resit examinations in August.

3.2 Special Study Modules

Special Study Modules 300MED301 and 300MED306

A student will be required to take a Special Study Module from a selection available in each semester with examinations in January and June respectively and resit examinations in August.

3.3 Clinical Modules

3.3.1 Clinical Modules consist of the following subjects. Students must complete Clinical Modules A and B. Details of assessment methods are provided in course handbooks. A resit assessment for each module will be held in August.

Title	Semester One	Semester Two
Clinical Module A	100MED303	200MED303

Clinical Module A Content: subjects

General Medicine (including cardiology)

Nephrology
Metabolic Medicine
Neurosciences
Haematology

Title Semester One Semester Two

Clinical Module B 100MED304 200MED304

Clinical Module B Content: Subjects:

General Surgery
Musculoskeletal
Dermatology
ENT
Ophthalmology

3.3.2 A Clinical Module will be failed if:

- (i) the total average mark is less than 50%
- (ii) if any individual subject is less than 40% (see general regulation 3 for the degree of MB BCh BAO)

3.3.4 Candidates who fail but this is because they have failed in one subject of the module may be permitted to resit that subject only. This would apply for either or both Clinical Modules where the students are permitted to proceed to resit examinations in August (see regulation 3.4 below).

3.4 Regulations Governing Progress

3.4.1 Candidates who fail any of the following may proceed to take resit examination(s) in August.

- * One Module
- * One subject of either or both Clinical Modules (see regulation 3.3.4 above)
- * One module plus one subject of either or both Clinical Modules (see regulation 3.3.4 above).
- * Both Special Study Modules
- * A Special Study Module and a Systems Module
- * A Special Study Module and a Clinical Module

3.4.2 Candidates who fail any other combination will be called to appear before the Faculty Students' Progress Committee and normally required to re-enter third year and repeat the outstanding modules.

3.4.3 Candidates who have failed one subject of either or both Clinical Modules and two other Modules who are required by Faculty Students' Progress Committee to re-enter third year must repeat the entire Clinical Module(s).

3.4.4 Candidates who have to repeat one or more Special Study Module(s) and who elect to take a different Special Study Module(s) in their repeat year will be allowed only one attempt at the examinations of this/these module(s).

3.4.5 Candidates who fail any module at the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

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4. Phase 4: Fourth Year

4.1 Students must complete six main courses:

- Mental Health (6 weeks)
- Pregnancy, childbirth and diseases of women (8 weeks)
- Primary health care, and (4 weeks)
- Ageing and health (4 weeks)
- Health care of infants and children (8 weeks)
- Emergency Medicine (8 weeks)

Clinical examinations will be held at the end of each course.

Students will also attend a two week clinical attachment in Cancer Studies and take a class test. Candidates must pass this class test before admission to Final Part II examinations.

4.2 Progress Regulations

A candidate who fails main courses which together add up to 16 weeks or less may proceed to the resit examinations in August. Candidates who fail courses which comprise more than 16 weeks of the year will be called before the Faculty Students' Progress Committee. Detailed regulations below.

4.2.1. Failure in One or Two of the Five courses adding up to 16 weeks or less:

(i) 4.1-A candidate who fails one or two of the five main courses adding up to 16 weeks or less at the first attempt will be required to undertake further clinical examination(s) as a component of the Final Part I examination in September.

(ii) 4.2 A candidate who fails the further clinical examination(s) in September

- Where the of one courses add up to 8 weeks or less will be required to repeat the course(s) and take a further clinical examination(s) in December and will not be permitted to take Final Part II examinations until December of the following year.

- Where the courses add up to more than 8 weeks will be called

1.3-A candidate who fails two of the September clinical examinations must appear before the Faculty Students' Progress Committee and will normally be required to re-enter fourth year and repeat the outstanding courses.

(iii) 4.4 A candidate who fails the clinical examination after repeating the course must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

4.4.2. Failure in Courses adding up to more than 16 weeks: More Than Two of the Five Main Courses:

(i) 2.4 A candidate who fails more than two of the five main courses which add up to more than 16 weeks at first attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter fourth year and repeat the outstanding courses.

(ii) 2.2 A candidate who fails the clinical examination after repeating any of these courses will be required to undertake a further clinical examination(s) in September as a component of Final Part I examinations.

(iii) 2.3 A candidate who fails the further clinical examination in September must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

4.3-Final Part I examinations will be held in the September after Phase 4 with resit examinations in January. A candidate who has failed any part of the Final Part I examinations after the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

5. Phase 5: Fifth Year

During Phase 5 students will be required to pass two special study modules which will consist of a clinical attachment, which may be taken overseas, and a clinical project. Students will also be required to attend compulsory clinical attachments in Medicine, and Surgery and complete a period of workshadowing a Pre-Registration House Officer. Elective clinical attachments will be available in all subjects of the Final Part II examinations.

Candidates must pass all parts of Phase 5 before proceeding to Final Part II examinations.

Candidates will be required to undertake Final Part II examinations in June with resit examinations in December. Candidates who have failed any part of the Final Part II examinations after the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

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The Medical Act 1983

Note: By the provisions of the Medical Act 1983 a graduate must obtain certificates of satisfactory service over twelve months as a resident Pre-Registration House Officer. This normally includes at least four months in both Medicine and Surgery in hospital posts approved by the University. Details of the requirements may be obtained at the Faculty of Medicine and Health Sciences, 71 University Road, Belfast. in the course handbook at the start of the year.

Dentistry

General

Exemption from the Pre-Dental Year will normally be granted to candidates who have obtained prescribed grades in GCE Advanced Level Chemistry and two other appropriate subjects.

Only students preparing for their degree in Queen's University are accepted.

Applications for admission must be made through the Universities and Colleges Admissions Service.

Dental students must register their addresses at the University Student Accommodation Office and at the Dental School Office. Changes of address must be notified promptly.

Intending students should consult the pamphlet on Entrance Requirements, General Regulations for Students, General Information for Students and Fees, to ensure that they are qualified to be considered for matriculation and admission.

Degree In Dental Surgery

1. The degree of BDS shall be the primary degree in dentistry in the Faculty of Medicine and Health Sciences. Students shall not be admitted to the final examination for this degree until they have shown (1) that they are matriculated students of the University, (2) that they have completed the prescribed courses of study in the School of Clinical Dentistry in the Faculty of Medicine and Health Sciences extending over a period of not less than five academic years and (3) that they have passed the several examinations prescribed.

2. The primary degree of BDS in the School of Clinical Dentistry in the Faculty of Medicine and Health Sciences shall not be conferred upon persons who have not attended in the University during at least three academic years the courses of study prescribed for such degrees. The University may accept, for not more than two academic years of the required total, approved courses of study pursued in any other University or School of Medicine or School of Dentistry.

3. Candidates for the primary degree in Dentistry shall be required to show that they have attained the age of 21 years on or before the day of graduation.

Regulations Governing Medical Graduates Of The Queen's University Taking BDS

Graduates in Medicine of the Queen's University of Belfast may present themselves for the final examination for the degree of BDS provided they have:

- (1) Attended the prescribed courses of study in the following subjects: Dental Anatomy, Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics and Radiology), Dental Prosthetics (including Dental Materials), Conservative Dentistry, Periodontics, Orthodontics, Paediatric and Preventive Dentistry, and Dental Public Health.
- (2) Passed such class tests as may from time to time be prescribed.
- (3) Attended such other courses as may from time to time be prescribed.

Certification Of Attendance In The Various Courses And The Subjects Of Examinations

Students are not entitled to credit for any course unless they have fulfilled such conditions of attendance as may be prescribed at the beginning of the course, and have pursued their studies to the satisfaction of the professor, lecturer or recognised teacher in the subject in charge of the course. In the case of practical or laboratory classes, notebooks may be required for inspection by the examiners. Further certification may be required for students sitting resit examinations.

Class certification will be awarded on satisfactory results in the Phase 43 Clinical Examination at the end of Phase 43 and the Phase 54 Clinical Examination at the end of Phase 54. A candidate may not sit the Phase 54 Clinical Examination until he/she has successfully completed the Phase 43 Clinical Examination. A candidate may not sit the Final Examination until he/she has successfully completed the Phase 53 Clinical Examination.

Sponsio Academica

All graduands in dentistry are required to make the following declaration before graduation:

I do solemnly declare that, as a graduate of the Faculty of Medicine and Health Sciences of The Queen's University of Belfast, I will exercise my profession to the best of my knowledge and ability for the good of all persons whose health may be placed in my care and for the public weal; that I will not knowingly or intentionally do any thing or administer any thing to any person to their hurt or prejudice for any consideration or motive whatsoever; that I will hold in due regard the honourable obligations of the medical profession doing nothing inconsistent therewith; and I do also declare that I will keep silence about those things which I have seen or heard while visiting the sick; and I do further declare that I will be loyal to my University and endeavour to promote its welfare and maintain its traditions.

Higher Degrees

For information on higher degrees in the School of Dentistry —MMedSc and PhD— see Book 3 of the Calendar

Regulations For Degree Of Bachelor Of Dental Surgery

Students who commenced the course prior to the academic year 1996-97 should refer to Book 1 General Regulations and Primary Degree Regulations 1996-97 for regulations relating to the degree programme.

1. Students who obtain prescribed grades in GCE Advanced Level Chemistry and two other appropriate subjects will normally be accepted into Phase 1 of the dental course. Those accepted who offer alternative qualifications may be required to complete a Pre-Dental year taking modules in the Faculty of Science and Agriculture.

2. Every candidate for the degree of BDS shall be required to have satisfied the examiners in the various courses within the five phases of the degree programme.

Phase 1: End of semester examinations with resit examinations in August (3 modules examined at the end of the first semester)

Phase 2: End of Semester examinations with resit examinations in August each year

Phase 3: Examinations will be in two parts: Part I will take place in November/December/January with resit examinations in June of the following year and Part II will take place in June with resit examinations in the following December.

Phase 4: Phase 4 Clinical Examination held in June with resit examinations in the following December

Phase 5: Phase 5 Clinical Examination held in February with resit examinations in the following June.

Final BDS Examination held in June of fifth Year with resit examinations in the following December.

3. No candidate may enter for the Final Examination until he/she has satisfactorily completed all other components of the dental curriculum in the University.

4. Unless there are extenuating circumstances, a student may repeat only one academic year during the undergraduate dental course.

5. A student will not normally be permitted to take more than 7 years from the date of first registration in the undergraduate dental course to complete the course (excluding the Pre-Dental year or Intercalated Degrees).

6. Distinction: A candidate will be awarded a distinction in any of Phases 2, 3, 4 and 5 in which he/she has achieved the appropriate standard. A distinction will also be awarded to candidates who achieve an appropriate standard in their final year dissertation.

7. Honours: A candidate will be awarded honours if he/she achieves 3 distinctions in the Final BDS examinations or if a candidate accumulates 5 distinctions during the course having completed each phase satisfactorily at first attempt.

6. Distinctions and Honours:

Distinctions are to be awarded in modules/subjects/defined courses of student where the appropriate standard has been achieved at the first attempt.

(i) For students entering the course in the academic year 1994-95

Distinctions: A candidate will be awarded a maximum of 3 distinctions in 2BDS, a maximum of 4 distinctions in 3BDS, and a maximum of 4 distinctions in the Final BDS Examinations if he/she has achieved the appropriate standard. An additional distinction will be awarded to candidates who achieve an appropriate standard in their final year Dissertation.

Honours: A candidate will be awarded the degree of BDS with Honours if he/she achieves 3 distinctions in the Final BDS examinations or if a candidate

accumulates 6 distinctions during the course with at least one distinction in each of the Professional Examinations.

(ii) For students entering the course in the academic year 1995-96

Distinctions: A candidate will be awarded a maximum of 3 distinctions in 2BDS, a maximum of 4 distinctions in 3BDS, and a maximum of 5 distinctions in Phase 5 if he/she has achieved the appropriate standard.

Honours: A candidate will be awarded the degree of BDS with Honours if he/she achieves 4 distinctions in Phase 5 or if a candidate accumulates 6 distinctions during the course with at least one distinction in each of the Professional Examinations.

(iii) For students entering the course in the academic year 1996-97

Distinctions: A candidate will be awarded a distinction in Phase 2, a maximum of 4 distinctions in Phase 3, and a maximum of 5 distinctions in Phase 5 if he/she has achieved the appropriate standard.

Honours: A candidate will be awarded the degree of BDS with Honours if he/she achieves 4 distinction in Phase 5 or if a candidate achieves a total of 5 distinctions of which at least 2 must be in Phase 5.

(iv) For students entering the course on or after the academic year 1997-98

Distinctions: A candidate will be awarded a distinction in Phase 2, a maximum of 3 distinctions in Phase 3, and a maximum of 5 distinction in Phase 5 if he/she has achieved the appropriate standard.

Honours: A candidate will be awarded the degree of BDS with Honours if he/she achieves 4 distinctions in Phase 5 or if a candidate achieves a total of 5 distinctions of which at least 2 must be in Phase 5.

Order Of Study And Examinations

1. Pre-Dental Year

1.1 Students offering qualifications other than GCE Advanced Level Chemistry and two other appropriate subjects may be required to undertake a Pre-Dental year. Such students will enrol in the Faculty of Medicine and Health Sciences but take appropriate courses in the Faculty of Science and Agriculture these will include Chemistry and other modules as agreed by the Adviser of Studies.

1.2 Examinations will be held at the end of each semester with resit examinations in August. A candidate who does not pass all the subjects of the Pre-Dental examinations by September of his/her Pre-Dental year must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

1.3 A candidate may not proceed to Phase 1 before achieving a satisfactory standard in all the modules examined in the Pre-Dental year.

Phases 1 and 2: First and Second Year

The Phase 1 curriculum comprises three compulsory modules of equal value:

Phase 1: Semester One

- 110MED108 Cells and Patients
- 110MED107 Cell and Molecular Biology
- 110MED109 Science, Society and Medicine

All students must study these three modules and take examinations at the end of semester.

Phase 2: Semester Two

The Phase 2 curriculum comprises 3 modules in each semester.

- 215MED104 Systems 1
- 205MED105 Clinical Skills
- 210DEN106 Introduction to Clinical Dentistry (1)

All students must study these three modules and take examinations at the end of semester.

Phase 2: Semester Three

- 115DEN201 Systems 1
- 105DEN202 Clinical Skills
- 110DEN203 Introduction to Clinical Dentistry (2)

All students must study these three modules and take examinations at the end of semester.

Phase 2: Semester Four

- 215DEN204 Systems 1
- 205DEN205 Clinical Skills
- 210DEN206 Introduction to Clinical Dentistry (3)

All students must study these three modules and take examinations at the end of semester.

2.1 First Year

2.1.1 Examinations will be held at the end of each semester with resit examinations in August.

2.1.2 Candidates who fail the end of semester examinations in one or two modules will be allowed to proceed to resit examinations in August.

2.1.3 Candidates who fail more than two modules in the end of semester examinations must appear before the Faculty Students' Progress Committee and will normally be required to re-enter first year and repeat the outstanding modules.

2.1.4 Candidates who have failed any module after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

2.2 Second Year

2.2.1 Examinations will be held at the end of each semester with resit examinations in August.

2.2.2 Candidates who have failed the end of semester examinations in one or two modules will be allowed to proceed to resit examinations in August.

2.2.3 Candidates who have failed in more than two modules of the end of semester examinations must

appear before the Faculty Students' Progress Committee and will normally be required to re-enter second year and repeat the outstanding modules.

2.2.4 Candidates who have failed any module after two attempts must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

Students repeating any of the examinations of Phase 3 should refer to Book 1 General Regulations and Primary Degree Regulations 1998-99 for regulations relating to the degree programme.

3. Phase 3: Third Year

3.1 All students are required to take a co-ordinated Human Diseases course in Pathology, Microbiology, Pharmacology and Medicine & Surgery. All students are required to undertake courses in Microbiology, Pharmacology and a co-ordinated Human Disease course comprising the subjects of Pathology, Medicine and Surgery.

3.2 The subjects of the Phase 3 Examination shall be:

- (1) Microbiology
- (2) Pharmacology
- (3) Human DiseaseMedicine, Surgery & Pathology.

3.3 The Phase 3 Examination shall consist of two parts.

The Part I examinations in Microbiology and Pharmacology will be held in November/December~~January~~ of the third year.

The Part II examinations in Human DiseaseMedicine, Surgery and Pathology will be held in June of the third year.

3.4 A candidate who fails both subjects of the Phase 3 Examination Part I, at the first attempt, must resit and pass the outstanding subject at the Resit Examination in June. A candidate resitting any subject of the Phase 3 Examination Part I, will be permitted to sit Part II of the examination in June of the Third year.

~~3.5~~ 3.6 A candidate who fails any part of the Phase 3 Examination Part II, at first attempt, will be required to resit the examination in December.

~~3.6~~ 3.7 A candidate who fails any subject of the Phase 3 Examination by the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

~~3.7~~ 3.8 A candidate may not sit for the Final Examination until he/she has successfully completed the whole of the Phase Three Examination.

4. Phase 4: Fourth Year

4.1 Phase 4 Clinical Examination

Class certification will be awarded on satisfactory results in these examinations held in May/June..

This will be mainly a clinical/practical examination and will include the theory of Applied Dental Materials and Dental Public Health.

Subjects of the Examination:

Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics and Radiology)
Conservative Dentistry
Dental Prosthetics
Periodontics
Orthodontics
Paediatric and Preventive Dentistry
Applied Dental Materials
Dental Public Health

Resit examinations will be held in November/December of the fifth year.

4.2 A candidate who does not pass all subjects of the examination on the second attempt must appear before the Faculty Students' Progress Committee and will normally be required to re-enter fourth year and repeat the outstanding subjects in June.

4.3 A candidate who fails any subject of the Phase 4 Clinical examination on the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

4.4 Students may not proceed to the Phase 5 Clinical Examination until they have successfully completed the Phase 4 Clinical Examination.

5. Phase 5: Fifth Year

5.1 Phase 5 Clinical Examination

Class certification will be awarded on satisfactory results in this Examination which will be held in February and in which there will be a clinical/practical emphasis.

Subjects of the Examination:

Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics and Radiology)

Dental Prosthetics
Conservative Dentistry
Periodontics
Orthodontics
Paediatric and Preventive Dentistry
Dissertation (approximately 6,000 words)

5.1.2 Notwithstanding regulation 5.2.3, a candidate who does not pass more than two clinical subjects will repeat the outstanding subjects in June of the fifth year. This will require students to postpone sitting the Final Dental Examination until December.

5.1.3 A candidate who does not pass any subject of the resit examination in June must appear before the Faculty Students' Progress Committee and will normally be required to re-enter final year and resit the outstanding examinations in February.

5.1.4 A candidate who does not pass any subject of the Phase 5 Clinical Examination on the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University.

5.1.5 A candidate who fails one or two subjects will repeat those subjects in conjunction with the Final Dental

Examination in June. Failure in any clinical element in June will result in an overall fail in that subject and resit examinations will be taken in December (see regulation 5.2.3)

5.2 Final Dental Examination

5.2.1 This professional examination will be held in June of the fifth year. The emphasis in the final examination will be on whole patient care. The examination will consist of the following subject groups and may include written papers, clinicals and orals:

Dental Surgery (including Oral Surgery, Oral Medicine, Oral Pathology, Anaesthetics, Radiology, Dental Ethics and Dental Jurisprudence)

Restorative Dentistry (including Conservative Dentistry, Dental Prosthetics and Periodontics)

Orthodontics and Paediatric and Preventive Dentistry
Practice of Dentistry.

~~5.2.2 The grades obtained in the Dissertation will be tabled at the Final Board of Examiners to confirm the marks and award distinctions. Students will submit a dissertation (approximately 6,000 words) in December of fifth year. A distinction will be awarded to candidates who achieve an appropriate grade in the December submission. A student who fails to achieve a satisfactory grade for the dissertation will be granted an opportunity to resubmit the dissertation by Easter of fifth year.~~

(i) For students entering the course if the academic year 1994-95

The grades obtained in the Dissertation will be tabled at the Final Board of Examiners to confirm the marks and award of distinctions.

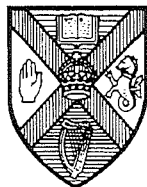
(ii) For students entering the course on or after the academic year 1995-96.

The grades obtained in the Dissertation will be tabled at the Final Board of Examiners. A distinction awarded for the dissertation will be taken into consideration, along with any other distinctions achieved in the Final BDS Examinations and throughout the course to confirm the award of distinctions and Honours.

5.2.3 Candidates will be required to undertake Final BDS examinations in June. Candidates who fail to achieve a satisfactory performance in any subject group of the Final BDS in June will be required to resit the outstanding subject group(s) in December.

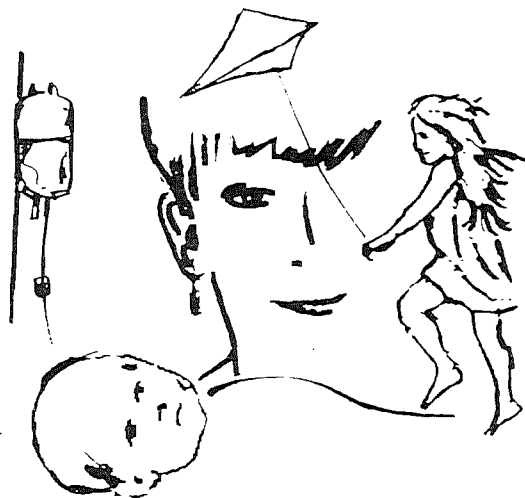
5.2.4 A candidate who does not pass all subjects of the Final examination by the third attempt must appear before the Faculty Students' Progress Committee and will normally be required to withdraw from the University. Such candidates will be eligible for the award of the BMedSc (Ordinary Degree)(see regulation 9 under Degrees in the Faculty of Medicine and Health Sciences).

THE QUEEN'S UNIVERSITY OF BELFAST



DEPARTMENT OF CHILD HEALTH

Teaching Syllabus



STUDENT GUIDE TO THE CHILD HEALTH COURSE

Fifth Year ---- 1995/6

Contents

1. Welcome and Staff Members
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6. Things to do during your daily ward/clinical routine
7. Guidelines in Clerking patients and recording information in medical casenotes
8. Residency
9. Assessment
10. Log book

WELCOME

On behalf of the Department of Child Health Staff, we trust you will find the course informative, of practical benefit and enjoyable.

STAFF MEMBERS

Professor J A Dodge Head of Department

Professor B Garth McClure Neonatal Medicine
Professor Henry L Halliday

Dr John F T Glasgow Reader

Dr J Maurice Savage Senior Lecturers
Dr Dennis J Carson
Dr Moira C Stewart
Dr Michael D Shields

Ms Florence Herbert Secretarial

Questions or inquiries:- please direct these to the Dept. of Child Health Office, Institute of Clinical Science, ext 2652, or speak to Dr Savage, Dr Carson, Dr Stewart or Dr Shields.

The Queen's University, Belfast

Aims And Educational Objectives Of The Child Health Course

AIMS

- (1) To introduce the practice of paediatrics (history taking, examination, communication skills and practical procedures).
- (2) To introduce the range of common or important paediatric problems and diseases.
- (3) To enable students to understand the impact illnesses have on a child's growth, physical and psychosocial development.
- (4) To enable students to understand the impact a sick child has on the family and community and what resources are available to help.

EDUCATIONAL OBJECTIVES

- (1) Students should be able to take a paediatric history and perform a clinical examination. From this information to be able to form a differential diagnosis and provide a list of relevant and directed investigations to help confirm the diagnosis.
- (2) Students should become aware of parents anxieties and how to communicate to parents/ children (explaining the condition and it's management).
- (3) Students should know how to perform the listed practical skills.
- (4) Students should have knowledge of the causes for the common presenting symptoms and signs and be able to describe (aetiology, presentation, natural history, diagnosis and management) the common and important paediatric disorders.

More specific information follows in the section "The least any Final Year Student should know".

Recommended reading:

- 1) Essential Paediatrics. D Hull and DI Johnston. Churchill Livingstone 1993 3rd ed.
- 2) Lecture Notes on Paediatrics. SR Meadow and RW Smithells.
- 3) Jolly's Diseases of Children Levene M Blackwell, Oxford, 1991 6th ed
- 4) Practical Paediatrics 3rd Ed Robinson and Robertson. Churchill Livingstone

Clinical skills reading:

- 1) Paediatric Clinical Examination. D Gill and N O'Brien. Churchill Livingstone 2nd Ed. 1993
- 2) The infant and child. In: Macleod's Clinical Examination 9th Ed 1995, Chapter 10, H Simpson. Editors: J Munro and C Edwards, Churchill Livingstone,

Reference

- 1) Nelson Textbook of Paediatrics. Behrman, 14 th Ed. Saunders
- 2) Textbook of Paediatrics. Ed. Campbell and McIntosh. 3rd Ed. Churchill livingstone

Course Outline

Over the 6 week period of the Child Health Course all students will attend the RBHSC during the first and final weeks of the course.

<u>Week1</u>	RBHSC	Introduction to Paediatrics and core topic tutorials	Non-residential
<u>Weeks 2-5</u>		Paediatric attachments	Residential
<u>Week 6</u>	RBHSC	Tutorials Mon, Tues, Wed. Assessment Thurs 10 am ----- MCQ + data interpretation Thurs 2 pm ----- Course feedback and questionnaire Fri. 1.30pm ----- OSCE (meet in Function Room, RBHSC for these examinations)	Non-residential
Paediatric attachments (you will be allocated to a unit for this attachment)			
RBHSC Allen ward Dr Redmond and Dr M Reid Musgrave ward Prof. Dodge, Drs Savage, Carson, Stewart and Shields			
UHD	Drs Brown, Gleadhill and Bell		
Antrim	Drs Lim, Jenkins, McAloon and Nicholson		
Coleraine	Drs Rollins and Black		
Altnagelvin	Drs Quinn, Brown, McCord and Corrigan		
Erne	Drs Phillips and Hallahahoon		
Craigavon	Drs Bell, Shepperd and Primrose		
Daisy Hill Hospital	Dr Corkey		

THE LEAST ANY FINAL YEAR STUDENT SHOULD KNOW!

(It is the student's responsibility to ensure that he/she gains the following skills/knowledge)

A) Four Basic Paediatric Skills

- (i) How to pick up / hold, change and feed a baby (ask help of nurses).
- (ii) Taking a paediatric history (different emphasis to adults).
- (iii) Clinical examination - gaining maximum information with minimum upset. (including developmental, ENT).
- (iv) Learn to;
 - (a) understand the anxieties and underlying worries parents have about their ill children,
 - (b) develop the ability to show parents that you understand and grasp what they perceive to be the problem,
 - (c) develop communication skills that will allay fears or convey information in a way that is understood by parents.

B) The Child As A Growing Individual

- (i) Patterns of development - gross motor, hand-eye, personal-social, verbal communication, emotional development.
- (ii) Patterns of growth; centile charts (length, height, weight, head circumference), sexual development.
- (iii) Principles of infant nutrition and feeding practice.
- (iv) Reduction of vulnerability with age.

(C) Important Presenting Symptoms and Signs

You should be able to list the 3-4 commonest causes of these symptoms/signs at various ages and be able to differentiate these (by features and investigations).
(students must develop a systemic approach to solving clinical problems)

Pyrexia (low grade/swinging)	Cough, stridor and wheeze
Bulging fontanelle, macro' and microcephally	Recurrent lung infections
Seizures (febrile/other)	Deafness, earache, squint
Delayed motor milestones	Vomiting, abdominal pain
	Dehydration, diarrhoea
Delayed speech language	Jaundice, hepatomegaly, ascites
Muscle weakness and abnormalities	Abdominal masses
in muscle tone	Haematuria, proteinuria
Headache, coma	Hypertension
Failure to thrive, obesity, short stature	Polyuria
Abnormal puberty	Limping, sore joint(s)
The crying infant (incessant)	Bleeding, purpura, bruising
Hypoglycaemia	Constipation

Frequent or prolonged infections	Pallor, anaemia; lymphadenopathy
Tachypnoea, apnoea, tachycardia, cyanosis	The 'blue' baby
Asymptomatic cardiac murmurs	The ill or shocked baby

D) The Spectrum Of Clinical Conditions

You should be able to describe - aetiology, presentation, natural history, signs, diagnosis and basic management of an infant/toddler/older child with:-

- (1) URTI's (pharyngitis, tonsillitis, otitis media)
LRTI's (bronchiolitis, pneumonias)
Acute epiglottitis, viral croup, asthma, cystic fibrosis
- (2) Seizures (various, age-related types), head injury
Pyogenic meningitis, acute encephalitis/encephalopathy
Spina bifida (variations in severity) and complications
Cerebral palsy (various), Down's Syndrome and children with other learning difficulties, Neuromuscular disorders, Development (normal and abnormal)
- (3) Congenital heart disease (groups) - describe anatomical and physiological bases for pathology and physical signs
- (4) Newborns - Normals, newborn asphyxia and resuscitation
Problems of being born too soon or too light
Respiratory disorders esp. RDS, hypoglycaemia, infections
Neonatal screening (PKU, etc), examination of hips
- (5) Gastro-oesophageal reflux, pyloric stenosis, coeliac disease,
Infective diarrhoeas (rotavirus, giardia lamblia, shigella, salmonella etc), oral rehydration therapy, constipation
- (6) Nephrotic and nephritic syndromes,
Fluid and electrolyte imbalance and acid/base disturbances
UTI and complications, hypertension
- (7) Infectious fevers (measles, chickenpox, mumps, rubella, pertussis, poliomyelitis) and TB. Immunisation programmes (including contraindications)
- (8) Anaemia (various), leukaemia, haemophilia, lymphadenopathy, idiopathic thrombocytopenia
Henoch-Schonlein purpura
- (9) Commoner skin problems - Napkin rash, seborrhoea, atopic eczema, thrush, scabies, herpes simplex, impetigo

- (10) Juvenile chronic arthritis
- (11) Paediatric prescribing (be able to write up a prescription for an infant).
Poisoning
- (12) Diabetes mellitus, hypothyroidism
Growth and puberty (normal and abnormal)
- (13) Interface with Child Psychiatry - Toddler behaviour/negativism, breath holding, temper tantrums, feeding problems, separation anxiety, tics, sleep disorders, behaviour disorders, enuresis, faecal soiling
- (14) Spectrum of child abuse/neglect / non-organic failure to thrive
- (15) Surgery - Bowel obstruction (various ages), appendicitis, inguinal hernia, undescended testes, hypospadias
Management of hydrocephalus, cleft lip/palate, spina bifida and complications, vesico-ureteric reflux
- (16) Accidents and commoner injuries and injury prevention strategies, limp and "funny walks" Septic arthritis/osteomyelitis, talipes, scoliosis
- (17) The sudden infant death syndrome

E) Practical Procedures

- 1. Hold, handle, 'change' and feed an infant
- 2. Make up an appropriate volume and type of feed for a baby
- 3. Measure and plot growth parameters - head circumference, weight and height
- 4. Test feed, tube feeding
- 5. Write up a paediatric drug Kardex
- 6. Urine collection (bag spec., suprapubic) for infection
- 7. Urine testing
- 8. Measure B.P.
P.E.F.R.
- 9. Give Oxygen, nebulized and inhaled therapy (for specific ages)
- 10. Draw up and give Insulin, and monitor blood glucose
- 11. Venepuncture, IV infusion, lumbar puncture
- 12. Simple airway management
Cardiopulmonary resuscitation
Apnoea monitoring
- 13. Paediatric oral and IV drug administration.
- 14. Give An Immunization

F) Laboratory Data Interpretation

- Anaemia (eg. nutritional iron def., leukaemia)
- Commoner electrolyte/blood gas, biochemical disturbances
- CSF in diagnosis
- Urinalysis and urine microscopy/culture
- Stool microscopy/culture

G) Other Relevant Aspects

- (i) Why play in hospital?
- (ii) Ethical issues (neonates, ICU, organ donation, cancer therapies, Child Protection)
- (iii) Liaison with professions allied to medicine and interaction with Educational/ Social Services
- (iv) Medical Audit (attend your ward or hospital audit meetings)
- (v) Organisation of Child Health Services in hospital/community

During Your Daily Ward/Clinic Routine

- (i) **Practise taking histories** from parents/patients, performing clinical examinations and documenting your findings on ward admissions and outpatients
- (ii) **Perform developmental assessments** at different ages - birth - 4 years
- (iii) **Measure and chart growth** - stadiometry (length/height), weight, head circumference
- (iv) **Present the case histories verbally** to medical staff
- (v) **Follow the cases through** from admission to discharge +/- review clinic
- (vi) **Visit the following departments** - physiotherapy, dietetics, radiology (x-ray, ultrasound), laboratories and social services.

GUIDELINES IN CLERKING PATIENTS ADMITTED

(These guidelines were designed for SHOs working in wards and are included here to help you record meaningful case histories and to give you an idea of what will be required from you when you qualify)

Patients' admission notes should be recorded as follows:-

Record date and time	of initial examination
Patient details:-	Name, age, abbreviated address
Referred from:-	General practitioner General Practitioner through A & E A & E Outpatients Another Unit
Presenting complaint:-	List presenting symptoms and duration
History of presenting complaint (HPC):-	Give a detailed description of symptoms. Emphasise the points which have helped you establish a clinical diagnosis not only from indirect but also direct questions. Include negative points which help exclude other conditions with the same presenting symptoms
Past medical history:-	Record in chronological order if not already covered in HPC ie pregnancy, perinatal, infancy, developmental milestones, physical development (previous heights, weights, head circumferences if known), vaccinations, other illnesses including hospital admissions. Include the feeding history details.
Systems review:-	Document additional relevant information revealed by routine systematic questioning which does not contribute to the diagnosis of the presenting complaints. Negative findings should be recorded in the notes but not usually included in an oral presentation.
Medical history of family:-	if not already recorded in HPC.
Social History:-	Always important.
Drug history:-	Record present drug therapy and relevant previous therapy.

Known Allergies:-

Drugs, foods etc. Ensure this is clearly displayed on the front of the patient's notes. Drug allergies should also be recorded on the drug kardex.

Clinical Examination:-

Document the full clinical examination but emphasise the signs which contributed to your final diagnosis. The absence of specific signs can also be important. Ensure the height, weight and, if appropriate, head circumference is included in the clinical notes and on centile chart. Record the child's development but defer if acutely ill.

Clinical Diagnosis:-

Conclude with a brief summary of a few sentences and state a clinical diagnosis or differential diagnosis. Sign the notes (and print name). Medical students should ensure the patient is discussed at the earliest opportunity with a member of the medical staff who should record and sign a clinical summary.

Investigations:-

If urgent investigations are required, record those undertaken and the results. Review the original diagnosis.

Clinical Management:-

Outline the initial management.
Record the information given to parents and their reaction to it. Patients will be examined at least once daily. Each clinical note should be dated and signed. Acute clinical problems should also have the time stated. Record in the notes the results of investigations and, if required, the plan for future investigations and treatment.

Final Case Note:-

Final note before discharge should include:
Final diagnosis
Discharge treatment
Results pending
Information given to parents
If hospital follow-up is required state:
a) the consultant and clinic to attend
b) interval before review
c) reason for review

RECORD PATIENT'S NAME AND HOSPITAL NUMBER ON EACH PAGE OF CASE NOTES

Medical students should learn how to write up a drug prescription kardex. **You are not allowed to initiate or stop treatment or to sign these prescriptions** but should be able to calculate drug doses and know how to prescribe for children.

Prescribing Drugs: (for SHOs) - The drug sheet should be written as follows:-

- a) Print the approved name of the drug except for preparations containing 2 or more drugs when proprietary names are used eg Dioralyte, Ketovite.
- b) Date and sign each prescription.
- c) Do not write PRN alone after a drug. The minimum time interval, dose and indication must be specified.
- d) If the dosage or frequency of a drug is changed, cancel the original prescription and rewrite in full.
- e) Stop a prescription by drawing a line distinctly through the entry to be cancelled. Include the date of cancellation and signature in the space provided.
- f) Inform the ward sister or nurse in charge of any change in drug prescriptions.

RESIDENCY

The prime purpose of residency is for you to involve yourself in the activities of the unit as one of "the team". Wear your name badge to identify yourself.

Your most important responsibility is to clerk patients, present your findings to medical staff and follow-up your patients and find out results etc. from appropriate investigations. This takes precedence over any other organised teaching.

Students should be most active within their own ward, but should also visit the A & E Department through which most acute admissions pass. They should visit the other departments/wards of the hospital. Small group organised teaching may take place each weekday.

Although only a small number of students pursue a career in paediatrics or community child health, a high proportion will continue to see children as general practitioners.

Make the most of this opportunity - become involved in all aspects of patient care.

CHILD HEALTH ASSESSMENT

The current assessment in Child Health in Final Year is as follows:

Written papers

(50% of the total marks are allocated to written papers)

In-course assessment

1) Case commentary	 10%
2) MCQ s	 15%

Final written examination

1) Short notes questions	 15%
2) MCQ s	 10%
	50%

Clinical Examination

(50% of the total marks are allocated to clinical examinations)

In-course assessment

Objective Structured Clinical Examination (OSCE)	 50%
a/ One history taking station	
b/ One communications/ advice station	
c/ One practical procedure station	
d/ Three clinical examination stations	
e/ Four data interpretation stations	

Students scoring 50% or more of the marks allocated in the OSCE will use this mark as their final clinical examination mark.

Students failing to obtain a mark of 50% for the in-course OSCE will have to sit a final clinical examination in June. The mark from this examination will be the final clinical mark but these students will **not** be eligible for a distinction in Child Health. Students failing this final clinical examination will have failed.

total ----- 100%

Students who **fail the written finals** and whose OSCE mark is not sufficient to compensate will be asked to take an Oral Examination in June.

Distinctions in Child Health

Those who have passed all in-course assessments in both Child Health and Obstetrics & Gynaecology and whose combined final marks are in the top 15 % for the year will be invited to attend for an oral examination from which the top 10% will be considered for a distinction in Maternal and Child Health.

The student with the highest mark in Finals for Child Health will be awarded the Ulster Paediatric Society Prize.

In addition, the RBHSC Gold Medal is awarded from the results of a separate written and clinical examination held during the spring semester.

LOG BOOK(1). Both pages to be completed by student and submitted with the written Case Commentary at the start of the final week of the course.

(a) Patients clerked by Student's name
Resident unit

Patient's name	Diagnosis	Patient's name	Diagnosis
1		19	
2		20	
3		21	
4		22	
5		23	
6		24	
7		25	
8		26	
9		27	
10		28	
11		29	
12		30	
13		31	
14		32	
15		33	
16		34	
17		35	
18		36	

Signed : Date / /
Consultant supervisor

LOG BOOK(2). Both pages to be completed by student and submitted with the written Case Commentary at the start of the final week of the course.

(b) Tutorials and Teaching Sessions which I have attended

Student's name
Resident unit

Date	Topic	Date	Topic
1		19	
2		20	
3		21	
4		22	
5		23	
6		24	
7		25	
8		26	
9		27	
10		28	
11		29	
12		30	
13		31	
14		32	
15		33	
16		34	
17		35	
18			

Signed: Date / /
Consultant supervisor

Case Commentary

A written Paediatric Case Commentary ***must be presented before the end of the course*** to Professor Dodge, Dept. of Child Health, Institute of Clinical Science (***not*** RBHSC). The objective of this task is to show that you have explored a case requiring community care in further depth than you normally would when clerking a patient. You need to include;

- 1) the case write up and description of the clinical course and investigations
- 2) evidence that you have explored:
 - a. how having the illness has affected the child (growth, development and psychosocial etc.) and how the child has reacted to minimize (or vice versa!) the problems.
 - b. how having an ill child affects the family and how the family react to cope.
 - c. what resources are available in the community and which were used to help ***this*** child and family (eg. GP, Health visitor, Social workers, Physio' and Occupational therapists, School teacher etc.).

It is expected that you arrange to speak with as many people who are involved in helping the child to see how they perceive the problems(parents, School teachers, GP, etc) . A home visit is essential.

The best written case commentary chosen by the external examiners will be awarded the Cow & Gate prize.

Make sure you have handed in you case commentary and have had this recorded by a member of the Dept. of Child health.

=====

Case Commentary, Log 1 and 2 returned to Dept. of Child Health on
... / ... /

Received by

Signature date / /

Phase 3 case study template

Guide for students and teachers

Each clinical attachment in Phase 3 has associated clinical cases to complete as part of that attachment and the overall year 3 assessment. The 15 cases contribute 15% of the module but more importantly are the mainstay method for learning how to assess patients with respect to history, examination, investigation + management.

To assist the learning experience of these cases we are now using a 10 page blank template on which the case should be **hand written rather than word processed**.

This is being used for the first time for the following reasons:

- Many clinical units and now some Royal Colleges advocate greater use of templates/proformas for admitting/clerking in patients. Please see http://hiu.rcplondon.ac.uk/clinicalstandards/recordsstandards/draft_std.asp
- Writing up a case is essential preparation for your transition to junior doctor.
- Hand written entries remain the main method of charting patients progress in hospitals.
- Use of hand-written notes will be quicker and more uniform for students to complete and assessors to mark. Previously there was significant variability between students in the input of information into word-processed/typed cases. This often did not reflect performance in other areas. Also there was criticism from students that there was variability between assessors and attachments in the operation and use of typed clinical cases.
- Some cases of plagiarism have occurred with typed/word processed cases.
- This particular template was adapted from an admission form used in the Belfast Trust and that used by the Royal College of Physicians as above.

General notes:

- Most sections can be completed by highlighting or deleting the question prompts. Space for additional detail is usually apparent.
- Some sections require free text.
- Please write legibly and neatly; Poor handwriting remains a major source of error in clinical practice and will form part of the case assessment.
- Use of a template means that some sections will have less relevance to your patient.
- Equally the questions + prompts are not exhaustive. New questions and sections can be added if required and some areas may need further detail.
- Certain specialties/hospitals/doctors will ask you to write up the case to their requirements. Please follow their advice. Discuss with any colleagues doing the same case and the doctors on the unit if you are unsure.
- If a section is not relevant you can mark it "N/A" as not-applicable.
- Please do not check/uncheck an answer if you did not ask the patient. This may seem minor but is a clear form of altering a 'medical note' and is unacceptable practice.

Notes for specific sections of the template

Presenting complaint: List the major symptom(s) or reasons for admission eg.

- Emergency admission for shortness of breath over 2 days
- Routine admission for a cholecystectomy
- Patient transferred from St Elsewhere for investigation of an abdominal mass

History of presenting complaint: This section can represent an integrated history that explores the patient's immediate symptoms/reasons for admission but also the relevant progress prior to admission. It is entirely appropriate to mention other visits to hospital and diagnoses if they relate to the presenting complaint. It is also useful to try to pull together other *relevant* aspects of the history into this section e.g. PMH/risk factors/occupational exposure/recent operations/new drugs and/or other medical interventions are often important in the presentation of various illnesses. This paragraph can act as an expanded summary for the whole case, albeit without the examination findings. This is often what would be presented verbally at a ward round with the consultant.

Medication history: This should be in a tabular form with the drug, drug type, dosage, indication and side effects listed for the drugs on admission. A similar table further in the document should summarise the new drugs that have been added. This section provides an opportunity for you to learn therapeutic principles and specific details on the commonly prescribed drugs. Drug allergies must also be noted.

Systems Review: This should be a quick review of symptoms unconnected with the presenting problem. It allows for screening for other conditions/diseases. Do not duplicate the History of Presenting Complaint section.

Examination findings: Some sections of this will not be appropriate for your patient and their presenting condition. At the same time if you see a patient who will allow you to perform examination of all the systems this will help you understand the normal findings-the first step in good clinical exam technique. Please also use simple line diagrams to convey certain findings e.g. abdominal scars, stomas etc, skin rashes/lesions, ulcers etc.

Summary: A one or two line summary is very helpful as it crystallizes the main history and examination findings:

"50-year old diabetic patient presents with a fever and vomiting. On examination he had a temperature of 39°C, tachycardia, tachypnoea, dull left base with coarse crackles."

"22-year old previously fit man presents with central crampy abdominal pain. On examination he is afebrile, has tenderness at McBurney's point and normal bowel sounds."

At the end of this paragraph you should have a **Presumptive diagnosis**.

Differential diagnosis: Most patients will have at least 2-4 possible diagnoses and one of the major objectives for all doctors is trying to discriminate between these. This is only approached by systematically going over the pros and cons for each diagnosis. If space allows it is best to outline them here with the features that would support or refute them. Alternatively this can form part of the commentary for more complex cases.

Problem List: This is often used in notes to highlight all the problems the patient may have that have relevance to their management. This may include chronic diseases/problems, acute illnesses (not symptoms per se) and often social factors.

Investigations: In this section you can summarise the investigations (laboratory, physiological and radiological) as they were found for your patient and any alternative investigations that would have been helpful. Please record at least one set of the major laboratory investigations (+reference range) as these are important values to know.

Management: This section should reflect the ideal treatments for the patient's condition. It should include drug therapy, access and procedures, diet and fluid, instructions for nursing staff and discussions with senior medical colleagues. If your view and reading of what should happen differs from the case then this may form a relevant section for discussion in the commentary.

Discussion and commentary:

This is a personal commentary on the learning points in this case. You should limit this to no more than 2 pages as outlined. For reference it is preferable to use a medium-large textbook and/or a recent review(s) on the condition. It may also be appropriate to use some of the commentary to expand on the differential diagnosis, as outlined above.

We would like to emphasize linking your commentary with this particular patient. This helps reinforce the educational benefit of writing up the case. Rather than describe the disease/illness the best commentaries reflect on what stands out in this patient's presentation and management. Your reflection on this patient/condition is of more interest to the assessor than a copy of the textbook section.

Assessment of the case

- The sheet below is to be used for assessment of the case study write-up.
- It is based on the assessment documents used in the Foundation years F1/F2.
- The student should fill in their details and then present this with the case to a senior doctor in the unit before completing the attachment.
- A senior doctor of Registrar grade and above can mark the case.
- It is preferable if feedback can be given as close to the case history as possible.
- The student should retain their case when returned to them and a copy of the assessment for their portfolio.
- The original assessment form should be returned to the teaching coordinator in the unit or the relevant QUB unit.

Phase 3 Clinical Case Assessment Form

Please use black ink and CAPITAL LETTERS

Student surname:	Hospital:
Student forename:	Attachment:

Student Number	1	2	3	4	5	6	7	8	Attachment start date	D	D	M	M	Y	Y

Patient initials and ward	
Diagnosis/main problem	

Please tick the appropriate box for each section	Well below average	Below average	Average	Above average	Well above average	
History of presenting complaint						
Medication table						
Additional history						
Examination						
Diagnosis and differential diagnoses						
Management plan						
Commentary						
Presentation/legibility						
TOTAL MARK						
Example marks	1-2/10	3-4/10	5/10	6-7/10	8+	/10

Anything especially good?	Suggestions for development

- This assessment can be graded by a senior doctor (SpR or above).
- Please copy and return to the coordinator for the specialty/undergraduate office.

Assessor's signature	GMC Number	1	2	3	4	5	6	7
Assessor's name	Date	D	D	M	M	Y	Y	

Student name:		Student QUB Number	
Patient Initials	Date of Birth	Date of Admission	Consultant
	Age	Date of Assessment	
PRESENTING COMPLAINT(s)			
HISTORY OF PRESENTING COMPLAINT.			
Past Medical and Surgical History <i>Use checklist, add others; add approximate date(s) and details as free text</i>			
Previous MI	No/Yes	Hyperlipidaemia	No/Yes
Angina	No/Yes	Asthma	No/Yes
CVA/TIA	No/Yes	COPD	No/Yes
Hypertension	No/Yes	Previous TB	No/Yes
Diabetes	No/Yes	Previous cancer	No/Yes
		Jaundice/hepatitis	No/Yes
		Previous DVT / PE	No/Yes
		Epilepsy	No/Yes
		Rheumatic Fever	No/Yes
		Arthritis/joint problems	No/Yes
FURTHER RELEVANT DETAILS			

MEDICATIONS USED AT TIME OF ADMISSION (copy sheet if required)					
	<i>Drug name</i>	<i>Dose & Route</i>	<i>Indication in this patient</i>	<i>Mechanism of action</i>	<i><u>Specific</u> adverse effects.</i>
1					
2.					
3					
4					
5					
6					
7					
8					
9					
10					
11					
Drug Allergies or Sensitivities				Other Therapy Issues (E.g. Oxygen, Home Nebuliser, TPN, PEG Feeding, Dialysis)	

SOCIAL HISTORY Single / Married / Widowed / Divorced / Partner

Living arrangements (alone, with partner, nursing home etc)

Main Carer:

Occupation history.....

Previous Occupations:

Home assistance received (statutory and informal; eg district nurse, care assistants, meals on wheels etc)

Smoking History: Non-Smoker Current Smoker Ex- Smoker..... until Pack years.....

Alcohol: Units per week Details:.....

FUNCTIONAL STATUS

Mobility.....

Self-care abilities including.....

Continence / Hearing / Eyesight

Other relevant social and functional issues.....

FAMILY HISTORY (relevant illnesses in first degree relatives)**SYSTEMS REVIEW {NOT COVERED IN HISTORY ABOVE}** (circle if present; use as checklist only)

CVS: Angina Hypertension SOB / PND Claudication Oedema Palpitations Cholesterol Normal/Elevated/Unknown

Details.....

RS ET = ... Yards / Miles SOB Cough Sputum Haemoptysis Chest Pain Night Sweats Wheeze

Details.....

GIT Weight Loss Anorexia Nausea Vomiting Heartburn Jaundice
Abdominal Pain Diarrhoea Constipation Blood PR

Details.....

GUT Frequency Nocturia Hesitancy Haematuria Pain/dysuria Incontinence

Details.....

CNS: Headache Other pain / paraesthesia Blackout Dizziness Weakness
Depression Anxiety Memory problems Sleep Visual problems

Details.....

ENDOCRINE: Diabetes Weight loss/gain Other.....

Details.....

MUSCULOSKELETALJoint pains Lifting and carrying problems Muscle aches Back problems
Limp/Mobility problems Swelling or stiffness Manage stairs Dress without difficulty

Details.....

MENSTRUAL and OBSTETRIC HISTORYAge at menarche..... Pregnancies and miscarriages..... Age at menopause.....
Cervical smear/mammogram/self examination history if relevant

Details.....

SKIN rash single lesions itch (Details).....

EXAMINATION FINDINGS: *Height* _____ *Weight* _____ *BMI* _____

Temp..... °C **Pulse**.....bpm **BP**...../.....

RR...../min **SaO2** = ...% Breathing..... **PEFR** L/Min

Anaemia/Pallor ☐ *Clubbing* ☐ *Cyanosis* ☐ *Jaundice* ☐ *Lymphadenopathy*.....
Nutritional state ☐ *Legs* ☐ *Skin* ☐ *Thyroid*

CVS

RS

ABDOMEN (GUT and GIT)

PR: Not done / Normal / Abnormal

MUSCULOSKELETAL Please complete as fully as required in your patient (eg if patient has osteoarthritis of the hip you do not need to do REMS for all the other joints, if not symptomatic. If your patient has Rheumatoid arthritis you will normally need to examine all the joints)

GALS screen (cover the 3 GALS questions in history)

	Appearance	Movement
Gait		
Arms		
Legs		
Spine		
Comments		

Regional examination

	Hand & Wrist		Elbow	
	Right	Left	Right	Left
Look				
Feel				
Move				
Function				
Special Tests*				
	Shoulder		Hip	
	Right	Left	Right	Left
Look				
Feel				
Move				
Function				
Special Tests*				
	Knee		Ankle & Foot	
	Right	Left	Right	Left
Look				
Feel				
Move				
Function				
Special Tests*				
	Spine			
Look				
Feel				
Move				
Function				
Special Tests*				

* Special tests (eg tests for carpal tunnel syndrome, testing for a painful arc, Thomas' test, Trendelenberg test etc)

NERVOUS SYSTEM AND HIGHER MENTAL FUNCTIONS (if relevant to the case)

General Assessment				Upper and lower limb Neurological System		
GCS (Glasgow Coma Score)			Total	/15		
Eyes	/4	Motor	/6	Verbal	/5	
Mini-mental score			Total	/10		
Cognition: Normal / Impaired				Abnormal Movements or fasciculation No / Yes		
Neck Stiffness No / Yes				Muscle Wasting No / Yes		
Photophobia No / Yes				Upper limb		
Speech Normal / Dysphasia / Dyarthria / Dysphonia				Right		
Swallowing Not assessed / Safe / Unsafe				Left		
Hearing Normal Impaired				Power		
Eyesight Normal Impaired+type.....				Shoulder Ab/Ad		
Continence Normal Impaired				Elbow Flex/Ext		
Gait / Transfers Not Tested / Normal / Abnormal				Wrist F/E		
Romberg Test Not Tested / Normal / Abnormal				Fingers		
Cranial Nerves				Tone		
Right				Coordination		
Left				Biceps Jerk		
Pupil appearance				Triceps Jerk		
Pupillary Reflexes				Supinator Jerk		
Visual Acuity				Sensation		
Visual Fields				Lower limb		
Optic Discs / Fundi				Right		
Eye Movements (III, IV VI)				Left		
Nystagmus No / Yes				Power		
V				Hip Flex/Ext		
VII				Knee F/E		
IX/ X				Ankle F/E		
X1				Toes		
XII				Tone		
				Coordination		
				Knee Jerk		
				Ankle Jerk		
				Plantars (↑ or ↓)		
				Sensation		
				Regarding tendon reflexes please use the following scale:		
				0 = absent		
				+/- = present with reinforcement		
				+ = present and normal		
				++ = brisk		
				+++ = pathologically brisk		
				CL = sustained clonus		

Glasgow Coma Score (Coma = score below 8)

EYES

4 = Open spontaneously
3 = Open to speech
2 = Open to pain
1 = Never open

BEST MOTOR RESPONSE

6 = Obeys commands
5 = Localises pain
4 = Flexion withdrawal
3 = Decerebrate flexion
2 = Decerebrate extension
1 = No response

BEST VERBAL RESPONSE

5 = Orientated
4 = Confused
3 = Inappropriate words
2 = Incomprehensible sounds
1 = Silent

Mini-Mental Score (Score 0-10)

Age

42 West St, Salford, M6 (Recall address at end)

Name of hospital

Year

Recognise 2 people

Date of Birth

Dates of World War II

Present Monarch

Count down from 20

Time (to nearest hour)

SUMMARY (A 1-2 line summary of the main symptoms/presenting problem and major positive examination findings)

ESSENTIAL TESTS AND RESULTS: List all essential tests and results and why they would help manage this patient. Additional space overleaf

1.
2.
3.
4.
5.
6.
7.
8.

PRESUMPTIVE DIAGNOSIS Integration of clinical history, examination findings and appropriate investigations to form a diagnosis.

DIFFERENTIAL DIAGNOSIS (Please list as many possible diagnoses as the history, y and examination suggest)

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

PROBLEM LIST (List other all diagnoses, social and medical issues ie. problems that may relate to patient management)

1.....	6.....
2.....	7.....
3.....	8.....
4.....	9.....
5.....	10.....

MANAGEMENT (Include new therapies, discontinuation of existing medications, proposed procedures, diet and fluid changes, IV access, instructions for nursing staff, discussions with senior medical colleagues)

1.
2.
3.
4.
5.
6.

INFORMATION GIVEN to patient and/or family/carers at the time of admission:

SUMMARY OF TEST RESULTS Use inpatient notes and if necessary use the laboratory and radiology systems (with a staff member to help you login). Not all these are performed and many others may be.

Haematology	Biochemistry	Arterial blood gases*	Gases on Oxygen
Hb.....	Na ⁺	pH..... 7.35-7.45	pH.....
WCC.....	K ⁺	pCO ₂ 4.5-6.0	pCO ₂
Platelets....	Urea.....	pO ₂ 12.0-15.0	pO ₂
MCV.....	Creatinine.....	Bicarb..... 21-28	Bicarb.....
ESR.....	eGFR.....	Base Excess.....	Base Excess.....
Blood film:	Glucose.....		<u>If patient on Oxygen:</u>
	C-reactive protein.....		FiO ₂ % or
			 L Nasal

Liver function tests (LFTs) Normal / Abnormal

Bilirubin..... Albumin..... Alkaline Phos..... ALT..... AST..... GammaGT.....

Calcium⁺⁺..... Troponin T..... (give times of any values relative to admission/symptoms)

PT..... Secs INR..... APTT..... Poisons and toxicology tests..... (give time relative to admission)

Thyroid Function Tests Normal / Abnormal..... Autoantibody

Other Blood Tests:

1.
2.
3.

Urine Dipstick Test: No record.... Normal.... Protein..... Blood..... Ketones..... Leucocytes.....

Cultures: Blood / CSF / Urine / Sputum / Stool /

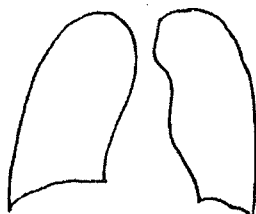
(Details).....

ECG Normal / Abnormal Rate..... Rhythm..... Axis or BBB.....

Acute Anterior MI changes. Acute Inferior MI changes Changes of old MI Anterior / Inferior Non-specific repolarization changes

Other changes.....

CXR-Report..... Other Imaging Tests



.....

.....

.....

.....

.....

INVASIVE INVESTIGATIONS (Endoscopy, ERCP, Biopsy, Laparoscopy, etc.) Use inpatient notes and if necessary radiology systems, (with a staff member to help you login), to obtain the most relevant results

INTERPRETATION OF TEST RESULTS: (As they relate to the history, examination and initial diagnosis/differential diagnoses.)

OPERATIONS AND THERAPEUTIC PROCEDURES (Invasive Procedures, etc.) Comment on the following: preoperative preparation, prophylaxis, anaesthesia, positioning, asepsis, incision, technique, closure, recovery, postoperative care, adjuvant therapies, complications, outcome, prognosis.

MEDICATIONS STARTED IN HOSPITAL				
<i>Drug name</i>	<i>Dose & Route</i>	<i>Mode of action</i>	<i>Indications for use ie why commenced now</i>	<i>Major adverse effects</i>

PROGRESS NOTES DURING ADMISSION

(Please read the inpatient notes and summarise the major events here showing progress in investigation and management)

<i>Date</i>	

Discharge and Follow-Up

Not discharged at time of case-completion

Discharge to: Home / Residential Home / Nursing Home / Stroke bed / Other..... **Planned Discharge Date**.....

Follow-Up: GP / **Clinic** (Which Consultant)..... When ?.....Weeks / Months.

Follow up tests required to be performed at clinic

Important Messages To GP *e.g. Tests or Follow-up action required.....*

Services Required *No services needed / Home Help / Meals on wheels / District Nurse / Other.....*

Discussion and reflective commentary: *You must limit this to no more than 2 sides.*

At the beginning state what your commentary will focus upon. Use recent references either medium-large textbook(s) or Medline references.

We would like to emphasize linking your commentary with your patient. There is no need to include detailed textbook descriptions of the patient's primary disease. The successful student will display knowledge of the diagnosis by reference to the (presence or absence of) symptoms, signs, investigations, problems and response to treatment illustrated by the present case.

Textbook(s) or reference(s) used:

1. _____
2. _____
3. _____
4. _____

Completed by student (signature) _____ Date _____

General
Medical
Council

Regulation Committee
Education Committee

FINAL

Report of the visiting team to Queen's University Belfast Medical School for
2004/05

Introduction

1. This is the annual report to the Education Committee of the General Medical Council on Queen's University Belfast Medical School.
2. The visiting team appointed by the Education Committee for this purpose was:

Professor Reg Jordan (Team Leader)
Professor John Ashton
Professor Ian Booth
Mr. Philip Brown
Professor Trudie Roberts
Dr. Mairi Scott
Ms. Suzanne Shale
Mrs. Jessie Sohal-Burnside
Reverend Dr. David Taylor

3. The visiting team was supported by Cara Talbot.

Our programme of visits in 2004/05

4. The visiting team attended the School on five occasions: 7 March 2005, 12 April 2005, 1 & 2 June 2005, 7 and 9 June 2005 and 27 July 2005. The findings of the visiting team have been reached by conducting a range of the following activities:
 - a. Meetings with a variety of senior and other faculty members of the School.
 - b. Observation of various examinations of clinical skills.
 - c. Module and/or Phase Examination or other Board meeting observation.

- d. Site assessment(s): NHS Trusts*¹.
- e. Site assessment(s): GP Practices².
- f. Discussions with Students.
- g. Discussions with Teachers³.
- h. Discussions with the NHS and other service providers.

Summary of findings

5. Although we have suggested some areas requiring changes by the School later in this report, those suggestions should be read in the context of our overall findings. The findings of requirements for change, recommendations and areas of good practice are in paragraphs 103 to 112 of this report.

6. The visiting team had some concerns surrounding some aspects of clinical assessment, which were reported back to the School during the visit cycle. The School has already commenced a review of these areas, with a view to implementing changes to some areas of assessment in 2006. The visiting team was reassured by this response and looked forward to receiving an update of the outcomes of this review in a year's time.

Curricular outcomes

7. Upon meeting the requirements as outlined in paragraph 102 to 104 of this report, the visiting team are satisfied that the Medical School is on course to meeting appropriately the requirements set out in *Tomorrow's Doctors*⁴ in respect of curricular outcomes.

Curriculum content, structure and delivery

Content

8. The students interviewed understood that this was a modular course, but also that there was integration for each phase built on previous phases. Phases touched on previous work to build on existing knowledge. There was an exam at the end of each block in Year Four. Students have a good understanding of who conducted the assessment and when. Students were required to pass all assessments in each phase of the course before proceeding to the next phase. The change in the assessment process in phase 2, with the introduction of an exit examination with material drawn from all three semesters was clearly understood by students.

¹ This visit could be done by inviting members of the Trusts, Practices or out at Placements to a meeting at the school, the visiting team does not necessarily have to attend different NHS Trusts in different regions unless inspecting the facilities is one of the objectives of the assessment.

² As for footnote 1.

³ As for footnote 1.

⁴ GMC, *Tomorrow's Doctors*, (2003), 2nd Ed, GMC, London

Students understood what requirements they had to meet in assessments, and the assessment structure, in order to progress. The visiting team commended this approach and looked forward to seeing how this work developed.

9. The visiting team was reassured that adequate systems were in place for overall curriculum co-ordination but may wish to review how these can be used more effectively, particularly in light of the recent restructuring plans.

Structure

10. The visiting team commended the approach of the School's response to the University internal Subject Review in restating clear outcomes on the course. Whilst clearly signposted within the study guides at modular level, there appeared to be a lack of similar signposting in the degree programme at pathway level. The visiting team would like to see the good practice at modular level implemented across the programme, with a holistic review being done of this grouping of modules to ensure the course was fully integrated.

11. Whilst the visiting team had concerns that the eight weekly exam system in Year 4 was burdensome on students, student feedback indicated it was not felt to be too onerous. Students commented that it kept them focussed. Students mentioned some exam congestion at the end of Phase 2 (which the School believed came from the Dental rather than Medical Students) and the general practice attachment in Year 4 was felt to be too short.

12. The visiting team reported that examination content was not always clearly reflected in the study guides. In addition there was some concern that 30% of the marks in paediatrics was generated by the consultant's impression of the student. The study guide described that this mark was awarded by the educational supervisor based on a logbook of practical clinical skills and a 360° appraisal of the student's performance in the ward environment involving medical, nursing and paramedical staff in the paediatric team.

SSCs

13. The visiting team noted the progress Queen's University Medical School had made in the provision of SSCs since the previous assessment by the General Medical Council, and were satisfied that the current provision within the course met the requirements of *Tomorrow's Doctors*.

14. The School reported that the changes in the health service had made it difficult to get NHS consultants involved in the development and delivery of SSCs. Consultants preferred to teach only core components, which remains a challenge the School will continue to address.

15. The visiting team suggested the School might wish to consider putting in place a mechanism to ensure that students did not limit their portfolio of SSCs to one narrow field or mode of enquiry (such as all classroom-based), as this militated against the educational purpose of SSCs. Classification of SSCs by study mode

and/or broad area (e.g. 'non-medical', 'community', 'science') is used in other schools and the School may wish to examine how such systems might be adapted to its own use.

16. The systems used for the allocation of students to their preferred SSCs were fair and robust, and most students were allocated one of their top choices. In year 3 the allocation was necessarily complicated by SSCs being rotated with clinical attachments, which might constrain student numbers in any period. The School was considering the advantages and disadvantages of alternative approaches to the organisation of year 3 SSCs.

17. The students interviewed reported a good range of choice of SSCs, but that restrictions on numbers limited this choice in practice. Students understood the weighted system, where if they did not get their first choice they would have a weighted choice next time around. SSCs modules were considered good though of varying relevancy by students.

18. At least 2 different assessment methods were used to assess each SSC. Those SSCs that have a low attendance requirement (e.g. library based SSCs) have heavier assessment loads than those with a high attendance requirement. This is outlined in the SSC Handbook. The visiting team noted the challenges that delivering SSCs produced and that these issues were not uncommon to other Medical Schools.

19. The visiting team noted the constraints on the allocation of SSCs in year 3 and commended the School's review of this area to consider alternative solutions.

20. Classroom based SSCs formed only 1 of the 8 different types of SSCs that were offered and classroom based SSCs are often made up of multiple components. Some intercalated degrees asked that students normally take a particular SSC or particular group of SSCs. The requisite SSCs varied depending on the intercalated degree and were clearly listed in the booklet of module choices and in the Intercalated Degree Handbook.

21. All SSCs offered in year one were for both dentistry and medical students, some of those SSCs had a particular dental focus but all students were eligible to pick any of the SSCs and dental students did not get preference for SSCs with a dental focus.

Delivering the curriculum

22. The visiting team was satisfied that the School utilised an appropriate balance of delivery teaching methods. The quality of teaching observed was average to excellent.

23. The School highlighted the importance of Public Health at the student briefings and at the beginning of each semester, in each clinical course and in specific lectures.

24. The visiting team noted the positive feedback from GP practices but were less sure that this learning was making appropriate links back to the theoretical aspects of Public Health. The visiting team was reassured in discussions with the School that this aspect was being monitored and continually reviewed.

Supervisory Structures

25. The visiting team noted that there had been significant restructuring following the appointment of a new Vice-Chancellor. From September 2005, there will also be an increase in student numbers. The new Faculty of Medicine Health and Life Sciences will include a School of Medicine and Dentistry and a School of Biomedical Sciences. The new School of Biomedical Sciences will include approximately 50 members of staff previously in the School of Medicine. The School of Biomedical Sciences will be responsible for the BSc and intercalated degree pathways. Whilst this has been a recent change, the visiting team highlighted the possible risks that this revision may have on curriculum planning and resources in light of plans for expansion in student numbers.

26. In addition, the visiting team noted that the University currently has an emphasis on recruiting research appointments. This has resulted in some anxiety by the School over the need to keep academic appointments at sufficient levels to support the Undergraduate Curriculum.

Teaching and learning

27. Overall discussions with students indicated that they felt strongly supported at the School by staff and that one of the strengths of the School was the strong feeling of belonging to a supportive family. The visiting team was impressed by the enthusiasm of NHS staff and commitment of senior members.

28. The ward based teaching observed (e.g. in cardiology) was considered very good. Students recognised that there had been problems with the pathology course in the past but the feeling was that this had since improved.

29. The School has introduced a new Mechanisms of Disease course in Year 2 and a Pathobiology of Systems course in Year 3, which has proved successful.

30. During the 2004/5 academic year, the fifth year cohort has been the first cohort of students to pilot the introduction of portfolios, which will outline the learning outcomes achieved, and include self-reflection.

31. Logbooks are used during workshadowing, where they are completed by the students and signed off by consultants. Students cannot complete final year without satisfactory completion of the workshadowing logbook.

32. Students understood the usefulness of the portfolios even though they felt this placed an additional burden on the final year assessment. Students suggested that it might be useful to introduce portfolios in the fourth year.

33. As the portfolios are only being piloted, students will not fail the year for failing to submit a portfolio. This has led to some confusion among students as to whether the portfolios will be assessed or not. The School reported that submitted portfolios would be marked and students would receive feedback. Workshadowing logbooks must however be completed. The visiting team was pleased to see the implementation of this aspect to the course.

34. The visiting team visited a number of GP practices and were satisfied with the facilities and teaching at the practices observed. Following these visits, there was a slight concern regarding the following:

- a. The relatively limited extent of the provision of primary care attachments in the curriculum.
- b. The status of the general role/voice of primary care throughout the curriculum.
- c. The GP tutors' knowledge of what is the core curriculum and how that related to their students' needs.

35. The GP trainers reported their relationship with the School as extremely positive. The visiting team noted that GP trainers and students were enthusiastic. The students overall regarded the intense personal teaching they received within general practice to be of a high quality and enjoyable, however the extent of the experience was limited by time constraints. The visiting team suggested that the Division of Medical Education should actively seek ways to increase the amount of time in total students spent in general practice. In addition an increase in capacity would also be required when student numbers increased. This additional expansion would need to be planned carefully in order to continue to ensure that the current high quality of the GP teaching and the students experience of that teaching is not diminished.

Learning resources and facilities

36. Learning resources were adequate and the visiting team was pleased to see plans in place for future improvements. The visiting team noted that the staff: student ratio appeared worse at this School than at most other UK schools, and that this may have serious implications for the School's ability to cope with the planned expansion of student numbers.

37. The visiting team spoke with students who completed attachments throughout the region. Students reported on noted improvements that have been implemented over recent years. Students commended the placements further out as the smaller groups were effective and resources were good.

38. Students would like to see improvements to the Clinical Skills Education Centre, as the current location is not satisfactory. Students commended the clinical skills teachers highly, and the availability of facilities as good but suggested that the setting could be improved and expanded. A new enlarged state of the art Clinical

Skills Education Centre is being constructed in the main Medical Biology Centre and will be completed in September 2006.

39. Access to clinical information in the hospitals was satisfactory and there was good IT access for those students who were out of town. Generally the visiting team considered facilities were appropriate and were satisfied that the School was meeting the requirements for learning resources and facilities, as set out in *Tomorrow's Doctors*.

Student selection

40. The demographic mix of students at the School was indicative of the local region, which has a strong social class mix. The School does not expect much change in this with the plans for expansion, although they are involved in active discussions with the university on how they could encourage widening participation.

41. The visiting team noted that the School was preparing to review the current selection process with a view to broadening the selection criteria and the visiting team commended the plans for review for continuous improvements as good practice.

Student support, guidance and feedback

42. Student support systems at the School were less formal than in some Medical Schools. However the visiting team noted the strong student interaction between the years, and the family nature at the School. This was reflected in student feedback that although a student may not regularly see their tutor, they would still know who to go to in order to receive support should they need it. Students commented they felt strongly supported. They cited examples of students with personal problems (ill health) and how they received strong support from the School. This included minority groups, those with disabilities and financial problems.

43. The School does not intend to make attendance with mentors compulsory for students as they feel there are sufficient avenues of support available. The School also felt that the low dropout rate was evidence that the support systems worked. The visiting team felt satisfied that the student support network, coupled with the close knit community environment at the School, made the support systems sufficient to student needs. As the School expanded its cohorts, the visiting team suggested that a more formal system may be required, although the visiting team noted the School's awareness of this issue.

44. Students have an identified tutor at each hospital and the visiting team felt that clinical teachers were aware of their learning needs.

45. The traditional family style support system for students had been revised so that students in the senior years can opt to identify a mentor of their choice. There was a maximum of 2 students per year for each mentor and students reported that meetings were held.

46. Year four and five students have the option of keeping with the same tutors throughout the course. It was generally left up to the tutors and students to determine the amount and nature of time they spent together. Some tutors were considered very generous with their time, with a minimum of meeting twice a year. Other students had not met with tutors and one student commented that they had not met with their tutor until their third year.

47. Clinician mentors chosen by Phase 4 and 5 students may not necessarily have received any training, although a biannual course was available through the University School's Staff Training & Development Unit. Many clinicians whom the visiting team spoke with, did not know of the changes to the mentoring programme and first heard of the new system when 4th or 5th year students approached them. The changes had been presented at the Medical Education Away Day in November 2004 but have not been publicised to all NHS Consultant Staff, as the School felt it was unlikely that many will ever be approached by a student. The Student Support office provided an explanatory letter for consultants whom students approached. This is also available from the Student Support website.

48. Students were happy with the feedback they received for SSCs and clinical skills. The feedback will indicate to students where their weaknesses or strengths lie. The general student consensus for feedback on the core curriculum however was that it was inadequate as they felt the current system did not provide any guidance on how to identify any areas in which they needed to improve. The School response was that actual marks were given to the students on their performance in all assessments. The bottom 10% and all fail students were directly counselled by module co-ordinators, and it is made clear to students at all levels within the course that they may consult the module co-ordinators to receive full details of their individual performance if they wished to do so.

49. A student with physical disability reported complete satisfaction with the support they had received from both the Medical Faculty and Disability Services at the University. For example, the student was provided with necessary equipment for them to continue their studies and support was also provided during a period of absence last year.

50. A Disability Service has been in place since May 2000, although there had not been a huge increase in numbers of disabled students – currently there are 10 at the School. The range of disabilities with current students encompasses diabetes, epilepsy, and students with physical or mobility difficulties.

Guidance

51. The students were not aware of any career guidance information and felt they got this from BMSA (Belfast Medical Students Assoc) and other special presentations, although the School reported that students did receive final year talks and had direct contact with speciality advisors. Students also received guidance from their personal tutors. Students reported they had their own interests to pursue and visited careers fairs to gain further information. Students reported that the School

had communicated what they suspected would be happening during the transition period.

52. About 25 students each year intercalated at the School and although it was encouraged, students felt that the degree of encouragement was much less than they were aware of in other Medical Schools. Students reported that the uptake of intercalated degrees was low due to the narrow range of options and would like to see this expanded further.

53. In response to the feedback in paragraphs 51 and 52, the School indicated that career information and guidance was provided in the following ways:

- a. The School co-operated with The Northern Ireland Medical and Dental Training Agency to provide a careers fair for all students in the final year.
- b. At the careers fair representatives from specialist organisations were present and provided information to students so that they could receive further guidance in specific areas of interest.
- c. In cooperation with the Training Agency, there have been specific student symposia informing students on the current details available in relation to the Foundation Programme.
- d. Students also received guidance from their faculty tutors.

54. The visiting team recognised that they spoke with only a sample of students, however they suggested that the School might wish to review how this information and the careers events outlined could be better signposted to students.

55. The School outlined the different ethnic mix of Northern Ireland, with the largest minority group being Chinese. The total of minority groups make up approximately 0.5% of the total number the population. The School outlined their methodology of the programme needing to reflect the current mix of the local region, whilst understanding the mix of ethnicity nationally being intrinsic to the development of the curriculum.

56. One resulting aspect of understanding this ethnic mix has been where the School has had to address very early on the issue of exposing students to the religious diversity of the Northern Ireland region, as students often arrived at the School having been quite closeted to aspects of multi-cultural society in Northern Ireland. Tutors for the Family Attachment Programme meet with first year students to discuss these issues, and will accompany them to their first placement to allay student concerns. Discussions would also be held with students and patients on-site. Students were notified that placements were randomly selected and students are not placed based on cultural backgrounds.

57. The School monitored other minority groups, such as their students from IMU to ensure they were aware of any difficulties these students might experience in integrating with this society. A workshop for all minority students is held to engage their feedback. Student feedback from these sessions indicated that these students

have no problems with assimilating into Northern Ireland, and this was backed up by the visiting team's interviews with students, where no issues from the minority groups were highlighted.

Feedback

58. Generally students reported that they felt they had a voice and concerns were actioned. One example was given where final year workshadowing was moved to follow the final clinical exams, where previously it occurred prior to exams. Students had found it difficult to engage with the workshadowing programme prior to their final clinical examinations. Some of the students interviewed informed the visiting team that feedback on actioning appeared to be heard by word of mouth from students rather than any formal feedback mechanism. The School outlined the processes where concerns raised at Phase Quality Assurance Committees (PQAC) meetings were minuted by the student secretary of the committee, and the School was required to respond before the next meeting. The School's response was that minutes of all Phase Quality Assurance Committee and Joint Clinical Board meetings are published on the School web sites, and are available to all staff and students. Information about major changes were communicated to the entire student body by e-mail and all changes were flagged in the Notes for Undergraduate Students when they were produced for the subsequent academic year.

59. Students perceived that the feedback analysed at the end of each module was forwarded and discussed at each Phase Quality Assurance Committee. These Committees are staff/student bodies, on which at least 50% of the Committee members were students. While student representatives understood that issues raised must be addressed before the Committee met again, the student body was less clear about what happened to action points arising during discussions and it may not be clear to them how the audit loop was closed. However, students were able to cite some examples of how the system worked and changes that occurred as a result of student feedback. This was reflected in the University Subject Review report.

60. The visiting team agreed that students were well briefed and good signposting was available to outline course outcomes required, and that there appeared to be a good level of staff support.

61. In addition to the opportunity to feedback formally at the end of the module, students would also like to be able to give comments on particular lectures, or labs as they occurred.

Assessing student performance and competence

62. The School started a revision of assessment over the last academic year. Aspects of this review resulted in:

- a. The appointment of assessment lead in September 2004

- b. Standard setting for clinical and written examinations in Phases I and II
- c. Revision of guidelines for assessments
- d. Statistical evaluation of assessment methods
- e. Introduction of portfolios in the final year
- f. Implemented a new exit exam for Phase II
- g. Review and modification of final MB exams

63. Students were beginning to embrace the new concept of portfolio work in the final year. This extended throughout the whole of Year Five and included their overseas elective. The School plans to review how this has gone after its first year of implementation with the view to rolling out to Phases 1 and 2 in 2006. The visiting team noted that the assessment handbook was of a good standard.

64. The School has amended its their final year course whereby the written and clinical exam is now more closely linked together. Workshadowing will now occur after the final MB exam as a result of student feedback.

65. When asked if the number of assessments was appropriate, students commented favourably on the workload – they received an incentive to work, and understood more clearly as a result of this where they needed to apply themselves if weak areas were highlighted.

66. The visiting team commended the high level of support that the final year students received from the two SpR's within the small groups that ran every week.

67. Assessment of observed attitudes is integrated into clinical examinations and logbooks. This is also assessed in the OSCE examinations and in primary care in fourth year. General Practice placements also reviewed student attitudes. During Phase 4 attachments other healthcare professionals also monitored students' attitudes towards staff and patients and nurses – this component was outlined in the study guides.

68. The visiting team recommended that the School should ensure there was adequate training for examiners. The visiting team felt that their current training for the long cases encouraged examiners to seek peer consensus as opposed to considering the criteria for their judgements.

Clinical Assessment

Phase 2 (Years 1 and 2) OSCE

69. The visiting team observed the recently revised OSCEs for Year One. The visiting team was satisfied with the appropriateness of this exam. They wondered whether some of the stations (e.g. the communication station) might perhaps be a

little too ambitious for first year students. Overall however, the visiting team thought this OSCE was well run and well organised. Examiners were consistent and provided minimal participation with the students at each of the stations. Supporting documentation was good, marking schemes appropriate and the assessment was broadly fair.

70. The visiting team noted the use of formal standards setting in this examination and would commend this approach of standardising the pass marks within OSCEs. Students were told of the total and pass marks at each station.

Phase 3 (Yr 3) OSCE

71. The visiting team was less satisfied with the Phase 3 (Year Three) General Medicine and Cardiology OSCE. The visiting team noted that this examination was based more on a viva approach than the OSCE approach demonstrated in the Phase 2 examination that was observed. Key concerns were:

- a. Examiners would also play the role of the patient, which the visiting team did not feel was good practice. The visiting team suggested that the School should consider using separate simulated patients from examiners.
- b. Examiners constantly prompted or were openly viva'ing the students.
- c. The visiting team did not feel that Examiners at this OSCE demonstrated any signs of being trained. The School offered training, and the visiting team suggested that take up rates should be monitored.

72. Individuals wrote the OSCE stations for this examination, but the visiting team felt there was a lack of how these were coordinated into the whole. The visiting team suggested that the School should review its quality assurance processes for the development of these examinations.

Long Cases

73. The long case examination was run over seven sites and used greater than 170 patients. At every site there was one patient per student. The first twenty minutes of the exam was an observed history, following by a further twenty minutes where the student would examine the patient unobserved. The final twenty minutes of the exam was the student feeding back to the examiner on the history and proposed management of care. In the assessment of this exam, two examiners were present and would agree the mark and complete some free text comments. The marking schedule was a partially structured form giving guidance on marks from one to ten.

74. During the long case clinical examination at 2 sites an OSLER marking template was piloted in parallel with the standard marking schedule. This received mixed feedback from examiners. This may be due to the marking schedule not being

particularly useful, as the long case examination as it stood emphasised history taking.

75. The visiting team was concerned about many aspects of this examination, although they noted that the Long Cases examination was currently being reviewed by the School.

Short Cases

76. Initially the visiting team decided not to observe the short cases examination, as it was thought that observing the Phase 2 and 3 OSCE, and the Long Cases would be sufficient in reviewing clinical assessment. In hindsight upon the realisation of the lack of assessment of clinical skills in both the Phase 3 OSCE and Long Cases examination, the visiting team felt that a review of the Short Cases examination was additionally warranted, in order to verify that clinical skills were being assessed appropriately at the School. At this time however, the short cases examinations had been completed for 2005.

77. Whilst the range of examinations appeared sufficient for testing the knowledge skills and attitudes of students when reviewed as a whole, the observations of the long case examination further confirmed the visiting team's concerns over the lack of clarity or signposting of clear objectives of the exam structure for examiners. In addition, the visiting team would like to see the good practice of the Phase 2 OSCEs implemented across the rest of the course.

78. In response to the various concerns over assessment highlighted by the visiting team, the School has produced an assessment review plan, which is attached at Annex A. The visiting team has been reassured by this swift response and look forward to receiving an update at the end of 2006.

Assessment of SSCs

79. The School was aware it might they may not be assessing SSCs as consistently as they could be, largely due to the primary focus recently being based around getting enough SSC modules developed and implemented. The School planned to offer training in standard setting in an effort to address this.

80. Almost all assessments within the SSCs were assessed using standardised forms using defined criteria, and all oral and poster presentations were second-marked. Written assignments were not routinely second-marked, although internal moderation of marking was encouraged and second-marking occurred in all cases of failed or borderline work. The visiting team was satisfied that these procedures were fair, but would recommend that the School consider how external examiners might have a role in moderating standards in this part of the course, and keep under review how the SSC assessment arrangements related to best practice in assessment.

81. In addition, the visiting team suggested that a more formal arrangement should be considered, where a set percentage of all student work was double-marked, in addition to the borderline or failing students' work. The visiting team

recognised that identifying second-markers may be difficult in some areas, and responsibility for doing this should be clearly allocated and monitored. This concern related to the aspect of maintaining consistency in the level (quality and quantity) of work required across modules, rather than whether they were assessed validly and reliably. However, the quantity of assessed work was dependent on the number of contact hours. Students attending modules with higher contact hours received a lower volume of assessment in comparison to those with a lower contact time where students had more time to spend on completing assessments. The involvement of the external examiners in reviewing a cross section of SSCs each year would reveal any glaring inconsistencies. The School has appointed an external examiner to do this for the phase 2 SSCs (year 1 and 2) starting in academic year 2005-2006. Due to the proposed changes in Year 3, an external examiner will not be appointed until the changes are in place.

Examination Board for Final MB

82. External examiners commended the logistics of the running of the exams and that the patients used were stable. It was interesting to note that many of the issues the visiting team has over assessment were already live discussions being held amongst the examiners, or highlighted by the external examiners, and is up for review in 2006.

83. Historically approximately 10% of students were awarded distinctions in the Final MB examination if they achieved a mark of 75% or above. The visiting team noted that the Examination Board endorsed the suggestion of the External Examiners that the number of distinctions awarded was increased to accommodate some students who were just below the 75% threshold. This change did not appear to follow any due process or policy and this was addressed with the School at the feedback following the visit on 09 June 2005.

Formative Assessment and Feedback

84. Formative feedback about performance in Phase II OSCEs always occurred. For this cohort of students the School used Speedwell Software to provide students with detailed analysis of their performance at each OSCE station. All students were invited to contact the module co-ordinator to receive individual feedback. In addition students whose marks were in the bottom 10% were offered remedial teaching. For most clinical examinations in other phases group feedback was offered to all of the candidates following the examination. Attendance at some of these sessions had been poor. In some modules, e.g. Paediatrics, individual feedback was always given.

85. Detailed feedback from each Phase 4 OSCE was made available to students on the day of the exam. Students could then make an appointment to meet with the module Coordinator if they wished to discuss this further. In the Final Phase, students received written feedback from the School and were able to request meetings with the School to discuss any concerns should they wish to do so.

86. Feedback was also given in the tutorial meetings given throughout the year, from an overview perspective. The School recognised the aspirational idea of providing feedback to all students, however they realised that this was extremely difficult and a common problem from a resource perspective.

87. Students would like to receive more detailed feedback rather than just pass marks and where they sat within the median. Some tutorial groups offered more feedback than others. Where feedback was given, students felt it was of a good standard. Feedback was normally given in a group situation especially in clinical as opposed to academic exam feedback.

88. The visiting team noted that appraisal was an embedded part integral to all teaching at the School.

Student progress

89. Students that fail were contacted by the School. Provided students met the re-sit requirements they were normally offered the opportunity to take a supplementary examination in August in order to progress. Students who failed three or more modules were required to repeat the year. Students taking supplementary examinations were normally offered remedial teaching. Students understand the regulations governing supplementary examinations and the barriers to progression from one year to the next.

90. The School provided good signposting of standards setting and how this resulted in the final mark. This was strongly reflected in student feedback. Students have also asked about how the School ensured consistency of marking was met across the sites, but the visiting team felt that the systems the school has in place were sufficient. Mark sheets were quite comprehensive in many areas including attitudes and aptitudes, dealing with patients, attendance which made up the consultant marking component of their overall grade.

91. Attitudes are assessed in the Clinical Skills Education Centre, where there are set marks on clinical skills, attitude, and communications skills. As much of the time in the final year is spent with consultants, students felt poor attitude and attendance would be picked up, although they recognised that this could result in inconsistent marking depending on the consultant.

92. Borderline or failing students' work was double marked and offered a remedial viva or oral examination.

93. However, the visiting team was concerned about borderline students in the Final MB clinical examination who received a viva on emergency care on the day of the examination board, as a last option to pass this component. The visiting team felt this was inappropriate as it did not test the same components as those observed in the long case examination, where the primary objective of the assessment was history taking. The visiting team deemed this inappropriate and addressed this concern with the School. The School accepted that this borderline viva was not fit for purpose and undertook to take steps to address this issue.

Student health and conduct

Fitness to Practise

94. Students were given handbooks at the beginning of each year, which covered requirements for assessment and fitness to practise requirements etc, entitled 'Notes for Undergraduate Students'. Students demonstrated that they were aware of the seriousness of the Fitness to Practise aspect, although they were less clear of any formal policy or system on Fitness to Practise being available at the School. They did comment that they would feel able to report a fellow student should there be any problems. The visiting team suggested that the School could review better signposting of this for students.

95. The School has not invoked its Fitness to Practise procedures to date. Generally students were highlighted in an earlier phase and monitored closely. Monitoring will include reports from GPs or those working with students outside of the School environment. Where some previous cases were considered at risk, they ended up failing academically prior to falling under the FtP procedures.

96. Students spoke of a session available for students to discuss the issue of whistleblowing on consultants in a secure environment. Ethical issues forms were also available. Students also felt that they could go to other consultants to ask their opinion. Students are asked to feed back on consultants at the end of each attachment, and used this process readily. One student commented on a complaint handed back and felt this was actioned. The School spoke with the consultant, and had a meeting with the students to address this issue. Insofar as any formal process being in place, these issues appeared to be dealt with on an informal and local level. If sufficiently serious, it would be taken through the student representative bodies or directly with the School.

97. Plagiarism is signposted to students in the study guides. A policy 'code of conduct' for students has also been drafted and is currently being consulted on between the central University and all Schools with the hopes of being agreed for the future.

Reflecting Contemporary Society

98. There are various areas of the School programme that touch on aspects of Inter-professional Learning (IPL). One example is a module on ethics where pharmacists and nurses are involved. Resulting from their success in developing and embedding IPE programmes, a team from the Queen's University Schools of Medicine, Dentistry, Nursing and Midwifery, Pharmacy and the Graduate School of Education (GSE) have been recognised by the Department of Employment and Learning (DEL) as a Centre for Excellence in Inter-professional Education (CEIPE) (NI). Full details on this project are available from the office and the visiting team commended this approach as good practice.

99. Since 2001 first year medical and dental students have been offered a SSC entitled Multi-cultural Medicine. Representatives from each cultural group contribute

to the delivery of the programme. Following the promotion of the coordinator of the SSC from Research Fellow to Lecturer in Medical Education in July 2004 other aspects of Multicultural Medicine have been incorporated into the Phase II Individual in Society Programme. Full details on further development plans are available from the office.

100. The visiting team commended the emerging good practice on integrating treatment of equality and diversity issues across the curriculum where appropriate. This area had been identified in the previous report as an area that needed some attention.

101. The School has a dedicated senior lecturer responsible for ensuring that the issues surrounding disability discrimination. There is particular emphasis on this in Year Five where a Preparation for Practise Day is designed to expose students to the issues associated with the care and treatment of patients with disabilities. Students are also required within their case studies to cover at least one patient with disabilities, to visit them at home and/or School to discuss this fully in the context of the patient. In addition students also spend an afternoon at a School with a student with physical disabilities during one of their fourth year blocks. There are also a number of SSCs that incorporate this aspect.

102. There are components in the programme that encourage students to reflect on the aspect of patient centred care, however the visiting team suggested that the School could consider more formal engaging of gathering patient feedback on developing this further.

Main recommendations of our report

Requirements

103. The School is currently reviewing various aspects of assessment. The visiting team has asked the School to submit the findings of this report by September 2006 to demonstrate how arising changes will be implemented to ensure clinical skills are being assessed appropriately within the course (paragraphs 62, 64, 75 and 78).

104. All fail and borderline SSCs should continue to be double marked and a percentage of the other categories should be double marked. Additionally the external examiners should look at all the fails and borderlines and a similar selection of the other grades. This would provide adequate safeguards of standards (paragraph 80).

105. The School should review its policy of using a resit viva for borderline students (paragraph 92 and 93).

Recommendations

106. The School might want to consider building in a mechanism to ensure that students cannot do all classroom-based SSCs (paragraph 15).

107. The School might want to review how it could improve signposting to students of changes that result from student feedback (paragraph 59).

Areas of innovation and good practice

108. The visiting team commended the approach of the School of tutors meeting with students and accompanying students to first placements to alleviate student concerns over the religious diversity aspects of the Northern Ireland region (paragraph 56).

109. The visiting team commended the high level of support that the final year students get from the two SpR's within the small groups that run every week (paragraph 66).

110. Resulting from their success in developing and embedding IPE programmes, a team from the Queen's University Schools of Medicine, Dentistry, Nursing and Midwifery, Pharmacy and the Graduate School of Education (GSE) have been recognised by the Department of Employment and Learning (DEL) as a Centre for Excellence in Inter-professional Education (CEIPE) (NI). Full details on this project are available from the office and the visiting team commended this approach as good practice (paragraph 98).

111. The visiting team commended the emerging good practice on integrating treatment of equality and diversity issues across the curriculum where appropriate. This area had been identified in the previous report as an area that needed some attention (paragraph 100).

Future working

112. We would like to thank the School for cooperating with and aiding the visiting team and GMC staff during the course of the assessment. In particular the visiting team would like to commend the timely responses to requests for information, and the help with conducting the logistics of the visits, which greatly aided the QABME process.

Signed.....

Date.....

Annex A

	Action	Timeline
Third Year		
OSCE workshop rolling out good practice from Year 2	Mairead Boohan/Kate Collins and teaching staff responsible for delivery of course	September/October 2005
In-course review – Mini CEX and Cases	Teaching Staff responsible for delivery of course and Mairead Boohan	Ongoing throughout 2005/2006 academic year with a view to implementation in September 2006
Separate knowledge based assessment – knowledge outcomes	Teaching staff responsible for delivery of course and Mairead Boohan	Ongoing throughout 2005/2006 academic year with a view to implementation in September 2006
Composite end of year OSCE – clinical skills outcomes	Currently being discussed as part of the review of 3rd year in preparation for expansion of student numbers	Academic year commencing September 2007
Final MB		
Review of pass/fail procedure – abandon 2nd chance Oral/viva stop – repeat long case	Final Year Teaching Committee and members of staff in Division of Medical Education	Ongoing throughout 2005/2006 academic year with a view to implementation in September 2006
Develop clear role for long case – history taking, full OSLEP	Final Year Teaching Committee and members of staff in Division of Medical Education	Ongoing throughout 2005/2006 academic year with a view to implementation in September 2006
Change minor cases to Mini CEX	Final Year Teaching Committee and members of staff in Division of Medical Education	Ongoing throughout 2005/2006 academic year with a view to implementation in September 2006
Review Conference fixed for 05 October	Organised by Dr Peter Watson and staff in Institute of Medical Education	October 2005
General Review		
Blueprinting of assessment methods and learning outcomes	Mairead Boohan and each Module Co-ordinator	September 2005 – January 2006
Assessment Away	Professor M Savage, Dr	January 2006

Day/Conference with input from National experts on assessment	D Gilliland and Mairead Boohan	
Appointment of Examinations Office Administration Team	Professor R Hay, Professor M Savage, Dr K McGlade and Mairead Boohan	Ongoing throughout 2005/2005

Annex B

Response to the findings of the report for 2005.

Queen's University Belfast Medical School
Received December 2005.

The Queen's University Belfast Medical School welcomes the supportive and constructive report from the visiting team confirming that we are on course to meet appropriately the requirements set out in Tomorrow's Doctors. The team has recognised the high level of student satisfaction in a strongly supportive learning environment (paragraph 27). We are also pleased by the commendation of our approach to alleviate any student concerns over placements in a religiously diverse community in Northern Ireland and our good practice in integrating the treatment of equality and diversity issues across the curriculum. We also acknowledge their commendation of the high level of one to one support given to final year students from SpR tutors which we believe ensures a high level of clinical competence in our graduates. We plan to continue to build on our success in developing and embedding IPE programmes which are commended in the report. The School has been recognised as a Centre for Excellence in this area.

Our ongoing refinement of assessment practice has been identified (paragraph 62) with the appointment of an assessment lead in September 2004 to co-ordinate a review of all assessment procedures throughout the curriculum. A report of this review will be submitted to the Education Committee in September 2006. The regular feedback provided during the course of the visit has proved useful to this review, so that the School has already taken steps to act on the main recommendations of the final report (paragraph 103 - 105).

Interim plans for the current academic year include implementing the changes suggested to the 3rd year clinical examinations to ensure that clinical skills are being assessed appropriately. A revised third year programme will be implemented in the academic year 2007-2008. This will include an integrated end of year OSCE. The Final MB Clinical Examination resit vivas for borderline students have already been replaced by repeat *clinical* examinations as suggested by the QABME Team. We envisage the development of an office to ensure the co-ordination of assessment procedures reflecting modern educational best practice.

We note the positive comments on the breadth and quality of Student Selected Components (paragraph 13 & 17) reflecting considerable progress in their provision. External Examiners for SSCs are currently being recruited to further scrutinise fail and borderline candidates course work, which is currently double marked and this practice will be extended to a random selection of other grades. An analysis of Student Selected Components, in response to visitors concerns, has indicated that on only one occasion has a student taken all classroom based SSC's (paragraph 106) and steps will be taken to ensure that this is avoided in future.

The School acknowledges the comments in relation to Faculty reorganisation and staff/student ratios (paragraphs 25, 26 and 36) this will continue to be carefully monitored at School and University level.

Two new clinical academic General Practice appointments have been made to enhance student exposure to community based education as part of the school expansion plan.

The School is pleased that the visitors have recognised that the mentoring system now in place is sufficient to meet student needs.

Career guidance information for students has been improved following the interim period leading up to the introduction of the Foundation Programme with the appointment of a Postgraduate Sub-Dean with special responsibility in this area and a link clinical academic to coordinate final year and foundation year learning experiences.

The School thanks the visiting team for their constructive and useful feedback throughout the visitation progress, which has aided our curriculum planning.

UK Medical Schools Annual Return 2007/08: QABME

The QABME Annual Return Process

Every year, each medical school must provide a return to the GMC that:

- a. Identifies significant changes to curricula, assessments or staffing.
- b. Highlights risks or issues of concern, proposed solutions and corrective actions taken.
- c. Identifies examples of innovation and good practice.
- d. Responds to issues of interest and debate in medical education, including promoting equality and valuing diversity.
- e. Identifies progress on any requirements or recommendations arising from the QABME visit process.

The GMC writes to each medical school towards the end of the calendar year to request the specific information required that year. School returns allow the GMC Education Committee to identify:

- a. Issues to explore with all medical schools.
- b. Examples of good practice that can be shared.
- c. Issues to be investigated with individual medical schools.

If we need to explore an issue, for example the introduction of a new curriculum or significant changes to the curriculum or facilities, the school may be requested to submit detailed information for analysis or may be selected for the QABME visit process.

Name of medical school:	QUEEN'S UNIVERSITY BELFAST

QABME Annual Return Table Templates

Tables 1 to 5 below are part of the GMC's QABME Annual Return Process. They track:

- The steps the schools are taking to address specific requirements and/or recommendations arising out of their QABME review.
- The changes in provision of undergraduate degrees, including risks and innovations resulting from the school's own quality management systems.

What you need to do

Complete Tables 1 to 5 with brief notes. Instructions on what you need to include in each column of the tables are given below.

Tomorrow's doctors area	Requirement/ Recommendation/ Change/ Innovation/ Risk or challenge	Action	Contact	Supporting documents list	Timeline
Identify the most relevant area of Tomorrow's Doctors. This has been pre-populated for each table with general areas. Please amend, delete or duplicate the rows as appropriate.	Identify the areas under each category in the individual tables for: ▪ Requirements ▪ Recommendations ▪ Changes ▪ Innovations ▪ Risks or challenges	List the key actions and steps the school plan to take in order to address each: ▪ Requirement ▪ Recommendation ▪ Change ▪ Innovation ▪ Risk or challenge	State the working group/committee/ person that will be taking the lead on the action identified. Include details of the: ▪ Contact name ▪ Email address ▪ Telephone number	List the document names of any committee decisions, management plans or other documents that evidence the actions. Please do not attach these documents.	State the timeline for each action stipulated. Include an estimate for the final deadline of when the school expects to be able to fully meet any requirements listed.

A fictional example response is provided in Table 1.

Please note that your responses may be published on the GMC's education website pages.

Please send your completed responses on this template by **Monday 17 December 2007** by email to QABME@gmc-uk.org.

Table 1 – Requirements

Please list the requirements from your school's last QABME report that have not yet been addressed.

If you do not have any requirements in your last report or have not yet been reviewed under the QABME process, check this box ☒

All change requirements satisfied and confirmed by QABME in a letter of 19 April 2006. QABME Report Annex C

Tomorrow's doctors area	Requirements	Action	Contact	Supporting documents list	Timeline
Example: Assessment procedures	To ensure that students receive clear guidance about what is expected of them in their Year 5 OSCE	- Review of guidance on the Year 5 OSCE on the student intranet - Review guidance on the Year 5 OSCE in the Year 5 Handbook - Revise student briefing for Year 5 OSCE	- Assessment Working Group - Dr Joe Bloggs - Director of Clinical Studies joebloggs@medschool.ac.uk 01234 567 890	- Working group minutes - Intranet - Revised Year 5 Handbook - Briefing notes	- Intranet revision completed - New handbook due for publication May 08 - Briefing notes; July 08
Curricular Outcomes					
Curricular content and structure					
Delivering the curriculum					
Assessing student performance and competence					
Student health and conduct					

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Table 2 – Recommendations

Please list the recommendations from your school's last QABME report. If you have not taken any action on any recommendation(s), please explain why in the action column.

If you do not have any recommendations in your last report or have not yet been reviewed under the QABME process, please check this box ☐

Tomorrow's doctors area	Recommendations	Action – If none taken, please provide your reason for this	Contact	Supporting documents list	Timeline
Curricular content and structure	The School might consider building in a mechanism to ensure that students cannot do all classroom-based SSCs.	Following this recommendation, the School carried out an analysis of the variety of SSCs taken by students. This revealed that only one student had ever taken all classroom based SSCs. To ensure students take a broad range of SSCs, the majority of science and community-based topics have been moved to years 1 & 2. 3-week blocks of mainly clinical SSCs have been introduced at the start of each semester in a redesigned third year, while each final year student does a clinically-based project. Instructions to achieve the appropriate balance will be included in SSC student guides.	Dr V Crawford v.crawford@gub.ac.uk	Minutes of SSC Management Group	Current
Delivering the curriculum	The School might want to review how it could improve signposting to students of changes that result from student feedback	Procedures have been refined to ensure that all actions resulting from Staff/Student committees are minuted. All minutes, taken by student secretaries, are available on the web to the student body.	Phases 1 &2 Dr K Collins k.collins@gub.ac.uk Phase 3 Dr D Craig d.craig@gub.ac.uk Phase 4, Dr M Shields m.shields@gub.ac.uk Phase 5, Dr M	Phase Quality Assurance Committee Minutes from all Phases are at http://www.qub.ac.uk/schools/SchoolofMedicineandDentistry/	Current

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Table 3 – Changes

Please identify any planned changes in relation to any aspect of your school's undergraduate degree: curriculum content, structure, placements, schools facilities, committee structures, staffing or student support systems.

If you have no changes planned to your undergraduate degree, please check this box ☐

Tomorrow's doctors area	Changes	Action	Contact	Supporting documents list	Timeline
Curricular content and structure	Review of Years 1 and 2.	Review group redesigning content to reduce factual overload and provide better integration between Basic Science and Clinical Medicine. Rational re-alignment of workload and assessment. The current programme has been in place since 1996. One of our aims is to review the content and structure of the systems based course and develop a new programme designed to introduce core vocabulary, concepts and facts required for clinical practice. As students progress through years one and two there will be increasing emphasis on acquiring core knowledge, skills and attitudes necessary for clinical work. There will be a relaxation of the systems-based approach for the delivery of some key subjects eg therapeutics. These subjects will have a discipline-based structure with integration as appropriate with the systems course.	Professor P Hall peter.hall@qub.ac.uk	Review Group report to the Undergraduate Medical Education Committee.	New first year will be introduced in September 2008. New second year to be introduced in September 2009.

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Tomorrow's doctors area	Changes	Action	Contact	Supporting documents list	Timeline
	Redesigned third year course.	Clinically oriented topics in Microbiology, Therapeutics and Clinical Chemistry have been introduced.	Prof. MF McMullin, Phase 3 Co-ordinator m.mcmullin@qub.ac.uk	On-line documents at http://www.qub.ac.uk/cm/gp/ThirdYear/Home.htm https://www.med.qub.ac.uk/Year3/login	Current
Delivering the curriculum	Revised Phase 3 curriculum currently being delivered.	The new course is supported by an extensive on-line and e-learning resource which has been specifically developed. (See under Innovation)			
	New facilities	A suite of new small group teaching rooms are being developed on the Royal site A new building to house the Medical School Administrative Offices, Medical Education Unit and Teaching Accommodation is currently under construction on the Belfast City Hospital campus.	Mr R Carson, Estates and Buildings r.carson@qub.ac.uk	Medical Expansion Steering Group Minutes	End of January 2008 Completion Autumn 2009
	Medical Student Management Committee	A new Committee has been formed between the Department of Health (NI), the newly appointed Directors of Education for each of the 5 new NHS Trusts, the Medical School and the University.	Professor P Johnston, Dean of the School p.johnston@qub.ac.uk		

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Tomorrow's doctors area	Changes	Action	Contact	Supporting documents list	Timeline
Assessing student performance and competence	Further development of professionalism in assessment procedures	Fully functioning Progress and Assessment Office introduced to underpin standard setting, blueprinting and administration of assessments.	Dr A Gilliland a.gilliland@qub.ac.uk Ms M Boohan m.boohan@qub.ac.uk	Minutes of the Assessment Group	Current
	Changes in third year assessment procedures	New end of year integrated assessment planned to match the new course. A single combined OSCE examination will now be delivered instead of specialty specific OSCEs. The examinations are co-ordinated by a third year assessment team.	Chair of Third Year Assessment Group, Dr A Bell a.bell@qub.ac.uk		March 2007 until First Phase 3 Integrated OSCE June 2008
	Final MB Clinical Assessment	Final MB clinical examinations have now an OSCE format, including an evaluation of procedural skills in line with the advice in Tomorrow's Doctors.	Dr P Watson p.watson@qub.ac.uk	UMEC Minutes a.stockman@qub.ac.uk Final Clinical Examinations Implementation Group Minutes e.burns@qub.ac.uk	April 2008
	Portfolio assessment	Portfolio based assessments have been introduced in years 1 and 5 and will be rolled out across the curriculum.	m.boohan@qub.ac.uk	Portfolio Management Group Minutes	2006 – 2010
Student health and conduct	Review of admission selection process.	The School has adopted the use of UKCAT (aptitude testing).	Dr K Steele, Admissions Lead k.steele@qub.ac.uk		Pilot for the September 2008 intake of students.

Table 4 – Innovations

Please identify any innovations the school is piloting or planning to introduce.

If you do not have any innovations currently being piloted or planned, please check this box ☐

Tomorrow's doctors area	Innovations	Action	Contact	Supporting documents list	Timeline
Curricular content and structure	Interprofessional Education	In year 4 a new interprofessional teaching programme has been introduced in collaboration with the School of Nursing and Midwifery. During the Perioperative and Emergency Medicine programme students receive training in emergency care and management using a human patient simulator. Since September 2007 student nurses have participated in this element of the programme. This learning experience offers students from both professions an opportunity to acquire team working and communication skills.	Dr J Murray james.murray@qub.ac.uk	Study Guide for POEM (Year 4)	Current
	Simulation	All students, during the Healthcare of Children module (Phase 4) gain experience of simulated clinical scenarios using the SIMBABY. This follows a pilot study.	Dr N Kennedy n.kennedy@qub.ac.uk Dr M Stewart m.c.stewart@qub.ac.uk	Study Guide for Healthcare of Children (Year 4)	Current
		During the past year the School has introduced an innovative Simulated Patient Programme. This is known as	Dr M McCullough m.mccullough@qub.ac.uk Ms Marie Brooks	Teaching and Learning	

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Tomorrow's doctors area	Innovations	Action	Contact	Supporting documents list	Timeline
		"Patients as Partners" and has recruited and trained over 50 members of the public to assist with the delivery and assessment of various elements of the undergraduate programme.	m.brooks@qub.ac.uk	Innovation Fund Report	
Delivering the curriculum	E-learning: Provision of on-line learning resources	The entire third year lecture course has been provided as streamed video lectures and supplementary learning resources. This includes formative self-assessment material, case histories and interactive Kardex's. This is provided to each student in DVD format and can be downloaded as podcasts.	Dr Kieran McGlade k.mcglade@qub.ac.uk	http://www.qub.ac.uk/cm/gp/ThirdYear/Home.htm https://www.med.qub.ac.uk/Year3/login	Current
Assessing student performance and competence	Workplace learning	The third year teaching and assessment programme has been reviewed. A new teaching programme was introduced in September 2007. A new assessment procedure has been developed. This includes an end-of-year OSCE. Students are also required to submit case reports during the academic year. A newly designed case report template is based on the one used by Foundation Doctors. The Third Year Assessment Group is monitoring the new assessment procedures and is keeping the plans to introduce Mini CEX under review.	Dr D Fogarty d.fogarty@qub.ac.uk Dr A Bell a.bell@qub.ac.uk	See websites above. Minutes of Third Year Assessment Group	Current 2008 – 9

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Tomorrow's doctors area	Innovations	Action	Contact	Supporting documents list	Timeline
		We have moved from traditional assessment methods of long and short cases to more objective and reliable assessment methods (OSCEs) in years three and five. In addition, a Yellow Card system will be piloted as part of the Final MB OSCE in April 2008 to enable Examiners to highlight students about whom they have concerns.	Dr P Watson p.watson@qub.ac.uk	UMEC minutes	
Student health and conduct	Better signposting of career options for students New central student support and guidance centre	The School has improved liaison with Northern Ireland Medical and Dental Training Agency (NIMDTA) and has incorporated careers advice into the introduction to third year. Closer co-operation has been developed between the and newly appointed Careers Staff within the University. The University has opened a new centre, close to the Medical School, dedicated to provide support and guidance and careers advice to all students.	Ms Fidelma Dynan f.dynan@qub.ac.uk Miss A Carragher angela.carragher@nimdta.gov.org www.qub.ac.uk/directorates/sgc/		Current

Table 5 – Risks or Challenges

Please identify any risks or challenges to the high quality delivery of your undergraduate degree. They may be general or relate to specific planned changes listed above.

If you have not identified any risks or challenges, please check this box ☐

Tomorrow's doctors area	Risks/Challenges	Action	Contact	Supporting documents list	Timeline
Delivering the curriculum	Increased student numbers and patient overload	Employment of peripheral hospitals and experience in primary healthcare.			
	Adequate clinical placements and delivery of teaching in the clinical environment.	New NHS medical school liaison utilising Directors of Education recently appointed to NHS Trusts under the Review of Public Administration.			
	Poor staff student ratio.	Targeted recruitment and utilisation of clinical teaching fellows.			

Annex C

19 April 2006

Professor Maurice Savage
Queen's University Belfast Medical School
Whitla Medical Building
97 Lisburn Road
Belfast
BT9 7BL

Dear Maurice,

2005 QABME Change Requirements

On 12 April 2006 the Education Committee considered your follow up response (dated 23 February 2006) in relation to change requirements given to Queen's University Belfast Medical School as a result of QABME assessment in 2005.

I'm pleased to report that the Education Committee agreed that Queen's University Belfast Medical School has now satisfied the change requirements arising from the 2005 School QABME report and looks forward to receiving a report on future assessment policy in September 2006.

I can confirm that this letter has been annexed to the published School report which can be viewed online at: <http://www.gmc-uk.org/education/qabme/visits.asp>.

Yours sincerely,

Cara Talbot
QA Programme Manager

UK Medical Schools Annual Return 2008/09: QABME

The QABME Annual Return Process

Every year, each medical school must provide a return to the GMC that:

- a. Identifies significant changes to curricula, assessments or staffing.
- b. Highlights risks or issues of concern, proposed solutions and corrective actions taken.
- c. Identifies examples of innovation and good practice.
- d. Responds to issues of interest and debate in medical education, including promoting equality and valuing diversity.
- e. Identifies progress on any requirements or recommendations arising from the QABME visit process.

The GMC writes to each medical school towards the end of the calendar year to request the specific information required that year. School returns allow the GMC Education Committee to identify:

- a. Issues to explore with all medical schools.
- b. Examples of good practice that can be shared.
- c. Issues to be investigated with individual medical schools.

If we need to explore an issue, for example the introduction of a new curriculum or significant changes to the curriculum or facilities, the school may be requested to submit detailed information for analysis or may be selected for the QABME visit process.

Basic Information

Please complete this table and update details if necessary

Name of Medical School:	QUEEN'S UNIVERSITY BELFAST SCHOOL OF MEDICINE	
Name of Dean/Head of School <i>(please correct if necessary):</i>	PROFESSOR PATRICK JOHNSTON	Contact tel: 028 90972764 Contact email: p.johnston@qub.ac.uk
Name of QABME contact <i>(please correct if necessary) :</i>	PROFESSOR MAURICE SAVAGE	Contact tel: 028 9097 3283 Contact email: m.savage@qub.ac.uk
Number of undergraduate medical students 2008/09 (all programmes)	1,215	
External QA review (e.g. by university)	Date: By: Covering: Date of Next:	
Internal QA review	Date: November 2008 Covering: Academic Year 2007-08 Date of next: October 2009 Pathway Review: November 2008	

QABME Annual Return Table Templates

Tables 1 to 5 below are part of the GMC's QABME Annual Return Process. They track:

- The steps the School is taking to address specific requirements and/or recommendations arising out of the previous QABME review.
- The changes in provision of undergraduate degrees, including risks and innovations resulting from the School's own quality management systems.

What you need to do: Complete Tables 1 to 5 with brief notes. Instructions on what you need to include in each column of the tables are given below.

Tomorrow's doctors area	Requirement/ Recommendation/ Change/ Innovation/ Risk or challenge	Action	Contact	Supporting documents list	Timeline
Identify the most relevant area of Tomorrow's Doctors. This has been pre-populated for each table with general areas. Please amend, delete or duplicate the rows as appropriate.	Identify the areas under each category in the individual tables for: ▪ Requirements ▪ Recommendations ▪ Changes ▪ Innovations ▪ Risks or challenges	List the key actions and steps the school plan to take in order to address each: ▪ Requirement ▪ Recommendation ▪ Change ▪ Innovation ▪ Risk or challenge	State the working group/committee/ person that will be taking the lead on the action identified. Include details of the: ▪ Contact name ▪ Email address ▪ Telephone number	List the document names of any committee decisions, management plans or other documents that evidence the actions. Please do not attach these documents.	State the timeline for each action stipulated. Include an estimate for the final deadline of when the school expects to be able to fully meet any requirements listed.

A fictional example response is provided in Table 1.

Please note that your responses may be published on the GMC's education website pages.

Please send your completed responses on this template by **Friday 12 December 2008** by email to QABME@gmc-uk.org.

Table 1 – Requirements

Please list the requirements from the School's last QABME report that have been completed since your last annual return. Please also list those that have not been fully implemented. Please indicate how the requirements have been addressed since your last annual return in 2007/08 (http://www.gmc-uk.org/education/undergraduate/undergraduate_qa/medical_school_reports.asp)
Expand the table as necessary. If you do not have any requirements in your last report please check this box ☐ **All change requirements have been satisfied and confirmed by QABME in a letter dated 19 April 2006 (QABME Report Annex C).**

Tomorrow's doctors area	Requirements	Action	Contact	Supporting documents list	Timeline
Example: Assessment procedures	To ensure that students receive clear guidance about what is expected of them in their Year 5 OSCE	- Review of guidance on the Year 5 OSCE on the student intranet - Review guidance on the Year 5 OSCE in the Year 5 Handbook - Revise student briefing for Year 5 OSCE	- Assessment Working Group - Dr Joe Bloggs - Dir. of Clinical Studies joebloggs@medschool.ac.uk 01234 567 890	- Working group minutes - Intranet - Revised Year 5 Handbook - Briefing notes	- Intranet revision completed - New handbook due for publication Dec 08 - Briefing notes; July 09
Curricular Outcomes					
Curricular content and structure					
Delivering the curriculum					
Assessing student performance and competence					
Student health and conduct					

Table 2 – Recommendations

Please list the recommendations from the School's last QABME report that have been addressed since your last annual return in 2007/08 (expand the table as necessary). If you do not have any recommendations in your last report, please check this box ☐

We responded to changes we had made following QABME recommendations in the 2007-2008 Annual Return. We believe these now satisfy the recommendations, but continue to refine the skills, procedures year on year as indicated below.

Tomorrow's doctors area	Recommendations	Action taken – If none taken, please provide your reason for this	Contact	Supporting documents list	Timeline
Curricular Outcomes	No recommendation				
Curricular content and structure	No recommendation				
Delivering the curriculum	The School might want to review how it could improve signposting to students of changes resulting from student feedback.	In addition to changes notified in 2007-08, the Annual Pathway Review carried out by the School is now made available to the student body and presented at the Year Joint Staff Student Quality Assurance Committees. In a revision of the Year 1&2 curriculum, specific consultations were carried out with the student body by questionnaire and through focus groups and similar processes have been instituted for other years.	<u>Year 1&2:</u> Professor Peter Hall: (peter.hall@qub.ac.uk) <u>Year 3:</u> Dr David Craig (david.craig@qub.ac.uk) <u>Year 4:</u> Dr Mike Shields: (m.shields@qub.ac.uk) <u>Year 5:</u> Dr Margaret Cupples (m.cupples@qub.ac.uk)	PQAC and Teaching Committee Minutes	Current

Tomorrow's doctors area	Recommendations	Action taken – If none taken, please provide your reason for this	Contact	Supporting documents list	Timeline
			Director of Education: Professor Maurice Savage (m.savage@gub.ac.uk)		
Assessing student performance and competence	No recommendation				
Student health and conduct	No recommendation				

Table 4 – Innovations & potential good practice

Please identify any innovations the school is piloting or potential good practice that it would like to report.

If you do not have any innovations currently being piloted or planned, please check this box ☐

Tomorrow's doctors area	Innovations/Good practice	Action	Contact	Supporting documents list	Timeline
Curricular Outcomes					
Curricular content and structure	Interprofessional Education	In year 5 a new Interprofessional Medicine Governance workshop was introduced for nursing, medicine and pharmacy students. The programme was delivered using a blended learning approach comprising face to face teaching and on-line learning activities.	Dr Paul Collier p.collier@qub.ac.uk	IPE Overview for Final Year Students	Current
Delivering the curriculum	Use of Audience Response Systems	Several modules throughout the programme use the Audience Response System to provide students with immediate feedback on formative assessment tasks. Students have provided positive feedback about this innovative teaching resource.	Mrs Glynne Carse g.carse@qub.ac.uk		Current
	Appointment of an e-learning technologist to lead the development of e-learning activities.	Development of new and innovative e-learning resources for years one two and three of the programme.	Dr Kieran McGalde k.mcglade@qub.ac.uk		Current

Tomorrow's doctors area	Innovations/Good practice	Action	Contact	Supporting documents list	Timeline
	Student Selected Components designed to give students an opportunity to acquire teaching skills.	Four Student Selected Components offered to year two students offer students an opportunity to acquire teaching skills. Three modules <i>ABC for Life, Teaching Children with Disabilities and Medics in Primary Schools</i> involve medical students working in a classroom with a qualified teacher. The third module <i>Learning to Teach</i> focus on educational theory and practical activities for example microteaching.	Dr Vivienne Crawford v.crawford@qub.ac.uk	SSC Module Choice Booklets	Current
Assessing student performance and competence	Training of all examiners participating in OSCE assessments	All assessors participating OSCE based assessments are required to attend a workshop before joining the panel of examiners	Dr Drew Gilliland a.gilliland@qub.ac.uk		Current
	The School has joined UMAP	Incorporation of UMAP material into QUB exams. Participation in UMAP workshops and question bank quality assurance.	Ms Mairead Boohan m.boohan@qubac.uk		Current
	From September 2008 all newly appointed External Examiners will be invited to attend a training workshop at	Deliver workshop in February 2009	Dr Drew Gilliland a.gilliland@qub.ac.uk		Current

Tomorrow's doctors area	Innovations/Good practice	Action	Contact	Supporting documents list	Timeline
	QUB				
Student health and conduct	Revised admissions policy for students with disabilities.	The school has adopted the recommendations of the Gateways to the Professions so that offers to applicants for admission will be based solely on academic criteria.	Dr Keith Steele k.steele@qub.ac.uk	Draft FTP Document	Current
	Introduction of new Fitness to Practice Guidelines.	New FTP procedures have been agreed with the University in keeping with GMC recommendations. These have not yet been implemented as the institution is consulting with other health care disciplines within the university. It is hoped the guidelines for medicine will be adopted across all the healthcare professions.			
	The school has reviewed the Student Support and Guidance system for students in years one and two. This new system is in keeping with university guidelines for student support and Personal and Professional Development.	The role of portfolio mentor and personal mentor have been combined in keeping with University guidelines for student support and Personal and Professional Development.	Ms Julie Silvestri g.silvestri@qub.ac.uk	Mentor Guidelines	Current

UK Medical Schools Annual Return 2009/10: QABME

Belfast

The QABME Annual Return Process

Every year, each medical school must provide a return to the GMC that:

- a. Identifies significant changes to curricula, assessments or staffing.
- b. Highlights risks or issues of concern, proposed solutions and corrective actions taken.
- c. Identifies examples of innovation and good practice.
- d. Responds to issues of interest and debate in medical education, including promoting equality and valuing diversity.
- e. Identifies progress on any requirements or recommendations arising from the QABME visit process.

In April 2009 we signalled that we would be requesting an enhanced annual return. It has been expanded to include a request for self-assessment of progress on the implementation of *Tomorrow's Doctors* 2009. This is to ensure a continuing oversight of undergraduate medical education and to begin benchmarking all schools against the revised standards. The full enhanced annual return from Schools will not be published, however we intend to publish a summary report or reports of key issues and challenges and to share practice that might be of use to other schools.

The data returns for Section A on action on requirements and recommendations from previous QABME reports are published on the GMC website.

Basic Information

Name of Medical School:	Queen's University Belfast Medical School	
Name of Dean/Head of School	Professor Patrick Johnston	Contact tel: 028 9097 2764 Contact email: p.johnston@qub.ac.uk
Name of QABME contact	Professor Maurice Savage	Contact tel: 028 9097 3283 Contact email: m.savage@qub.ac.uk

Section A - Response to previous QABME requirements and recommendations

For all schools except those reviewed in 2008/09

Since submission of the School's previous Annual Return at http://www.gmc-uk.org/education/undergraduate/undergraduate_qa/medical_school_reports.asp, please answer the following questions:

1. For any requirements, state those that have been fully completed or not been fully implemented providing an explanation indicating how they have been addressed.

If the School did not have any requirements in its last report or the requirements were fully met and reported in a previous annual return please check the box ☒

Tomorrow's doctors 2003 area	Requirement	Action taken – If none, explain why	Contact	Supporting documents list	Timeline

2. For any recommendations, state those that have been fully completed or not been fully implemented providing an explanation and indicating how they have been addressed.

If the School did not have any recommendations in its last report please check the box ☒

Tomorrow's doctors 2003 area	Recommendation	Action taken – If none, explain why	Contact	Supporting documents list	Timeline

3. Please identify any planned changes or improvements as part of the School's continuous improvement and quality management regarding any aspect of the School's undergraduate degree/s **that are not** part of the School's response to *Tomorrow's Doctors* 2009.

Recent Developments in School Structure

During the past two years the School has undergone a major re-structuring. The School of Medicine, Dentistry and Biomedical Sciences, the largest School in the University, was established on 1 August 2008, with the merger of the existing Schools of Medicine & Dentistry and Biomedical Sciences.

The goals of the School are:

- To create a dynamic School (top 10) led by international leadership and underpinned by a culture of innovation, high-quality education and research;
- To develop a School that serves as a magnet to attract high-quality clinicians, researchers and key disciplines to Queen's and also drives partnerships throughout the world;
- To further enhance educational programmes at both undergraduate and postgraduate level;
- To provide an environment that encourages our brightest graduates to seek a future career in clinical leadership and in the medical and biomedical sciences.
- To be recognised as a key partner with the NHS, working in collaboration and with full engagement, in the undergraduate training and professional development of our doctors, dentists and biomedical scientists.

Education

Undergraduate and postgraduate taught programmes are delivered through our three Education Centres which provide quality professional training in medicine, dentistry and biomedical science and an enhanced experience for our students (1700 undergraduate and over 600 postgraduate).

Centre for Medical Education

Centre for Dental Education

The Centre for Medical Education

The Centre for Medical Education is the largest education centre in the school comprising 41 members of academic staff supported by a team of 27 administrative and clerical staff.

The Centre has overall responsibility for the strategic management of the undergraduate medical programme. The Academic Plan for the centre sets out the Centre's strategic vision for 2009-2012.

During the past year the School in association with the Northern Ireland Department of Health Social Services and Public Safety (DHSSPS) embarked on two strategic initiatives designed to strengthen and enhance the structures underpinning the delivery of education. A review of the Supplement for Undergraduate Medical and Dental Education (SUMDE) has strengthened the transparency and accountability mechanisms associated with this funding.

In January 2010 the University secured an agreement with the DHSSPS to establish a Sub Deanery Structure in Hospital Trusts throughout Northern Ireland. This initiative will be implemented in 2011.

As part of the Centre's ongoing commitment to delivering a high quality educational experience it is planned to undertake a strategic review of the undergraduate medical programme during 2009. Professor Ed Peile may be invited to act as External Consultant for this review. A major focus of this review will be the alignment between the medical curriculum at QUB and Tomorrow's Doctors 2009.

9 August 2010

Professor Patrick Johnston
Queen's University Belfast School of Medicine
73 University Road
Belfast
BT7 1NN

Regent's Place
350 Euston Road
London NW1 3JN

Switchboard: 0845 357 8001
Central Fax: 020 7189 5001
Central Email: gmc@gmc-uk.org
www.gmc-uk.org

Dear Professor Johnston

QABME Enhanced Annual Return 2009/10 feedback

The Undergraduate Board considered the 2009/10 QABME Enhanced Annual Return (EAR) at its meeting on 19 July 2010. Following this meeting, I am pleased to enclose for you a report summarising the progress towards compliance with *Tomorrow's Doctors* 2009 standards for delivery and outcomes for graduates, as reported in self-assessment returns from 31 schools received in January and March 2010. The report also includes feedback specific to your school to assist you to benchmark your progress and prepare for the EAR progress update for 2010/11.

I have also enclosed information presented to the Undergraduate Board meeting in a number of other areas of interest including the broader education quality assurance work programme from 2011, and summaries of the *Tomorrow's Doctors* 2009 implementation workshops and survey on the Options for the Enhancement of QABME.

The Quality Team sought feedback from schools on the EAR process in written feedback forms and in meetings in Scotland, Manchester and London. Although schools found the 2009/10 EAR format challenging, on the whole you told us we should not significantly change the form as schools had now adapted to it.

The aim of the EAR 2010/11 is to enable you to revise your assessment of the status of your compliance, update cohort data (such as student demographics, fitness to practise and progression data) and to provide information on progress made in the last year, including examples of good practice or continuing challenge. The basic structure is likely to remain unchanged. However there will be less narrative questions in recognition that responses to many questions in the 2009/10 EAR will still apply in 2010/11.

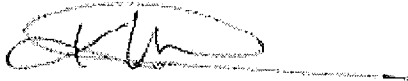
We are also exploring how the EAR format can be more user-friendly. Excel remains the best format to collect comparable statistical compliance against domain and outcome criteria at present as there are IT limitations that cannot be resolved in the short to medium term. However there will be a secure online portal available for the upload and storage of the EAR and any supporting evidence in 2011.

The Quality Team will set up a number of 'drop-in' sessions later in the year after the EAR update has been circulated, so that queries can be raised and resolved at the earliest opportunity.

The information you and the other schools returned in your 2009/10 EAR, has already proven very valuable and has been widely used; to inform the *Tomorrow's Doctors* workshops this Spring; to inform a joint MSC-GMC student fitness to practise workshop in May and the EAR, along with the *Tomorrow's Doctors* Workshops, has shaped the 2010 Education Directorate work programme, which includes projects developing advice on patient involvement, assessment and student assistantships.

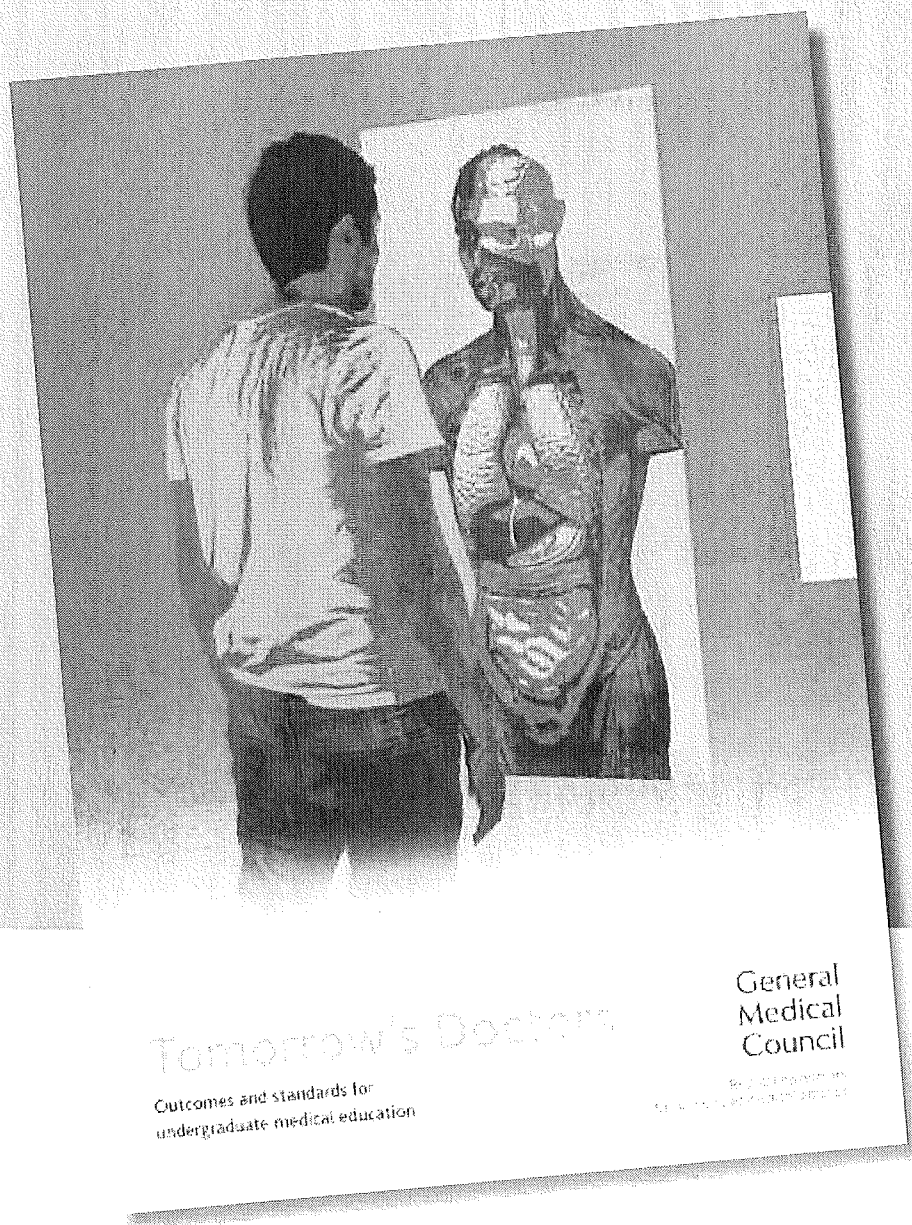
I hope you find the enclosed information interesting and informative, and that the feedback is useful as part of the implementation of *Tomorrow's Doctors* 2009.

Yours sincerely

A handwritten signature in black ink, appearing to be 'K White', with a horizontal line extending to the right.

Kirsty White
Head of Quality Assurance (Education)
quality@gmc-uk.org

Copy: Professor Maurice Savage



2010 QABME Feedback

**General
Medical
Council**

Regulating doctors
Ensuring good medical practice

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QABME Enhanced Annual Return (EAR) 2009 feedback

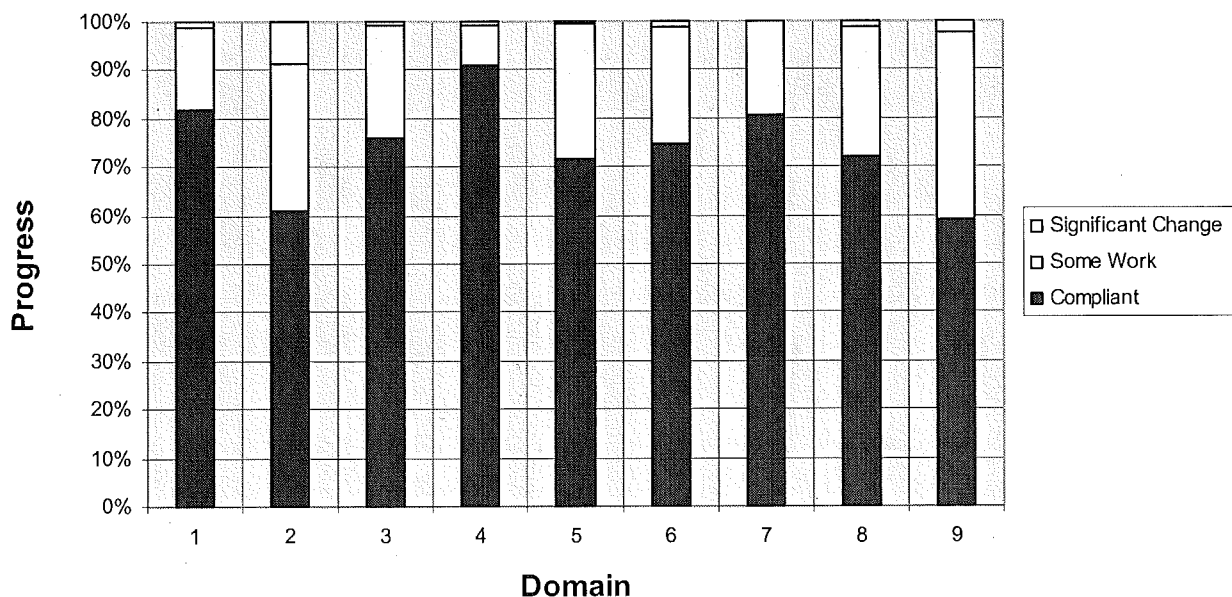
- 1 This report summarises for you the progress of compliance toward the *Tomorrow's Doctors* 2009 standards for delivery and outcomes for graduates, as reported in self-assessment returns from 31 schools received in January and March 2010. The Enhanced Annual Return (EAR) was distributed in September 2009 in place of the more limited annual return and reporting against requirements and recommendations.
- 2 Annual reporting is part of the QABME process (also including a cycle of visits to all medical schools and rolling visiting to new or decoupling schools), and the EAR was developed to ensure continuing oversight and to monitor progress towards compliance with *Tomorrow's Doctors* 2009. The EAR included a self-assessment against *Tomorrow's Doctors* 2009 to provide information about schools' implementation plans and challenges, and a comparable set of data to benchmark schools.
- 3 The analysis of information in the EAR submissions forms part of the broader work programme to support schools in meeting the standards for delivery and outcomes for graduates in *Tomorrow's Doctors* 2009 which also included a series of implementation workshops and policy work on supplementary additional guidance.
- 4 Analysis of submitted information will continue to contribute to the development of the QABME work programme and to support the development of policy guidance and examples of practice for key areas (such as on professionalism and student fitness to practise, assessment, student assistantships). Longitudinal comparison and consideration of the data returned is also planned, for example on student selection, demographics and progression.
- 5 This report provides detail on findings and trends from the EAR that all UK medical schools submitted to the GMC this year. We have made school-specific comments for your school to take into account when completing the 2010/11 EAR update which will be sent to schools at the end of September 2010. The self-assessments have not been validated and do not constitute a judgement on the quality of the schools' programmes.
- 6 The 2010/11 EAR should include an update on progress towards compliance for all criteria where your status indicator noted that some work or significant change was required, and where you reported that review or change was planned, being implemented or evaluated.
- 7 We have included for your information, reporting on:
 - (a) The 10 implementation workshops held between Dec 2009 and May 2010.
 - (b) The results of the survey on options for enhancements to QABME.
 - (c) The development of the Education Directorate work programme.

Enhanced Annual Return (EAR) 2009: Summary

- 1 We encourage the open and constructive approach taken by most schools, and note that some schools have been more self-critical and comprehensive in their responses.
- 2 All schools reported in the EAR that they were broadly on track to meet the requirements of *Tomorrow's Doctors* 2009. Overall schools reported having a good understanding of their own progress towards compliance and were already planning and implementing changes.
 - (a) Some schools identified that early progress was being made on mapping outcomes for graduates to ensure they were present in the curriculum and assessed, while other schools noted that they already had well-established working relationships with foundation schools and local education providers to support student assistantships.
 - (b) Many schools noted that they already had well-established working relationships with foundation schools and local education providers to support student assistantships.
 - (c) Some schools gave examples of projects that involve patients, and others identified opportunities to work with partners to involve patients and the public.
- 3 Challenges were identified by multiple Schools in the EAR and confirmed as UK wide issues during discussions at the *Tomorrow's Doctors* workshops:
 - (a) The impact of funding uncertainty and impending reductions in both higher education and NHS funding.
 - (b) The challenge of getting feedback from foundation schools on the performance of graduates, particularly given the mobility of students following the implementation of the UK Foundation Programme.
 - (c) The need to increase patient and public involvement.
 - (d) The challenge of ensuring all those involved in educating students are appropriately selected, trained and appraised.
 - (e) The challenge of engagement with the NHS to deliver the increased requirements of *Tomorrow's Doctors* 2009. In particular, securing NHS commitment to ensure that student assistantships will provide an effective and supervised period of time for students to gain hands-on experience.
- 4 A number of schools have identified that a lack of school control over undergraduate education funding, and in particular clinical funding, is impeding effective quality management.

- 5 Of concern to some schools is the challenge of ensuring effective transition arrangements so that students graduating in the 2011/12 academic year have demonstrated competence in all outcomes for graduates in *Tomorrow's Doctors* 2009.
- 6 If schools have curriculum reviews planned or underway that will overlap with the 2011/12 compliance deadline, they will need to consider how to prioritise implementation to ensure that students graduating in 2011/12 have demonstrated the outcomes for graduates in *Tomorrow's Doctors* 2009, and should describe timelines for curriculum change in the EAR for 2010/11.
- 7 The following graph illustrates how schools have assessed their current state of compliance with the standards for delivery in *Tomorrow's Doctors* 2009. In summary:
 - (a) **Domain 4** (Student selection) has the highest reported compliance, with 91% of schools reporting they were currently compliant.
 - (b) **Domain 2** (Quality assurance, review and evaluation) is the domain identified by schools as requiring the most work - 9% of schools declared that they need significant change and 31% of schools said that some work is needed to comply.
 - (c) **Domain 9** (Outcomes) is declared by schools as the other domain requiring most development.
- 8 **All domains:** self-assessed progress towards compliance by domain for all schools:

Comparison of Self Assessments by Domain



- 9 The bar graphs we have included under each domain show the percentage of criteria within that domain that each school has self-assessed as complaint, some work needed and significant change required. Each bar represents one school and only your school has been identified. Please note that all criteria are weighted the same in all domains.

Belfast specific comments – general feedback on completion of the Enhanced Annual Return 2009/10

- 10 The School completed the template well The clear information on the recent restructuring including hyperlinks to relevant documents was useful. Concrete examples included in the evidence demonstrate that good processes are in place.

Outcomes for Graduates

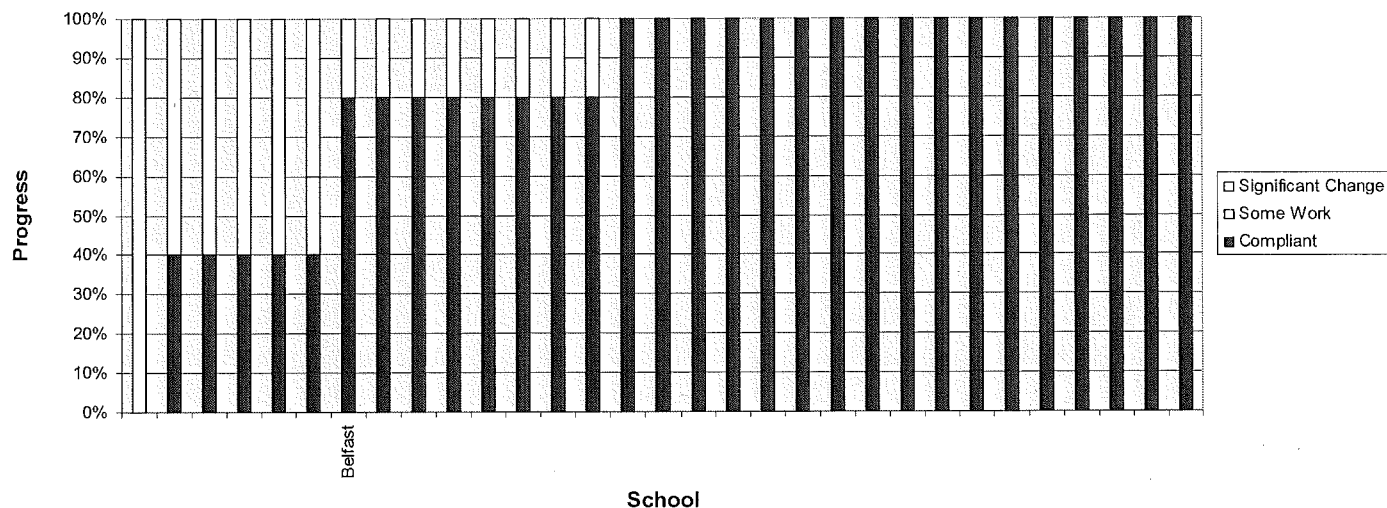
- 11 The outcomes for graduates were reported as needing less review and change in order to be compliant with *Tomorrow's Doctors* 2009.
- 12 For Outcome 1 (The doctor as scholar and scientist) and Outcome 3 (The doctor as professional) schools have reported there is more work required than Outcome 2 (The doctor as practitioner) where many more schools reported compliance or that only a small number of outcomes required some work.
- 13 In Outcome 1 (The doctor as scholar and scientist), 35% of schools declared some work was required for parts of Outcome 11 (applying to medical practice the principles, method and knowledge of population health and the improvement of health and healthcare). 16% declared that significant change was required to meet 11j (discuss from a global perspective the determinants of health and disease and variations in healthcare delivery and medical practice).
- 14 For Outcome 3 (The doctor as a professional) most schools reported compliance with most criteria. The outcomes that the most schools identified as needing work were 21 (reflect, learn and teach others), 23 (particularly around health and safety and risk management, methods of improvement, management and continual improvement of own performance) and 22 (learn and work effectively within a multi-professional team).

Domain 1 - Patient Safety

- 15 Schools generally reported having effective systems and procedures that would identify and address patient safety concerns arising from the education of students.

16 Domain 1 self-assessed progress towards compliance:

Domain 1



Belfast specific comments – areas of progress

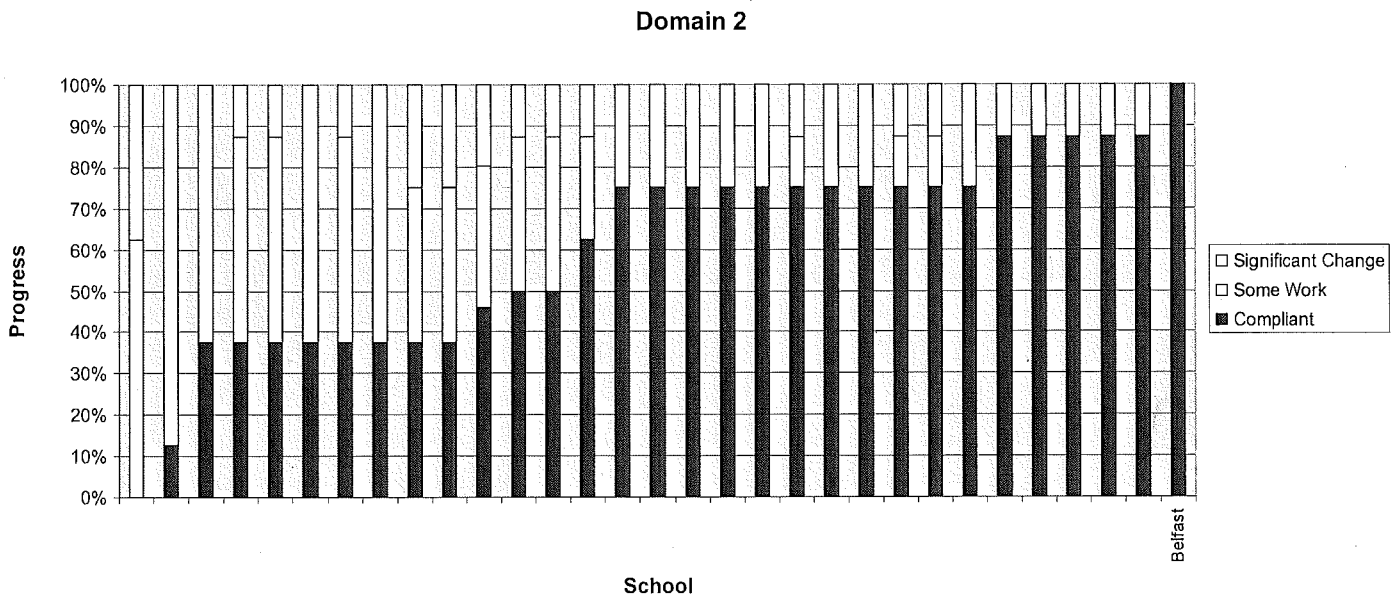
- 17** We are pleased to note the School's Medical Student Agreement that ensures students will only undertake appropriate tasks (TD28a).

Domain 2 – Quality assurance, review and evaluation

- 18** Most schools have declared that they are compliant with most of the criteria in Domain 2, although significant change or some work is still needed on some criteria.
- 19** Schools reporting a need for significant or some change to be compliant with Domain 2, primarily identified challenges in collecting patient and employer feedback and using it in quality management.
- 20** Approximately a third of schools also reported that it would be a challenge to gain feedback from employers on graduate preparedness because of the geographic dispersal of graduates in the Foundation Programme.
- 21** Schools also reported that it will be a challenge to implement the requirements to carry out monitoring visits and checks for all clinical and vocational placements.
- 22** 15 schools out of 31 stated that significant change is required to be compliant with criterion 43b (feedback from patients) and 14 schools out of 31 stated that some work is required.

23 The majority of schools (23 out of 31) report having formal agreements in place with some or all local education providers, although two schools have no agreements in place with local education providers.

24 Domain 2 self-assessed progress towards compliance:



Belfast specific comments – for reporting in 2010/11 EAR

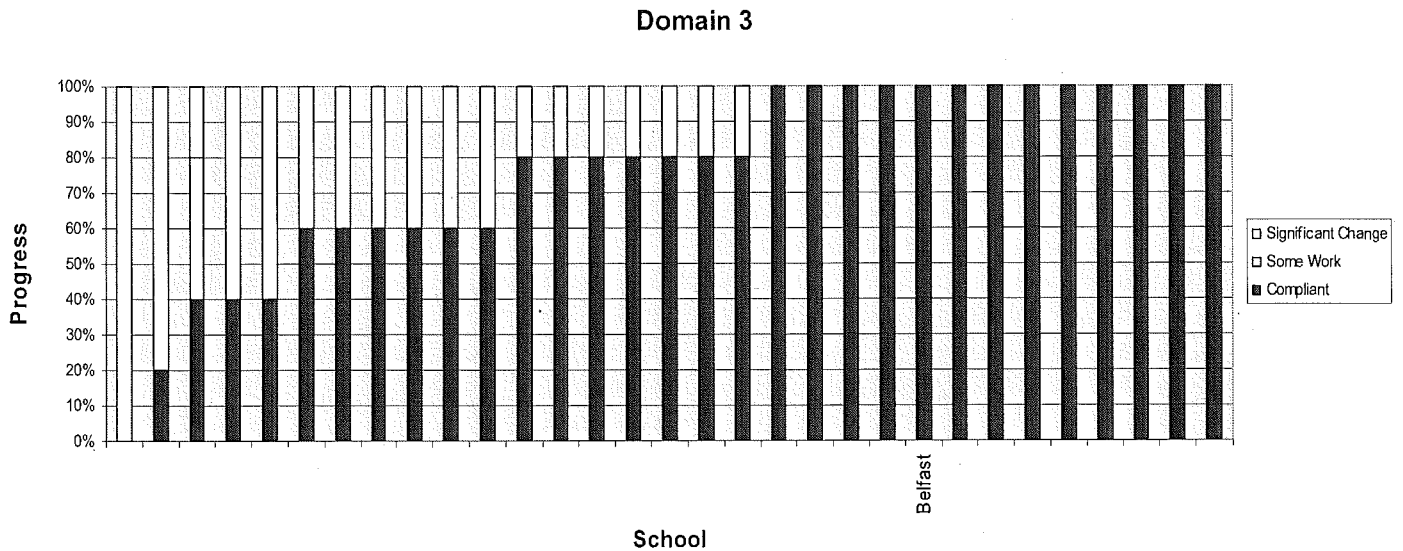
25 We note that Belfast is one of two schools that identified itself as compliant with TD43b. In the 2010/11 EAR please provide an update on the School's approach to including patient feedback in quality data (TD43b).

Domain 3 – Equality, diversity and opportunity

26 55% of schools indicated that some work is needed in order to comply with Domain 3 criterion 58 – 'Staff will receive training on equality and diversity to ensure they are aware of their responsibilities and the issues that need to be taken into account when undertaking their roles in the medical school.' Schools reported that it would be a challenge to implement this, particularly in relation to NHS staff.

27 Schools also reported that there would be challenges in making reasonable adjustments, the most frequent reasons being related to the adequacy of access to old buildings and the resources required to make reasonable adjustments.

28 Domain 3 self-assessed progress towards compliance:



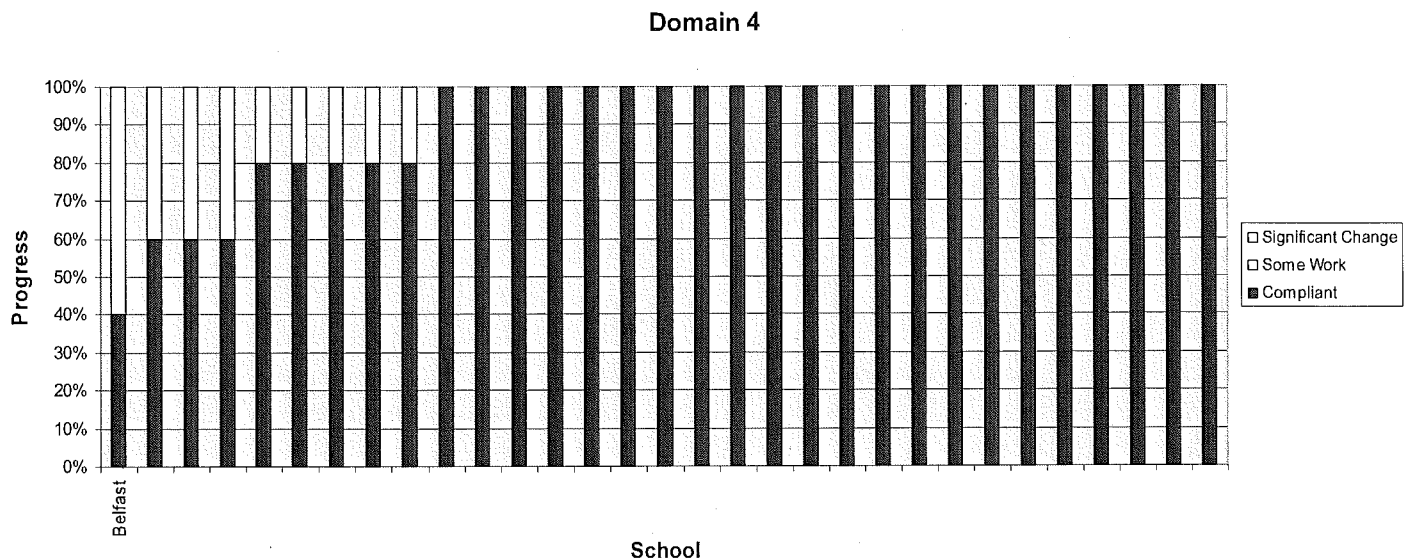
Belfast specific comments

- 29** Your self assessment of progress in this domain was broadly in line with other medical schools and so we have no specific comments.

Domain 4 – Student selection

- 30** The majority of schools declared that they are already compliant with most criteria in Domain 4.
- 31** The requirements in *Tomorrow's Doctors* 2009 are similar to the previous version and student selection is not the direct responsibility of the GMC. However, we are interested in making sure that only those who are fit to become doctors are able to enter medical school.
- 32** Questions in the EAR in this domain also sought to gain a current 'snapshot' of the student demographic profile from all schools. This is a large data set that varied considerably between schools. Tracking progression statistics based on demographic information will require several years to build up as part of the process.

33 Domain 4 self-assessed progress towards compliance:



Belfast specific comments – areas of progress

34 We are pleased to note the introduction of the multi-mini interviews (TD71, 74).

Belfast specific comments – for reporting in 2010/11 EAR

35 In the 2010/11 EAR please provide an update on ensuring staff involved in student selection have up to date training (TD75).

Domain 5 – Design and delivery of the curriculum, including assessment

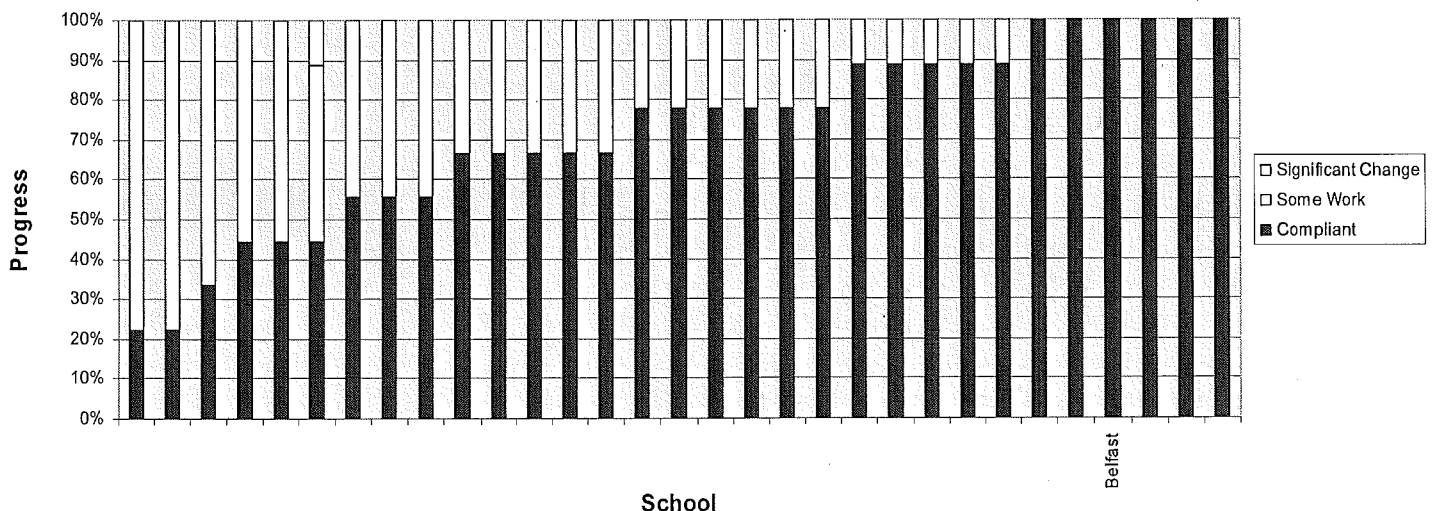
36 The majority of schools (72%) have self-assessed themselves as already nearly compliant with most Domain 5 criteria. This is perhaps surprising given the number of QABME requirements and recommendations related to assessment over the last five years.

37 Almost all schools were confident they were already fully compliant on the requirement for the provision of assessment guidance to students. However almost half said it would be a challenge to provide the required feedback to students, a lack of staff resource was frequently cited as the reason.

38 Almost half of schools identified at least some change needed to meet the requirement on the training, support and appraisal of examiners.

- 39 Approximately a third reported that it would be a challenge to influence NHS partners to deliver training that meets the needs of students.
- 40 Specific questions in the EAR for Domain 5 gathered information on schools assessment systems, procedures and policies, including the types of assessments schools use and how they analyse results, the arrangements for borderline students and progression decisions. This has informed the Education policy project that is developing advice on implementing the standards on assessment.
- 41 There continues to be a variety of assessment systems and methods in UK medical schools.
- 42 In addition, schools vary in the extent to which they engage with other medical schools and other groups to review and oversee the development of assessment systems. Not all schools have an overarching committee or group to direct and manage assessment across the entire course.
- 43 Not all schools carry out statistical analysis on examinations, and there are differences in the level of detail in which schools map their curriculum and assessments.
- 44 **Domain 5** self-assessed progress towards compliance:

Domain 5



Domain 6 – Support and development of students, teachers and the local faculty

- 46 18 out of 31 schools (58%) said that some work is needed to comply with criterion 128 – 'Everyone involved in educating medical students will be appropriately selected, trained, supported and appraised.' Two out of 31 schools (6%) said that significant change was required to be compliant with this criterion. In most cases schools did indicate in the EAR that appraisals were occurring for all types of staff (for example university employed academics and clinical academic leads, NHS staff and GPs) but it was not necessarily carried out or monitored by the medical school and was still identified as an area for development.
- 47 Criterion 128 was identified as a challenge to implement because of the large number of staff members involved in the NHS as well as the medical school, the sometimes low priority of educational appraisal with NHS staff, and low engagement by staff in appraisal and development.
- 48 Domain 6 in the EAR asked specific questions on student fitness to practise processes to inform the review and development of policy. These findings were shared with schools (all except one school attended) at a joint GMC and MSC fitness to practise workshop day and were reported to the student fitness to practise working group in June. Schools at the workshop gave helpful feedback on the categorisation of fitness to practise issues which will inform the 2010/11 EAR. Findings are summarised below.
- 49 There were 221 cases across 31 medical schools where the fitness to practise of a student was considered through formal or informal means. This figure also includes 26 cases where the fitness to practise of a student was found to be 'not-impaired.'
- (a) Two schools reported no cases
- (b) Seven schools presented 57% of all cases.
- 50 Since 2007, five schools have had decisions overturned by their University.
- 51 Most cases were resolved through informal means, including pastoral care and student support, informal undertakings (such as writing letters of apology) and warnings.
- 52 26% of cases resulted in some form of sanction (including undertakings, conditions, temporary withdrawal and suspension, withdrawal and expulsion), with only nine cases of expulsion and 17 of withdrawal.

53 The types of concerns are summarised below:

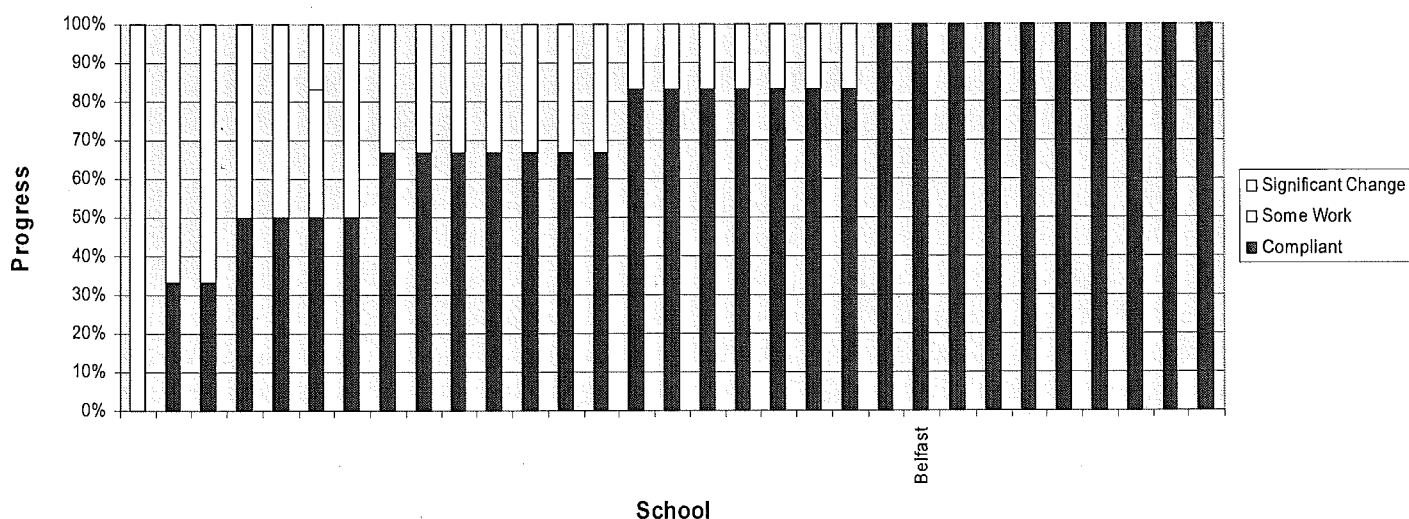
FTP Concern	#	%
Conduct	123	63.4%
Health	22	11.3%
Health/Conduct	22	11.3%
Conduct; conviction/caution	24	12.4%
Health; conduct; conviction/caution	1	0.5%
Conduct; conviction/caution; other	2	1.0%
Total cases	194	100.0%

54 After we excluded those cases where there was a finding of fitness to practise being 'not impaired', the vast majority of cases concerned student conduct.

55 Of the 45 cases that presented with health concerns, 18 specifically stated a mental health concern. However, this number could be underrepresented as some cases only stated the concern to be 'health'.

56 Domain 6 self-assessed progress towards compliance:

Domain 6



Belfast specific comments – areas of progress

- 57 We are pleased to note the School's work with NIMDTA to develop a co-ordinated approach to Teaching the Teachers for undergraduate and postgraduate medical education (TD122, 128).

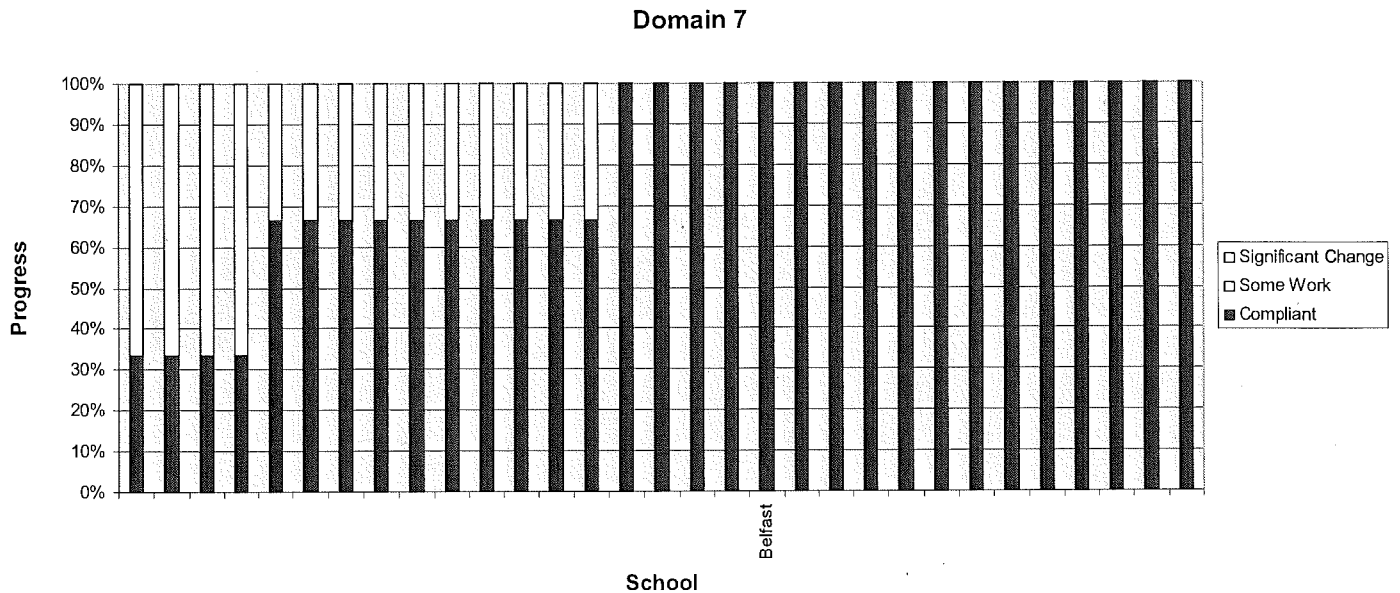
Belfast specific comments – student fitness to practise

- 58 Overall, the School provided a detailed response in relation to its fitness to practise procedures.
- 59 In particular, the School provided a detailed set of information on its fitness to practise case load. The School provided 4.5% of all cases reported to the GMC across the entire spectrum from supportive measures right through to full fitness to practise procedures. Many of the cases that the School reported resulted in the outcome of 'Support', which indicates that they have robust mechanisms for dealing with low level concerns.
- 60 We note the following areas of good practice:
- (a) The review of regulations regarding fitness to practise based on the GMC and MSC guidance.
 - (b) The external membership of the fitness to practise committee, and sharing of relevant information with the Postgraduate Deanery.
- 61 The School has also provided a detailed description of how their system of pastoral care and student support works.

Domain 7 – Management of teaching, learning and assessment

- 62 No schools reported significant work was required against any criterion in Domain 7 and most schools declared themselves 100% compliant.
- 63 11 schools identified that change is required to ensure that employers and foundation training providers are involved in the curriculum planning and management (criterion 153). However, general feedback on challenges from the EAR and *Tomorrow's Doctors* workshops indicated that more schools were unsure whether they were currently compliant with this criterion.
- 64 All schools stated that they were compliant with criterion 152 – 'Teachers from the medical school and other education providers will be closely involved in curriculum management, represented at medical school level and responsible for managing their own areas of the programme.'

65 Domain 7 self-assessed progress towards compliance:



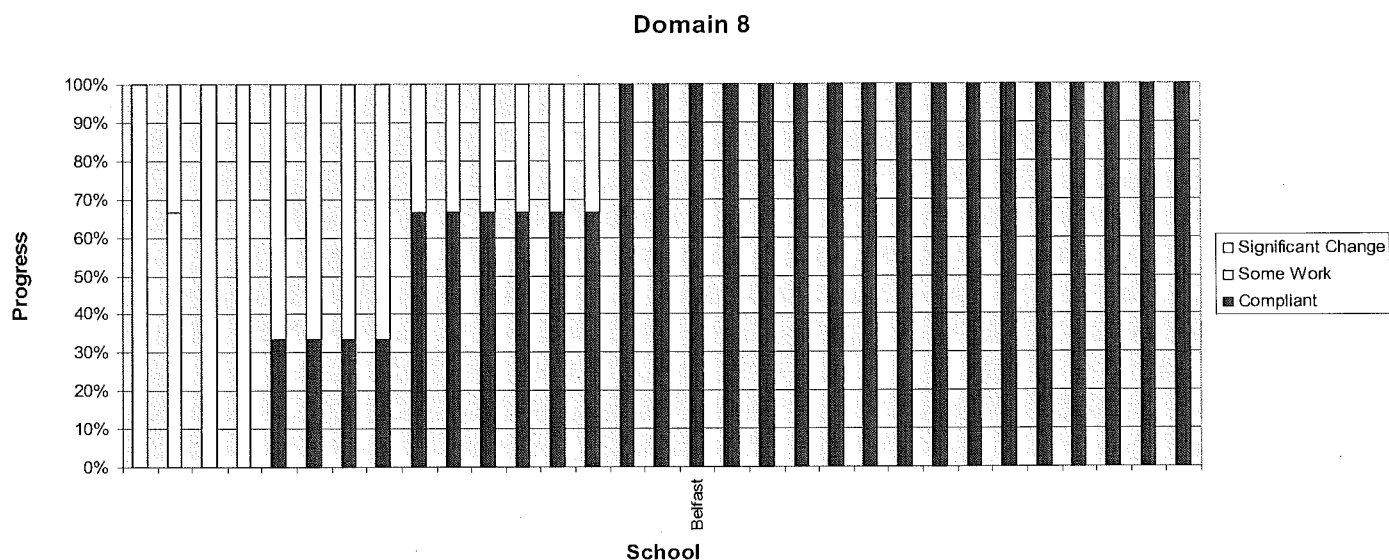
Belfast specific comments

- 66** Your self assessment of progress in this domain was broadly in line with other medical schools and so we have no specific comments.

Domain 8 – Educational resources and capacity

- 67** 11 out of 31 schools (35%) said that some work is required in order to be compliant with criterion 161 – ‘Facilities will be supported by a facilities management plan which provides for regular review of the fitness for purpose of the facilities with recommendations and improvements made where appropriate. When reviewing facilities, medical schools should include their suitability for students with disabilities.’ One school said that it needed significant change to be compliant against this criterion.
- 68** 10 out of 31 schools (32%) said that some work is required in order to be compliant with criterion 162 – ‘There will be enough staff from appropriate disciplines, and with necessary skills and experience, to deliver teaching and support students’ learning.’ However, feedback from workshops and QABME visits indicated this criterion is likely to be a pressing issue for a greater number of schools.
- 69** Schools identified challenges in meeting the requirement for resources for education particularly as facilities were located in university and NHS sites, and due to funding changes.

70 Domain 8 self-assessed progress towards compliance:



Belfast specific comments

- 71** Your self assessment of progress in this domain was broadly in line with other medical schools and so we have no specific comments.

Domain 9 - Outcomes

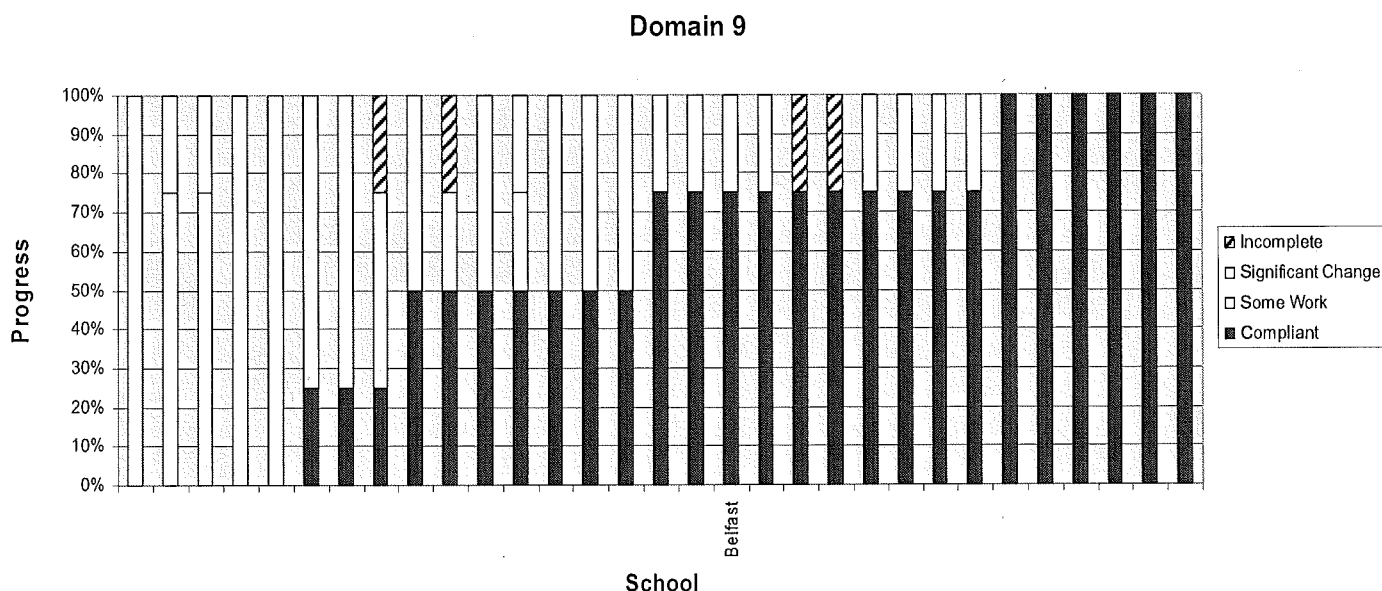
- 72** Schools reported they were currently making good progress towards compliance with criteria in Domain 9. This is perhaps surprising given the feedback in workshops where schools reported challenges in obtaining feedback on graduates' progression and on demonstrating all outcomes. A small minority of schools did not however fully complete the status indicators for this domain.
- 73** *Tomorrow's Doctors 2009* requires that medical students must demonstrate the outcomes for graduates; and that schools must track the outcomes of their programmes, including the preparedness and progression of graduates.
- 74** Overall, 61% of schools (19) said that they needed some work or significant change to be compliant against criterion 172 – 'Quality management will involve the collection and use of information about the progression of students. It will also involve the collection and use of information about the subsequent progression of graduates in relation to the Foundation Programme and postgraduate training, and in respect of any determinations by the GMC.'

75 Some schools reported that no progression information was currently collected, or none collected for progress past F1 or the end of the Foundation Programme, or only collected where information was provided by a deanery or foundation school. However, even among schools reporting current compliance with this criterion, narrative in the EARs indicating that work was needed or was underway.

76 Schools raised similar challenges in meeting this criterion:

- (a) The difficulty in tracking all graduates through foundation training; particularly where a significant proportion leave a medical school location, and because of the limited staff resource in medical schools to collect and monitor this information.
- (b) A number of schools commented that there should be a national approach and a systematic way of collecting and sharing information between medical schools, foundation schools and deaneries so that it became a routine and consistent part of information collection and reporting.
- (c) Possible data protection issues were raised as a reason that no progression data could be collected.

77 **Domain 9** self-assessed progress towards compliance:



Belfast specific comments

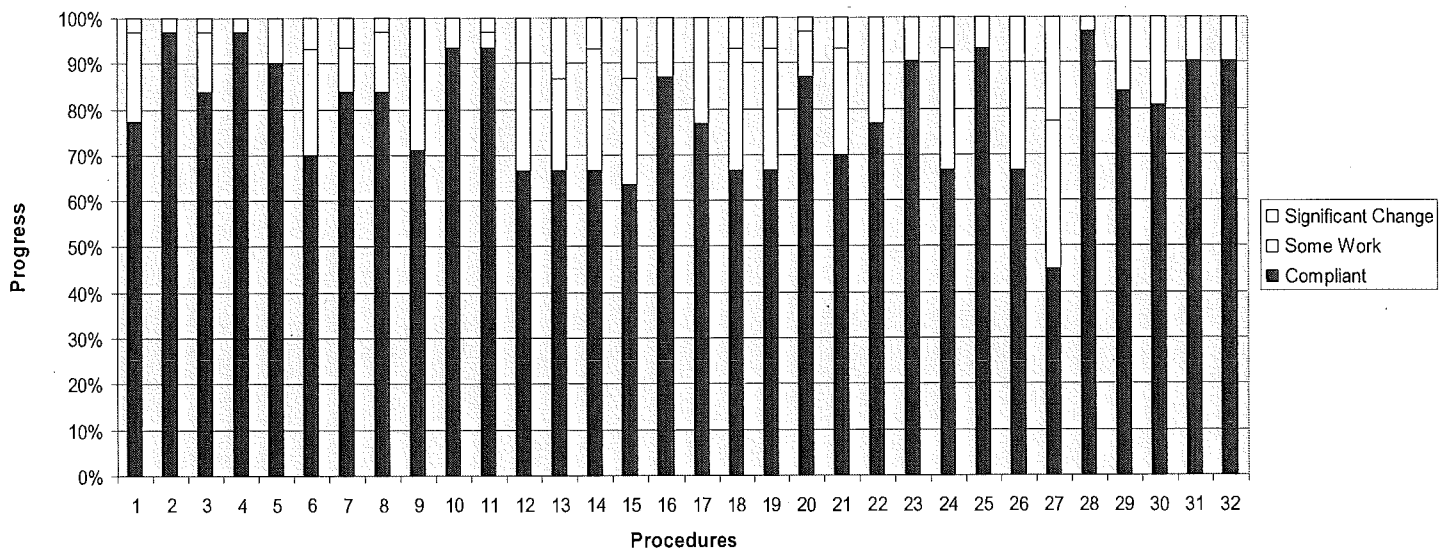
78 Your self assessment of progress in this domain was broadly in line with other medical schools and so we have no specific comments.

Appendix 1 – Practical procedures for graduates

79 The graph indicates how all UK schools are currently declaring progression towards compliance with the Procedures list in *Tomorrow's Doctors* 2009. Procedure 27, where most work is needed, refers to correct techniques for 'moving and handling', including patients.

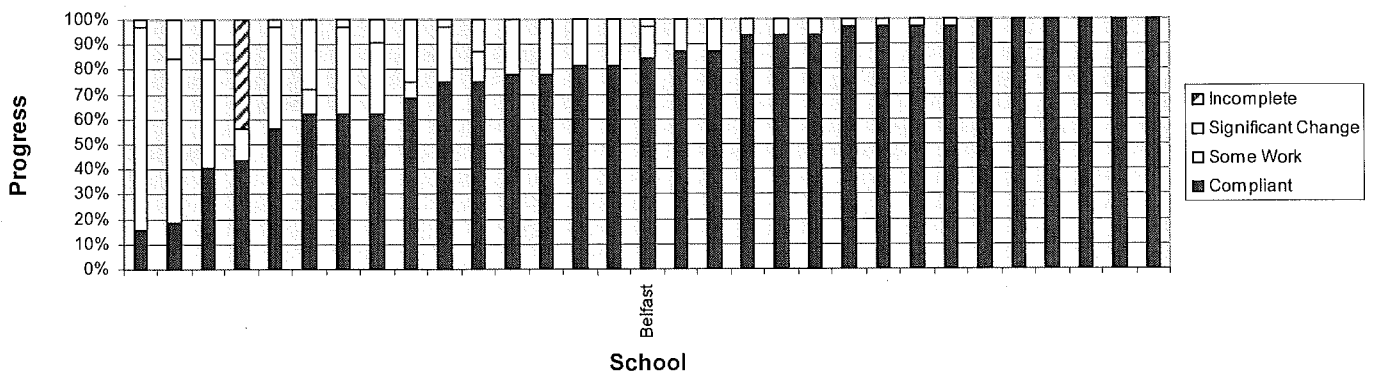
80 Appendix 1 self-assessed progress towards compliance by procedure:

Appendix 1 - Practical procedures for graduates



81 Appendix 1 self-assessed progress towards compliance:

Compliance against practical procedures



QABME feedback

Tomorrow's Doctors implementation workshops

- 1 To support medical schools implement the standards and outcomes in *Tomorrow's Doctors* 2009, we held 10 implementation workshops across the UK involving all UK medical schools with approximately 320 delegates attending in total (30-50 at each event):

Event	Medical schools involved					
Wales	Cardiff			Swansea		
Yorkshire and the Humber	HYMS		Leeds		Sheffield	
Northern Ireland	Belfast					
East Midlands and the East of England	Cambridge		Leicester		Nottingham	UEA
West Midlands	Birmingham		Keele		Warwick	
London (North of Thames)	Barts		Imperial		UCL	
Scotland	Aberdeen	Dundee	Edinburgh	Glasgow	St Andrews	
North of England	Liverpool		Manchester		Newcastle	
London (South of Thames) and South East of England	BSMS		KCL		St George's	
South West and South Central England	Bristol		Oxford		PCMD	Southampton

- 2 The purpose of these workshops was to bring together medical schools (including medical student representatives), deaneries, foundation schools, employers and other bodies (such as Medical Schools Council, Skills for Health, UKFPO, Medical Protection Society) to discuss local challenges and opportunities for joint working to implement *Tomorrow's Doctors* 2009 by 2011/12.

Progress towards compliance with *Tomorrow's Doctors* 2009

- 3 Schools reported being broadly on track to comply with the new standards for delivery and outcomes for graduates, and have identified areas that need to be developed locally. However some schools thought compliance by 2011/12 for both 2011/12 graduates and all years of current programmes would be a challenge given the time needed for curriculum change.

Key themes

- 4 A number of key themes were identified from schools' Enhanced Annual Returns and discussed at the workshops. The areas that were confirmed as the greatest challenges to implementation are outlined below.

Assessing student compliance with outcomes

- 5 Many schools requested further guidance on assessing the competence of graduates in all outcomes in *Tomorrow's Doctors* 2009. Clarity was requested on when it might be appropriate to compensate between items within a single assessment or across a number of assessments in a programme.
- 6 Schools were unsure of when outcomes should be assessed, how many times and at what level of outcome in order to meet the requirements.
- 7 Assessing professionalism was raised as a challenge by some schools. St George's explained its approach to assessing professionalism, which may be shared with other schools.
- 8 Schools requested advice on the use of simulation, rather than real patients, to test competence in the procedures
- 9 Schools also requested advice on the role and standard of external examiners.
- 10 We are developing advice on implementing the standards relating to assessment for comment and publication in early 2011. This will cover external examiners subject to the development of related projects for the HE sector as a whole by QAA and UUK.
- 11 Schools in the North West and North East requested advice on the level of first aid training required by *Tomorrow's Doctors* 2009. Skills for Health agreed to look at the key competencies and that work undertaken by Newcastle could feed into their definition of basic first aid.

Staff training, development and appraisal

- 12 Appropriately training and appraising NHS clinicians contributing to undergraduate teaching across a large area and number of sites was identified as an area for improvement and possible joint working across medical schools and/or with local deaneries at the majority of workshops. Schools asked for more information about what exactly would be required to meet the standards.
- 13 Ensuring clinical staff members have time for teaching in their job plans and that this is monitored is a continuing challenge for many schools. In addition, schools identified challenges ensuring educational aspects are included in the appraisal of clinical staff.
- 14 Many schools identified challenges in providing appropriate staff development. Schools in Scotland specifically asked for guidance about what constitutes a reasonable staff development programme. We are developing supplementary advice on undergraduate teachers and trainers for publication by mid-2011.

15 Some schools requested clarification on the content of an educational appraisal and this has been shared with the GMC Continued Practice and Revalidation Directorate.

16 Notable progress in this area included:

(a) The South Thames Foundation School reported well evaluated resources and expertise in faculty development that could be shared.

(b) Dundee is creating responsibility packs for supervisors, which will include a summarised version of *Tomorrow's Doctors* 2009 for clinical staff.

Patient and public involvement in medical education and training

17 A number of schools stated that patients are already involved in delivery of education and assessment. However, using patient feedback effectively when evaluating programmes and including patients in quality management and control processes was considered to be more challenging.

18 Schools asked for guidance around the purpose of collecting feedback from patients and examples of the level of detail required. We are developing supplementary advice on patient and public involvement and examples of practice to share and will circulate a draft for comment with a view to publication by mid-2011.

19 Notable progress in this area included:

(a) Delegates in Scotland discussed the possibility of medical schools working with the Department of Health to use patient surveys to feed into curriculum planning and quality management.

(c) UCL is piloting a patient survey and this may be an example of practice that can be shared with other schools.

(d) Yorkshire and the Humber Deanery had implemented a model of lay involvement that has worked well for the deanery and could be shared with medical schools in the region.

Student assistantships and shadowing

20 Many schools have existing clinical placements that can be enhanced to increase the time period spent in clinical settings and the extent of hands-on experience gained in a defined role. There was concern about the additional time this might require in already crowded curriculum timetables.

21 Medical schools stated that they would welcome further guidance on assistantships including: a clear definition, purpose, content, timing, minimum duration, funding,

supervision, indemnity, roles and responsibilities, and access to electronic patient records.

- 22 Employers were supportive of the potential for student assistantships to increase hands-on clinical experience and help to improve preparedness. There was interest in what the role and responsibilities would be specifically, given some concern about indemnity, supervision, the impact on service and other employees, and how the assistantships would be funded.
- 23 In South London schools suggested that advice on student assistantships should specify whether the procedures in Appendix 1 could be demonstrated in a simulated environment or whether all or some of the procedures should be demonstrated in a clinical situation. It would be helpful to align this advice with expectations of doctors starting in the Foundation Programme.
- 24 Schools in the North West and North East stated that Trust regulations and targets may prevent students from complying with certain clinical procedures, such as taking blood cultures and catheterising female patients.
- 25 Details of 'shadowing' were also requested by some schools, including timing, funding and whether it is an undergraduate or foundation/employer responsibility. A national approach to this was suggested. Medical Education England (MEE) is developing proposals for shadowing by December 2010.
- 26 Notable progress in this area included:
 - (a) Queen's University in Belfast had begun joint planning with the postgraduate deanery to implement student assistantships and is negotiating greater transparency in funding to help manage placements.
 - (b) Cambridge University recently developed a student assistantship model in response to a perceived lack of preparedness in its graduates and has already achieved a demonstrable improvement in perceptions of preparedness. Cambridge indicated a willingness to work with the GMC to develop a case study on its model of student assistantships that could be shared with other medical schools.
 - (c) The Scotland Foundation School had been working with the four postgraduate deaneries and the Scottish medical schools to put in place a common shadowing week directly before the beginning of F1. The Foundation School will work with medical schools and local education providers to implement student assistantships.
- 27 We will not be prescriptive about the content or timing of clinical assistantships because different models will be appropriate for different curricula. However we will identify examples to share and provide advice on how medical schools should approach clinical assistantships in early 2011.

Employer involvement and engagement

- 28 There was recognition that the standards in *Tomorrow's Doctors* 2009 have increased emphasis on providing medical students with greater hands-on clinical experience and this cannot be achieved without increased engagement from and partnerships with employers. Most schools agreed that further work is required to ensure trusts and hospital consultants are engaged with undergraduate teaching.
- 29 The conflict between service delivery and education was raised as a challenge to compliance with the new standards at a number of workshops. Schools in the South West and South Central region reported that service pressure on training time was a major challenge and they were working with the NHS to include protected time for teaching in NHS job plans. At the South London workshop it was agreed that current recognition of educational activities in job plans and appraisal is inconsistent and specific time in job plans for teaching is needed.
- 30 Schools requested guidance on the purpose and methodology of collecting feedback from employers and examples of the level of detail required for compliance.
- 31 In some areas it was felt that the incentive for employers to invest in the training of medical students is low because many students leave the locality of their medical school area to take up the Foundation Programme in a different part of the UK.
- 32 Notable progress or examples in this area included:
 - (a) In the West Midlands SIFT committees for each medical school are chaired by the Postgraduate Dean and include employer representation.
 - (b) Newcastle reported collaboration between the school, deanery and partner trusts and integration of trust roles across all stages of medical education and training. The school's Board of Studies includes sub-dean representatives from partner trusts.
 - (c) Schools in the South West and South Central region shared a number of examples of collaboration with local NHS partners including Bristol having two Service Level Agreements with the NHS, which has helped them define their requirements for working with the Universities and Trusts.
 - (d) Liverpool had begun a series of meetings with colleagues in local hospitals to discuss areas that require development to comply with *Tomorrow's Doctors* 2009.
- 33 We will monitor challenges arising from working with local health service partners over the coming cycle and encourage medical schools to raise concerns with the GMC when local avenues to resolve issues are exhausted.

Transfer of information and transition

- 34 Gathering feedback on the progress of graduates was considered difficult by a number of schools due to the high percentage of graduates that leave the locality for Foundation Programme training.
- 35 A number of delegates from Foundation Schools called for a more prescriptive Transfer of Information process. Others called for a single contact at all schools for the transfer of information, and a co-ordinated national approach.
- 36 There was discussion about extending the use of foundation e-portfolios into undergraduate education to aid the transition and transfer of information. One suggestion was to activate the F1 portfolio for the final year of medical school and to include a summary of graduates' strengths and weaknesses as part of a development plan to be discussed with their Foundation Programme Educational Supervisor. Some thought that graduates should come to the Foundation Programme with a 'clean slate' and Foundation Schools should be able to rely on graduates being fit to meet the demands on a provisionally registered doctor in the NHS.
- 37 Clarification was sought about the role of medical schools in local fitness to practise processes for under-performing Foundation Year 1 Trainees. The GMC's Basic Medical Education Fitness to Practise Working Group is looking at Fitness to Practise issues including the transfer of information between medical schools and what the GMC can do to facilitate improvements through the Medical Schools Council.
- 38 The Postgraduate Dean for the North Western Deanery and the Director of Workforce at NHS North East highlighted the need for graduates to be prepared for a changing NHS with an increasing focus on patient-centred care. Southampton highlighted the fact that trainees and medical students will be taught differently in the future due to service reconfiguration.
- 39 We will continue to liaise with organisations including the MSC, MEE and others involved in reviewing the foundation programme and transition from medical school to the Foundation Programme.

Funding for education

- 40 Delegates were very concerned about the potential impact of changes to service and funding cuts in health and education on clinical teaching and their ability to deliver undergraduate programmes that meet *Tomorrow's Doctors*. Schools also stated the need for greater transparency in the monitoring and NHS reporting on the use of both additional cost of teaching (ACT) and SIFT funding.
- 41 It was noted that the MPET review had contributed to the challenging nature of the relationship between medical schools and local education providers. However, delegates

thought this presented an opportunity for medical schools to require more information about how funding for education is spent.

Workshop evaluation

- 42 Evaluation of the workshops was overwhelmingly positive. Delegates commented that the events provided an effective platform for medical schools and their local deaneries and employers to discuss local challenges and shared issues arising from the implementation of *Tomorrow's Doctors* 2009. They also appreciated the chance to discuss a range of topics with GMC staff and Council members. Delegates in some regions would have appreciated greater support from local employers for the events.

Options for the enhancement of QABME: summary of responses

- 1 The Options for the Enhancement of QABME survey was held between March and the end of May 2010 to gather feedback from those involved in the quality assurance of basic medical education and other interested groups. The survey was part of the QABME continuous improvement programme and offered options to enhance the QABME process for the second cycle, which will begin in the academic year 2011/12.
- 2 The survey received more than 80 responses. Respondents included 17 medical schools and four deaneries or foundation schools, 21 doctors, 11 medical educators and 13 members of the public. The BMA, MSC and UKFPO submitted responses.
- 3 There was widespread support for:
 - (a) Involving local representatives from the Foundation Programme in the QABME process.
 - (b) Increasing supportive engagement with schools to assist with local challenges.
 - (c) Sharing good practice through events and other methods, as an addition to sharing good practice through individual school-based quality assurance review and visiting.

Issue 1: Sharing good practice & supporting medical schools

- 4 Options for enhancement:
 - (a) To hold QABME events involving multiple schools to verify information from Enhanced Annual Returns, to discuss key issues and themes from *Tomorrow's Doctors* 2009 and share good practice in 2010/11.
 - (b) To publish and circulate a summary report or reports on the progress of implementation.
- 5 Respondents to the survey were supportive of events for multiple schools to discuss key issues and share good practice. However they felt strongly that these should be in addition to individual verification meetings and visits, rather than in place of school-specific verification.
- 6 Respondents agreed that it would be useful to publish and circulate information on progress toward implementation and examples of good practice. They provided a variety of suggestions for enhancing the sharing of good practice and support for medical schools on key issues.
- 7 We will be circulating reports on the progress of implementation and will also be developing supplementary additional guidance including good practice examples to

support implementation. In 2011 we intend to continue to hold events with medical schools and other stakeholders to enable schools to share practice examples, and to discuss progress towards compliance with *Tomorrow's Doctors* 2009. Individual verification of progress through visits with schools will also continue as part of QABME.

Issue 2: Quality assuring outcomes for graduates

- 8 Option for enhancement: To develop a standardised student achievement record showing students' attainment of the outcomes for graduates in *Tomorrow's Doctors* 2009.
- 9 Respondents were asked in this section whether schools should be required to demonstrate to QABME that graduates are meeting all outcomes in *Tomorrow's Doctors* 2009. 91% agreed, including 15 out of 17 medical schools that responded (the other two medical schools were unsure). However, when asked whether standardised student achievement records would be an effective way for schools to demonstrate that graduates are meeting these outcomes as an option to trial with QABME, only 50% said it was, and 31% were unsure. Only five out of 17 medical schools agreed with the proposition to develop a standardised student achievement record, although it was favoured by a majority of respondents who were also QABME visitors.
- 10 Those who agreed with the proposition highlighted the fact that such a record would encourage greater standardisation between graduates. Respondents also highlighted that a common record would facilitate the development of one continuous record of education and training throughout all stages and facilitate the transfer of information process. Respondents suggested that a run-through student portfolio would be a useful alternative and there was also support for a common portfolio in discussions at the *Tomorrow's Doctors* implementation workshops.
- 11 One of the main reservations raised by respondents was that this proposal may be difficult to implement due to the diverse ways in which different medical schools deliver their curricula and assess students. A number of respondents explicitly mentioned the variability of assessment methods used by schools. Others felt that these were reasons for a standardised record of achievement against the outcomes.
- 12 There are a number of work streams underway to enhance schools' ability to demonstrate that students are achieving the outcomes in *Tomorrow's Doctors* 2009. We plan to have the assessment sections of the EAR analysed across schools by a number of GMC associates as a pilot for theme analysis, and we will circulate draft supplementary advice on the standards relating to assessment later this year and confirm it in early 2011. The MSC is also working with schools on assessment. We intend for the option of an achievement record to be reviewed in light of this work.

Issue 3: Consistency and comparability in judgements made about schools, currency of information

13 Options for enhancement:

(a) To alter the balance of information reported by schools so that a larger data set is returned annually and less is returned immediately prior to a visit.

(b) To undertake curriculum approvals separate from the QABME visit process.

14 60% of respondents (although only seven out of 17 medical schools that responded) agreed that an annual submission of information should be required from all schools reporting against all outcomes and standards, and there were a wide variety of comments received on the option for a distinct curriculum approvals process.

15 The EAR will continue to collect information from schools on progress towards compliance with *Tomorrow's Doctors* 2009, and we intend that in 2010/11 this should primarily be an update on progress.

16 We will not seek to deliver a separate curriculum approvals process in 2011 as most schools are still adjusting to the standards. However we will consider the lessons from the approval of specialty, including GP curricula and the potential for curriculum reviews as part of the quality assurance of basic medical education in the future.

Issue 4: Enhancing the perspective of employers and those involved in Foundation training

17 Option for enhancement: To include employers and/or those involved in foundation training on QABME visit teams.

18 The majority (76%) of respondents agreed that adding employers and/or those involved in foundation training to QABME teams would ensure the stakeholder perspective is captured more strongly in the QABME process, including 14 out of 17 medical schools and five out of seven respondents who are QABME visitors. In this section of the survey, 76% of respondents from a variety of organisations also agreed that meetings with employer and deanery representatives should be required as part of the QABME visit process.

19 We are planning for employers and those involved in foundation training will have an increased and defined role in the quality assurance process from 2011/12.

Issue 5: Involving medical students

20 Options for enhancement:

(a) To trial student surveys with a number of schools.

- (b) To work with schools to develop specific survey questions that they must use within individual school surveys and report on to the GMC.
- 21 The survey asked for opinions on GMC UK wide surveys, specific pre-QABME surveys, and embedding questions for QABME in existing surveys.
- 22 This issue generated significant discussion about the potential benefits and limitations of taking different approaches to student surveys in the QABME process.
- (a) The response to queries about the advantages and disadvantages of different types of survey were often inconsistent with a later question that asked which survey approach is preferred.
- (b) There were a large number of comments about the strengths and weaknesses of surveys and other methods for gathering student input into the QABME process, and strong support for continuing personal contact between students and the GMC.
- 23 These responses will be considered in the development of the quality assurance programme for all stages of medical education and training, taking into account the GMC student survey pilot in 2009 where response rates were lower except where communication was direct from the GMC.
- 24 We will make more use of survey data collected by schools during QABME reviews of individual schools and we will also explore the potential for surveys at different stages, for example at provisional and full registration, looking back on how well the undergraduate experience prepared doctors for employment and the Foundation Programme.

Issue 6: Engaging patients and the public

- 25 This section did not include any specific proposals but asked whether QABME teams should meet patients involved in the teaching or assessing students, and/or local patient and public representatives. Although there was support for increasing the input from patients and the public, there was not a consensus about the form that this input should take.
- 26 We will take into account the suggestions received to enhance the input of patients and the public in the quality assurance process across all stages of medical education and training and developed detailed proposals for QABME in 2011. We will also be informed by the policy project exploring the role of patients and the public in medical education and training, which is also due to be delivered in 2011.

Education Work Programme timelines

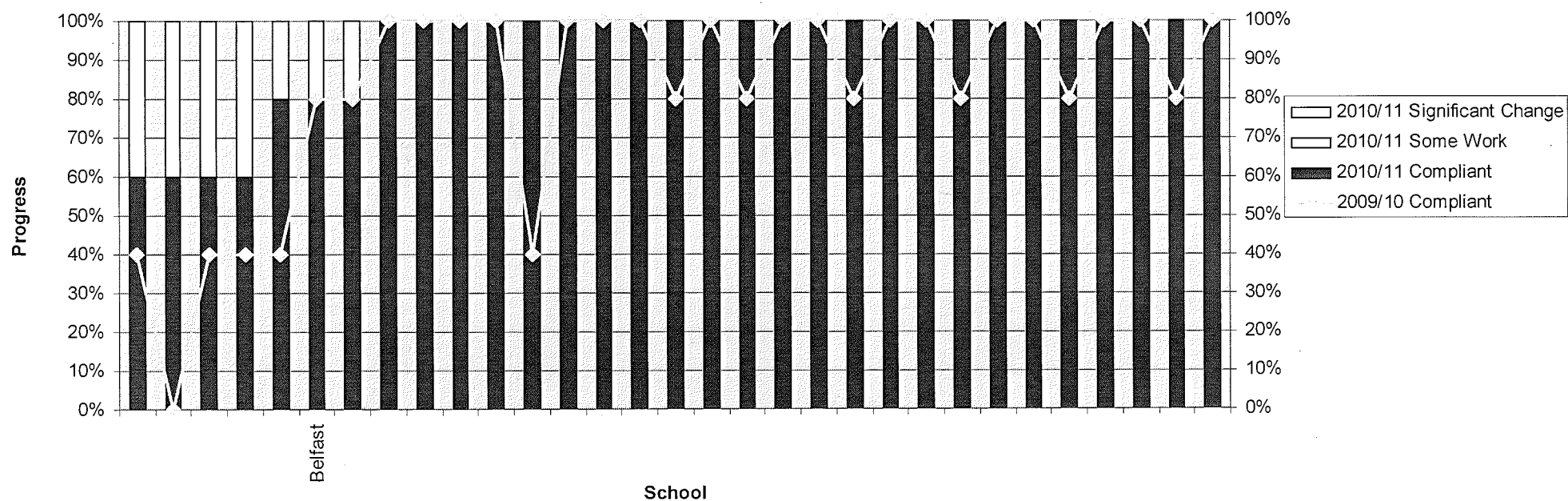
- 1 Results from the QABME Enhanced Annual Return (EAR), *Tomorrow's Doctors* implementation workshops and the Options for the Enhancement of QABME survey in 2010 are supporting the GMC's responsibility to provide continuing oversight of basic medical education and to monitor the implementation of *Tomorrow's Doctors* 2009 standards and outcomes. This work has helped shape the policy work programme in 2010 and is informing the development of the Education Strategy for all stages of medical education and training from 2011 (including the second QABME cycle).
- 2 The draft Education Strategy will be discussed by the Council at its September meeting, and by the Postgraduate and Undergraduate Boards in September and October respectively. It will also be the focus of the GMC Education Conference on 12 October 2010 to which every medical school has been invited.
- 3 Operational details for the Education Quality processes to support the strategy are being developed in tandem, taking into account on your feedback and will be confirmed over the winter. Visits to rolling cycle schools are continuing, and the next cycle of visits will commence from the academic year 2011/12.

General Medical Council
Regent's Place, 350 Euston Road, London NW1 3JN

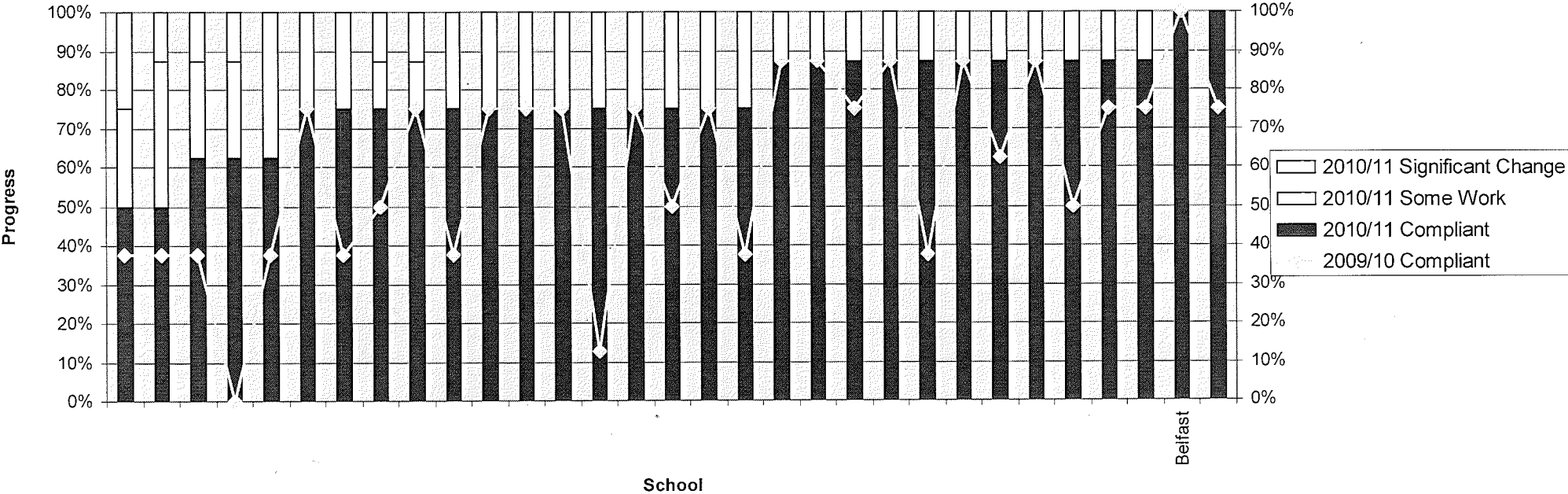
T: 0161 923 6602 | E: gmc@gmc-uk.org
W: www.gmc-uk.org

The GMC is a charity registered in England and Wales (1089278) and Scotland (SC037750)

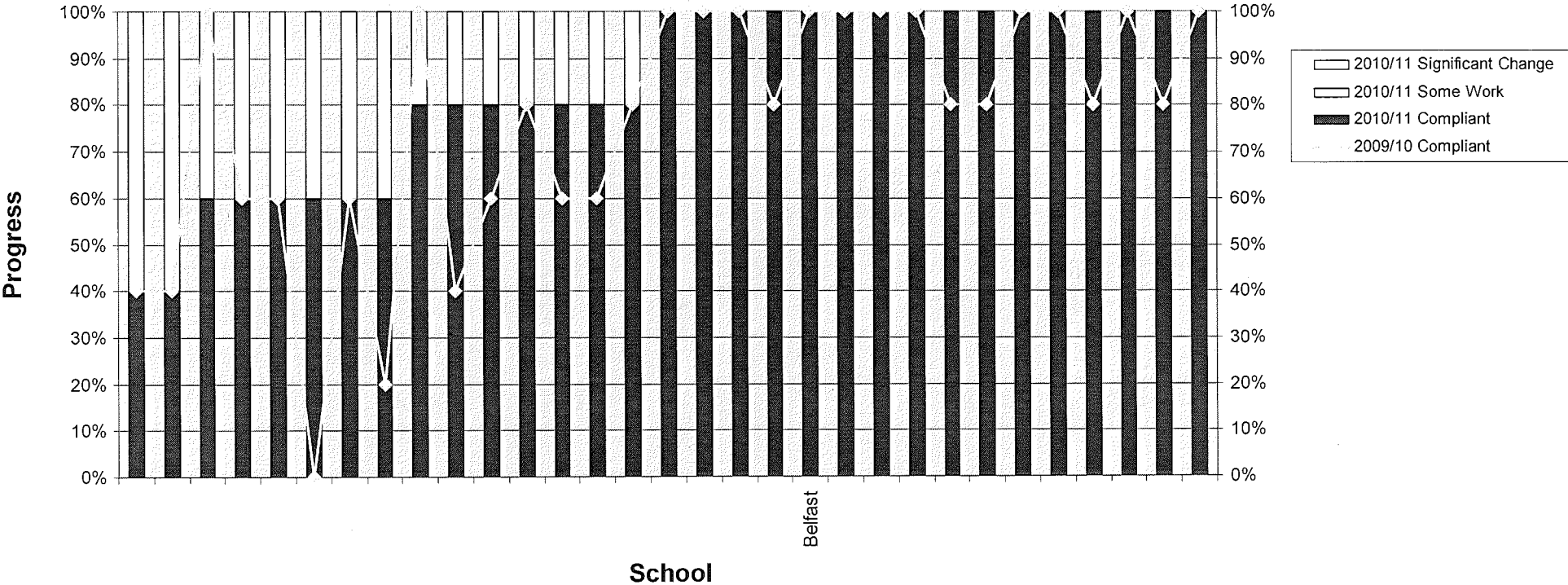
Domain 1 - Patient Safety



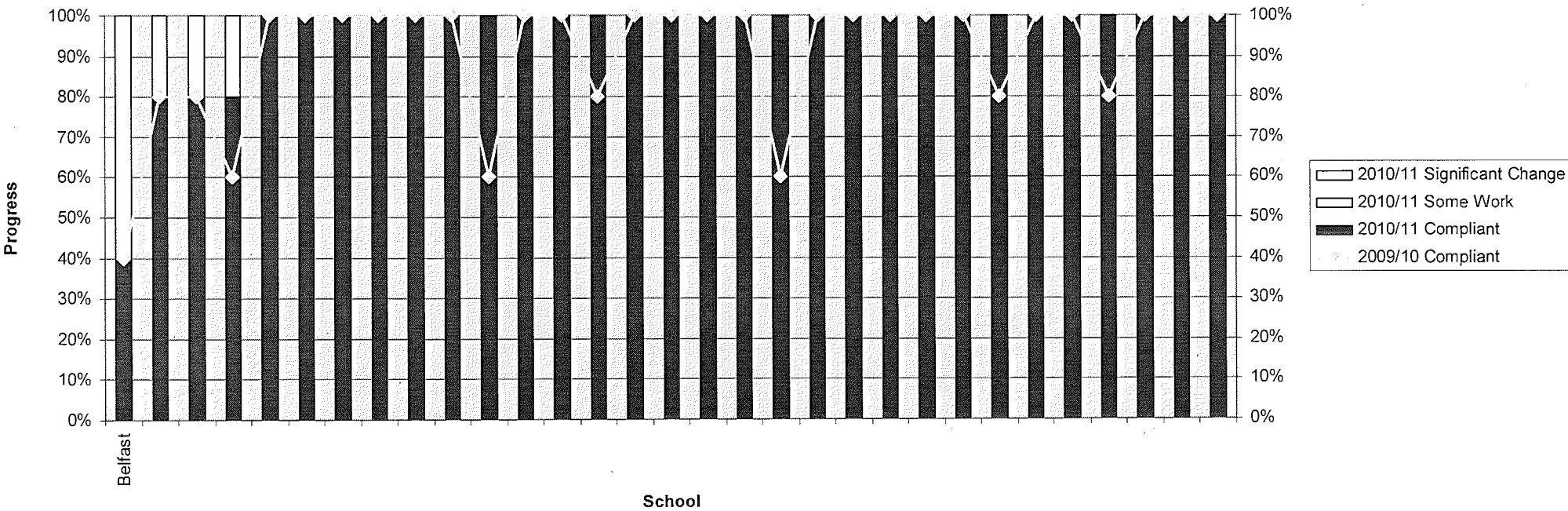
Domain 2 - Quality assurance, review and evaluation

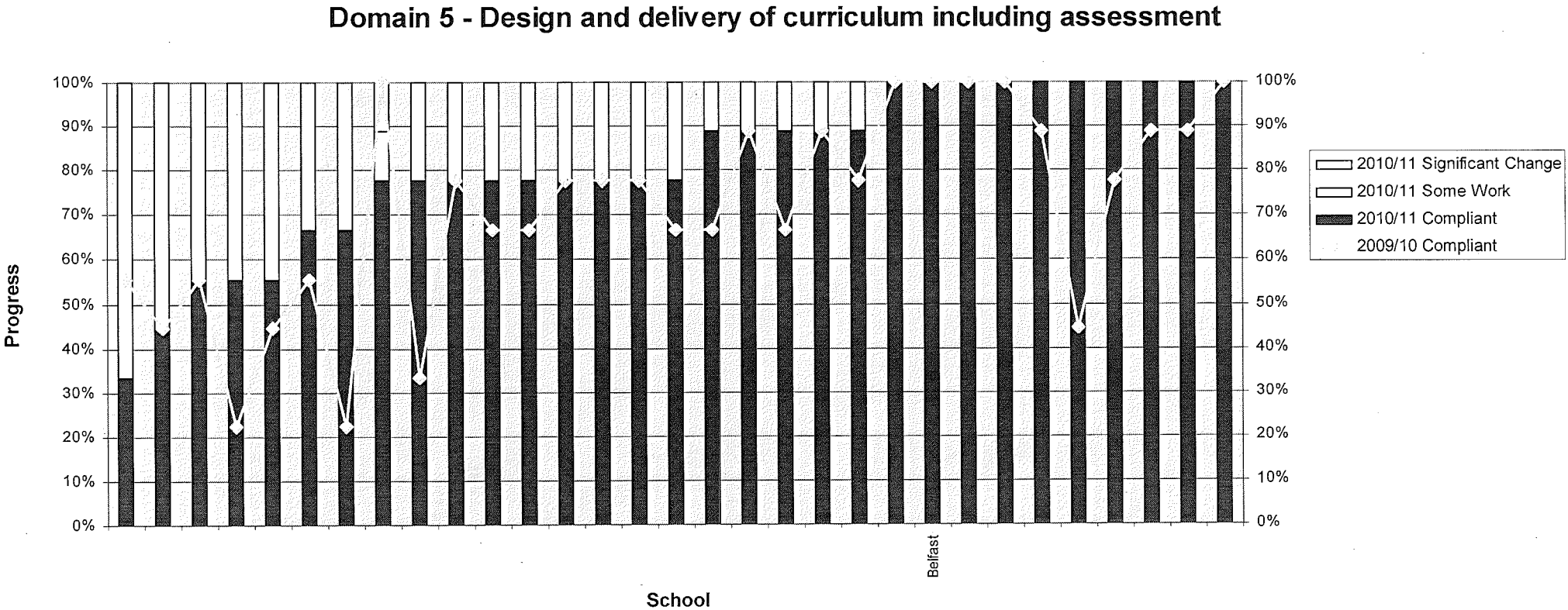


Domain 3 - Equality, diversity and opportunity

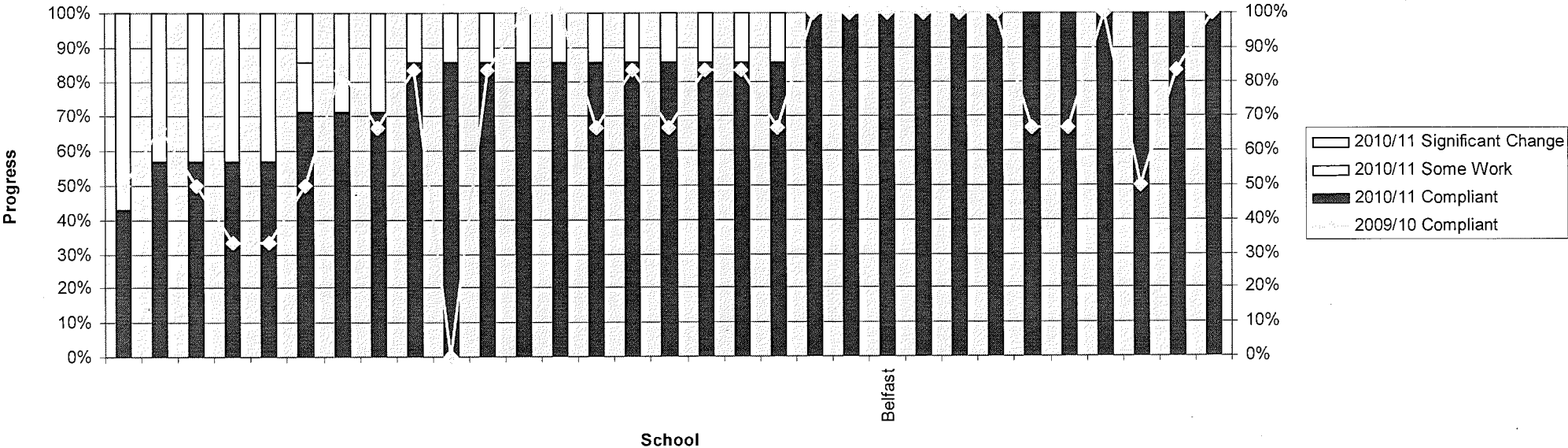


Domain 4 - Student selection

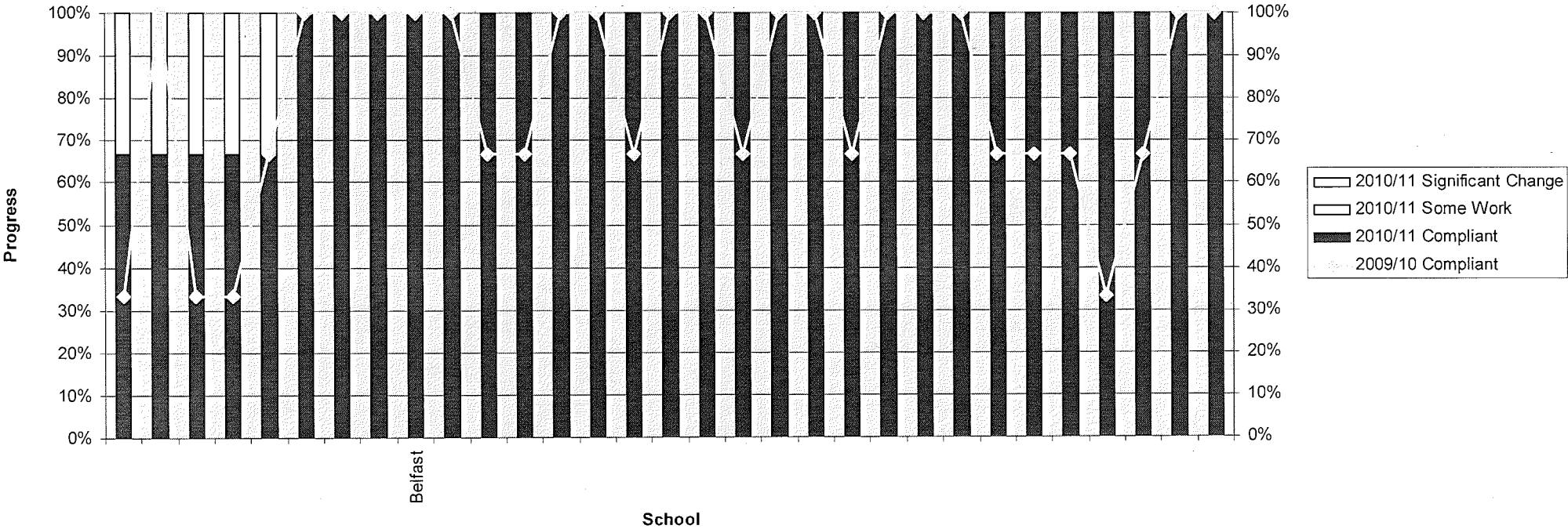




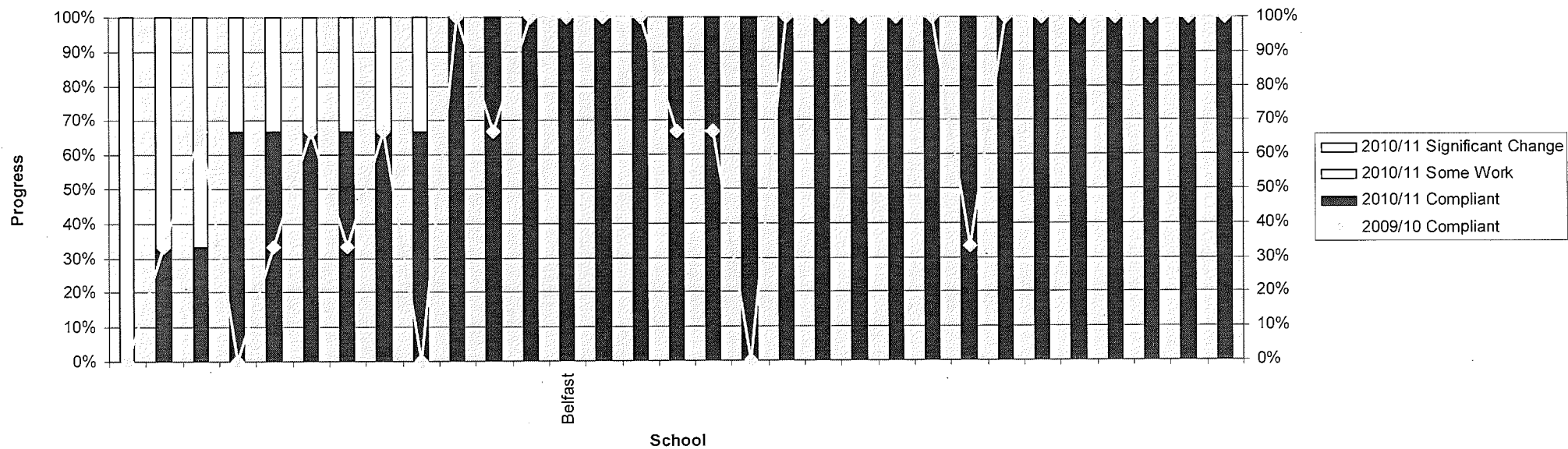
Domain 6 - Support and development of students, teachers and the local faculty

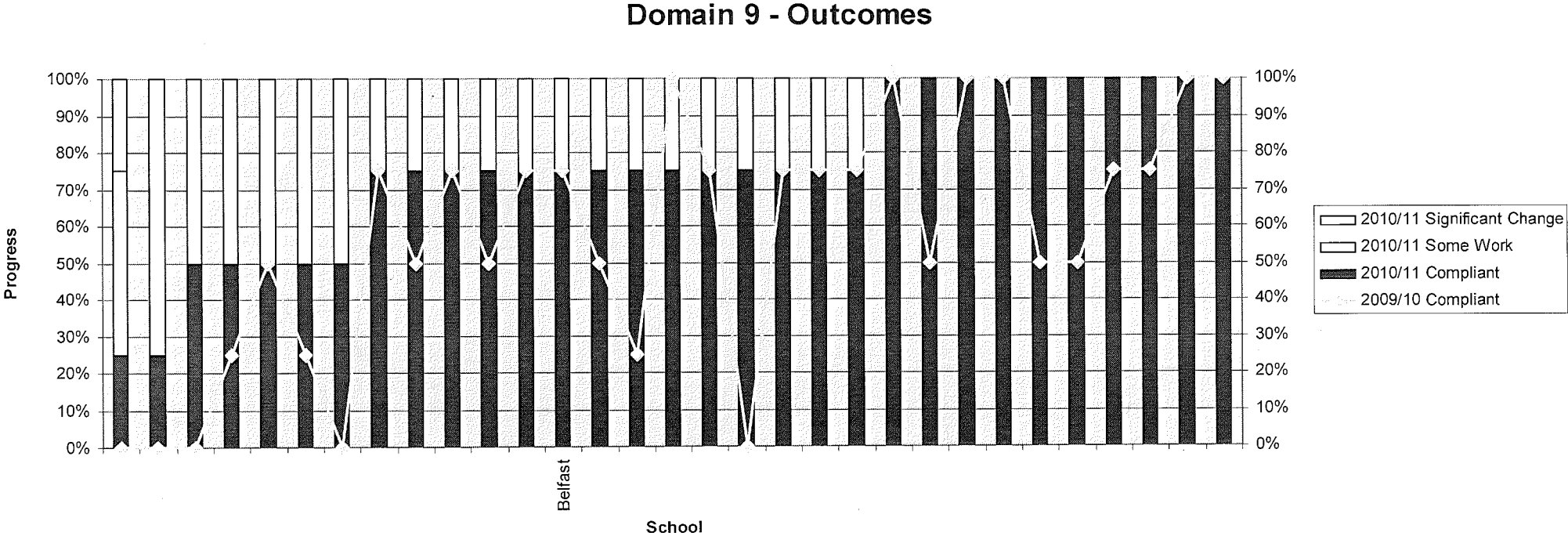


Domain 7 - Management of teaching, learning and assessment



Domain 8 - Educational resources and capacity





**Medical Schools Annual Return (MSAR)
Feedback for Schools**

**General
Medical
Council**

Regulating doctors
Ensuring good medical practice

Medical Schools Annual Return (MSAR) Feedback

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What does this feedback include?

Since 2009 all medical schools have completed a self-assessment of compliance and improvements to meet the standards and outcomes of *Tomorrow's Doctors* since 2009.

The 2011 MSAR follows the domain structure of *Tomorrow's Doctors* and included a small number of additional questions focusing on particular aspects of domains 2-7. Responses to these narrative questions are used to inform policy development and show trends and progress across medical schools on areas of common challenge or improvement.

For each of the domains we have provided a summary in this document from the MSARs and a graph to show self-reported compliance at the time of submission (December 2011). The graph also shows a line to show improvement in compliance reported this year compared to last.

In this package of feedback we have included some information on how the GMC is working to support you in improving the quality of medical education and make use of your MSARs. Each school will each receive five years worth of collated fitness to practise data for their graduates (London schools are combined) and a summary of the results from the end of placement feedback pilot.

We appreciate all the hard work that the medical schools have put into their 2011 annual returns. We will continue to work to make the MSAR more efficient and streamlined. We will be working with schools and key stakeholders throughout 2012 to meet this goal.

What were the key themes of the 2011 MSARs?

Across the board we found that schools reported improvement from last year, but continue to face challenges in some aspects of quality management including collecting and using evaluation data, and staff training.

There are still several standards which schools did not report as compliant. We are following up patient safety (domain 1) standards through our quality assurance activities to ensure there are no immediate patient safety issues.

If you are a school that has reported work is still required in any domain, you will need to update us in the next MSAR where we expect to see full compliance across all domains. If your current plans make this unlikely please contact us by the end of the current (2011-12) academic year.

We recognise the ongoing challenge for you to meet *Tomorrow's Doctors* standards for trainers (D6, paragraph 128 and D3, paragraph 58). Legislative changes and in

particular the equality duty to which all public bodies need to adhere, brings consideration of the need for equality and diversity training to the fore, and our work this year on the approval of trainers that you have been involved in, will provide useful and practical guidance for all stages of medical education and training.

Schools work to improve relationships and information sharing with employers and deaneries (D2, paragraph 43c and D9, paragraph 172) in order to collect, analyse and make changes in response to feedback on graduates' progress and preparedness. Some schools continue to report that acquiring and using data on graduate progress and patient feedback remains a challenge and we will highlight what work and progress is being made by different schools during the year.

MSARs highlighted the work underway to implement and quality manage student assistantships, including new agreements with local education providers, and altering timetables and curriculum to integrate the demands of this crucial experience. We will share information about different approaches with you and we encourage you to report in future MSARs on the findings from your implementation and evaluation of student assistantships.

Many schools reported that they have found the advice and examples in the supplementary advice we have published useful when considering how to approach challenging standards, particularly on clinical placements, involving patients and the public, developing trainers and assessment. We encourage you to share examples and experiences with deaneries and across your local employers. As we have discussed at quality leads meetings and seen repeatedly in your MSAR reporting, improvements in all stages can be made if local partners work together to share resources and information.

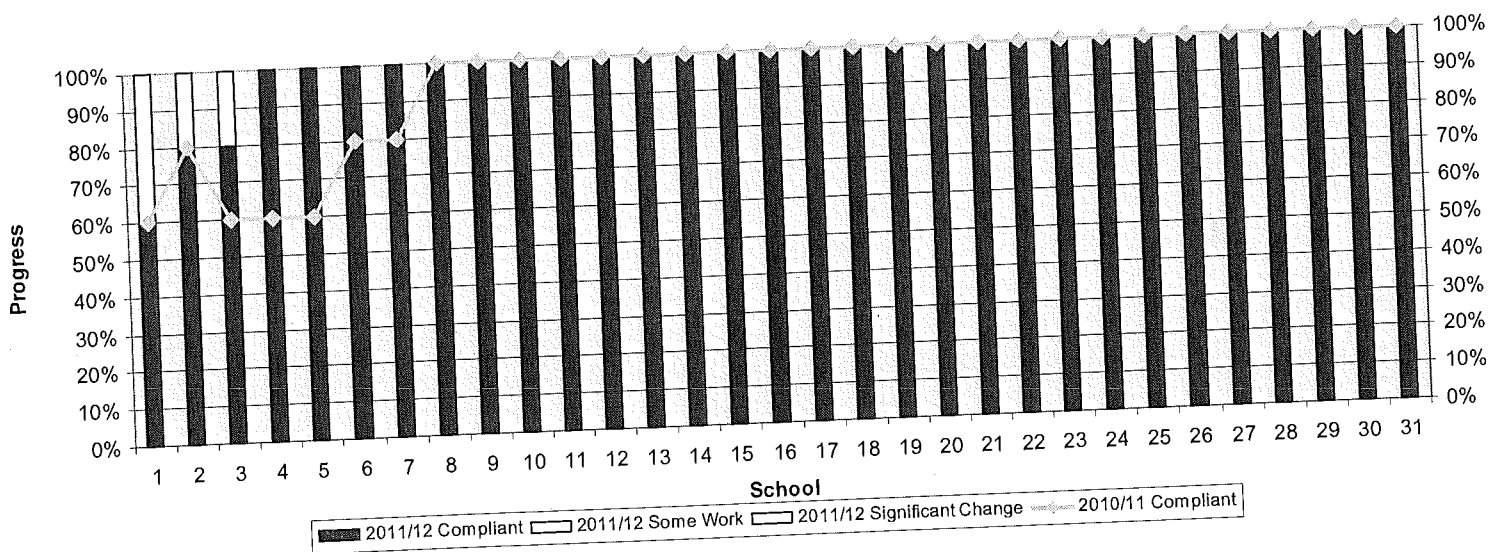
Common risks and challenges to delivery continue to be reported: the current financial climate in the NHS and education sector, service configuration changes and pressures on clinical teaching and administrative support.

Progress on patient safety (Domain 1)

In the 2011 MSAR we asked schools to update their level of compliance. The results are shown in the graph below.

Four schools reported reaching compliance with this standard in the past year, and three schools still need to make some changes to ensure appropriate systems and procedures are in place.

Domain 1 - Patient Safety



Progress on quality assurance, review and evaluation (Domain 2)

In the 2011 MSAR, alongside asking you to update your compliance status, we also asked you to explain how you quality assure clinical placements and student assistantships.

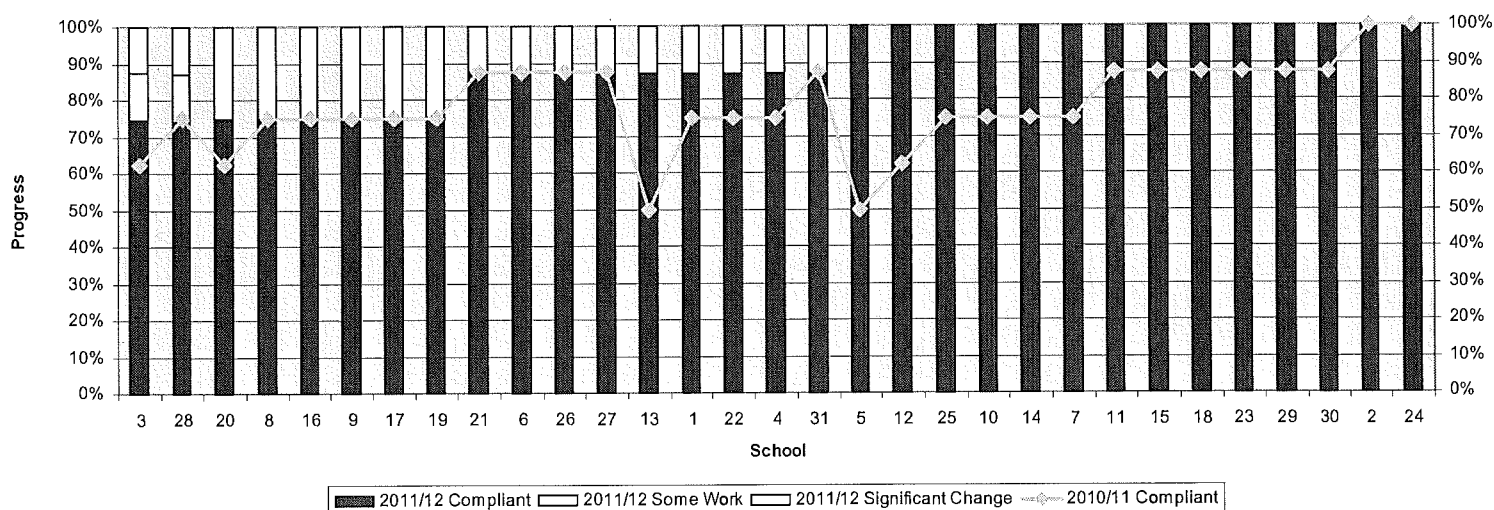
More than 50% of schools reported making significant progress in the status of this domain over the past year, which is indicated by comparing the line in the graph below with the blue bar.

A small number of schools are still making changes to management systems and three still need to make some changes to agreements and monitoring systems with placement providers. We note that where Service Level Agreements (SLA) with LEPs are more detailed, it has been easier for schools to address concerns.

There are a range of initiatives across schools to improve and strengthen of quality management systems and processes (collection, analysis, plan, action, and review and evaluation cycles). This includes, for example, triggered and unannounced quality management visits to clinical sites. Schools often reported specific responses to student feedback, and it is notable where this is part of an overarching quality management approach.

Almost half of all schools report either needing to make significant changes or do further work to include patient feedback in quality management.

Domain 2 - Quality assurance, review and evaluation

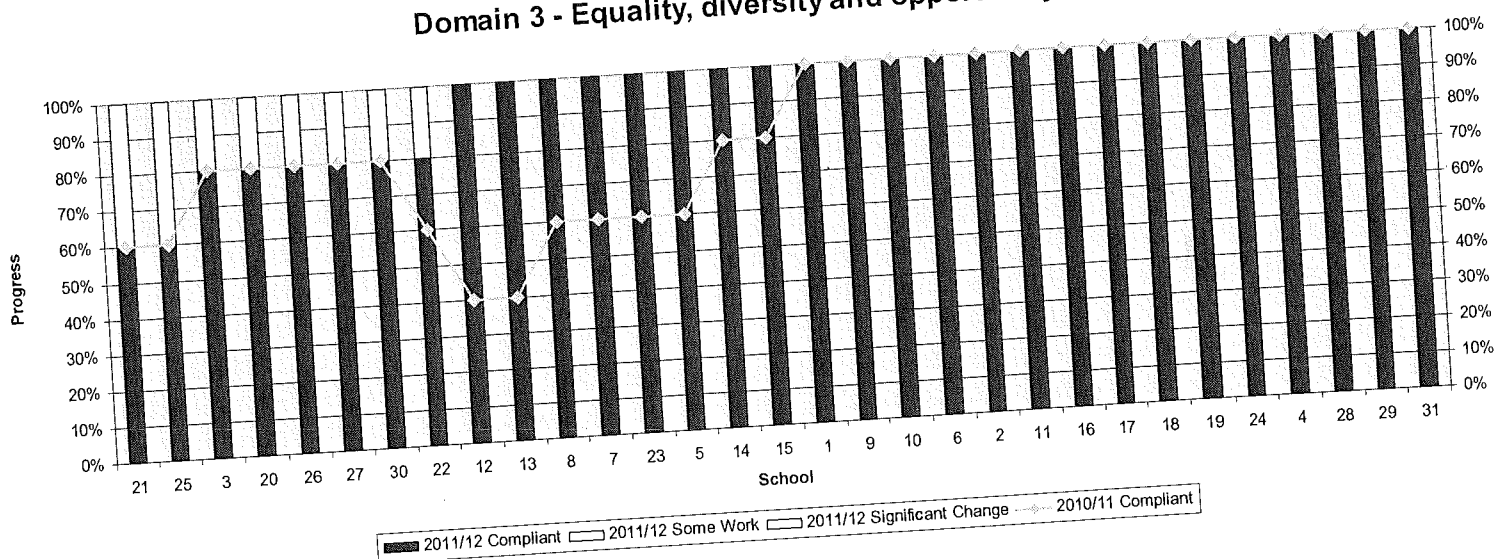


Progress on equality, diversity and opportunity (Domain 3)

We asked you to show how you are meeting the equality and diversity requirements as set out in *Tomorrow's Doctors*, specifically in relation to the Equality Act 2010 and whether your school has problems meeting data requirements. We also asked about reasonable adjustments that have been made and about the detail of any that have been refused.

A total of 23 schools (eight more than last year) reported that they are now compliant with domain 3. The remaining eight schools reported still needing to do some work in order to meet the standards of *Tomorrow's Doctors*.

Domain 3 - Equality, diversity and opportunity



The majority of schools reported on the equality and diversity data that they collect, policies in place and courses which they send their staff on. A risk in relation to staff training was identified by a handful of schools. Four schools reported that staff members were not trained in equality and diversity, or that they were unable to track which of their staff members have received what training.

Meeting legislative requirements

Schools reported several policies and procedures to ensure compliance with the Equality Act, including:

- Training a small team in Equality Impact Assessments who are now reviewing every policy and advising the school if any policies or current practices require amendments to comply with equality and diversity legislation.
- Running a student support subgroup which meets bi-annually to consider the extent to which the school are meeting the obligations of *Tomorrow's Doctor's* domain three. The subgroup reports through a Quality Group to a Board of Studies.

- Drawing up a draft Single Equalities Scheme which incorporates the Gender Equality Scheme, Race Equality Scheme and Disability Equality Scheme and encompasses new schemes for all the additional groups now classed as 'protected' under the Equality Act 2010.
- Giving all their students a session with Student Services and the College of Medicine Disability Officer in their induction week. More detailed equality and diversity training is then given when the students attend a session on "Equality and Diversity in the College of Medicine".
- An 'Equality and Diversity Inclusion Policy' which covers all staff, students and anyone associated with the University. The policy ensures that the school is compliant with the Equality Act (2010)
- Updating policies and procedures to support equality and diversity reflecting changes brought in by the Equality Act.
- Formalising the system whereby any issues around equality and diversity are reported to the medical school. The new system is intended to encourage the reporting of incidents to the relevant phase co-ordinator for resolution. The incident will then be reported to the relevant phase management group and through the management reporting systems.

Meeting data requirements

Many schools do not collect their own data; instead it is collected by the parent university so there can be an issue with regards to timely access to appropriate and useful data. One school reported that they have only recently been given access to reports that will allow them to analyse data on ethnicity, while another reported that neither the school nor university collect the full range of equality and diversity categories. Another reported it is still difficult to link University data with other datasets, such as performance and assessment.

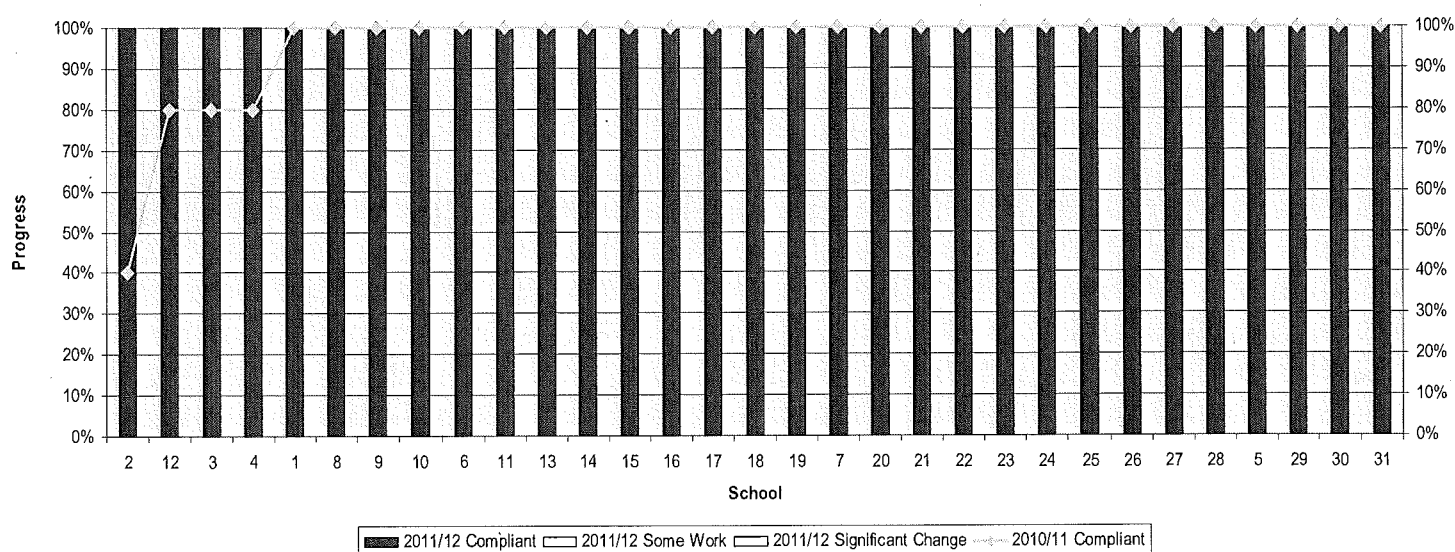
Having sufficient resources to meet this standard was also identified as a challenge. One school advised that they do not currently have the resource to manage and analyse the data, while another school advised that it had invested in the area of psychometric analysis, appointing a full-time psychometrician on a two-year contract to assist the in-depth analysis of admissions data from an equality perspective.

Progress on student selection (Domain 4)

This domain covers schools' selection tools, how they are used and if any changes have been made. Schools summarised their widening participation schemes and the impact of financial factors.

All schools now report compliance across this domain.

Domain 4 - Student selection



Themes in student selection

Schools reported finding it increasingly difficult to differentiate candidates based on their grades due to the ever-improving scores. One school mentioned they have made major changes to the admissions policy including the introduction of a cut off score for the Graduate Medical School Admissions Test (GAMSAT) as part of the initial application screening process, and the introduction of students on interview panels.

Several schools reported using or intending to start using Multi-Mini Interviews (MMI) in selection processes. One school reported that they have changed their selection processes to include a six station Objective Structured Clinical Examination (OSCE), to test communication skills, generic skills, comprehension and verbal explanation, and exploration of motivation for a career as a doctor.

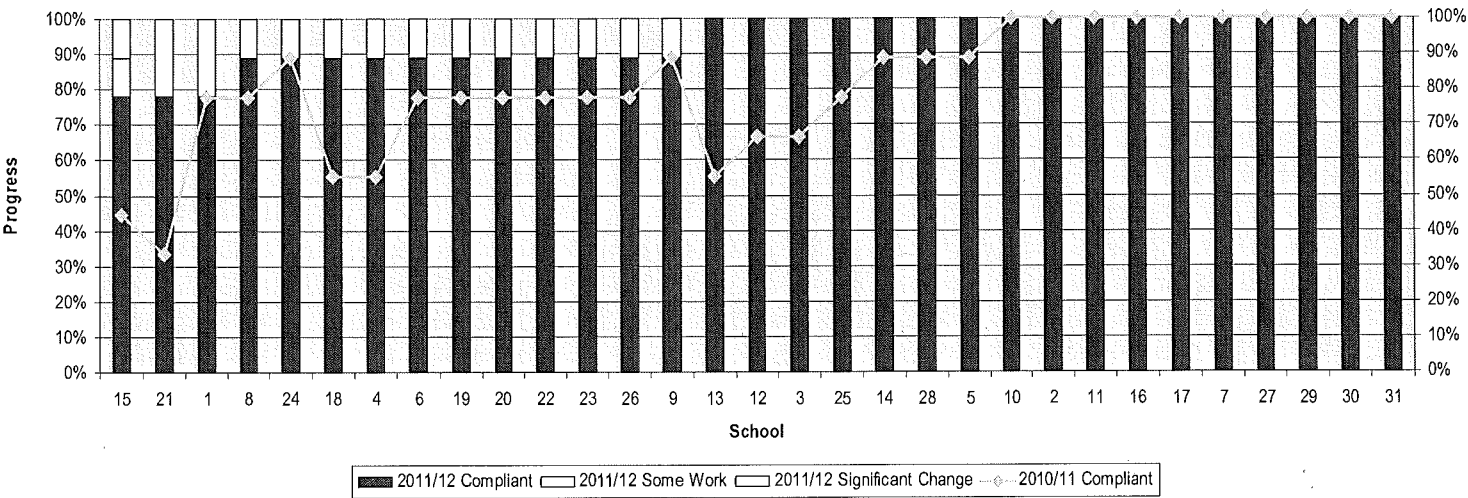
Progress on the design and delivery of curriculum including assessment (Domain 5)

We asked schools to supply an update on any changes they may have made to curricula and assessment systems in addition to reporting their compliance status. Seven schools reported reaching compliance in the past year while 13 report that some work is still required and two schools said that they still need to make significant changes, although they do report progress since the previous MSAR.

Schools reported changes to curricula, assessments and course structure as part of planned reviews and to respond to *Tomorrow's Doctors* requirements, in particular in regards to student assistantships. Schools reported a range of changes that also demonstrate awareness of developments in current UK medical education and future training and service needs: for example anticipating and being involved in prescribing assessment and national assessment initiatives, and developing portfolios for students that are aligned with the needs for foundation application and training.

Eight schools also reported initiatives to improve assessment feedback to students.

Domain 5 - Design and delivery of curriculum including assessment

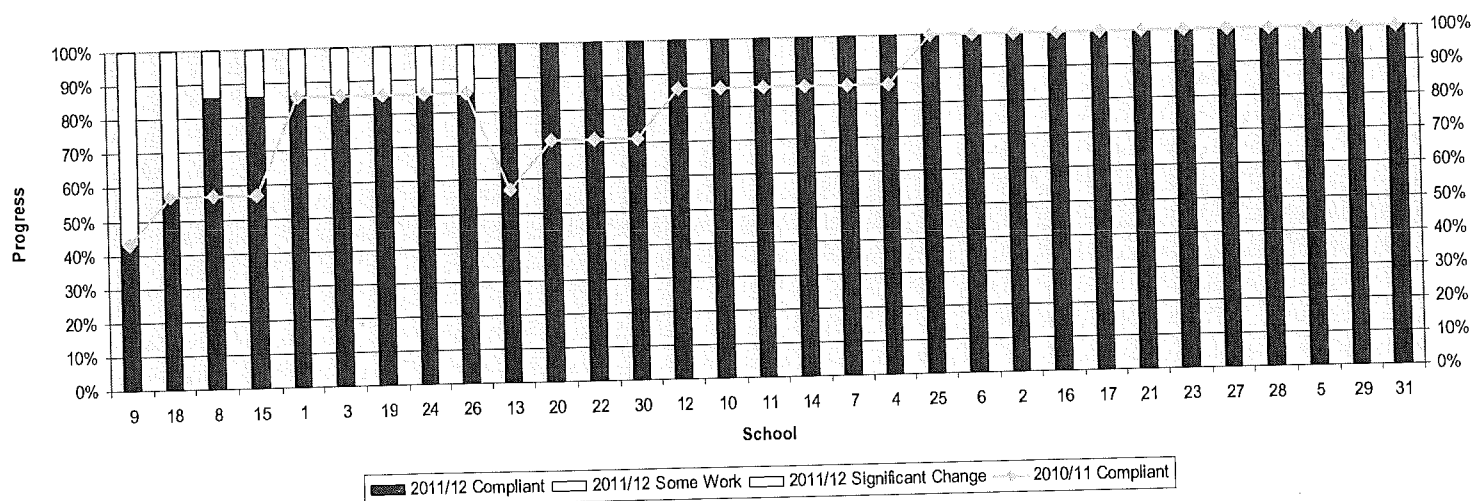


Progress on the support and development of students, teachers and the local faculty (Domain 6)

Schools reported their compliance and answered questions to identify trends in student professionalism and fitness to practise, and graduate progress. Ten schools reported reaching compliance in the past year and nine report that some work is still required.

We appreciate the challenge of ensuring that everyone involved in educating medical students is appropriately selected, trained, supported and appraised (*Tomorrow's Doctors* paragraph 128). We have already produced supplementary advice on developing teachers and trainers in undergraduate medical education specifically. A consultation on the approval and recognition of trainers has recently closed. At its July meeting Council will consider findings and recommendations for the way forward.

Domain 6 - Support and development of students, teachers and the local faculty



Trends and issues in student fitness to practise

Four schools specifically identified student of social media as an increasing issue that can have an impact on student professionalism. Two schools reported that they have responded to this by circulating BMA guidance on social media to their students and as introducing this issue into teaching sessions or specifically discussing it with first year students. We will be consulting on the use of social media in the early summer and supplementary guidance will be published by the end of this year. Although this will be aimed at all registered doctors, but the principles are universal so the information should also be of use to medical schools.

Schools are developing better ways to track and record low level concerns. This was a particular feature of the responses from seven schools. Timekeeping continues to be highlighted as a low-level concern by many schools, and plagiarism is another frequent concern.

Health and mental health concerns were also noted as increasingly apparent in fitness to practise cases at some schools. This year we are also conducting research on the support services available for students with mental health concerns, and will produce some practical recommendations and advice for medical schools. The inappropriate use of alcohol and the use of illegal drugs was also a theme in fitness to practise cases.

It is encouraging that schools say staff members are increasingly reporting concerns to them about the professionalism of students through new or established processes. One school reported that teachers were becoming more comfortable expressing concerns about students which in turn has led to a more efficient process of identifying students who may be struggling with the programme. A second school make a similar point saying that although they have seen an increase in fitness to practise concerns they put this down to in part to better reporting from both academic and clinical staff.

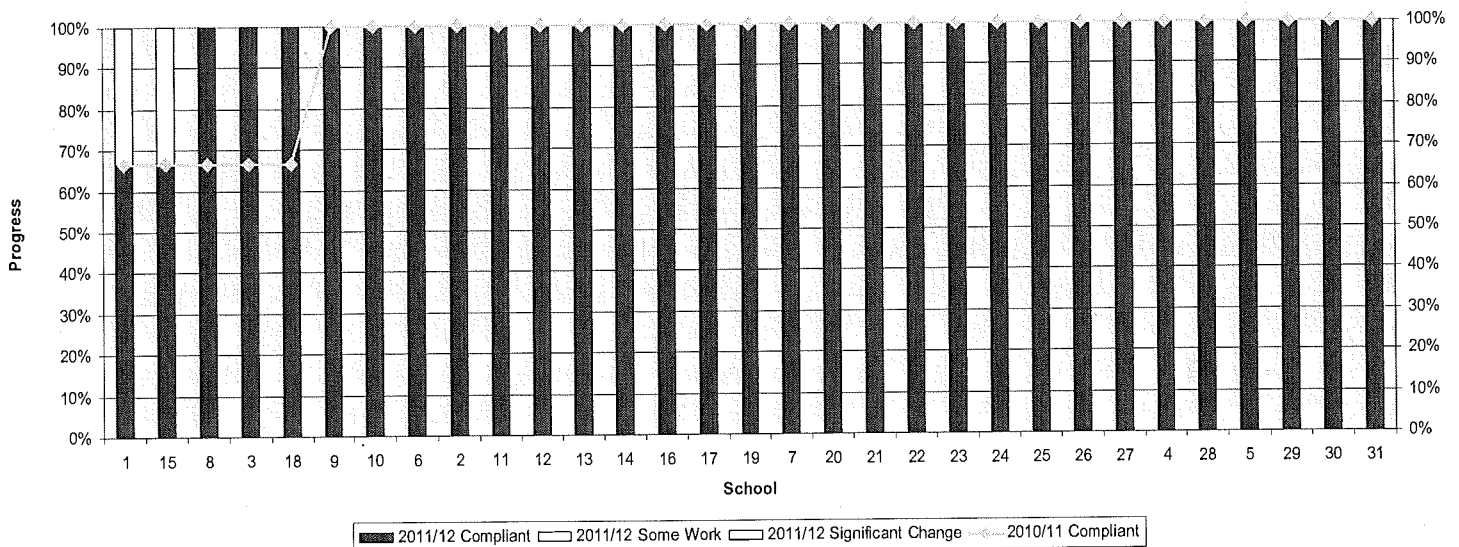
There were 22 schools who reported that they are informed about their local fitness to practise cases and five of these schools reported they are also informed about the cases of their students from other deaneries. Three schools reported that they don't receive any feedback on their graduates.

Of the 28 schools who answered the question regarding the holding of fitness to practise hearings of FY1 doctors, six schools reported that they hold hearings for FY1 doctors, three schools advised they would but they've never had to and 19 schools reported that they do not hold hearings.

Progress on the management of teaching, learning and assessment (Domain 7)

We asked schools to report on their compliance status and to report employer involvement in managing teaching, learning and assessment and in addition to what is available in our advice on clinical placements, we will share updates with you this year of schools' work to involve local employers.

Domain 7 - Management of teaching, learning and assessment



Progress on educational resources and capacity (Domain 8)

Six schools report making progress toward meeting *Tomorrow's Doctors* standards over the past year and four have remaining work to do to be compliant.

The two standards that have been reported as not compliant are

- Facilities will be supported by a facilities management plan which provides for regular review of the fitness for purpose of the facilities with recommendations and improvements made where appropriate. When reviewing facilities, medical schools should include their suitability for students with disabilities
- There will be enough staff from appropriate disciplines, and with the necessary skills and experience, to deliver teaching and support students' learning.

Domain 8 - Educational resources and capacity



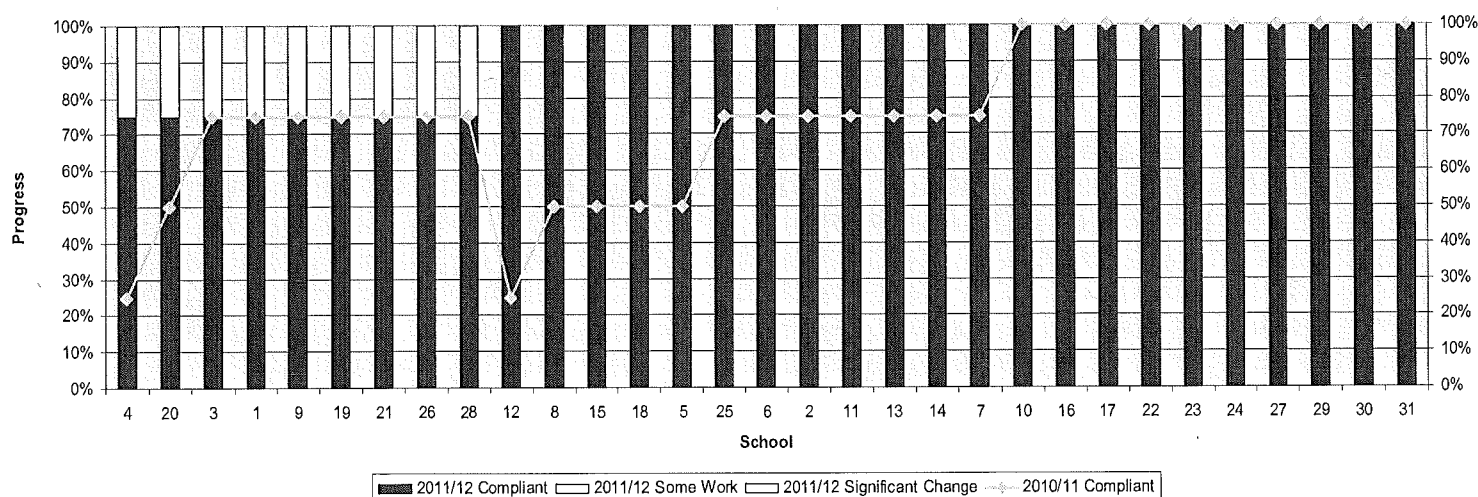
Progress on outcomes (Domain 9)

Schools reported on a significant amount of work during the past year to improve how they collect and use data on the progression of graduates. An additional 12 schools now report compliance in this domain. Nine schools report that some further work is required with the one of the following two standards:

- Students must have access to analysis of the results of assessments and examinations at the school.
- Quality management will involve the collection and use of information about the progression of students. It will also involve the collection and use of information about the subsequent progression of graduates in relation to the Foundation Programme and postgraduate training, and in respect of any determinations by the GMC.

Aspects of quality management continue to be a challenge. A quarter of schools confirm what we have learned through quality leads meetings and other discussions, that work is ongoing to improve relationships and information sharing with employers and deaneries in order to collect, analyse and make changes in response to feedback on graduates' progress and preparedness. To assist you to meet the data requirements we have collated fitness to practise records from our publicly available register for a 5-year cohort of graduates from your school which is included in this feedback package (see below).

Domain 9 - Outcomes



Fitness to Practise data

At meetings and events this year we heard from medical school deans and quality managers that they would find it helpful if we could provide information to support their quality management and improvement. Specifically, details of what if any fitness to practise cases their graduates had been subject to at the General Medical Council (GMC) once they had begun practising medicine.

We have collated fitness to practise outcomes from five years of graduating cohorts (2006-2011) broken down by UK primary medical qualification issuing body. **This information will be sent out via GMC Connect to your MSAR contact.**

The individual outcome details we have provided are freely available on our website and can be accessed by anyone including doctors, patients and the public. For further details on any of the individual cases you can check their registration status on our website:

<http://www.gmc-uk.org/doctors/register/LRMP.asp>

We hope this collated information will be useful for you. It can contribute to your evidence base for meeting Domain 9 of *Tomorrow's Doctors*. Paragraph 172 requires that quality management includes the collection and consideration of student progression data including the outcomes of GMC fitness to practise cases. It may also be useful when you review and revise student fitness to practise policies and the teaching of professionalism.

Schools annually report to us on how they are meeting the standards in *Tomorrow's Doctors* and this includes student outcome and progression information. This collated data may be used as one part of the evidence base for quality assurance activity in the future. It does not provide evidence that can be used to compare schools.

We have looked at the information across all UK medical schools and have noticed that warnings are often given because of probity issues and the non-disclosure of previous convictions or cautions to the GMC. *Good Medical Practice* explains the importance of transparency and of doctors informing the GMC of any previous warnings, cautions and convictions. Please see the factsheet on GMC fitness to practise processes for more information.

End of placement data

We have worked with the MSC to explore whether a common question set could be used to benchmark placement evaluation. The Trainee Survey performs a similar function in postgraduate education, providing deaneries with comparative information about trainees' experiences in different rotations. Benchmarking placement evaluation across the UK will give medical schools a wider range of sites to compare against and it could help medical schools identify if their students are having a different experience to students from other schools in the same placement site.

Along with the MSAR we asked for any end of placement data, either raw data or already analysed results. We received raw data from six schools and analysed data from a further eight schools. We thank all schools who participated in this pilot. Those who supplied raw data will receive aggregated data with all but their own school anonymised.

NHS Education for Scotland (NES) has been at the forefront of the development of this work and each school will also receive an anonymised copy of their work comparing the GMC/MSAR scoring systems with the NES scoring system. The current GMC/MSAR scoring changes the results into a binary outcome and the majority of outcomes are given as green (positive). The current system in Scotland utilises the 5 point scale, with which each question is answered, giving greater depth to the scoring and making the flags only relevant to the extreme ends of the answer scale.

We understand that there are still areas to work on, the scoring system, the question wording and number of questions have all been raised as areas in need of improvement. However, the overall feedback has been positive and we look forward to hearing your views on the End of Placement pilot at the upcoming Quality Leads meeting.

«Hospital1»
 «Hospital2»
 «Hospital3»
 «Hospital4»

Ref 256/1/018

QUEEN'S UNIVERSITY BELFAST

FACULTY OF MEDICINE & HEALTH SCIENCES

SERVICE AGREEMENT FOR MEDICAL UNDERGRADUATE TEACHING FACILITIES PROVIDED BY THE «Trust»

1. Group to be Served

Students in the Faculty of Medicine & Health Sciences, Queen's University Belfast.

2. Services to be Provided

Physical Provision

- student teaching and other appropriate accommodation;
- access to library;
- access to IT and Internet Facilities;
- access to hospital lecture theatres;
- seminar rooms;
- adequate accommodation and associated facilities for resident medical students;
- medical illustration facilities both for preparation and projection of audiovisual material;
- white coats for students assigned to clinical areas.

Academic Standards

- presence of a multiplicity of clinical academic departments carrying out exemplary innovative clinical care and research;
- diagnostic sciences as applied to medicine;
- links with community services;
- A&E;
- nursing and professions allied to medicine offering exemplary service;
- medical records and information systems capable of meeting the excess demands of student projects and of clinical research;
- medical audit to be undertaken;
- regular Unit and general clinical meetings to be held attended by the majority of consultants with teaching responsibilities, and participation in national and international meetings;
- provision of curricular and pastoral support to a teaching hospital level, including by mutual agreement secondment of staff to Faculty duties eg as members of committees or as clinical teachers and examiners;

- existence of an administrative structure to enable the medical school to foster teaching, research, and new academic developments within the hospital.

Patients

- general case mix within the hospital(s) to meet teaching needs of students, including services which provide care for unselected patients referred from General Practice or from Accident and Emergency Departments to outpatient or inpatient care;
- access to patients (under supervision or unsupervised as appropriate) in inpatient, outpatient, day patient, treatment and diagnostic departments when allocated to the hospital by the Faculty of Medicine & Health Sciences or one of its Departments;
- access to nursing departments when timetabled as a nursing auxiliary.

Supervision of Ad Hoc Training

When on ward attachments, students should have their notes reviewed and their clinical methods criticised by medical staff of the appropriate grade.

Allocation of Students

According to timetables prepared by the Faculty of Medicine & Health Sciences and University Departments. Indicative numbers of students are shown in Schedule A. The student week figures calculations are presented in Schedule A.

Staffing

Hospital junior staff should be in posts approved for pre-Registration training and General Professional Training, with significant numbers of staff undertaking Higher Specialist Training in approved posts.

Teaching Duties of NHS Staff

Undergraduate clinical teaching will be delivered by a Consultant or Specialist Registrar as specified in the teaching timetable and job contracts. A commitment to undergraduate medical education must be included in the job plans of relevant Consultants. The University and the Unit recognise that junior staff below the grade of Specialist Registrar will often, with the agreement and encouragement of their seniors, provide a valuable contribution to this teaching. This is an important facet of a medical undergraduate teaching environment which will continue to be valued.

In addition, Consultants and Specialist Registrars will continue existing arrangements whereby they give lectures within the Unit or elsewhere.

The contracting parties also agree that the support and encouragement of and, in many cases, tuition provided by nursing and other professional paramedical and support staff is an essential part of the undergraduate clinical experience, which should continue undiminished.

Clinical and other staff will, following agreement with course co-ordinators, take part in the supervision of occasional visits to clinical areas by medical pre-clinical students.

The parties to the contract recognise that the regular participation of clinical teachers in the teaching and assessment of clinical students will have some implications for the workload of clinical teachers' secretarial staff who, as directed by clinical teachers, will be involved in correspondence about the performance of clinical students and other duties connected with the medical course.

The teaching duties will include:

- a. Teaching of all sorts - seminars, lectures, demonstrations as well as bedside teaching (this should be in addition to medical supervision of students work in wards or outpatient departments, which is an essential part of their attachment).
- b. Curricular Support - including assessment, examining and attendance at meetings for curricular development, vocational, pastoral and tutorial work, attendance at both Department and Faculty meetings.
- c. Clinical teachers will be expected to play a part in continuous assessment as well as teaching of students. Formal examinations will take place in suitable clinical areas with a proper environment including assistance as appropriate from NHS staff. There should be provision for reduced service commitment for a period before, during and after formal clinical examinations. When the conduct of a clinical examination is likely to affect the clinical service, the University agrees that proper notice will be given to the Chief Executive or his/her representative as appropriate.

3. **Research**

Substantial numbers of clinical staff should be engaged in research, with a good record of success in obtaining grants and publishing in peer-reviewed journals.

The hospital should provide time and an infrastructure (including medical records, information systems, laboratory and medical illustration facilities) to support clinical research.

4. **Performance Measures**

Reasons for Relocating Students

- a. A lowering of teaching standards or of availability of clinical experience to an unsatisfactory level.
- b. Emergency contingency measures in cases of unforeseen circumstances, eg unplanned closures.

If any of the above situations arise the following steps will be taken:

- i. Local negotiations on site involving the Dean (or his representative), consultant staff and the Chief Executive of the Trust and, if appropriate, the Area Health and Social Services Board.
- ii. If local negotiations fail to resolve the situation, the Dean will formally advise the Chief Executive of the Management Executive. He will take emergency action jointly with the Dean if necessary. This may include the transfer of medical students and SUMDE money to another Unit.

5. **Curricular Evolution**

A minimum of one year's notice (NHS financial year) will be given of changes in students allocation due to curricular evolution.

6. **Quality Issues**

Each Unit will be expected to link closely with the University's Medical Education Unit in the process of developing clinical education. Medical students will be expected to be involved in medical audit.

Monitoring Arrangements to be carried out by the Faculty of Medicine & Health Sciences

- through report from Assistant Directors;
- by scrutiny of examination success;
- by regular questionnaire to medical students;
- through visits by the Academic Audit Co-ordinator;
- by formal and informal feedback.

7. **Liaison with the University**

Close liaison will be maintained with the University over changes in clinical profile, which may affect the ability of the Unit to undertake its clinical teaching commitments.

8. **Information to Patients**

Attractive and up-to-date information leaflets should be available advising people that medical students are trained at the hospital, and explaining the importance of medical teaching. Patients should be given the opportunity to indicate that they do not wish medical students to be involved with their care.

9. **Type of Service Agreement**

Three year rolling block service agreement (based on indicative planned student numbers) will operate from 1 April 2002.

Signed on behalf of the «Signatory» (name and position).

Date -----

Signed on behalf of Queen's University Belfast (name and position).

Date -----

« Royal Victoria Hospital »
 « Royal Jubilee Maternity Service »
 « Royal Belfast Hospital for Sick Children »
 « Dental Hospital »
 « Belfast City Hospital »

QUEEN'S UNIVERSITY BELFAST

FACULTY OF MEDICINE & HEALTH SCIENCES

SERVICE AGREEMENT FOR MEDICAL & DENTAL UNDERGRADUATE TEACHING FACILITIES PROVIDED BY THE «Belfast Trust»

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2. Services to be Provided

Physical Provision

- Student teaching and other appropriate accommodation;
- Access to library;
- Access to IT and Internet Facilities;
- Access to hospital lecture theatres;
- Seminar rooms;
- Adequate accommodation and associated facilities for resident medical students;
- Medical illustration facilities both for preparation and projection of audiovisual material;
- White coats for students assigned to clinical areas.

Academic Standards

- Presence of a multiplicity of clinical academic departments carrying out exemplary innovative clinical care and research;
- Diagnostic sciences as applied to medicine;
- Links with community services;
- A&E;
- Nursing and professions allied to medicine offering exemplary service;
- Medical records and information systems capable of meeting the excess demands of student projects and of clinical research;
- Medical audit to be undertaken;
- Regular Unit and general clinical meetings to be held attended by the majority of consultants with teaching responsibilities, and participation in national and international meetings;

- Provision of curricular and pastoral support to a teaching hospital level, including by mutual agreement secondment of staff to Faculty duties eg as members of committees or as clinical teachers and examiners;

- Existence of an administrative structure to enable the medical school to foster teaching, research, and new academic developments within the hospital.

Patients

- General case mix within the hospital(s) to meet teaching needs of students, including services which provide care for unselected patients referred from General Practice or from Accident and Emergency Departments to outpatient or inpatient care;
- Access to patients (under supervision or unsupervised as appropriate) in inpatient, outpatient, day patient, treatment and diagnostic departments when allocated to the hospital by the Faculty of Medicine & Health Sciences or one of its Departments;
- Access to nursing departments when timetabled as a nursing auxiliary.

Supervision of Ad Hoc Training

When on ward attachments, students should have their notes reviewed and their clinical methods criticised by medical staff of the appropriate grade.

Allocation of Students

According to timetables prepared by the Faculty of Medicine & Health Sciences and University Departments. Indicative numbers of students are shown in Schedule A. The student week figures calculations are presented in Schedule A.

Staffing

Hospital junior staff should be in posts approved for pre-Registration training and General Professional Training, with significant numbers of staff undertaking Higher Specialist Training in approved posts.

Teaching Duties of NHS Staff

Undergraduate clinical teaching will be delivered by a Consultant or Specialist Registrar as specified in the teaching timetable and job contracts. A commitment to undergraduate medical education must be included in the job plans of relevant Consultants. The University and the Unit recognise that junior staff below the grade of Specialist Registrar will often, with the agreement and encouragement of their seniors, provide a valuable contribution to this teaching. This is an important facet of a medical undergraduate teaching environment which will continue to be valued.

In addition, Consultants and Specialist Registrars will continue existing arrangements whereby they give lectures within the Unit or elsewhere.

The contracting parties also agree that the support and encouragement of and, in many cases, tuition provided by nursing and other professional paramedical and support staff is an essential part of the undergraduate clinical experience, which should continue undiminished.

Clinical and other staff will, following agreement with course co-ordinators, take part in the supervision of occasional visits to clinical areas by medical pre-clinical students.

The parties to the contract recognise that the regular participation of clinical teachers in the teaching and assessment of clinical students will have some implications for the workload of clinical teachers' secretarial staff who, as directed by clinical teachers, will be involved in correspondence about the performance of clinical students and other duties connected with the medical course.

The teaching duties will include:

- a. Teaching of all sorts - seminars, lectures, demonstrations as well as bedside teaching (this should be in addition to medical supervision of students work in wards or outpatient departments, which is an essential part of their attachment).
- b. Curricular Support - including assessment, examining and attendance at meetings for curricular development, vocational, pastoral and tutorial work, attendance at both Department and Faculty meetings.
- c. Clinical teachers will be expected to play a part in continuous assessment as well as teaching of students. Formal examinations will take place in suitable clinical areas with a proper environment including assistance as appropriate from NHS staff. There should be provision for reduced service commitment for a period before, during and after formal clinical examinations. When the conduct of a clinical examination is likely to affect the clinical service, the University agrees that proper notice will be given to the Chief Executive or his/her representative as appropriate.

3. Research

Substantial numbers of clinical staff should be engaged in research, with a good record of success in obtaining grants and publishing in peer-reviewed journals.

The hospital should provide time and an infrastructure (including medical records, information systems, laboratory and medical illustration facilities) to support clinical research.

4. Performance Measures

Reasons for Relocating Students

- a. A lowering of teaching standards or of availability of clinical experience to an unsatisfactory level.
- b. Emergency contingency measures in cases of unforeseen circumstances, eg unplanned closures.

If any of the above situations arise the following steps will be taken:

- i. Local negotiations on site involving the Dean (or his representative), consultant staff and the Chief Executive of the Trust and, if appropriate, the Area Health and Social Services Board.
- ii. If local negotiations fail to resolve the situation, the Dean will formally advise the Chief Executive of the Management Executive. He will take emergency action jointly with the Dean if necessary. This may include the transfer of medical students and SUMDE money to another Unit.

5. Curricular Evolution

A minimum of one year's notice (NHS financial year) will be given of changes in students allocation due to curricular evolution.

6. Quality Issues

Each Unit will be expected to link closely with the University's Medical Education Unit in the process of developing clinical education. Medical students will be expected to be involved in medical audit.

Monitoring Arrangements to be carried out by the Faculty of Medicine & Health Sciences

- Through report from Assistant Directors;
- By scrutiny of examination success;
- By regular questionnaire to medical students;
- Through visits by the Academic Audit Co-ordinator;
- By formal and informal feedback.

7. Liaison with the University

Close liaison will be maintained with the University over changes in clinical profile, which may affect the ability of the Unit to undertake its clinical teaching commitments.

8. Information to Patients

Attractive and up-to-date information leaflets should be available advising people that medical students are trained at the hospital, and explaining the importance of medical teaching. Patients should be given the opportunity to indicate that they do not wish medical students to be involved with their care.

9. Type of Service Agreement

Three year rolling block service agreement (based on indicative planned student numbers) will operate from 1 April 2004.

Signed on behalf of the «Belfast Trust» (name and position).

Date _____

Signed on behalf of Queen's University Belfast (name and position).

Date _____

**Framework of Agreement for Joint Working
Between Queen's University, Belfast Health & Social Care Trust
and the Department of Health Social Services and Public Safety**

The agreement between Queen's University Belfast and the Belfast Trust will normally remain in place for a period of 5 years with the expectation of renewal, subject to review. However, should either party wish to deviate from this arrangement, then there will be early consultation between the Trust and the University.

Belfast Health & Social Care Trust to include:

**Belfast City Hospital
Knockbracken Healthcare Park
Mater Hospital
Muckamore Abbey Hospital
Musgrave Park Hospital
Royal Belfast Hospital for Sick Children
Royal Jubilee Maternity Service
Royal Victoria Hospital
N.I Hospice Marie Curie Centre**

**Framework of Agreement for Joint Working
Between Queen's University Belfast, Belfast Health & Social Care Trust
and the Department of Health Social Services and Public Safety**

The Principles of Co-operation

Queen's University Belfast (QUB) through its Schools of Medicine, Dentistry and Biomedical Sciences (hereinafter referred to as the 'Medical School') and Belfast Health & Social Care Trust (hereinafter referred to as 'the Trust') agree to work collaboratively to achieve high quality clinical care, teaching and research in medicine. The following principles serve as guides for the conduct of this partnership.

- The aim of undergraduate medical education is to produce doctors who are able to meet the nation's present and future health and health care needs. To this end, doctors should be educated in an atmosphere which combines high professional standards (set by the GMC) with a spirit of intellectual enquiry and innovation based on active research and development programmes.

The Medical School and the Trust will work together to develop and implement each year an appropriate clinical placement schedule that ensures the adequate provision of high quality teaching to enable students to acquire the skills and knowledge specified in the Medical School's learning objectives for both core and students selected elements of the course. They will share relevant information on their respective educational objectives. The designation of a Sub-Dean and sufficient support staff by the Trust will be necessary to facilitate this aspect of the agreement.

- The objective of medical research is to maintain and improve the nation's health and health care by contributing to the promotion of health and the understanding and treatment of disease.

The Medical School and the Trust will develop and cultivate collaborative research projects between the University and the NHS, involving, where appropriate, DHSSPS, other organisations and University schools.

- Clinical academic staff have the potential to make important contributions to the health service.

The Medical School and the Trust will facilitate the active involvement of University staff holding clinical academic appointments in the development and delivery of health service work. This will be monitored through joint appraisal and job planning.

Where agreement cannot be reached locally a scheme for resolution of disputes will be implemented (section 4).

- The Medical School and the DHSSPS should ensure that undergraduate medical education is undertaken efficiently and cost-effectively as informed by the annual accountability report.

The annual Supplement for Medical and Dental Education (SUMDE) Report is developed jointly by the Medical School Trusts and the DHSSPS. It is produced to improve accountability for SUMDE funds and to ensure that they are spent where they are needed and are used in support of high quality medical education. There should be mutually agreed service plans to support teaching. Accountability is ensured by the requirement to produce an annual report each year, showing how funds have been applied, the physical facilities provided, developments planned, together with details of concordance with teaching objectives. The contents of the Accountability Report is indicated in Appendix 1.

1. Clinical Placements

1.1 The Medical School will:

- 1.1.1 Provide a placement plan for students in years 1 to 5 with adequate notice. This will indicate student loads and the phasing of students, so that it is clear when students will arrive in each specialty and ensure appropriate consultation regarding clinical placement plans.
- 1.1.2 Liaise with the Trust about any significant changes in student numbers, specialty and location, giving adequate notice wherever possible.
- 1.1.3 Consult and agree with the Trust regarding curriculum development and any related academic issues to ensure appropriate time-scales for planning and implementation of new courses.
- 1.1.4 Provide student details to the Trust, a minimum of four weeks prior to the attachment.
- 1.1.5 Provide students and staff with study guides. These guides will have details of the learning outcomes that students are expected to achieve through the attachment. These learning outcomes are available for Trust teachers on the University web site through Queens on Line.
- 1.1.6 Ensure that students have an appropriate understanding of their responsibilities relating to confidentiality.
- 1.1.7 Ensure that all students receive the necessary immunisations as agreed with the University's Department of Occupational Health in conjunction with DHSSPS recommendations.
- 1.1.8 Ensure that students are covered for medical indemnity through a recognised medical protection association.
- 1.1.9 Confer the title of Recognised Clinical Teacher, Honorary Clinical Lecturer/Senior Lecturer at the appropriate level on NHS staff who are actively involved in undergraduate teaching and who have completed recognised training in teaching and assessment methods.

1.2 The Trust will:

- 1.2.1 Make available clinical facilities appropriate for the delivery of the undergraduate medical curriculum (to include both core and students selected components). This will normally be monitored through the Trust representative (usually the Sub-dean) to the Medical School.
- 1.2.2 Ensure the appointment of the Sub-dean, Undergraduate Tutors and Administrative Staff as appropriate.
- 1.2.3 Have in place a management structure, reporting to the Trust Board, responsible for all aspects of undergraduate education within the Trust.
- 1.2.4 Encourage all staff to recognise that undergraduate students are an essential part of the clinical team. This should be made clear in Trust Clinical Staff contracts, in

patient and public documents so that all parties, especially patients, understand that students are an integral part of patient care in a teaching hospital.

- 1.2.5 Expose students to a wide range of educational opportunities such as clinical meetings including grand rounds, clinical audit and quality assurance.
- 1.2.6 Provide students with experience of multi-professional healthcare. Under the supervision of clinical, nursing and other staff, students should gain experience across the full range of clinical facilities, including wards, service departments, diagnostic facilities, laboratories, outpatients and operating theatres.
- 1.2.7 Offer remedial teaching to students who have not achieved a satisfactory standard in assessments.
- 1.2.8 Provide undergraduates with appropriate access to relevant medical records and information systems.
- 1.2.9 Ensure that students comply with the Trust's policies and procedures.
- 1.2.10 Provide indemnity cover within the Trust's policies and procedures in the event that the student is involved in a clinical accident or is attacked.
- 1.2.11 Ensure the completion of agreed student evaluations for analysis by QUB.
- 1.2.12 Provide paper-based or electronic information for students detailing learning opportunities within the Trust and contact details for lead clinicians contributing to the delivery of undergraduate teaching.

1.3 The DHSSPS will:

- 1.3.1 Calculate the SUMDE available to each Trust and issue a yearly circular detailing allocations.
- 1.3.2 Seek assurance from Trusts that SUMDE funds have been used appropriately.
- 1.3.3 Provide the agreed funding on an annual basis for the Clinical Skills Education Centre.

2. Facilities

2.1 General Approach

Trusts are expected to:

- 2.1.1 Plan new capital projects and estate management issues which might have an influence on medical undergraduate teaching in consultation with the Medical School, (e.g. refurbishment of outpatient departments). With large projects a representative of the Medical School or University would be invited to join the project team.
- 2.1.2 Maintain the agreed space requirements for academic accommodation, and re-provide this accommodation should this be necessary as a result of changes in service provision.
- 2.1.3 Ensure that prior to any re-designation of clinical teaching space, alternative suitable facilities are identified jointly between the Trust and the Medical School. These should then be made available to the Medical School before or at the time of the proposed change.

2.2 Teaching and Assessment Facilities

Where appropriate, the Trust will:

- 2.2.1 Provide lecture theatre accommodation, seminar rooms and, whenever required, undergraduate tutorial rooms adjacent to clinical areas. Outpatient space sufficient to allow students experience in treating patients is also required. Exact accommodation requirements will be agreed with individual hospitals within the Trust and will be dependent on the clinical specialties taught, teaching style and the throughput of students.
- 2.2.2 Ensure the adequate provision of medical, nursing and administrative staff and appropriate facilities to conduct undergraduate clinical examinations and OSCEs. Examples of what this may include are:
 - (i) Appropriately furnished space including rooms for examiners, patients and students in order to conduct all aspects of the examination.
 - (ii) Refreshments for staff and visiting examiners during exam periods.

2.3 Other facilities

The Trust should provide:

- 2.3.1 Access to appropriate food and refreshment facilities.
- 2.3.2 On-call and residential accommodation sufficient for the number of students likely to be on-call or resident at the hospital. Accommodation should be maintained to the minimum standard laid out in current Houses for Multiple Occupancy legislation with some additional requirements for undergraduate students.
- 2.3.3 An information booklet for residential students.
- 2.3.4 In some instances it may be necessary to provide transport from accommodation to the hospital or between sites within a Trust. Normally, a 1.5 mile limit for providing transport is applied but issues such as personal safety will be taken into consideration.
- 2.3.5 Appropriate computer and internet access to facilitate web based learning and access to Queens On-Line. This item will require frequent revision within the context of advancing technology and joint University and DHSSPS ICT development plans.
- 2.3.6 Appropriate library facilities with the recommended reading lists for the specialties studied. A representative for undergraduate teaching should sit on Library User groups within the Trust.
- 2.3.7 Study areas accessible to students' resident at the Trust.
- 2.3.8 Suitable lockers or safe storage area for students' belongings while attending ward rounds and during placements.

3. Staffing

Consistency with the Follett Report:

It is expected that the duties of Joint Appointment Clinical Academic staff in which they provide clinical service and teaching will be guided by the recommendations of the Follett Report (<http://www.dfes.gov.uk/follettreview/>). This is particularly relevant with regard to staff development, appraisal, disciplinary and reporting arrangements.

3.1 Joint Appointment Clinical Staff in DHSSPS Trusts

- 3.1.1 Clinical academic staff employed by the University and Trust are subject to the terms and conditions of the Joint Appointment contract.
- 3.1.2 Joint Appointment clinical staff will be expected to comply with the Trust's quality standards when undertaking clinical work, to participate in clinical audit, and to provide clinical services within the framework of the Trust's Clinical Directorate system and will be covered by Trust indemnification policies in relation to work arising from their clinical duties. Likewise joint appointment clinical staff will be expected to follow the University's standards relevant to the performance of their academic duties and are covered by standard University indemnification for this work.
- 3.1.3 The following approved procedures shall be applied to Clinical Academic staff concerning disciplinary and grievance issues:
 - i) In respect of clinical activities, the Trust's procedures shall apply.
 - ii) In respect of academic activities, the University's procedures shall apply.

The outcome of any disciplinary action shall apply to the contract of employment in its entirety.
- 3.1.4 The clinical and academic commitments of each "clinical academic", shall be incorporated into a job plan agreed annually by the Medical Director of the Trust or his/her nominee and Head of the Medical School or his/her nominees and the individual. Job plans will not be changed without adequate consultation and notice.
- 3.1.5 Where academic departments supply blocks of clinical service then it will, in normal circumstances, be allowable for clinical commitments to be shared between University-employed clinical staff members, subject to agreement between the Head of School (or representative) and the Medical Director of the Trust.
- 3.1.6 The filling of vacant Senior Lecturer (clinical) and other Consultant equivalent posts (clinical professors and clinical readers) will be subject to mutual agreement about replacement arrangements with QUB, relevant Trusts and the DHSSPS. In the case of potential honorary clinical academic staff the University will make the appropriate appointments on the advice of the representative of the Trust, subject to the provisions of the appointment process for honorary University post holders.
- 3.1.7 Newly appointed Joint Appointment clinical lecturers and senior lecturers will be required to attend an induction and academic development programme at the University.

3.2 Staff Development and Appraisal

All Staff

- 3.2.1. Joint Appointment clinical academic staff and NHS staff with honorary University contracts will be expected to participate in appropriate and agreed staff development activities related to teaching skills and development. The Medical School and the Trust as agreed by the Trust and the Director of Medical Education will release them for this purpose subject to clinical and teaching commitments.

- 3.2.2 Clinical academic staff are required to participate in the Joint Appraisal process undertaken by the University and the Trust. The Medical Director and the Head of the Medical School will co-ordinate the implementation of this programme and prepare a report for consideration by the Board of the Trust and Senate of the University.

Trust Staff

- 3.2.3 Teaching commitments needed to meet the needs of the Undergraduate medical curriculum will be discussed and agreed with Trusts and appropriate monitoring mechanisms established in line with the Joint University Trust's procedures.
- 3.2.4 The Trust will, in consultation with the University, keep under review the staff development and training needs of NHS staff with regard to honorary teaching commitments, and liaise with the Trust to consider appropriate action for the development of their teaching skills through the Medical Education Unit.

4. Quality Assurance

4.1 Internal Arrangements

The quality of learning will be monitored internally by QUB by means of:

4.1.1 Student questionnaire based evaluation of each attachment.

Student evaluation questionnaires will be prepared and distributed to students by the University. They should be completed anonymously by the student. The University will report the outcomes of all evaluations to the Trust.

The format of the student evaluation questionnaire may vary depending on the nature and duration of the attachment.

All questionnaires will offer students an opportunity to provide information about:

- The arrangements in place to brief students at the beginning of the attachment.
- The quality of learning opportunities available to achieve the learning outcomes stated in the study guides.
- The quality of teaching provided during the attachment.
- The range of clinical experience gained.
- Quality of feedback on performance.
- The opportunities available to interact with staff, patients and other service providers.
- The support received from teaching staff during the attachment.
- Availability and access to library, IT and other support services.

4.1.2 Staff/student Quality Assurance Committees. These committees will meet each semester.

4.1.3 Student focus groups arranged periodically by the Centre of Medical Education.

4.1.4 Feedback received from the Trust.

4.1.5 The DHSSPS will be provided with an annual report on the outcome of the quality of teaching monitoring activities

4.2 External Arrangements

The quality of learning will be monitored externally by accreditation and review visits by Professional and Statutory Bodies.

4.3 Review Procedures

Quality assurance arrangements will be reviewed annually and may be modified to comply with University or Professional Body requirements. The review procedure will involve the submission of an annual accountability report (Appendix 1) by Trusts which will be considered by a review group comprising representatives of the DHSSPS and Trusts and Queens University.

4. Resolution of disputes

In the first instance, disputes will be referred to the Head of the Medical School and the Medical Director of the Trust. If there is no agreement, a group, comprising a member of the University Management Board nominated by the Vice Chancellor, the Chief Executive of the Trust or nominee and a senior representative of the DHSSPS will be convened to determine a solution.

Signed: _____ Date _____
Vice Chancellor, QUB

Signed: _____ Date _____
Chief Executive
Belfast Health & Social Care Trust

Signed: _____ Date _____
Permanent Secretary, DHSSPS

Duties of the Sub-Dean

Responsible for all aspects of the 'undergraduate student experience', in particular to:

- (a) Ensure smooth running of placements by timely consultation with NHS colleagues in all specialties, close liaison with QUB staff resulting in the provision of detailed timetables for students for core and student selected components of the curriculum.
- (b) Ensure high quality teaching as informed by student evaluation questionnaires and other formal and informal mechanisms for feedback.
- (c) Resolve teaching problems/poor quality teaching by direct discussion with the appropriate clinician and the key contact within QUB.
- (d) Ensure the involvement of NHS teachers in the identification and monitoring of issues relating to professionalism and fitness to practice.
- (e) Liaise with pastoral tutors and QUB staff for students with personal and academic difficulties.
- (f) Ensure that NHS colleagues participate in and/or host examinations of all types (written, OSCE, clinical) both in their own hospital and as a visiting examiner.
- (g) Represent undergraduate issues such as improvements to accommodation and library facilities within the Trust.
- (h) Initiate the necessary internal arrangements for residential and on-call accommodation.
- (i) Supervise/delegate to Trust administrative staff as required.
- (j) Address current patient safety and governance issues.

Duties of Administrative Staff

1. Undergraduate education

- (a) Establish, supervise and monitor systems for the management of the total experience of undergraduate medical students while at the Trust.
- (b) Assist with the negotiation of the service contract with Queens University as appropriate.
- (c) Liaise with relevant Consultants to make arrangements for placements for QUB students at ward level and the development of appropriate teaching timetables which meet the needs of the students and the requirements of the University agreements.
- (d) Arrange accommodation for all students.
- (e) Monitor the numbers of students placed with the Trust and reconcile the student weeks with the SUMDE contract, highlighting significant trends and variances.
- (f) Monitor the Trusts compliance with the SUMDE contract with Queens University through regular liaison with the Consultants leading undergraduate training and with support service providers within the Trust.
- (g) Act as the primary point of contact with QUB and other Universities on the management of undergraduate training and assessment.
- (h) Facilitate practical arrangements in relation to clinical assessments.

2. Other Management Functions required by some HPSS Trusts

- (a) Management of the staff and monitoring DHSSPS allocation associated with Medical Education and research.

- (b) Establish an appraisal system for staff which identifies training needs in the context of the Trust's business needs.
- (c) Establish the training priorities within these departments and determine how the training needs are to be met.
- (d) Evaluate the effectiveness of the training in meeting organizational goals.
- (e) Participate in relevant management groups within the Trust in keeping with the role of the post.

3. **Equipment and Resources**

- (a) Commission of appropriate specialist equipment for medical education and training.
- (b) Ensure appropriate teaching aids are available for medical educational activities.
- (c) Ensure maintenance of equipment, replacing as necessary.
- (d) Promote the use of appropriate information technology.

LOGBOOK

Student Name..... Module and Date

Honorary Lecturer Unit

Patient Clerking Log

A supervising doctor (Consultant, SpR, Staff grade or SHO) must confirm that you have personally clerked and presented each patient.

Patient Initials	Diagnosis	Signature of Doctor
1.		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Select 2 of these cases, photocopy your record from the notes, anonymise it, and include it in your portfolio.

PS. The same patient may be clerked in by more than 1 student, provided the child and family agree, and that it is done individually. Each student should draw up their own problem list, differential diagnoses and management plan.

Practical tasks / core capabilities/ experience of IPE

A consultant / ST4 - 7 / nurse (as appropriate) should confirm completion of each task:

Signature / Date

1. Examine a newborn baby – postnatal check
2. Developmental assessment
3. Measure and plot the growth parameters
4. Attend a nursing hand-over round
5. Administer oral medication on a nursing drug-round
6. Administer inhaler therapy – infants and children
7. Urine collection and testing
8. Feed and change a small baby
9. Assist or observe an aseptic procedure
10. Basic life support
11. Take part in on-call rota x 2
12. Complete on-line training in fluid management
(Certificate to be included in Student Clinical Folder)
13. mini-CEX

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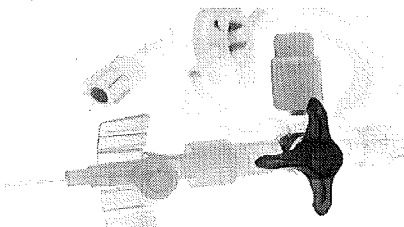
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Reducing the risk of hyponatraemia when administering intravenous fluids to children

Start module

Add to portfolio

LEARNING OUTCOMES

After completing this module you should:

- Know the dangers of hypotonic fluids in children
- Know how to diagnose acute hyponatraemic encephalopathy
- Know how to treat acute hyponatraemic encephalopathy.

Written by:

Stephen Playfor

More

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REVIEWS

"Very useful module"

Student, Emergency Medicine, GB

06.06.2012

"Very useful module."

Foundation, Other, GB

06.06.2012

"Good update"

Student, None, GB

06.06.2012

"Very useful and relevant module"

Foundation, None, GB

06.06.2012

"It was a very good insight to managing this children. Fluids is indeed an area with little training and for that reason I found this very useful."

Foundation, None, GB

06.06.2012

"very well written"

Foundation, Anaesthesia, GB

06.06.2012

"Excellent update"

Secondary Care, Neonatology, GB

03.06.2012

"valuable learning exercise."

Nurse, Urology, GB

03.06.2012

"Very useful review of main issues relating to fluid administration in children"

Student, Paediatrics, IE

03.06.2012

"tots good mod peeps"

None, IE

02.06.2012

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GENERAL MEDICAL COUNCIL



Tomorrow's Doctors

RECOMMENDATIONS ON
UNDERGRADUATE MEDICAL EDUCATION

December 1993

RECOMMENDATIONS

ON

UNDERGRADUATE MEDICAL EDUCATION

issued by the Education Committee
of the General Medical Council
in pursuance of section 5 of the Medical Act 1983

December 1993

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INTRODUCTION

1. The Education Committee of the General Medical Council is charged by statute with responsibility for 'promoting high standards of medical education and co-ordinating all stages of medical education.' The Recommendations embodied in this document relate to that part of training which is encompassed during the undergraduate years in medical school. They concern the education of doctors some of whom may be practising medicine midway through the next century. Given the pace at which the horizons of medical science and technology expand, we can be certain that the doctors of tomorrow will be applying knowledge and deploying skills which are at present unforeseen. We cannot teach science that is as yet undiscovered, nor can we forecast its future implications. But some of the present day art and science of medicine is fundamental to its practice and will certainly endure. We must ensure that the essential elements remain embedded in our curricula and that the newly qualified doctor is well prepared for the responsibilities of the pre-registration house officer year. For the rest, we can at best strive to educate doctors capable of adaptation to change, with minds that can encompass new ideas and developments and with attitudes to learning that inspire the continuation of the educational process throughout professional life.

2. The diversity of the professional opportunities in modern medicine and of the talents of those who practise it is such that a single definition comprehending the aims of medical education is elusive. Although this document is concerned primarily with the period of undergraduate training, it is well to see these highly formative years within the context of the overall educational experience and the continuing professional development of the doctor who is qualified to practise independently in his or her chosen specialty. The attributes of the independent practitioner were encompassed in a section of the Education Committee's Recommendations on the Training of Specialists published in 1987. They are as relevant now as they were then and are reproduced in Annex A.

3. Medical education is changing. Some of the changes relate to external factors, others are inherent in the educational process itself. Consider first some of the external influences for change.

4. Whereas the focus of medical education during the present century has been mainly on the understanding of disease processes as they affect individuals, on their diagnosis and management, there is an evident reawakening of the wider interest of our forebears in the health of populations, the epidemic and environmental hazards that affect them and the means whereby diseases may be controlled or prevented. Public health, temporarily lost from the vocabulary, has been firmly reinstated as a priority in the planning of medical services in this country and abroad, and the undergraduate curriculum must reflect this important change of emphasis.

5. There is a shift in the balance between hospital-based services and those provided in general practice and the community. There is also a redistribution of the tasks undertaken by members of the various caring professions. The overlapping of skills and responsibilities, whilst not diminishing the distinctive role of the doctor, calls for mutual respect and understanding of roles and a capacity for teamwork that should begin to develop during the undergraduate years.

6. We have an ageing population of multi-racial composition. Patterns of disease and disability are changing. Care of the elderly and the chronic sick, understanding of the scope of rehabilitation, pain relief and care of the dying must all receive appropriate priority in a clinical training that formerly was often biased towards the more specialised activities of the teaching hospital. Suffering and disability, which may affect not only the individual but also family, friends and associates at work, are often related to psychological disturbances or those that we categorise as 'non-organic'. Medical education must strive to comprehend all aspects of human disorder. It must also recognise that there is a growing demand for treatments that do not conform to the conventional orthodoxies.

7. The application of new sciences and the advent of new techniques require constant readjustment of our methods of approach to all aspects of medicine, not least those relating to the investigation and treatment of patients. Molecular genetics and magnetic resonance imaging are but two present day examples. One area of particularly rapid expansion has been in the application of computers to medicine. The extent to which future advances may revolutionise not only systems of communication, but also care procedures and possibly education itself, is unpredictable, but a working knowledge of modern medical information technology will be essential for the doctor of the future.

8. The public understanding of disease and disability has grown enormously in recent years. Many diseases, at one time intractable or fatal, are now capable of cure or alleviation and the scope of complex interventions has greatly expanded. Expectations have risen and patients are concerned to understand the nature of their problems and the consequences of their treatment. The relationship between doctor and patient has changed and there is a clear duty on the doctor to be able and willing to communicate effectively, an attribute that must be developed throughout the undergraduate course and beyond.

9. A forward look must also recognise that the doctors of tomorrow and the societies in which they live will be confronted with as yet unforeseen moral and ethical issues arising from the scientific advances that are to be anticipated. Undergraduate education must provide at least an understanding of the principles on the basis of which such issues can be tackled.

10. Thus far we have considered some of the external factors that are reshaping our approach to medical education. But there are inherent characteristics of most contemporary undergraduate courses that argue even more pressingly and urgently for change. They are not new. They have engaged the attention of successive Councils for over a hundred years. As far back as 1863 a tendency to an 'overloading of the curriculum of education...followed by results injurious to the student' was noted with concern, and a wish was expressed to find a means 'to give the student a larger amount of time for self education'. A Council minute of 1869, foreseeing the dangers of an excessively burdensome curriculum stated: 'Whoever will consider the great extent of the sciences which lie at the foundation of Medicine and Surgery...will see that some limit must be assigned to the amount of knowledge which can be fitly exacted'. Thomas Huxley, in an address on university education in 1876, made the point more forcibly. 'The burden we place on the medical student' he said, 'is far too heavy, and it takes some doing to keep from breaking his intellectual back. A system of medical education that is actually calculated to obstruct the acquisition of sound knowledge and to heavily favour the crammer and the grinder is a disgrace'. And over a century later, in our own Recommendations on Basic Medical Education of 1980, we find the following: 'We therefore reiterate the views expressed in the Recommendations of 1957 and 1967, that the student's factual load should be reduced as far as possible, to ensure that "the memorising and reproduction of factual data should not be allowed to interfere with the primary need for fostering the critical study of principles and the development of independent thought". The student should also acquire and cultivate the ability to work independently. He must therefore have a certain amount of free time for private study and self education throughout the curriculum.'

11. Notwithstanding these repeated exhortations, there remains gross overcrowding of most undergraduate curricula, acknowledged by teachers and deplored by students. The scarcely tolerable burden of information that is imposed taxes the memory but not the intellect. The emphasis is on the passive acquisition of knowledge, much of it to become outdated or forgotten, rather than on its discovery through curiosity and experiment. The result is a regrettable tendency to underprovide those components of the course that are truly educational, that pertain to the proper function of a university and that are the hallmark of scholarship. Attitudes to learning that are based on enquiry and the exploration of knowledge are dulled by an excessive information load and by a system of examinations that determines the requirements of study as perceived by the students.

12. The reasons for the persistent gap between the good intentions of successive Councils and the implementation of their Recommendations merit some examination. Medical education was developed in the United Kingdom largely on the basis of an apprenticeship system. When the need for a

foundation in the basic sciences relevant to medicine was recognised, courses in anatomy, physiology and biochemistry were introduced as a preliminary to clinical studies. Thus was born the pre-clinical/clinical divide, which has been perpetuated to this day in many places, each part of the course proliferating without the moderating influence of the other and without a co-ordinated examination of the overall aims of the course.

13. There is a second historical legacy which contributes to the present predicament and which can be traced to the Medical Acts themselves. Until the introduction of provisional registration in 1953, newly qualified doctors were legally entitled to undertake any form of medical practice without supervision and without any requirement of further training. They were free to engage in single-handed general practice, including obstetrics, and frequently did so. Some undertook posts as resident house officers where they carried out surgical operations and gave anaesthetics without supervision. Although many made it their business to acquire a sound training in the specialty of their choice, postgraduate education was unstructured and, apart from the imprimatur of a higher qualification, there was no certification of its satisfactory completion. Consequently it was regarded as essential in the public interest that the doctor graduating from medical school should have a comprehensive knowledge of medicine sufficient to meet all contingencies. In legal terms the requirement was that 'the standard of proficiency required from candidates at a qualifying examination shall be such as sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery and midwifery' (Medical Act 1886, Section 3(2)).

14. As a first step towards remedying this unsatisfactory state of affairs, the Goodenough Committee (1944) advocated the introduction of what was to become known as the pre-registration year. Arguing that it was no longer appropriate to let newly qualified doctors enter independent practice without further training, it recommended a period of service providing general experience under supervision prior to the acquisition of full registration. It saw this period as an extension of the undergraduate course, still under the authority of the university, with a significant educational component and with gradually increasing responsibility for the care of patients. The notion of a pre-registration year as part of the continuum of basic medical education and easing some of the pressure on the undergraduate curriculum, was endorsed by the Royal Commission on Medical Education in 1965-68 which affirmed that '...The undergraduate medical course does not provide sufficient training for the immediate practice of medicine...' (Todd, 1968).

15. The Committee of Inquiry into the Regulation of the Medical Profession (Merrison, 1975) likewise agreed with the principles upon which the idea of the pre-registration year had been based but was highly critical of the organisational structure

that had developed and of what it saw as the deficiencies of its legislative framework. It regarded the pre-registration year as a failure, having found that '...all too often the graduate is treated as a much needed extra pair of hands rather than a probationer doctor still requiring supervision and training at a significant point in his career. Some young doctors find themselves burdened with responsibilities they are not yet in a position to assume; others are given duties not necessarily relevant to their training needs.' The words have a familiar ring. The Committee made a number of recommendations aimed at improving both the content and the regulation of the period of training immediately following graduation but they were not adopted.*

16. Although the Merrison Report did not improve the lot of house doctors, it made a number of recommendations which influenced the provisions of the Medical Act of 1978 which followed it. Amongst the changes, also embodied in the consolidating Medical Act of 1983, was a relaxation of the prescriptiveness of the requirements of the undergraduate course, as assessed at qualifying examinations. No longer was the knowledge and skill necessary for the efficient practice of medicine, surgery and midwifery to be guaranteed. Section 5 of the 1983 Act is reproduced at Annex B but, in summary, it requires the Education Committee to 'determine the extent of the knowledge and skill which is to be required for the granting of primary United Kingdom qualifications...' and to ensure that the necessary teaching is provided. The Committee is also expected to 'determine the standard of proficiency which is to be required from candidates at qualifying examinations...' and to make sure that this standard is maintained by all the examining bodies. This, it was hoped, might lead to a more liberated approach to the style and content of the undergraduate course.

17. In spite of the introduction of the pre-registration year and the relaxation of the statutory requirements imposed upon the curriculum, the perception of what newly qualified doctors should know and be capable of doing has not altered significantly in the eyes either of their teachers and examiners or of those for whom they will work as house officers. There is a persisting drive towards an unrealistic degree of completeness in the curriculum, reinforced no doubt by the understandable reluctance of quasi-autonomous departments to surrender what they see as their entitlement to teaching time and by the laudable if sometimes excessive enthusiasm of teachers for their own subject.

18. In addition to the pre-registration year, all doctors entering the National Health Service are now required to undergo either specialty training under the aegis of the Royal Colleges through their Higher Training Committees or vocational training for general practice supervised by the Joint Committee on Postgraduate Training for General Practice before they may practise independently. A fully comprehensive course may have been desirable in the days before the development of postgraduate training programmes, but there is now good reason

to transfer some of the factual learning previously embodied in the undergraduate course to a later stage.

19. We have discussed in some detail a number of factors which seem to have militated against the adoption of policies repeatedly advocated over the years in the hope that strategies may at last be evolved to counteract them. The medical schools have expressed a clear determination to break the mould and the main thrust of the present Recommendations is towards the facilitation of changes widely accepted as desirable. The broad aim must be to promote the development of a curriculum which corrects the existing faults of overload and didacticism. It must provide the graduate about to embark on a professional career with the capacity and the incentive to acquire and apply new knowledge and with the ability to adapt to changing circumstances, many as yet unforeseen. There must also be a more focused, short-term aim: to equip the new graduate with the necessary knowledge, skills and attitudes to enable him or her to enter the pre-registration period of training with confidence and enthusiasm.

20. The Education Committee has a responsibility, in the interests of the public, to ensure that every newly appointed house officer is capable of fulfilling the requirements of the post. Although the pre-registration year is under the aegis of the universities, house officers are employed by the NHS in directly managed or trust hospitals and occasionally in health centres. They engage in clinical practice, albeit under supervision, and both their patients and their employers are entitled to assume that their provisional registration, granted to them by the General Medical Council, attests to the satisfactory completion of an approved undergraduate course and, by the time of qualification, to a level of competence commensurate with their responsibilities as house officers and meriting the confidence of the public. The Education Committee must satisfy the Privy Council that the requirements embodied in its Recommendations meet these criteria and that they are fulfilled by those who qualify. It meets its obligations through its statutory regulatory powers over the bodies that are recognised for the purposes of granting primary United Kingdom qualifications (see paragraph 35).

21. The Recommendations which follow are designed to promote an approach to medical education and a perspective on its aims which differ substantially from those of the traditional curriculum. Some schools have already moved a long way towards achievement of the goals we envisage; we would urge them to develop further their initiatives and others to follow their example. The undergraduate course of the future will produce graduates whose fitness to practise as pre-registration house officers is better assured, but it will also provide opportunities for greater diversity between schools and between the experiences of individual scholars than has hitherto obtained. Our Recommendations are by design less precise in the detail of their requirements than some of their predecessors. They seek essentially to promote a new framework within which medical schools can move towards achievement of the objectives that we define.

THE COMMITTEE'S RECOMMENDATIONS

A revised curriculum framework

22. Emphasis has been laid on the need to rethink what should be expected of the newly qualified doctor entering the pre-registration year. The level of supervision and the limits of responsibility appropriate to that stage of the doctor's education are set out in the Council's 1992 Recommendations on General Clinical Training. All posts must have formal approval. Although the majority of graduates serve in house posts approved by their own medical schools, this is not invariable. Every graduate must be equipped to serve as a house doctor in any post recognised for pre-registration training.

23. Taking the start of the pre-registration year as the reference point to which the 'professional' component of the undergraduate course is directed, and framing the relevant objectives accordingly, we move towards a curriculum that is no longer all embracing, but containing a core which is more rigorously defined than has been customary. Present day undergraduate courses have their boundaries but they are not explicit. They vary from school to school and they are defined in terms of general objectives and largely uncoded agreements of examiners as to what a student should be expected to know at the time of the final examinations. The Education Committee takes the view that until an attempt is made to circumscribe the requirements of the course in respect of factual quantum, the unconfined overload of the curriculum will prevail and will continue to deny students the educational opportunities to which they are entitled. We therefore recommend the introduction of what we will refer to as a 'core curriculum' (see paragraphs 25-28) which defines the requirements that must be satisfied before a newly qualified doctor can assume the responsibilities of a pre-registration house officer.

24. Whilst it is recommended that the core curriculum should be presented in a way that encourages student-centred learning, the greatest educational opportunities will be afforded by that part of the course which goes beyond the limits of the core, that allows students to study in depth in areas of particular interest to them, that provides them with insights into scientific method and the discipline of research and that engenders an approach to medicine that is constantly questioning and self-critical. This part of the course we refer to in terms of 'special study modules' (see paragraphs 29-32). They are no less important than the core curriculum but they focus not on the immediate requirements of the pre-registration year but on the long term intellectual and attitudinal demands of a professional life that will constantly be challenged by growth of knowledge and change of

* As mentioned in paragraph 22 below, the current arrangements relating to pre-registration training are described in the Council's 1992 Recommendations on General Clinical Training.

* It is recognised that medical schools may adopt a different terminology for this component of the course.

circumstance. If the concept of a core curriculum promotes an increased degree of standardisation of part of the medical course, the special study modules will create that diversity between medical schools and between individual graduates to which we have already referred. They will give scope for variation in educational style and content and will provide opportunity for experimentation in curriculum design. Notwithstanding the narrowing of the core content, the overall consequence will be a widening of the outlets for the expression of individuality and the competitiveness of medical schools.

The core curriculum

25. To define the knowledge, skills and attitudes appropriate to a particular stage in the educational process presents formidable problems but for the medical schools to do so is a necessary step towards achievement of the objective of reducing the curriculum overload. It has already been suggested that the traditional dissociation between the pre-clinical and clinical parts of the undergraduate course has been a significant factor in perpetuating the overload. If a core is to be defined it requires the joint involvement of both basic scientists and clinicians and mutual agreement on the essential components of the course. Furthermore, their deliberations should be moderated by representatives of disciplines not primarily concerned with the subject under consideration and also by those who will be involved with later training at the postgraduate stage. We would indeed encourage the establishment of formal dialogue between the higher training bodies and the medical schools. This becomes increasingly important as we move towards the system of shorter and more structured specialist training recommended in 'Hospital Doctors: Training for the Future'.^{*} The undergraduate course is the first step in the continuum of medical education, laying down the foundation for future professional life, and its coordination with the later stages of training is essential. If a combined approach to curriculum design is to be adopted, courses based on departmental disciplines are likely to be abandoned in favour of those relating to systems of the body or topics of relevance to the overall scope of the course. We strongly favour true integration of the course, both horizontal and vertical, using the term in the sense of interdisciplinary synthesis and not simply coordination or synchronisation of departmentally based components.

26. For each medical school separately to undertake curriculum revision along these lines would represent an onerous task at a time when resources are under pressure. The Education Committee does not itself have the range of expertise to enable it to define core content across all subjects even if it were thought desirable for it to do so. It is, however, promoting the development of core courses relating to particular topics through various institutions and organisations which

^{*} Report of a Working Group on Specialist Medical Training chaired by Dr K. C. Calman (April 1993).

are concerned to improve undergraduate education in their field. They will make their 'model' core curricula generally available so that individual schools can, if they wish, adopt them with such modifications as may be appropriate to their requirements.

27. An important requirement of the core course must be the acquisition of a range of practical skills which every graduate must possess in preparation for house officer responsibilities (see paragraph 20). A necessary part of the assessment of students will be a requirement for them to demonstrate proficiency in these skills. A number of schools have already worked towards agreement as to what the range of skills should be and such an approach is commended.

28. The concept of a core curriculum does imply a degree of uniformity for this component of the course. We do not think it would be right to recommend the development of a 'national core curriculum' since this might promote undesirable rigidity and resistance to change. However, our recommendations presuppose a much greater degree of consensus on core content and required attainment at graduation than has been customary in the past. We have been impressed by the number and variety of excellent educational initiatives that have been developed in individual medical schools in recent years. It is hoped that the practice of sharing of ideas and of learning materials between schools, which at present exists to a limited extent, will become a tradition, both for the betterment of medical education generally and in order to reduce unnecessary duplication of effort.

Special study modules

29. The concepts underlying the introduction of this component of the undergraduate course have already been discussed and we emphasise again the opportunities for diversity of approach in individual schools. Various forms of project work and of elective experience already afford many students the chance to express choice and explore particular interests. Electives provide valuable opportunities for broadening of outlook by involvement in medical systems where needs and the means of tackling them are unfamiliar (occasionally it may be necessary to use periods of elective study to enable students to fill gaps in their experience as a result of absence or substandard performance). We would wish to see electives continue. We also strongly support the continuation of intercalated degree courses which provide excellent opportunities for students to study subjects in depth and to gain research experience, but we believe that experience of this type should be available for all and that it should be a thread running throughout the course rather than confined to a discrete period. Since the special study modules do not have specific professional goals, their scope is limitless. The modules offered will depend on the interests, resources and individual enthusiasms of medical school staff and to some extent on the wider range of opportunities within their universities. It is anticipated that the majority of modules will be based on subjects directly related to medicine, be they laboratory based or clinical, biological or behavioural, research oriented or descriptive, but they need not be

exclusively so. As medical research advances, it will inevitably become increasingly dependent on the ideas and techniques of other disciplines; on mathematics and physics in the elucidation of complex biomedical phenomena; on the social sciences and philosophy in confronting the wide range of cultural, environmental and ethical issues that will increasingly impinge on the problems of health. It is hoped that the student of tomorrow may be drawn towards some of these other disciplines and that opportunities to study, for example, a language or to undertake a project related to literature, or the history of medicine, may be offered.

30. It must be emphasised that there is no intention that students should be able to opt out of any part of the core. Completion of the core syllabus and demonstration of proficiency in its outcomes will be mandatory for all; the core, as its name suggests, will represent a distillate of essential knowledge and skills from all fields of medicine. But freedom of choice in relation to the special study modules will enable students to explore critically and master comprehensively subjects that excite their curiosity. A number of schools already offer opportunities for project work that meet these needs but our recommendation is that a range of such projects should comprise a substantial component of the curriculum and should provide the vehicle for attainment of the educational objectives that we shall enumerate (see paragraphs 38-40).

31. We would not aim to be prescriptive as to the number, type or duration of the special study modules that students will undertake in the course of their undergraduate years. As a general guide we would expect approximately a third of the total undergraduate programme to be devoted to them. We would hope that at all stages of the course students will be engaged in some work outside the core syllabus but schools may wish to set aside blocks of time for special studies. They may also choose to require students to undertake at least one study from each of a number of subject groupings. Many of the subjects chosen will be presented as problems that will provide the stimulus and the opportunity for students, under appropriate guidance and direction, to acquire knowledge through a process of exploration and through their own intellectual efforts.

32. The workload on academic staff represented by the supervision of these modules and the preparation of the materials on which they will be based is not underestimated. Assessment will be an additional but essential burden on staff time for it will be this part of the course that will give the greatest scope for self-expression and the demonstration of outstanding achievement. Bearing in mind this additional workload, it is again hoped that medical schools will share some of their ideas in the development of special studies and make available to one another the learning materials on which many of them will be based.

Learning systems

33. It is unnecessary to comment in detail in these Recommendations

on methods of delivery of undergraduate courses. Medical schools are well aware of the merits of the learner-centred and problem-oriented approaches and are striving towards their adoption, moves which are strongly encouraged. Most are reducing their reliance on the didactic lecture format and are promoting small group learning wherever possible. They are seeking to improve the personal guidance available to individual students on both academic and non-academic matters, a practice that we strongly commend. Some have appointed as members of staff individuals with backgrounds in education, often with experience in staff development, outside the field of medicine; others have obtained help from their University Departments of Education. Such additional expertise can be of great value both in helping students to acquire learning skills and in enabling teachers to respond to the educational demands of a modern curriculum.

34. The new technology now applied to education has substantially increased the scope for self-directed learning. Many imaginative and highly successful programmes have been developed in a variety of forms. Their preparation is, of course, demanding of resources, particularly of staff time, and a consortium approach to the development and distribution of educational packages is to be encouraged. If a system of peer review of such packages were to be developed, the authorship of an important and widely adopted programme might rank with that of a research publication, thus helping to redress the current imbalance in the recognition given to teaching and research achievement. The new technology, including the development of quite sophisticated models, can also provide experience in practical procedures and a number of medical schools are now investing in dedicated skills laboratories.

Regulation of the undergraduate course

35. Reference is made in paragraph 16 to the responsibility for the quality of undergraduate education and its assessment placed on the Education Committee by the Medical Act 1983. We do not interpret this statutory obligation as requiring us to define precisely the curriculum content or to prescribe a detailed syllabus. Nevertheless, in meeting its legal obligations, the Committee must satisfy itself, the General Medical Council, which is responsible for the register attesting to a doctor's fitness to practise in the broadest sense, and ultimately the Privy Council, that the educational arrangements made by each of the bodies entitled under the Act to grant primary United Kingdom qualifications, including the non-university examining bodies, conform to the requirements of these Recommendations. This the Committee may do through powers granted by the Act, which entitle it to obtain such information as it requires about courses of study and examinations, to inspect qualifying examinations and to visit medical schools to assess '...the sufficiency of the instruction given...'. Further reference is made in paragraph 67 to the ways in which the Committee will exercise these powers in the future.

36. While the approach which we are advocating in relation to the core curriculum will lead to a degree of uniformity in this element of the course, by encouraging diversity in the development of the special study modules

we recognise that we must anticipate future generations of graduates with greater variations in their individual experience and expertise than are to be expected today. They will all be well prepared for the start of their pre-registration house officer year, but they will show a significant degree of differentiation in relation to their fields of interest and specialised knowledge.

37. It must be emphasised that the move towards variety of experience in the undergraduate course is not aimed at influencing the time at which career choices are determined. This would be undesirable, and students would rightly resist pressures upon them to decide on their long term future at the undergraduate stage. Interests developed as students will undeniably influence the specialty choice of some; this happens now. But undergraduate and, indeed, postgraduate training programmes must retain sufficient flexibility to permit career choice to be delayed until well after graduation. It is important for careers advice to be available to undergraduates as well as to doctors in training.

38. Reverting to the requirements of the Act, the Education Committee follows the example of its predecessors and sets out its determinations in the form of a series of objectives, which circumscribe a framework on which medical schools will build their curricula. Whilst it is the acquisition of knowledge and skill that is emphasised in the Act, we would regard the development of appropriate attitudes as of equal importance.

Goals and objectives of undergraduate medical education

39. Goals

- (a) The student should acquire a **KNOWLEDGE** and **UNDERSTANDING** of health and its promotion, and of disease, its prevention and management, in the context of the whole individual and his or her place in the family and in society;
- (b) The student should acquire and become proficient in basic clinical **SKILLS**, such as the ability to obtain a patient's history, to undertake a comprehensive physical and mental state examination and interpret the findings, and to demonstrate competence in the performance of a limited number of basic technical procedures;
- (c) The student should acquire and demonstrate **ATTITUDES** necessary for the achievement of high standards of medical practice, both in relation to the provision of care of individuals and populations and to his or her own personal development.

40. Objectives

40.1. Knowledge objectives

At the end of the undergraduate course the student will have acquired

a knowledge and understanding of

- (a) the *sciences basic to medicine*, and
 - (i) the discovery of how knowledge is acquired;
 - (ii) an understanding of research methods;
 - (iii) an ability to evaluate evidence.
- (b) the *range of problems* that are presented to doctors and the *range of solutions* that have been developed for their recognition, investigation, prevention and treatment;
- (c) *diseases* in terms of *processes*, both mental and physical, such as trauma, inflammation, immune response, degeneration, neoplasia, metabolic disturbance and genetic disorder;
- (d) how *disease presents* in patients of all ages, how patients react to illness or to the belief that they are ill, and how illness behaviour varies between social and cultural groups;
- (e) the *environmental and social determinants* of disease, the principles of disease surveillance and the means by which diseases may spread, and the analysis of the burden of disease within the community;
- (f) the principles of *disease prevention and health promotion*;
- (g) the principles of *therapy*, including
 - (i) the management of acute illness;
 - (ii) the actions of drugs, their prescription and their administration;
 - (iii) the care of the chronically ill and the disabled;
 - (iv) rehabilitation, institutional and community care;
 - (v) the amelioration of suffering and the relief of pain;
 - (vi) the care of the dying;
- (h) *reproduction*, including
 - (i) pregnancy and childbirth;
 - (ii) fertility and contraception;
 - (iii) psychological aspects;
- (i) *human relationships*, individual and community;
- (j) the importance of *communication*, both with patients and their relatives and with other professionals, both medical and non-medical, involved in their care;

- (k) ethical and legal issues relevant to the practice of medicine;
- (l) the *organisation, management and provision of health care* both in the community and in hospital, the economic and practical constraints within which it is delivered, and the audit process to monitor its delivery.

40.2. Skills objectives

At the end of the course of undergraduate education the student will have acquired and will have demonstrated his or her proficiency in communication and the other essential skills of medicine, including

- (a) *basic clinical method*, including the ability to
 - (i) obtain and record a comprehensive history;
 - (ii) perform a complete physical examination, and assess the mental state;
 - (iii) interpret the findings obtained from the history and the physical examination;
 - (iv) reach a provisional assessment of patients' problems and formulate with them plans for investigation and management.
- (b) *basic clinical procedures* including
 - (i) Basic and Advanced Life Support;
 - (ii) venepuncture;
 - (iii) insertion of an intravenous line.

[This is a restricted list. Doctors undertaking procedures on patients must at all stages in their careers be fully competent in their performance or be under the close supervision of those so competent. Patients are entitled to expect no less and those employing doctors must have confidence in the adequacy of their training. If practical skills are allowed to lapse they should be reacquired, again under supervision. There is a limit to the number and type of procedures that it is proper for students to undertake on patients, and witnessing or assisting at their performance by others should not be assumed to endow a significant level of competence. The appropriate time for the acquisition of most of the basic practical skills is during the pre-registration year when educational supervisors have responsibility for ensuring the adequacy of training.

The information available to the Education Committee indicates that schools can identify the range of procedures undertaken by their students, but we now recommend that they construct a list of those procedures in each of which they will require all students to have demonstrated competence by the time that they qualify. This list,

which should be compiled in consultation with Postgraduate Deans and higher training bodies, should be known not only to students and their teachers but also to pre-registration house officers, educational supervisors and employers.]

- (c) *basic computing skills* as applied to medicine.

40.3. Attitudinal objectives

At the end of the course of undergraduate medical education the student will have acquired and will demonstrate attitudes essential to the practice of medicine, including

- (a) respect for patients and colleagues that encompasses, without prejudice, diversity of background and opportunity, language, culture and way of life;
- (b) the recognition of patients' rights in all respects, and particularly in regard to confidentiality and informed consent;
- (c) approaches to learning that are based on curiosity and the exploration of knowledge rather than on its passive acquisition, and that will be retained throughout professional life;
- (d) ability to cope with uncertainty;
- (e) awareness of the moral and ethical responsibilities involved in individual patient care and in the provision of care to populations of patients; such awareness must be developed early in the course;
- (f) awareness of the need to ensure that the highest possible quality of patient care must always be provided;
- (g) development of capacity for self-audit and for participation in the peer-review process;
- (h) awareness of personal limitations, a willingness to seek help when necessary, and ability to work effectively as a member of a team;
- (i) willingness to use his or her professional capabilities to contribute to community as well as to individual patient welfare by the practice of preventive medicine and the encouragement of health promotion;
- (j) ability to adapt to change;
- (k) awareness of the need for continuing professional development allied to the process of continuing medical education, in order to ensure that high levels of clinical competence and knowledge are maintained;
- (l) acceptance of the responsibility to contribute as far as possible to the advancement of medical knowledge in order to benefit medical practice and further improve the quality of patient care.

Curriculum themes

41. In pursuing the objectives outlined above, most medical schools will adopt their own particular curriculum design with respect both to core and to special study modules, not forgetting the primary aim of reducing information overload. In relation to the core, we have already referred to what we see as the desirability of interdisciplinary collaboration. Traditional departmental boundaries have already been widely relaxed in the interests of research, encouraged in some schools by Faculty reorganisations aimed at the establishment of coherent, functional groupings. So too in teaching, we are convinced of the advantages of interdisciplinary collaboration in the planning of courses and urge the adoption of integrated systems-based teaching or problem-oriented learning as discussed in paragraphs 25 and 33. Such broadening of the approach to teaching could result in the restructuring of medical schools along lines which might not necessarily distinguish individually all traditional departments.

42. In recognition of the fact that many schools have already revised their curricula along these lines or are in the process of doing so, and in the expectation that others will follow suit, we have avoided all reference to traditional subjects and disciplines in these Recommendations. In urging the advantages of interdisciplinarity, we recognise the complexity of the relationships between subjects and the many and varied dimensions of their linkages. There is thus no single paradigm for the core curriculum that is necessarily superior to others, but there are a number of important themes that should in our view be common to all. We see these themes as relevant to each of the integrated system and topic courses that constitute the core and as permeating all those courses. The themes listed below draw together many of the specific objectives enumerated in paragraphs 38-40.

Clinical method, practical skills and patient care

43. This theme will clearly have relevance to all the integrated courses comprising the core. It embraces every aspect of clinical study. We have already argued a case against the perpetuation of the traditional pre-clinical/clinical divide which we believe has militated against a reduction of the content of the course to reasonable proportions. We now see benefit in students being involved with people outside their peer group right from the beginning of the course. Some schools have developed very successful programmes which bring junior students into contact with families in which a baby is expected or there is an elderly or disabled member. Others have introduced first year students to hospital patients and have encouraged early acquisition of the skills of history taking and examination. One school involves its junior students in community projects which are not necessarily medically orientated.

44. Whilst it will be in the later years of the course that students acquire most of their clinical experience, the success of experiments of the type illustrated above encourages belief in the advantages of early clinical contact. We commend this development and at the same time advocate its corollary, the continuation of a substantial basic science

component into the later years of the course.

45. Clinical teaching must adapt to the changing patterns of patient care in the health service, not simply as an expedient but because education should reflect the realities of modern medicine. Students in future will gain more of their clinical experience in out-patient clinics, in general practice and in community health services than they have in the past. The traditional series of attachments of fixed duration to hospital firms may be replaced by a more broadly based supervisory system which ensures that each student obtains the clinical experience laid down in the curriculum and demonstrates proficiency in the requisite clinical skills.

Communication skills

46. Much timely and effective effort has been devoted in recent years to improvement in skills in communication. Deficiencies in this area are responsible for a high proportion of complaints and misunderstandings. Such skills have particular significance for the relationship between doctor and patient but they are important in other interactions, for example with medical and nursing colleagues. Doctors must be good listeners if they are to understand the problems of their patients and they must be able to provide advice and explanations that are comprehensible to patients and their relatives. Skill in communication is also at the heart of counselling and is an essential ingredient in the establishment of effective teamwork. It is one example of several skills that doctors share with nurses and other health care professionals; in this context, we note the moves towards shared courses in selected areas that are being developed in some schools. Finally, it is to be remembered that the written word is no less important than the spoken; students should be able to demonstrate proficiency in maintaining proper records and an ability to present a good quality written report.

Human biology

47. The term subsumes the organisation and function of the body at molecular, cellular, organ and whole body level. This theme comprehends all the basic medical sciences, the study of which must be extended through the entire course rather than confined to the first two years. It is appropriate to emphasise at this juncture that the curriculum changes that we recommend are intended to strengthen the scientific component of the course and certainly not to weaken it. Advances in medicine are likely to depend increasingly on the understanding of basic mechanisms.

Human disease

48. This refers to abnormal structure and function and embraces the natural history of human diseases, the pathological sciences, the body's defence mechanisms and responses to illness. It will include broad knowledge of the genetic and environmental factors which determine disease.

Man in society

49. Several medical schools have developed courses which include human development and aspects of psychology and sociology relevant to medicine.

Such courses should feature in all curricula and ideally should run throughout the full five years. Relevant to this theme are matters concerning child development, ethnicity, gender, age, and occupation; so too are the impact of psychological factors on health and disease and issues relating to palliation and the care of the dying. Ethics and the legal aspects of medicine will be included under this heading.

The public health

50. The theme of public health medicine must figure prominently in the curricula of the future. The study of diseases in the context of their impact on populations as well as on individuals requires additional dimensions of thought and the deployment of measurement techniques with which the student should be familiar. The assessment of population needs in relation to the provision of services, the targeting of special areas of concern, the influence of environmental and social factors on diseases, the prevention of illness and the promotion of health, will be relevant to many parts of the curriculum and should not be seen by the student as comprising the content of a compartmentalised course.

Handicap, disability and rehabilitation

51. The inclusion of this theme emphasises the importance that should be attached to responses to illness and help towards recovery as well as to the management of chronic disease and disability. It should emphasise the prevention of disability and of relapse and the minimising of residual handicap. It should comprehend both the rights and the needs of those with disabilities, recognising their alternative strengths.

Finding out: research and experiment

52. This is a theme which is qualitatively different from those listed above but nevertheless should permeate all aspects of the course. It embraces such things as an awareness of biological variation, an understanding of the scientific method, including the principles of experimental design, and the development of a facility for obtaining access to knowledge.

Assessment

53. The foregoing Recommendations have major implications for the assessment of students. The aim of correcting the curriculum overload by the introduction of the core and special study module concept would be wholly frustrated if the present examination system were to continue. Its demands are such that to a large extent it determines the learning habits of students and sets their priorities. They are reluctant to afford time to explore areas in which they will not be examined. Moreover, papers in the multiple choice format tend to put a premium on the acquisition of facts at the expense of reasoning and the attainment of the educational goals that we have highlighted. It is essential that assessment systems adequately test the achievement of these goals, and that they reflect the integrated nature of the curriculum.

54. The assessment procedures of the two parts of the course will differ. The core, aimed as it is at equipping the newly qualified doctor to begin the first pre-registration house officer post, must be tested rigorously, in the interests of the public and of the integrity of professional standards. We would recommend the development of a system of progressive assessment that monitors the acquisition and utilisation of core knowledge, that explores attitudes, and that requires certification of the achievement of competence in the skills demanded by the course. Success in satisfying the assessors of the core component of the course must provide an assurance that the graduate is now fit to take responsibility for the care of patients, albeit under supervision. Such a process of progressive assessment as a major determinant of qualification represents a departure from the traditional pattern of the final examination. For the purpose of the Medical Act, the assessments will come within the definition of 'qualifying examinations'. Because of their significance in terms of qualifying, careful monitoring of the achievements of individual students will be necessary. A number of schools have already established effective logbook or computer-based systems for recording student experience and performance; some have built into their systems the collection of data relating to the fulfilment of teaching contracts and the quality of teaching.

55. The assessment of the special study module component of the course will require different, but no less important procedures. Demonstration of satisfactory achievement will be as essential to qualification as will a pass in the core subjects; students should be aware that equal weight will be attached to both. It is likely that assessment of special study modules will provide a means of identifying outstanding achievement and so may assist in decisions on the award of honours and distinctions. Methods of assessment will vary according to the type of study undertaken but will often take the form of a short dissertation. Again we would acknowledge the amount of work that will fall to supervisors and examiners if fair and consistent standards of assessment are to be maintained.

56. The changes in the assessment system described above will require considerable modification of existing roles and practices of both internal and external examiners. Just as there is increasing emphasis on the need to provide teachers with assistance towards improving their skills, so too guidance, if not training, will be required for those who examine in the new system.

Pre-medical education

57. Medical schools admit the majority of their students direct from school although many, rightly in our view, encourage deferment for a year. Most provide a limited number of places for mature students. It is right that opportunities should be afforded to those who decide on a career in medicine after gaining experience in other fields and such entrants often prove to be an asset within the student body.

58. The definition of criteria for the selection of medical students is a matter for individual universities but the Education Committee would like

to encourage the trend towards liberalisation of entry requirements so that students may continue to study a broader range of subjects in their later years at school. It is important that school teachers and careers advisers should be well informed about and able to rely on the criteria for entry laid down by medical schools so that they may advise their pupils with confidence.

59. Medical schools recognise that there is considerable variation in the rate at which young people in the age range with which they are principally concerned mature. Moreover, they do not have the resources for sophisticated or extended selection procedures. They are therefore obliged to rely more heavily on evidence of academic achievement at school than they might wish, especially at a time when there is increasing emphasis on the non-academic attributes that are expected in members of the medical profession. Looking to the future, the possibility of developing a selection procedure that explores some of these attributes and attitudes and that is administered on a consortium basis should not be excluded.

Intercalated and other degrees

60. There is no intention that these Recommendations should reduce the opportunities for students to take intercalated BSc or BMed Sci degrees. They supply extremely valuable additional experience for students, and often provide the initial stimulus for a career in academic medicine. The Education Committee likewise commends the development of MB/PhD courses for a limited number of very able students who are thought to have potential talent for research.

61. The Committee has taken cognisance of the opportunities now available to a minority of students to undertake a six year course of which the first three years are directed towards an honours degree in the basic sciences not restricted to those contemplating a career in medicine. Early reconciliation of this pattern of training with the integrated system advocated in these Recommendations would present obvious difficulties and we have no wish to damage what is educationally effective. However, we see no reason why all schools should not achieve the goals and objectives that we have set or should fail to provide from the beginning of their undergraduate training opportunities for those who are to become doctors to acquire the attributes which we believe to be essential.

62. Under existing systems of selection, and probably unavoidable under any circumstances, there will inevitably be a small number of students admitted to medicine who discover that they have made a wrong career choice. Some, for instance, may be attracted as a result of their studies in the early part of the course to a career as a research scientist. A number of schools have now varied their regulations and made adjustments to their courses to enable such students to obtain a medical science degree at the end of three years. This practice is to be commended.

European Community legislation

63. Article 23 of Council Directive 93/16 of the EEC stipulates that the period of basic medical training for the medical profession shall comprise a six year course or 5,500 hours of theoretical and practical instruction given in a University or under the supervision of a University. The term 'basic medical training' defines the period of training leading up to full registration. In the United Kingdom this includes the pre-registration house officer year which is invariably under the supervision of a University and the requirements of the EC legislation are therefore met. In the case of graduates in science admitted to accelerated courses of medical training, part of their previous undergraduate training may also be regarded as constituting a portion of their basic medical training.

64. The purpose of the above-mentioned Directive is to 'facilitate the free movement of doctors' through the mutual recognition of primary and specialist EC medical qualifications held by EC nationals. The Education Committee would also wish to encourage undergraduate students to gain experience of medicine in other EC member states. It is hoped that medical school curricula will have sufficient flexibility to enable students to participate in ERASMUS and other exchange schemes.

Implementation of recommendations and the role of the General Medical Council

65. These Recommendations seek to address the widely perceived deficiencies in present day undergraduate medical education. The remedies proposed are radical and the effort required to apply them is not underestimated. They are expressed in terms of a series of objectives which may be achieved in a variety of ways and there is no intention to destroy the diversity and flexibility which are characteristic of our medical schools. But change there must be, if the long standing ambitions of the Council and of the schools themselves are to be realised. In our introduction we discussed some of the barriers to change, including the quasi-autonomy of individual departments and the continuation of the pre-clinical/clinical divide which, in a number of schools, we see as inhibiting the development of an integrated faculty-based curriculum. We would urge that thought be given to the possibility of faculty reorganisation along the lines that some schools have already adopted and found to be beneficial both for teaching and research.

66. We also recommend that detailed consideration be given to the systems adopted by schools for the planning and implementation of curriculum changes. It is an essential rule that no teaching course or module should be planned without consideration of its role in the curriculum as a whole; such a rule demands that the working groups designing the changes should be small, but broadly based. It is recommended that there should be adequate junior staff and student representation on committees or other bodies that are responsible for the processes of education. The same considerations should apply in the longer term

when new curricula are in place. They must remain continuously under review if they are to be adaptable to innovation and change and the supervisory structure must accordingly have continuing existence.

67. In paragraphs 16 and 35 we refer to the obligations imposed upon the Education Committee by the 1983 Medical Act and to the powers granted to it to enable it to meet these responsibilities. In times of rapid change in many aspects both of health care and education we see increasing need for vigilance in the fulfilment of our role in the interests of the public. If the Committee is to be accountable, as it must be, for ensuring that the requirements of its Recommendations are met, it must maintain a dialogue with the examining bodies on the basis of which it can form first-hand judgments. During the initial period of implementation, which it now sets at a maximum of five years from the publication of these Recommendations, it will require from medical schools an annual report on progress towards implementation together with copies of all relevant curriculum documents. During the transitional period and beyond the Committee will continue the practice of informal visits which it has already instituted, and it will use its powers of formal visitation should the need arise. It has been customary for the Committee to promulgate its Recommendations about every ten or twelve years, but much can change in the course of a decade. The Committee therefore has in mind to update its Recommendations as and when necessary, and may also issue additional guidance notes.

Conclusion

68. These Recommendations embody many of the principles and objectives set out in the past by our predecessors but we have altered the emphases and have stressed the need for enhancement of attitudes to learning and for acceptance by students of greater responsibility for their own education. We have provided less detail as to the incorporation of individual subjects but have stressed those requirements that we believe to be essential for the doctor engaged in the practice of modern medicine. Above all, we have recommended changes in the style of the undergraduate course in the belief that they will bring about the reduction of the curriculum overload which all are seeking but which has proved so elusive over the years.

PRINCIPAL RECOMMENDATIONS

1. The **burden of factual information** imposed on students in undergraduate medical curricula should be substantially reduced.
2. **Learning** through curiosity, the exploration of knowledge, and the critical evaluation of evidence should be promoted and should ensure a capacity for self-education; the undergraduate course should be seen as the first stage in the continuum of medical education that extends throughout professional life.
3. **Attitudes** of mind and of behaviour that befit a doctor should be inculcated, and should imbue the new graduate with attributes appropriate to his/her future responsibilities to patients, colleagues and society in general.
4. The **essential skills** required by the graduate at the beginning of the pre-registration year must be acquired under supervision, and proficiency in these skills must be rigorously assessed.
5. A '**core curriculum**' encompassing the essential knowledge and skills and the appropriate attitudes to be acquired at the time of graduation should be defined.
6. The 'core curriculum' should be augmented by a series of '**special study modules**' which allow students to study in depth areas of particular interest to them, that provide them with insights into scientific method and the discipline of research, and that engender an approach to medicine that is questioning and self-critical.
7. The 'core curriculum' should be **system-based**, its component parts being the combined responsibility of basic scientists and clinicians **integrating** their contributions to a common purpose, thus eliminating the rigid pre-clinical/clinical divide and the exclusive departmentally based course.
8. There should be emphasis throughout the course on **communication skills** and the other essentials of basic clinical method.
9. The theme of **public health medicine** should figure prominently in the curriculum, encompassing health promotion and illness prevention, assessment and targeting of population needs, and awareness of environmental and social factors in disease.

10. Clinical teaching should adapt to **changing patterns in health care** and should provide experience of primary care and of community medical services as well as of hospital based services.

11. **Learning systems** should be informed by modern educational theory and should draw on the wide range of technological resources available; medical schools should be prepared to share these resources to their mutual advantage.

12. **Systems of assessment** should be adapted to the new style curriculum, should encourage appropriate learning skills and should reduce emphasis on the uncritical acquisition of facts.

13. The design, implementation and continuing review of curricula demand the establishment of effective **supervisory structures** with interdisciplinary membership and adequate representation of junior staff and students.

14. The Education Committee of the General Medical Council should ensure the **implementation of its Recommendations** through regular progress reports from medical schools, continuing dialogue on the basis of informal visits and, when necessary, by the exercise of the statutory powers given to it under the Medical Acts.

Attributes of the independent practitioner

- 1 *The ability to solve clinical and other problems in medical practice, which involves or requires:*
 - (a) an intellectual and temperamental ability to change, to face the unfamiliar and to adapt to change;
 - (b) a capacity for individual, self-directed learning; and
 - (c) reasoning and judgement in the application of knowledge to the analysis and interpretation of data, in defining the nature of a problem, and in planning and implementing a strategy to resolve it.
- 2 *Possession of adequate knowledge and understanding of the general structure and function of the human body and workings of the mind, in health and disease, of their interaction and of the interaction between man and his physical and social environment. This requires:*
 - (a) knowledge of the physical, behavioural, epidemiological and clinical sciences upon which medicine depends;
 - (b) understanding of the aetiology and natural history of diseases;
 - (c) understanding of the impact of both psychological factors upon illness and of illness upon the patient and the patient's family;
 - (d) understanding of the effects of childhood growth and of later ageing upon the individual, the family and the community; and
 - (e) understanding of the social, cultural and environmental factors which contribute to health or illness, and the capacity of medicine to influence them.
- 3 *Possession of consultation skills, which include:*
 - (a) skills in sensitive and effective communication with patients and their families, professional colleagues and local agencies, and the keeping of good medical records;
 - (b) the clinical skills necessary to examine the patient's physical and mental state and to investigate appropriately;
 - (c) the ability to exercise sound clinical judgement to analyse symptoms and physical signs in pathophysiological terms, to establish diagnoses, and to offer advice to the patient taking account of physical, psychological, social and cultural factors; and
 - (d) understanding of the special needs of terminal care.
- 4 *Acquisition of a high standard of knowledge and skills in the doctor's specialty, which include:*
 - (a) understanding of acute illness and of disabling and chronic diseases within that specialty, including their physical, mental and social implications, rehabilitation, pain relief, and the need for support and encouragement; and
 - (b) relevant manual, biochemical, pharmacological, psychological, social and other interventions in acute and chronic illness.

- 5 *Willingness and ability to deal with common medical emergencies and with other illness in an emergency.*
- 6 *The ability to contribute appropriately to the prevention of illness and the promotion of health, which involves:*
 - (a) understanding of the principles, methods and limitations of preventive medicine and health promotion;
 - (b) understanding of the doctor's role in educating patients, families and communities, and in generally promoting good health; and
 - (c) the ability to identify individuals at risk and to take appropriate action.
- 7 *The ability to recognise and analyse ethical problems so as to enable patients, their families, society and the doctor to have proper regard to such problems in reaching decisions; this comprehends:*
 - (a) knowledge of the ethical standards and legal responsibilities of the medical profession;
 - (b) understanding of the impact of medico-social legislation on medical practice; and
 - (c) recognition of the influence upon his or her approach to ethical problems of the doctor's own personality and values.
- 8 *The maintenance of attitudes and conduct appropriate to a high level of professional practice, which includes:*
 - (a) recognition that a blend of scientific and humanitarian approaches is required, involving a critical approach to learning, open-mindedness, compassion, and concern for the dignity of the patient and, where relevant, of the patient's family;
 - (b) recognition that good medical practice depends on partnership between doctor and patient, based upon mutual understanding and trust; the doctor may give advice, but the patient must decide whether or not to accept it;
 - (c) commitment to providing high quality care; awareness of the limitations of the doctor's own knowledge and of existing medical knowledge; recognition of the duty to keep up to date in the doctor's own specialist field and to be aware of developments in others; and
 - (d) willingness to accept review, including self-audit, of the doctor's performance.
- 9 *Mastery of the skills required to work within a team and, where appropriate, assume the responsibilities of team leader, which requires:*
 - (a) recognition of the need for the doctor to collaborate in prevention, diagnosis, treatment and management with other health care professionals and with patients themselves;
 - (b) understanding and appreciation of the roles, responsibilities and skills of nurses and other health care workers; and
 - (c) the ability to lead, guide and co-ordinate the work of others.

- 10 *Acquisition of experience in administration and planning, including:*
 - (a) efficient management of the doctor's own time and professional activities;
 - (b) appropriate use of diagnostic and therapeutic resources, and appreciation of the economic and practical constraints affecting the provision of health care; and
 - (c) willingness to participate, as required, in the work of bodies which advise, plan and assist the development and administration of medical services, such as NHS authorities and trusts*, Royal Colleges and Faculties, and professional associations.
- 11 *Recognition of the opportunities and acceptance of the duty to contribute, when possible, to the advancement of medical knowledge and skill, which entails:*
 - (a) understanding of the contribution of research methods, and interpretation and application of others' research in the doctor's own specialty; and
 - (b) willingness, when appropriate, to contribute to research in the doctor's specialist field, both personally and through encouraging participation by junior colleagues.
- 12 *Recognition of the obligation to teach others, particularly doctors in training, which requires:*
 - (a) acceptance of responsibility for training junior colleagues in the specialty, and for teaching other doctors, medical students, and other health care professionals, when required;
 - (b) recognition that teaching skills are not necessarily innate but can be learned, and willingness to acquire them; and
 - (c) recognition that the example of the teacher is the most powerful influence upon the standards of conduct and practice of every trainee.

* 1993 amendment.

Section 5 of the Medical Act 1983

5.—(1) The Education Committee shall have the general function of promoting high standards of medical education and coordinating all stages of medical education.

(2) For the purpose of discharging that function the Education Committee shall—

(a) determine the extent of the knowledge and skill which is to be required for the granting of primary United Kingdom qualifications and secure that the instruction given in universities in the United Kingdom to persons studying for such qualifications is sufficient to equip them with knowledge and skill of that extent;

(b) determine the standard of proficiency which is to be required from candidates at qualifying examinations and secure the maintenance of that standard; and

(c) determine patterns of experience which may be recognised as suitable for giving to those engaging in such employment as is mentioned in section 10(2) below general clinical training for the purposes of the practice of their profession.

(3) The determinations of the Education Committee under subsection (2) above shall be embodied in recommendations which may be directed to all or any of the universities or other bodies concerned with medical education.

(4) In this Act—

“the prescribed knowledge and skill” means knowledge and skill of the extent for the time being determined under subsection (2)(a) above and embodied in recommendations under subsection (3) above;

“the prescribed standard of proficiency” means the standard of proficiency for the time being determined under subsection (2)(b) above and embodied in recommendations under subsection (3) above;

“a prescribed pattern of experience” means any pattern of experience for the time being determined under subsection (2)(c) above and embodied in recommendations under subsection (3) above.

General
functions of
the Education
Committee in
relation to
medical
education in
the United
Kingdom

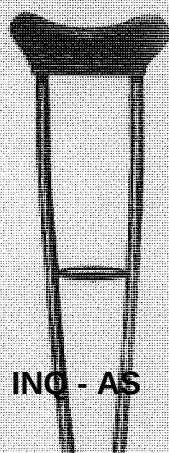
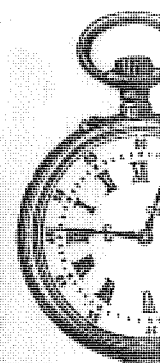
GENERAL MEDICAL COUNCIL
44 Hallam Street • London W1N 6AE

Tomorrow's doctors

Recommendations on undergraduate medical education

GENERAL
MEDICAL
COUNCIL

*Protecting patients,
guiding doctors*



*The duties of a doctor registered
with the General Medical Council*

Patients must be able to trust doctors with their lives and well-being. To justify that trust, we as a profession have a duty to maintain a good standard of practice and care and to show respect for human life. In particular as a doctor you must:

- make the care of your patient your first concern;
- treat every patient politely and considerately;
- respect patients' dignity and privacy;
- listen to patients and respect their views;
- give patients information in a way they can understand;
- respect the rights of patients to be fully involved in decisions about their care;
- keep your professional knowledge and skills up to date;
- recognise the limits of your professional competence;
- be honest and trustworthy;
- respect and protect confidential information;
- make sure that your personal beliefs do not prejudice your patients' care;
- act quickly to protect patients from risk if you have good reason to believe that you or a colleague may not be fit to practise;
- avoid abusing your position as a doctor; and
- work with colleagues in the ways that best serve patients' interests.

In all these matters you must never discriminate unfairly against your patients or colleagues. And you must always be prepared to justify your actions to them.

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Introduction

The undergraduate curriculum is the first stage of medical education. It provides a foundation for future learning and practice as a pre-registration house officer (PRHO) and beyond. Graduates who have gone through this process must be aware of, and meet, the principles of professional practice set out in our publication *Good medical practice* (published in May 2001). These principles make clear to the public the standards of practice and care they should expect.

We first published *Tomorrow's doctors* in 1993. This signalled a significant change in the form of our guidance. Our emphasis moved from gaining knowledge to a learning process that includes the ability to evaluate data as well as to develop skills to interact with patients and colleagues.

Medical schools welcomed our guidance and introduced new, ground-breaking curricula. We carried out a series of informal visits to UK medical schools to monitor their progress in putting our guidance into practice, highlight and share good practice, and identify areas causing difficulty or concern. A valuable part in the process of developing and delivering undergraduate curricula has been the ongoing and developing partnerships between medical schools and the NHS.

We carried out a second round of informal visits between autumn 1998 and spring 2001. We then reviewed progress, considering the strengths and weaknesses of our guidance. This review took account of developments in educational theory and research, and professional practice.

These recommendations, which replace those published in 1993, identify the knowledge, skills, attitudes and behaviour expected of new graduates. They:

- put the principles set out in *Good medical practice* at the centre of undergraduate education;
- make it clear what students will study and be assessed on during undergraduate education;
- make it necessary for all medical schools to set appropriate standards; and
- make necessary rigorous assessments that lead to the award of a primary medical qualification (PMQ).

Our recommendations provide the framework that UK medical schools use to design detailed curricula and schemes of assessment. They also set out the standards that we will use to judge the quality of undergraduate teaching and assessments when we visit medical schools and ask for written information.

The main recommendations

Attitudes and behaviour that are suitable for a doctor must be developed. Students must develop qualities that are appropriate to their future responsibilities to patients, colleagues and society in general.

The **core curriculum** must set out the essential knowledge, skills and attitudes students must have by the time they graduate.

The core curriculum must be supported by a series of **student-selected components** that allow students to study, in depth, areas of particular interest to them.

The core curriculum must be the responsibility of clinicians, basic scientists and medical educationalists working together to **integrate** their contributions and achieve a common purpose.

Factual information must be kept to the essential minimum that students need at this stage of medical education.

Learning opportunities must help students explore knowledge, and evaluate and integrate (bring together) evidence critically. The curriculum must motivate students and help them develop the skills for self-directed learning.

The **essential skills** that graduates need must be gained under supervision. Medical schools must assess students' competence in these skills.

The curriculum must stress the importance of **communication skills** and the other essential skills of medical practice.

The health and safety of the public must be an important part of the curriculum.

Clinical education must reflect the **changing patterns of healthcare** and provide experience in a variety of clinical settings.

Teaching and learning systems must take account of modern educational theory and research, and make use of modern technologies where evidence shows that these are effective.

Schemes of assessment must take account of best practice, support the curriculum, make sure that the intended curricular outcomes are assessed and reward performance appropriately.

When designing a curriculum, putting it into practice and continually reviewing it, medical schools must set up effective **supervisory structures** which use an appropriate range of expertise and knowledge.

Selection, teaching and assessment must be **free from unfair discrimination**.

Curricular outcomes

The principles of professional practice

- 1 The principles of professional practice set out in *Good medical practice* must form the basis of medical education.

Good clinical care

Doctors must practise good standards of clinical care, practise within the limits of their competence, and make sure that patients are not put at unnecessary risk.

Maintaining good medical practice

Doctors must keep up to date with developments in their field and maintain their skills.

Relationships with patients

Doctors must develop and maintain successful relationships with their patients.

Working with colleagues

Doctors must work effectively with colleagues.

Teaching and training

If doctors have teaching responsibilities, they must develop the skills, attitudes and practices of a competent teacher.

Probity

Doctors must be honest.

Health

Doctors must not allow their own health or condition to put patients and others at risk.

- 2 The following curricular outcomes are based on these principles. They set out what is expected of graduates. All curricula must include outcomes that are consistent with those set out over the following pages.

Outcomes

- 3 Graduates must be able to show that they can meet the following outcomes.
- 4 *Good clinical care*
 - a. Know about and understand the following.
 - i. Our guidance on the principles of good medical practice and the standards of competence, care and conduct expected of doctors in the UK.
 - ii. The environment in which medicine is practised in the UK.
 - iii. How errors can happen in practice and the principles of managing risks.
 - b. Know about, understand and be able to apply and integrate the clinical, basic, behavioural and social sciences on which medical practice is based.
 - c. Be able to perform clinical and practical skills safely.
 - d. Demonstrate the following attitudes and behaviour.
 - i. Recognise personal and professional limits, and be willing to ask for help when necessary.
 - ii. Recognise the duty to protect patients and others by taking action if a colleague's health, performance or conduct is putting patients at risk.

5 *Maintaining good medical practice*

- a. Be able to gain, assess, apply and integrate new knowledge and have the ability to adapt to changing circumstances throughout their professional life.
- b. Be willing to take part in continuing professional development to make sure that they maintain high levels of clinical competence and knowledge.
- c. Understand the principles of audit and the importance of using the results of audit to improve practice.
- d. Be willing to respond constructively to the outcome of appraisal, performance review and assessment.

6 *Relationships with patients*

- a. Know about and understand the rights of patients.
- b. Be able to communicate effectively with individuals and groups.
- c. Demonstrate the following attitudes and behaviour.
 - i. Accept the moral and ethical responsibilities involved in providing care to individual patients and communities.
 - ii. Respect patients regardless of their lifestyle, culture, beliefs, race, colour, gender, sexuality, disability, age, or social or economic status.
 - iii. Respect the right of patients to be fully involved in decisions about their care, including the right to refuse treatment or to refuse to take part in teaching or research.
 - iv. Recognise their obligation to understand and deal with patients' healthcare needs by consulting them and, where appropriate, their relatives or carers.

7 *Working with colleagues*

- a. Know about, understand and respect the roles and expertise of other health and social care professionals.
- b. Be able to demonstrate effective teamworking and leadership skills.
- c. Be willing to lead when faced with uncertainty and change.

8 *Teaching and training*

- a. Be able to demonstrate appropriate teaching skills.
- b. Be willing to teach colleagues and to develop their own teaching skills.

9 *Probity* – graduates must demonstrate honesty.

10 *Health* – graduates must be aware of the health hazards of medical practice, the importance of their own health and the effect that their health has on their ability to practise safely and effectively as a doctor.

Curricular content, structure and delivery

Content

- 11 The curriculum must be intellectually challenging and place greater demand on students as they progress. Students should have time for reflection and personal growth, to catch up on elements they have missed because of illness, or other good reasons, and to deal with difficulties in coming to terms with a particular part of the curriculum.
- 12 The following curricular themes set out the knowledge, skills, attitudes and behaviour expected of graduates. It is not a complete guide. Medical schools will need to add to them when they design curricula.

The scientific basis of practice

- 13 Graduates must have a knowledge and understanding of the clinical and basic sciences. They must also understand relevant parts of the behavioural and social sciences, and be able to integrate and critically evaluate evidence from all these sources to provide a firm foundation for medical practice.
- 14 They must know about and understand normal and abnormal structure and function, including the natural history of human diseases, the body's defence mechanisms, disease presentation and responses to illness. This will include an understanding of the genetic, social and environmental factors that determine disease and the response to treatment.
- 15 Graduates must know about biological variation, and have an understanding of scientific methods, including both the technical and ethical principles used when designing experiments.

Treatment

- 16 Graduates must know about and understand the principles of treatment including the following.
 - a. How to evaluate effectiveness against evidence.
 - b. How to take account of patients' own views and beliefs when suggesting treatment options.
 - c. The effective and safe use of medicines as a basis for prescribing, including side effects, harmful interactions, antibiotic resistance and genetic indicators of the appropriateness of drugs.
 - d. Providing surgical and perioperative care.
 - e. Recognising and managing acute illness.
 - f. The care of people with recurrent and chronic illnesses and people with mental or physical disabilities.
 - g. Rehabilitation, and care within institutions and the community.
 - h. Relieving pain and distress.
 - i. Palliative care, including care of the terminally ill.
- 17 They must also know about and understand the role that lifestyle, including diet and nutrition, can play in promoting health and preventing disease.
- 18 They must be aware that many patients are interested in and choose to use a range of alternative and complementary therapies. Graduates must be aware of the existence and range of such therapies, why some patients use them, and how these might affect other types of treatment that patients are receiving.

Clinical and practical skills

- 19 Graduates must be able to do the following safely and effectively.
 - a. Take and record a patient's history, including their family history.
 - b. Perform a full physical examination, and a mental-state examination.
 - c. Interpret the findings from the history, the physical examination, and the mental-state examination.
 - d. Interpret the results of commonly used investigations.
 - e. Make clinical decisions based on the evidence they have gathered.
 - f. Assess a patient's problems and form plans to investigate and manage these, involving patients in the planning process.
 - g. Work out drug dosage and record the outcome accurately.
 - h. Write safe prescriptions for different types of drugs.
 - i. Carry out the following procedures involving veins.
 - i. Venepuncture.
 - ii. Inserting a cannula into peripheral veins.
 - iii. Giving intravenous injections.
 - j. Give intramuscular and subcutaneous injections.
 - k. Carry out arterial blood sampling.
 - l. Perform suturing.
 - m. Demonstrate competence in cardiopulmonary resuscitation and advanced life-support skills.
 - n. Carry out basic respiratory function tests.
 - o. Administer oxygen therapy.
 - p. Use a nebuliser correctly.
 - q. Insert a nasogastric tube.
 - r. Perform bladder catheterisation.

Communication skills

- 20 Graduates must be able to communicate clearly, sensitively and effectively with patients and their relatives, and colleagues from a variety of health and social care professions. Clear communication will help them carry out their various roles, including clinician, team member, team leader and teacher.
- 21 Graduates must know that some individuals use different methods of communication, for example, Deafblind Manual and British Sign Language.
- 22 Graduates must be able to do the following.
 - a. Communicate effectively with individuals regardless of their social, cultural or ethnic backgrounds, or their disabilities.
 - b. Communicate with individuals who cannot speak English, including working with interpreters.

- 23 Students must have opportunities to practise communicating in different ways, including spoken, written and electronic methods. There should also be guidance about how to cope in difficult circumstances. Some examples are listed below.
- Breaking bad news.
 - Dealing with difficult and violent patients.
 - Communicating with people with mental illness, including cases where patients have special difficulties in sharing how they feel and think with doctors.
 - Communicating with and treating patients with severe mental or physical disabilities.
 - Helping vulnerable patients.

Teaching skills

- 24 Graduates must understand the principles of education as they are applied to medicine. They will be familiar with a range of teaching and learning techniques and must recognise their obligation to teach colleagues. They must understand the importance of audit and appraisal in identifying learning needs for themselves and their colleagues.
- 25 Graduates must be able to do the following.
- Identify their own learning needs.
 - Use different techniques to record, organise and present information, including computers and IT resources.
 - Use and evaluate a variety of teaching techniques to communicate information to colleagues.

General skills

- 26 Graduates must be able to do the following.
- Manage their own time and that of others.
 - Prioritise tasks effectively.
 - Reflect on practice, be self-critical and carry out an audit of their own work and that of others.
 - Use research skills to develop greater understanding and to influence their practice.
 - Follow the principles of risk management when they practise.
 - Solve problems.
 - Analyse and use numerical data.
 - Take account of medical ethics when making decisions.

The working environment

- 27 Graduates must understand the working, organisational and economic framework in which medicine is practised in the UK, including:
- the organisation, management, provision and regulation of healthcare; and
 - the structures and functions of the NHS.

- 28 Graduates must be aware of current developments and guiding principles in the NHS, for example:
- patient-centred care;
 - systems of quality assurance such as clinical governance;
 - clinical audit;
 - the significance of health and safety issues in the healthcare setting;
 - risk assessment and management strategies for healthcare professionals; and
 - the importance of working as a team within a multi-professional environment.

Medico-legal and ethical issues

- 29 Graduates must know about and understand the main ethical and legal issues they will come across. For example, how to:
- make sure that patients' rights are protected;
 - maintain confidentiality;
 - deal with issues such as withholding or withdrawing life-prolonging treatment;
 - provide appropriate care for vulnerable patients;
 - respond to patients' complaints about their care;
 - deal appropriately, effectively, and in patients' interests, with problems in the performance, conduct or health of colleagues; and
 - consider the practice of medicine within the context of limited financial resources.
- 30 Graduates must understand the principles of good practice set out in our publication *Seeking patients' consent: the ethical considerations*. These include:
- providing enough information about conditions and possible treatments to allow patients to make informed decisions about their care;
 - responding to questions;
 - knowing who is the most appropriate person to ask for consent;
 - finding out about a patient's ability to make their own decisions and to give their consent; and
 - statutory requirements that may need to be taken into account.

Disability and rehabilitation

- 31 Graduates must know about the following.
- The rights of people with mental or physical disabilities.
 - How the opportunities available to disabled people can be affected by society's view of them.
 - The potential strengths and contribution of such individuals.
- 32 They must also recognise the importance of responses to illness and providing help towards recovery, as well as managing chronic disease and relapse, and reducing or managing impairments, disabilities and handicaps. They must be aware of issues surrounding the needs of parents with children who have mental or physical disabilities.

The health of the public

- 33 Graduates must understand the issues and techniques involved in studying the effect of diseases on communities and individuals, including:
- assessing community needs in relation to how services are provided;
 - genetic, environmental and social causes of, and influences on the prevention of, illness and disease; and
 - the principles of promoting health and preventing disease, including surveillance and screening.

The individual in society

- 34 Graduates must understand the social and cultural environment in which medicine is practised in the UK. They must understand human development and areas of psychology and sociology relevant to medicine, including:
- reproduction;
 - child, adolescent and adult development;
 - cultural background;
 - gender;
 - disability;
 - growing old; and
 - occupation.
- 35 They must understand a range of social and cultural values, and differing views about healthcare and illness. They must be aware of issues such as alcohol and drug abuse, domestic violence and abuse of the vulnerable patient. They must recognise the need to make sure that they are not prejudiced by patients' lifestyle, culture, beliefs, race, colour, gender, sexuality, age, mental or physical disability and social or economic status.
- 36 Graduates must take account of patients' understanding and experience of their condition, and be aware of the psychological effect that this can have on them and their families. This is particularly important when dealing with vulnerable patients, such as:
- children and older people;
 - people with learning disabilities or mental-health problems;
 - patients whose complaints are not easily explained as biological abnormalities or diseases; and
 - patients who are worried about their condition.
- 37 Exploring patients' fears and concerns can help them to understand their condition and to take an active part in decisions about their treatment.

Structure

- 38 The curriculum must have a core and student-selected components (SSCs). The core curriculum must take up most curricular time. We expect that in a standard five-year curriculum between 25% and 33% would normally be available for SSCs.
- 39 Together the core curriculum and SSCs must allow students to meet the curricular outcomes. This will make sure that graduates have the necessary knowledge, skills and attitudes to practise as a PRHO. Medical schools must determine the way in which the curricular outcomes are met.
- 40 SSCs support the core curriculum and must allow students to do the following.
- Learn about and begin to develop and use research skills.
 - Have greater control over their own learning and develop their self-directed learning skills.
 - Study, in depth, topics of particular interest outside the core curriculum.
 - Develop greater confidence in their own skills and abilities.
 - Present the results of their work verbally, visually or in writing.
 - Consider potential career paths.
- 41 At least two thirds of each student's SSCs must be in subjects related to medicine, whether laboratory-based or clinical, biological or behavioural, research-orientated or in humanities related to medicine.

Delivering the curriculum

Supervisory structures

- 42 Medical schools must set up supervisory structures that involve individuals with an appropriate range of expertise and knowledge. Clear lines of authority and responsibility must be set out. This will allow medical schools to plan curricula and associated assessments, put them into practice and review them. Combining educational expertise within a medical education unit can help this process.

Teaching and learning

- 43 Modern educational theory and research must influence teaching and learning. Medical schools should take advantage of new technologies to deliver teaching.
- 44 Every doctor who comes into contact with medical students should recognise the importance of role models in developing appropriate attitudes and behaviour towards patients and colleagues.
- 45 Medical schools must make sure that every person involved in educating medical students has the necessary knowledge, skills and attitudes. Staff-development programmes should promote teaching and assessment skills. All staff should take part in such programmes.
- 46 The quality of teaching must be monitored through a number of different systems, including staff appraisals, student feedback and reviews of teaching by peers.

- 47 Students must have different teaching and learning opportunities that combine an appropriate balance of teaching in large groups with small groups, practical classes and opportunities for self-directed learning. Medical schools should explore and, where appropriate, provide opportunities for students to work and learn with other health and social care professionals. This will help students understand the importance of teamwork in providing care.
- 48 The clinical and basic sciences should be taught in an integrated way throughout the curriculum.
- 49 Clinical education must reflect the changing patterns of healthcare and provide experience in a variety of environments including hospitals, general practices and community medical services.
- 50 From the start, students must have opportunities to interact with people from a range of social, cultural and ethnic backgrounds. This might involve visiting families expecting a baby, visiting an elderly or disabled person, or taking part in community projects that are not necessarily medically related. Such contact with patients encourages students to gain confidence in communicating with a wide range of people, and can help develop their ability to take patients' histories and examine patients. During the later years of the curriculum, students should have the opportunity to become increasingly competent in these skills and in planning patient care.
- 51 Students must be properly prepared for their first day as a PRHO. As well as the induction provided for PRHOs, students should have opportunities to shadow the PRHO in the post that they will take up when they graduate. Such attachments allow students to become familiar with the facilities available, the working environment and to get to know their colleagues. They also provide an opportunity to develop working relationships with the clinical and educational supervisors they will work with in the future.
- 52 These attachments must include opportunities for students to refresh the practical and clinical skills that they will be expected to carry out on their first day as a PRHO. These include the ability to prescribe drugs under the supervision of a qualified doctor and to carry out procedures involving veins.
- 53 Such attachments should normally last at least one week. Students should gain this experience as close to the point of employment as possible.

Learning resources and facilities

- 54 Students must have access to appropriate learning resources and facilities including libraries, computers, lecture theatres and seminar rooms. The quality of facilities should be regularly reviewed to make sure they are still appropriate. Students must be able to comment about the facilities and suggest new resources that should be provided.
- 55 Students must have opportunities to develop and improve their clinical and practical skills in an appropriate environment (where they are supported by teachers) before they use these skills in clinical situations. Skills laboratories and centres provide an excellent setting for such training.

Student selection

- 56 Although student selection is not our direct responsibility, we are interested in making sure that only those who are fit to become doctors are allowed to enter medical school.
- 57 Medical schools should put in place valid, open, objective and fair selection procedures. They should also publish information about the admission system, including guidance about the basis on which places at the medical school will be offered and the selection process. The staff responsible for selecting students should include individuals with a range of expertise and knowledge. All those involved in selecting students should be trained to apply guidelines about entry requirements consistently and fairly. They must also follow current equal opportunities legislation.

Student support, guidance and feedback

- 58 Students must have appropriate support for their academic and general welfare needs at all stages. Medical schools must produce clear information about the support networks available, including named contacts for students with problems. Students taking SSCs that are taught in other departments or by other medical schools, and those on clinical attachments at sites that are not close to the medical school, must have access to adequate support.
- 59 Medical schools must stress to students the importance of looking after their own health, and encourage them to register with a general practitioner. They must tell students about the occupational health services, including counselling, that are available to them.
- 60 Medical schools must give students guidance about the core curriculum, SSCs and how their performance will be assessed. This should include information about practical arrangements for assessments and the medical school's policy on students who cheat in examinations. Students must be able to get academic advice and guidance from identified members of staff if they need it in a particular subject.
- 61 Students must receive regular and consistent information about their development and progress. Clinical logbooks and personal portfolios, which allow students to identify strengths and weaknesses and to focus their learning appropriately, can provide such information. Using these will emphasise the importance of maintaining a portfolio of evidence of achievement, which will be necessary once they have become doctors and their licence to practise is regularly revalidated. Feedback about performance in assessments helps to identify strengths and weaknesses, both in students and in the curriculum, that allow changes to be made.

Assessing student performance and competence

The principles of assessment

- 62 Schemes of assessment must support the curriculum and allow students to prove that they have achieved the curricular outcomes. This means assessments must allow students to demonstrate the breadth and depth of their knowledge, and to show what they can do. Professional attitudes and behaviour must also be assessed.
- 63 Student performance in both the core and SSC parts of the curriculum must be assessed and must contribute to their overall result. Students who have not satisfied the examiners in both parts of the curriculum must not be allowed to graduate.
- 64 Medical schools should use a range of assessment techniques that are appropriate for testing the curricular outcomes. Medical schools should determine the most appropriate scheme of assessment for their curriculum. However, schemes must meet best practice in assessment, and medical schools must be able to provide evidence that the schemes are valid and reliable, and that they have processes for setting standards and making decisions about student performance.
- 65 When students get close to graduating, their knowledge, skills, attitudes and behaviour must be thoroughly assessed to determine their fitness to practise as PRHOs.

Assessment procedures

- 66 Schemes of assessment must be open, fair and meet appropriate standards. Medical schools must make sure that:
 - a. there is a clear indication of how the scheme of assessment deals with all the curricular outcomes;
 - b. there is a clear indication of how individual assessments and examinations contribute to the overall assessment of the curricular outcomes;
 - c. when they design individual examinations and assessments, there is a clear indication of how the targeted curricular outcomes have been met;
 - d. students have clear guidance about what is expected of them in any examination or assessment;
 - e. examiners are trained to carry out their role and to apply the medical school's assessment criteria consistently;
 - f. examiners have clear guidelines for marking assessments, which indicate how performance against targeted curricular outcomes should be rewarded;
 - g. systems are in place to determine the pass mark; and
 - h. external examiners are employed to make sure that standards are met.

Appraisal

- 67 Students must receive regular, structured and constructive appraisal from their teachers during the mainly clinical years of the curriculum. This allows the medical school to judge their clinical knowledge and competence against the principles set out in *Good medical practice*.
- 68 It provides students with information about their progress and performance, allowing them to deal with any areas of concern. This will also help students prepare for the regular appraisal of their performance that will take place once they are qualified.

Student progress

- 69 A small number of students may discover that they have made a wrong career choice. Medical schools must make sure that these students, whose academic and non-academic performance is not in question, are able to gain an alternative degree at the end of three years, or are able to transfer to another degree course.
- 70 Only those students who are fit to practise as doctors should be allowed to complete the curriculum and gain provisional registration. Students who do not meet the necessary standards in terms of demonstrating appropriate knowledge, skills, attitudes and behaviour must be advised of alternative careers to follow.
- 71 Medical schools must have robust and fair procedures, including an appeals process, to deal with students who are causing concern on academic and non-academic grounds, such as ill health or poor conduct. The arrangements for dealing with students and PRHOs must be consistent. This will help to manage the transition from student to PRHO.
- 72 These procedures will vary depending on each medical school's statutes and individual circumstances. Medical schools themselves will have to determine the most appropriate form of these procedures. However, Universities UK and the Council of Heads of Medical Schools have produced helpful guidance about setting up fitness-to-practise procedures that may be useful for medical schools.
- 73 Medical schools should tell students about these procedures so that they understand their rights and obligations.

Student health and conduct

General principles

- 74 We, the universities and the NHS all have different roles in medical education. We have statutory responsibility for setting standards for protecting the public. Universities are responsible for selecting students into their medical schools and for providing a curriculum that will deliver the learning outcomes that we set. NHS acute trusts and primary care organisations are responsible for making available the facilities and practical support necessary for delivering the clinical parts of the curriculum.
- 75 We have no direct statutory role in matters of student health and conduct. However, the award of a medical degree automatically entitles the graduate to be provisionally registered by us and to practise under supervision as a doctor. As a result, we have a strong interest. The purpose of this guidance is to provide help to universities and medical students in dealing with matters of health or conduct.
- 76 As long as they meet a university's regulations, anyone can graduate provided that they meet all the outcomes and curriculum requirements in these recommendations. Our view is that students with a wide range of disabilities or health conditions can achieve the set standards of knowledge, skills, attitudes and behaviour. Each case is different and has to be viewed on its merits. The safety of the public must always take priority.

Confidentiality for medical students

- 77 It is important that medical students who have problems with physical or mental health, or drug or alcohol misuse, are encouraged to get appropriate help so that they might receive informed advice and support, including adapted training. Medical students who are ill have the same right to confidentiality as other patients.
- 78 Doctors providing medical care for students should follow the guidance in *Confidentiality: protecting and providing information*. Passing on personal information without permission may be justified where failure to do so may result in death or serious harm. Doctors should not pass on information without the student's permission, unless the risk to patients is so serious that it outweighs the student's rights to privacy. They must remember that students will be in close contact with patients from an early stage of their training.
- 79 Doctors providing medical care for students should consult an experienced colleague or get advice from a professional organisation if they are not sure whether passing on information without a medical student's permission is justified.

The responsibility of medical students to protect patients

- 80 *Good medical practice* requires doctors to take responsibility for their own health in the interests of public safety. Medical students should also follow this guidance. If a student knows that he or she has a serious condition which could be passed on to patients, or that their judgement or performance could be significantly affected by a condition or illness (or its treatment), they must take and follow advice from a consultant in occupational health or from another suitably qualified doctor on whether, and in what ways, their clinical contact with patients should be altered. Students should not rely on their own assessment of the risk to patients.
- 81 Guidance on infectious risk is set out in more detail in our document *Serious communicable diseases*, which medical students and universities should also follow.

The responsibility of other doctors to protect patients

- 82 All those who teach, supervise, counsel, employ or work with medical students have a responsibility to protect patients if they have concerns about a student. Where there are serious concerns about a medical student's performance, health or conduct, it is essential that steps are taken without delay to investigate the concerns to identify whether they are well-founded and to protect patients.

The responsibility of universities to protect patients

- 83 Universities have a duty to make sure that no member of the public is harmed as a result of taking part in the training of their medical students. Medical students cannot complete the undergraduate curriculum without coming into close, and sometimes intimate, contact with members of the public who may be vulnerable or distressed. The vocational part of their training, which prepares them for clinical practice when they become registered doctors, is such that they may not be directly observed or supervised during all contact with the public, whether in hospitals, in general practice or in the community.
- 84 By awarding a medical degree, a university is confirming that the graduate is fit to practise as a PRHO to the high standards that we have set in our guidance to the medical profession, *Good medical practice*.
- 85 Universities must have procedures to:
- identify (as early as possible) medical students whose conduct gives serious cause for concern or whose health is affected to such a degree that it could harm the public;
 - provide those students with appropriate support; and
 - make sure that if students are still a risk to patients they are not allowed to graduate with a medical degree.

Putting the recommendations into practice

- 86 The Education Committee is responsible for making sure that UK medical schools put these recommendations into practice when designing curricula and associated assessments. It will do so within the statutory framework and responsibilities set out in the following pages.

What the law says about undergraduate education

UK law

- 87 The powers and duties of our Education Committee under Part II of the Medical Act 1983 (as amended) are set out below.
- 88 Graduates who hold a UK PMQ are entitled to provisional registration. We have no say in this matter.
- 89 Provisional registration allows graduates to work under supervision as a PRHO. Our guidance in *The new doctor* (published 1997) describes the requirements for this period of training, as well as the experience needed for full registration.
- 90 UK PMQs include degrees of Bachelor of Medicine and Bachelor of Surgery awarded by the universities listed in Section 4 of the Medical Act 1983, and the Licentiates in Medicine and Surgery awarded by the Royal Colleges of Physicians and Surgeons in the UK, and the Society of Apothecaries. These are the organisations that may hold qualifying examinations, either alone or in combinations set out in the Act, or as otherwise approved by the Education Committee.

European Union law

- 91 European Council Directive 93/16 allows European Union (EU) nationals who hold an EU PMQ or specialist qualification to practise as doctors anywhere in the EU.
- 92 Article 23 of the Directive says the period of basic medical training must be at least a six-year course or 5,500 hours of theoretical and practical instruction given in a university or under the supervision of a university. 'Basic medical training' is the period leading up to full registration.
- 93 Before being awarded a PMQ that allows them to practise, the EU Medical Directive says a student must have the following.
- "Adequate knowledge of the sciences on which medicine is based and a good understanding of the scientific methods including the principles of measuring biological functions, the evaluation of scientifically established facts and the analysis of data."
 - "Sufficient understanding of the structure, functions and behaviour of healthy and sick persons, as well as relations between the state of health and physical and social surroundings of the human being."
 - "Adequate knowledge of clinical disciplines and practices, providing the student with a coherent picture of mental and physical diseases, of medicine from the points of view of prophylaxis, diagnosis and therapy and human reproduction"
 - "Suitable clinical experience in hospitals under appropriate supervision."

These quotes have been taken from EU Council Directive 93/16 of April 1993, article 23, paragraph 1.

Responsibility for undergraduate education in the UK

The GMC

- 94 We are responsible for the following.
- Deciding the knowledge, skills and attitudes graduates need.
 - Making sure (through written enquiries and on-site visits) that the teaching and learning opportunities provided allow students to meet our requirements.
 - Setting the standard of expertise that students need to achieve at qualifying examinations or assessments.
 - Making sure (through written enquiries and on-site inspections) that the standard of expertise we have set is maintained by the medical schools at qualifying examinations.
 - Appointing inspectors of qualifying examinations and assessments, and visitors to medical schools and possible medical schools, to report on the standard of examinations and assessments and on the quality of teaching and learning.
 - In the light of the outcome of visits and inspections, recommending to the Privy Council to recognise, continue to recognise or no longer recognise individual UK PMQs.
 - Giving EU nationals with appropriate medical degrees provisional registration. This allows them to work as a PRHO in the UK and to gain the clinical experience needed for an EU PMQ.
 - Considering applications under Section 10 (4) of the Medical Act 1983 (see paragraph 97g on page 20).

The medical schools

- 95 Medical schools must follow these recommendations, and the requirements of the EU Medical Directive, when designing and putting into practice curricula and associated assessments.
- 96 Medical schools have a responsibility to the public, to employers and to the profession to make sure that graduates are fit to practise. When a medical school awards a PMQ, it is confirming to us that each graduate has completed, in full, a curriculum that meets our guidance and the requirements of the Medical Act and of the Directive.

97 The particular duties of medical schools include the following.

- a. Selecting students, taking account of the qualities needed in a doctor, as set out in *Good medical practice*, and getting advice from the UK Health Departments on matters that may affect a doctor's eligibility for professional practice.
- b. Giving us information that we have asked for on their arrangements for educating and assessing students, and any other matters broadly relating to the curriculum or the qualifying examinations (or both).
- c. Assisting the work of Education Committee inspectors or visitors appointed under Sections 6 and 7 of the Medical Act 1983.
- d. Making sure that (under the European Primary Medical Qualifications Regulations) degree certificates or other evidence of award of a UK PMQ make it clear whether students have spent more than 12 months of their training outside the EU.
- e. Making sure that teachers, trainers and clinical supervisors, as well as those who assess student performance, understand and put into practice the guidance contained in these recommendations and in our publication *The doctor as teacher*, and are provided with the training necessary to carry out their role.
- f. Setting up appropriate systems to plan, put into practice and continually review curricular changes.
- g. Applying to us under Section 10 (4) of the Medical Act 1983 for approval of an alternative pattern of PRHO experience for any doctor who is prevented (by a lasting physical disability) from starting on, or completing, some of the experience needed for full registration.

The UK Health Departments

- 98 The Health Departments should make sure that NHS organisations work with medical schools so that students receive appropriate clinical training.
- 99 The Health Departments have a duty to make facilities in NHS hospitals and other premises available for students to receive clinical training.
- 100 The Health Departments are also responsible for deciding how students may have access to patients on NHS premises.

The responsibilities of doctors

- 101 All doctors must follow the principles of professional practice that are set out in *Good medical practice*.
- 102 All doctors should be willing to contribute to the education of students.
- 103 Doctors with particular responsibility for teaching students must develop the skills, attitudes and practices of a competent teacher. They must also make sure that students are properly supervised.
- 104 Doctors must be honest and objective when appraising or assessing the performance of students, including those they have supervised or trained. Patients may be put at risk if a doctor describes as competent any student who has not reached or maintained a satisfactory standard of practice.

The responsibilities of students

- 105 Students must accept responsibility for their own learning, including achieving the curricular outcomes in this guidance.
- 106 As future doctors, students should follow the guidance in *Good medical practice* from their first day of study, and understand the consequences if they fail to do so. In particular, students must appreciate the importance of protecting patients, even if this conflicts with their interests or those of friends or colleagues. If students have concerns about patient safety, they must report these to their medical school.
- 107 Students must follow the guidance issued by the UK Health Departments and other organisations about their access to patients in NHS hospitals and community settings. They should also be aware of any departmental guidance for healthcare workers, which may have an affect on their practice once they have gained registration.
- 108 Students must be aware that under Section 49 of the Medical Act 1983 it is an offence for anyone who is not a registered doctor to pretend to be a qualified doctor.

Glossary

Appraisal	A positive process to provide feedback on the student's performance, chart their continuing progress, and to identify their development needs.
Biological variation	Any difference between cells, individuals or groups of individuals of any species.
Curriculum	A detailed schedule of the teaching and learning opportunities that will be provided. This includes the core curriculum and the student-selected components.
Integrated teaching	A system where the clinical and basic sciences are taught and learned together. This allows students to see how scientific knowledge and clinical experience are combined to support good medical practice.
Medical school	The universities and non-university organisations that are legally entitled to hold an examination for the purpose of granting a PMQ. Universities also run degree courses.
Perioperative care	The care given to a patient in preparation for, during, and while recovering from, surgery.
Primary medical qualification (PMQ)	A first medical degree awarded by a UK medical school.
Revalidation	The regular demonstration by doctors that they are up to date, and fit to practise medicine.
Scheme of assessment	The examinations and assessments that make sure all students have successfully achieved and demonstrated the knowledge, skills, attitudes and behaviour set out in the curriculum.
Scientific method	A rational approach to explain natural events and processes by formulating, testing and modifying a hypothesis.
Self-directed learning	A process in which students are responsible for organising and managing their own learning activities and needs.
Student-selected components (SSCs)	Parts of the curriculum that allow students to choose what they want to study. These components may also offer flexibility concerning how, where and when study will take place.

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Useful GMC contacts

Checking a doctor's registration

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Fax 020 7915 3558
E-mail registrationhelp@gmc-uk.org

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Phone 020 7915 3507
Fax 020 7915 3685
E-mail publications@gmc-uk.org

The GMC and medical education

Phone 020 7915 3493
Fax 020 7915 3599
E-mail education@gmc-uk.org

Fitness to practise enquiries

Phone 020 7915 3603
Fax 020 7915 3642
E-mail practise@gmc-uk.org

Health procedures

Phone 020 7915 3580
Fax 020 7915 3680
E-mail health@gmc-uk.org

Performance procedures

Phone 020 7915 3667
Fax 020 7915 3680
E-mail performance@gmc-uk.org

Inquiries about standards and ethics

Phone 020 7915 3568
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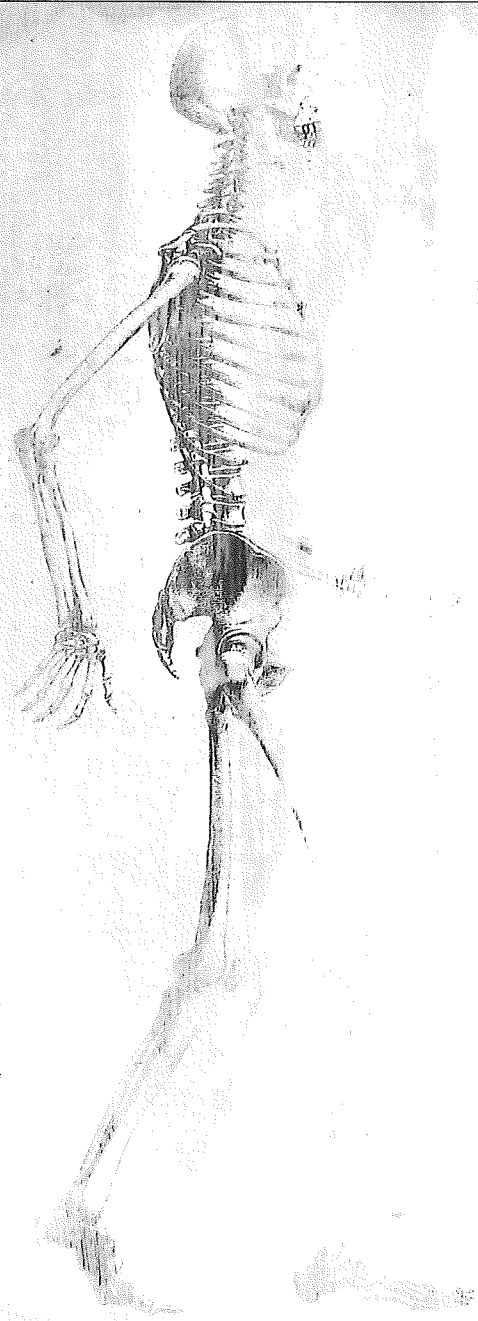
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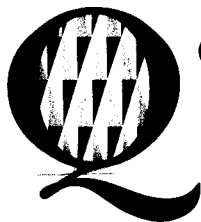
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rjh/mm

7 July 2005

Ms F Chamberlain
Solicitor to the Inquiry
The Inquiry into Hyponatraemia-related Deaths
3rd Floor
20 Adelaide Street
BELFAST
BT2 8GB



Dear Ms Chamberlain

Inquiry into Hyponatraemia-related Deaths

Further to my recent response to your letter the following information was gathered with the help of colleagues in the School of Medicine in Renal Medicine and Paediatrics in particular.

- 1. To what extent was teaching/training in Northern Ireland provided to medical students in fluid management and hyponatraemia in the 20 years prior to 1995 both as part of their qualification and continuous professional development?**

The principles of fluid and electrolyte physiology would have been introduced in pre-clinical lectures in year 1 delivered by the Department of Physiology. From 1988 to 1997 there was a lecture course in clinical biochemistry in year 2 and year 3 with an MCQ assessment at end of year 3 (an online study guide can still be found at <http://www.qub.ac.uk/cm/cb/text/studguide/index.htm>)

These lectures would have dealt with general principles but would not have equipped a medical graduate with detailed knowledge of how to manage the variety of clinical presentations of hyponatraemia. The clinical management of fluid and electrolyte disorders is part of postgraduate medical education ie after qualification and would form a component of the curriculum for higher professional qualifications e.g. MRCP (medicine), FRCS (surgery), FRCA (anaesthetics), MRCP (Paeds) (paediatrics).

- 2. How was the subject incorporated within the teaching/training provided to medical students?**

The principles of fluid and electrolyte physiology are introduced in pre-clinical lectures in year 1 delivered by the Department of Physiology. In year 2 and 3, from 1988-1997, a lecture course in clinical biochemistry included teaching on fluid and electrolyte balance. General principles of fluid balance (matching fluid and electrolyte intake with fluid and electrolyte output) would have

been covered during surgical and medical attachments in clinical years 3, 4 and 5. Detailed tuition in the clinical management of all the situations that may be associated with hyponatraemia would unlikely to have been considered in great detail at undergraduate medical student level.

3. How did the teaching/training in this area in Northern Ireland at that time compare with the rest of the United Kingdom?

The General Medical Council reviews in detail and on a regular basis medical school curricula throughout the United Kingdom. The teaching/training in this area in Northern Ireland is comparable with the rest of the United Kingdom.

4. Have there been any changes since 1995 to the education of medical students in fluid management and hyponatraemia, if so, when did the changes take place, for what reason and how did the changes in teaching manifest themselves in the content of education provided to medical students in Northern Ireland?

Basic principles of fluid and electrolyte balance continue to be taught in year 1 by physiologists. The basic medical curriculum was revised in line with GMC guidelines. In addition to formal lectures there are smaller group tutorials in year 1 that cover some physiological aspects of fluid and electrolyte balance. A year 1 student would not have sufficient knowledge to manage hyponatremia in a clinical setting.

In year 3 students spend a one week clinical attachment in nephrology and receive some instruction on fluid management in relation to patients with kidney diseases. In year 4 during an attachment to maternal and child health, students receive limited instruction in fluid and electrolyte balance for children. This is not covered in detail since only senior house officers (not pre-registration house officers i.e. new medical graduates) can work in paediatrics. However there is a publication developed for hospital staff at the Royal Belfast Hospital for Sick Children called Paediatric Medical Guidelines and this has been included in the study guides for undergraduate students in recent years. There is a section on hydration and prescribing fluids.

In year 5 there is a compulsory fluid and electrolyte revision class for students that has been running since 2000. All 4 clinical cases, which make up the teaching material for this seminar, have abnormal sodium concentrations (3 feature hyponatraemia and 1 features hypernatraemia).

These changes to the curriculum were part of an overall re-structuring of medical education introduced nationally on the advice of the General Medical Council with stated aims of reducing the factual overload of undergraduate medical students. The reduction in core course content is supplemented by increased student choice of student-selected components (SSCs) of medical education. Teaching of the basic principles of fluid and electrolyte balance remains part of the core medical curriculum.

Pre-registration house officers (recent medical graduates) will not have sufficient clinical expertise to manage all situations in which hyponatremia might emerge. The management of such clinical situations is often complex requiring detailed input from more senior colleagues.

5. How have medical students been educated in the need for accurate and contemporaneous record keeping on patient files in the 20 years prior to 1995.

This would have been part of standard clinical clerkships, ie medical students would have been encouraged to keep accurate and contemporaneous notes whilst on clinical placements. This would have been reinforced by case histories submitted for assessments detailing medical history, examination findings, proposed investigations, possible diagnoses and initial

management plans. Tutors would assess case histories with written and verbal feedback provided.

6. **To what extent has the education provided to medical students of the importance of record keeping and record keeping techniques changed since 1995 and for what reason have those changes been made?**

The importance of record keeping remains a key communication skill reinforced in clinical clerkships.

Is there a system in place whereby lessons may be learned from inquests and untoward deaths in Northern Ireland and in the rest of the United Kingdom so that such lessons may be incorporated into the education of medical students? If such a system exists please provide details

There is no formal system whereby lessons learned from inquests and untoward deaths in Northern Ireland and in the rest of the United Kingdom are incorporated into the education of medical students. Nevertheless the Clinical Resource Efficiency Support Team (CREST) has reviewed important subjects, such as the management of hyponatraemia in adults (<http://www.crestni.org.uk>). Clinical guidelines regarding hyponatraemia have been widely disseminated in Northern Ireland by the DHSSPSNI from 2003. The medical school had already initiated fluid and electrolyte revision classes (including cases of hyponatraemia) for final year students from 2000. This teaching aims to consolidate basic principles taught to students in their earlier undergraduate years. In general however the learning environment in Medicine leads to the incorporation of contemporary issues in practice as exemplars in the curriculum or a review of lessons to be learned from these issues. For instance MMR immunization and MRSA are both used as such examples. The human organs inquiry led to a review of the teaching of consent within the undergraduate medical course.

I hope this information is useful to the enquiry but if you need anything further, please let me know.

Yours sincerely

A handwritten signature in black ink, appearing to be 'R J Hay', with a long horizontal flourish extending to the right.

Professor R J Hay, Dean