The Inquiry into Hyponatraemia-related Deaths

CHRONOLOGY OF NURSE EDUCATION IN NORTHERN IRELAND

Comparisons with U.K. Mainland and Republic of Ireland

1975 to date

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PERSONAL INFORMATION

I qualified as a registered general nurse in 1965 and registered mental nurse in 1967. My academic qualifications comprise Registered Clinical Instructor (RCI) 1972, Registered Nurse Tutor 1975, BA Degree 1984 and Master Degree 1994. My employment history includes posts of Clinical Instructor, Nurse Tutor, Senior Tutor, Assistant Director of Nurse Education at the Southern Area College of Nursing in 1991 and Acting Director in 1994. In 1996, I became Director of Nurse Education at the Eastern Area College of Nursing, before becoming Director of Nursing & Midwifery Education at the Beeches Management Centre, from 1997 to 2007.

Professional recognition includes: Visiting Professor at University of Ulster 1992, CBE 1993 and Outstanding Contribution to Nursing awarded by Royal College of Nursing 2006.

I served on the United Kingdom Central Council, and subsequently the Nursing and Midwifery Council, from 1990-2006, and was elected Vice President from 1998-2002. I have been a chair and/or member of a number of Committees and Working Groups within Northern Ireland focusing on the education and training of nurses and I have previously provided expert witness advice on Nursing Care and Practice in High Court litigation.

STATEMENT

The information contained in the Report, is to the best of my knowledge, true at the time of writing.

Signed .....

Professor M B Hanratty CBE MSc RGN

INTRODUCTION

This report has been prepared in response to a request to provide all available documentary evidence in relation to curriculum content, training and continuing professional development of nurses in Northern Ireland on the themes of Fluid Management and Record Keeping. The period under consideration is from 1975 until the present day.

The second part of this request is to draw comparisons with how these topics are handled in other jurisdictions to include England, Scotland, Wales and the Republic of Ireland. The report covers all aspects of pre and post registration education, enrolled nurse conversion courses, overseas adaptation programmes and return to practice programmes.

Context

This report on nurse education has to be considered in the context of a continuously changing health care environment. Factors to be considered include:

- Increased technology usage
- Advanced medical knowledge
- An increase in medical and surgical specialists
- More knowledgeable consumers of health care
- Increased third level education and professional opportunities for school leavers
- A reduction in working hours
- An introduction of family friendly policies resulting in more part-time opportunities for working mothers
- The growth of other professional groups in health care (including physiotherapists and speech therapists) who have came through a higher

education system, thereby placing increased pressure on health departments to afford nursing students similar academic opportunities rather than training through the apprenticeship model.

Another significant factor that has affected the nursing profession is the clinical grading that occurred in the late 1980s. When clinical grading was introduced, there was an understanding that newly qualified staff nurses would receive a 'D' grade and would be elevated to an 'E' grade after a 2-year period. In practice this promotion did not happen creating disillusionment within the profession which resulted in many leaving the workforce either to travel or take up other positions. This information is borne out by two sources - the nursing register held by the UK regulatory body and workforce planners.

A knock on effect of this was the increased attrition rates among students. The introduction of P2000 programmes meant that employers could no longer depend on students as pairs of hands or to be counted in the staffing numbers. The decision by government was that employers would be funded to replace the students with 50% qualified staff and 50% auxiliary staff.

HISTORY OF NURSING LEGISLATION: AN OVERVIEW[1]

Medical registration commenced in 1858[2] and many observers pointed to the need for a similar system for nursing[3]. The First World War provided the impetus to the establishment of nursing regulation and it became a reality in December 1919[4]. Separate Nurses Registration Acts were passed for England/Wales, Scotland and Ireland (still one country at the time). These acts established the Nursing Councils, which survived in all the countries until 1979[5] except Northern Ireland where the 1970 Nurses and Midwives Act were established.

[1] Rivett G, *National Health Service History*, Chapter 4: 1978-87, Chapter 5: 1988-97, Chapter: 6 1988-2007
[2] Medical Act 1858
[3] Nursing Record, 1858
[4] Nurses Registration Act 1919, Nurses Registration Act (Scotland 1919), Nurses Registration Act (Ireland) 1919
[5] Nurses, Midwives and Health Visitors Act 1979

The Nurses and Midwives Act (Northern Ireland 1970)

The Nurses and Midwives Act (Northern Ireland) 1970 "made provision for the training of nurses and midwives; to revise the law for the regulation of those professions; and for connected purposes."[6] The Act set out the legislative framework for the training of students of nursing and midwifery in Northern Ireland. It also required the establishment of the Northern Ireland Council for Nurses and Midwives[7], Group Schools of Nursing in each Health and Social Care Board and one School of Midwifery situated in Belfast.[8] The Act required the newly formed Council to create and maintain a register for all qualified nurses and midwives living and working in Northern Ireland[9].

In September 1973, new training programmes were commenced for student nurses that complied with the requirements set out in section 7 of the Act:

7. (1) Subject to the provisions of this Act, the Council shall provide training for persons accepted by it for training as nurses or midwives.

i. The Council may make rules specifying –

(a) the educational standards required for the admission to training schools of persons accepted for training as nurses or midwives;

(b) the maximum number of persons who may at any time be undergoing at such training schools.

(c) the training to be undergone and the experience to be obtained by persons accepted for training as nurses or midwives.

ii. In selecting the persons accepted for training as nurses or midwives the Council shall have regard to the needs of employers of registered and enrolled nurses or midwives in Northern Ireland and shall consult them through the Liaison Committee.

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[6] The Nurses and Midwives Act (Northern Ireland) 1970, preamble
[7] *ibid.*, s.1
[8] *ibid.*, s.16
[9] *ibid.*, s.17

The Act also gives guidance on the employment status of students at that time at section 8:

8. *The Authority shall:*
   1. *employ, for the period of the person's training as a nurse or midwife, any person accepted by the Council for training as nurse or midwife*
   2. *in assigning duties to any such person during that period, comply with any programme of training specified by the Council*

1973 Modular Training Programme

In 1973, and based on the 1970 Act, a new modular approach to training known as the 'Experimental Scheme' was introduced. All students would pursue the same planned programme for their first year of training. In years two and three, training concentrated on learning to care for either adults or children, depending on the registration qualification chosen. Following successful completion of one programme, the student could complete the second qualification as a post registration within nine months. The benefit of this approach was that a nurse obtained two qualifications in three years and nine months compared almost five years previously.

The curriculum was delivered as a three-year programme and all E.E.C. Directives requirements were included. The students were full-time employees and spent 80% of the course in the clinical areas. There was a statutory requirement that students would spend a minimum of 8 weeks on night-duty. Examinations consisted of theory and practical components and were set centrally by the Council. The written examination consisted of two parts; each at the end of years one and three.

The Northern Ireland Council for Nursing and Midwifery also introduced four compulsory assessments over the three years and two during the nine-month post

registration programme[10]. The assessments tested the student's ability to administer medicines safely, dress patient's wounds using aseptic technique, attend to the total nursing needs of a patient and manage the total care of a group of patients during a shift.

Each student was given a 'Record of Clinical Experience' at the commencement of his or her clinical experience. This document was produced by the Council. During each period of clinical experience, the ward manager was required to ensure that the student engaged in a variety of patient care procedures and these were ticked off in the Record.

The 'Record of Practical Instruction and Experience for the Certificate of General Nursing' contains an extensive list of nursing procedures that the student must perform under supervision and be signed by the supervisor[11]. There was a similar document for mental health, mental handicap and children's nursing students. One is included as an appendix.

This was the first occasion in which programmes were organised into six by six-monthly learning units with two-week theory sessions prior to and following clinical placements. Another first was the introduction of practice-based assessments of students undertaken in the presence of patients. Council officers managed the written component of the examination centrally and appointed examiners marked the papers.

[10] Northern Ireland Council for Nurses and Midwives, *Syllabus of Subjects for Examination and Record of Practical Instruction and Experience for the Certificate of General Nursing*, 1973 pages 4,5,6,8 &11
[11] General Nursing Council For England And Wales, *Record of Practical Instruction and Experience for the Certificate of General Nursing*, 1973

E.E.C. Nursing Directives and Their Impact On Member States[12]

Following the issuing of E.E.C. Directives 77/452/EEC and 77/453/EEC in 1977, Member States were obliged to implement into national law mutual recognition of professional qualifications in nursing and midwifery. Directive 77/452/EEC describes the titles and qualification that are deemed to be in harmony with minimum E.E.C. standards. Directive 77/453/EEC describes the nature and content of the minimum acceptable training programme.

As members of the E.E.C. from 1st January 1973, the U.K. and the Republic of Ireland were both therefore obliged to implement the directives into national law.

There are no equivalent directives for post registration programmes and these are regulated on a member state-by-state basis.

Nurses, Midwives and Health Visitors Act 1979

The Briggs Committee was established in 1970 to consider the quality and nature of nurse training and the place of nursing in the National Health Service. The subsequent committee report recommended a number of changes to nurse education and the replacement of nine regulatory bodies with one unified body. This new body was the United Kingdom Central Council for Nurses, Midwives and Health Visitors (UKCC) and came into existence in 1983[13]. Its core functions were to maintain a register of U.K. nurses, midwives and health visitors, provide guidance to registrants, and handle professional misconduct complaints[14]. The 1979 Act required the UKCC to set standards and determine curriculum content for all pre-registration programmes leading to registration as a nurse, midwife or health visitor across all four countries of the U.K.

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[12] Wallace M., *UKCC: The European Union Standards for Nursing and Midwifery: Information for Accession Countries, EC Directives (77/452/EEC and 77/453/EEC)*, 2001, p.4
[13] Nurses, Midwives and Health Visitors Act 1979, s.1
[14] *ibid.*, s.2

The Act also legislated for the setting up of statutory bodies (the 'National Bodies') in each of the four countries[15]. For example, in Northern Ireland, the National Board for Nursing, Midwifery and Health Visiting for Northern Ireland (NBNI) was created. The main functions of the National Boards were to monitor the quality of nursing and midwifery education courses delivered by Nurse Education Institutions and associated clinical experience facilities and to maintain the training records of students on the courses[16]. The National Boards worked to an agreed template to ensure compliance with UKCC standards and consistency across the four countries. The Department of Health in each country was the sponsoring government department who funded the Board's activities[17]. The benefits derived for students were enormous in that they could transfer part way through the programme to another U.K. country without any penalty, which was not the case prior to the 1979 legislation.

Each National Board was responsible for co-ordinating the assessment criteria used in setting the end of year 1 and final written examinations. They also determined the four components that comprised the clinical assessment profile. The assessment process consisted of four practical nursing activities - two in the CFP and two in the branch.

Nurses, Midwives and Health Visitors Rules 1983

Rule 18(1) of the Nurses, Midwives and Health Visitors Rules 1983 outlines the competencies that a student should demonstrate to enable her/him to become registered as a nurse:

18. (1) Courses leading to a qualification for successful completion of which shall enable an application to be made for admission to parts 1, 3, 5, or 8 of the register shall provide

[15] *ibid.*, s.5
[16] *ibid.*, s.6
[17] *ibid.*,s.19

opportunities to enable the student to accept responsibility for her personal professional development and to acquire the competencies required to:-

(a) advise on the promotion of health and the prevention of illness

(b) recognise situations that may be detrimental to the health and well-being of the individual;

(c) carry out those activities involved when conducting the comprehensive assessment of a person's nursing requirements;

(d) recognise the significance of the observations made and the use of these to develop an initial assessment;

(e) devise a plan of nursing care based on the assessment with the co-operation of the patient, to the extent that it is possible taking into account the medical prescription;

(f) implement the planned programme of nursing care and where appropriate teach and co-ordinate other members of the caring team who may be responsible for implementing specific aspects of the nursing care;

(g) review the effectiveness of the nursing care provided, and where appropriate, initiate any action that may be required;

(h) work in a team with other nurses, and with medical and para-medical staff and social workers;

(i) undertake the management of the care of a group of patients over a period of time and organise the appropriate services;

related to the care of the particular type of patient with whom she is likely to come in contact when registered in that Part of the register for which the student intends to qualify.

The new centralised register for nurses contained eight parts. Parts 1, 3, 5 and 8 of the new register pertained to registered or first level nurses, and parts 2, 4, 6 and 7 related to enrolled or second level nurses. The competencies of Rule 18(1) governed parts 1, 3, 5 and 8 of the register and the competencies of Rule 18(2) directed the training for parts 2, 4, 6 and 7. Adult or general trained nurses were admitted to Part 1 and children's trained nurses to part 8 of the register.

Prior to the introduction of the 1983 syllabus, students were selected for parts 1, 3, 5 or 8 of the register and until then were taught in separate classrooms for the duration of the course. In 1983, in response to the new legislation and the new rules quoted above, the curriculum had to reflect a two-year common foundation programme where students from all parts of the register were taught in the same classroom and obtained experience in similar clinical settings. The first two years were therefore called The Common Foundation Programme (CFP). The requirements of the E.E.C. Directives to include clinical experience in childcare, maternity and community nursing are included in the common foundation programme.

Year 3 was spent caring for patients in settings relevant to the registration path the student was pursuing. The philosophy underpinning the three-year programme was based on caring for patients who were physically or mentally ill or experienced learning disabilities.

In the mid-1970s it was realised that, with increased freedom of movement and employment opportunities, there needed to be better alignment of the curriculum and clinical skills for all nurses across the U.K. with no cost implications. Prior to the introduction of the 1983 legislation, a nurse's registration was recognised in all four countries of the U.K., yet she could only practice in the country where she qualified. The purpose of new legislation was to have reciprocity of standards and curriculum across the four countries of the UK and facilitate movement. It also stopped the need for nurses to re-register or pay a fee if they wished to undertake further training (e.g. midwifery) or moved location from one UK country to another.

The National Boards in each country had the responsibility for ensuring that the education provider complied with the standard, kind and content of programmes set by the UKCC. Board officers worked collaboratively with Directors of Nurse and Midwifery Education and Nurse Directors from clinical areas to maximise the learning experience for students. This included trained mentors in the clinical area

and created opportunities to be involved in all aspects of patient care including medical ward rounds.

National Boards were also responsible for providing guidelines in relation to the timing of written examinations and the components of care to be assessed in the clinical setting. The setting of examination papers, setting up marking panels and the marking of scripts was delegated to education institutions. Quality assurance was facilitated by the appointment of an external examiner. Students were afforded two attempts at both the ward based and written examinations.

The NBNI issued a guidance syllabus for parts 1, 3, 5, 8 of the professional register in 1983 to education establishments so that curriculum planners could develop new programmes to meet the competencies of Rule 18 (1). The guidance emphasised two new *"broad concepts which should underlie curricula. The first is the importance of appreciating that in the study of nursing it is essential to integrate theoretical teaching and supervised practice. The second concept is the delivery of individualised care within a framework of assessment, planning and evaluation. It is acknowledged that the nursing process method is an effective basis for a framework of individualised patient care."*[18]

Under the student nurse employment system that existed prior to 1990, nurses were encouraged to undertake a second qualification. For example, a general trained nurse could become a 'paid student' again and undertake another training programme to become a midwife, children's or mental health nurse thereby broadening their knowledge base and range of practice skills. A nurse with a second qualification was considered by the employer to be more flexible and therefore had the potential to be employable in a variety of clinical settings.

[18] NBNI, *Syllabus for Part 1 of the Register for Nurses, Midwives and Health Visitors – General Nursing*, 1983

Project 2000: A New Preparation for Practice

Following the establishment of the UKCC, discussions commenced with the Government Health Departments regarding the legal position and status of student nurses. At this time in the mid 1980s, students registering as a nurse or midwife with the UKCC were educated to certificate level and had employee status. The UKCC was keen to raise the standard for entry to the register from certificate to diploma level and obtain bursary supported supernumerary status for students.

In 1985 a project group consisting of Council members and key stakeholders prepared an extensive document known as Project 2000 – A New Preparation for Practice. The proposals contained in the document were approved by the Council in April 1986 and circulated widely with comments to be with the Council by October 1986[19]. Following successful negotiations, the Government accepted the project and amendments were made to the 1983 Rules[20].

The main amendment to the principle Rules was the addition of Rule 14A:

Nursing Education leading to a Registration in Parts 12, 13, 14 or 15 of the Register

14A (1) A person intending to apply for admission to any of Parts 12, 13, 14 or 15 of the register shall take a course of preparation in accordance with the following provisions of this Rule.

(2) Subject to paragraphs (8) and (9) of this Rule, a course of preparation shall not be less than three years in length and each year shall contain 45 programmed weeks.

(3) A course of preparation shall comply with the requirements of Rule 18A of these Rules.

[19] UKCC, Project 2000 A New Preparation for Practice, 1986
[20] UKCC PS&D/ 89/04 (C) Project 2000 Rules; The Nurses, Midwives and Health Visitors (Training) Amendment Rules 1989, contained in Schedule 2 of The Nurses, Midwives and Health Visitors (Registered Fever Nurses Amendment Rules and Training Amendment Rules) Approval Order 1989

(4) The course of preparation shall consist of:-

(a) a Common Foundation Programme; and

(b) a Branch Programme which shall be in the branch of nursing specified in paragraph (7) of this Rule as being appropriate for the Part of the register to which admission is to be sought.

(5) Subject to paragraphs (8) and (9) of this Rule all students shall undertake the Common Foundation Programme which shall be not less than eighteen months in length.

(6) Subject to paragraphs (8) and (9) of this Rule the Common Foundation Programme shall be followed by the Branch Programme, students being required to undertake preparation in one branch for not less than eighteen months.

(7) The Branch Programme shall consist of one of the following four branches:-

(a) Adult Nursing, where admission is to be sought to Part 12 of the register;

(b) Mental Health Nursing, where admission is to be sought to Part 13 of the register;

(c) Mental Handicap Nursing, where admission is to be sought to Part 14 of the register;

(d) Children's Nursing, where admission is to be sought to Part 15 of the register.

(8) The duration of a course of preparation shall be varied in the following cases:-

(a) where the student is already registered in any of Parts 1, 3, 5, 8, 12, 13, 14, or 15 of the register, it shall be not less than one year, the whole of which period shall be spent on the appropriate Branch Programme;

(b) where the student is already registered in any of Parts 2, 4, 6 and 7 of the register, it shall be not less than eighteen months, the whole of which period shall be spent on the appropriate Branch Programme;

(c) where the student either-

(i) holds a degree awarded following a course approved by the Council on the recommendation of a Board, or

(ii) is already registered in Part 10 of the register but not registered in Part 1 of the register,

it shall be not less than two years, of which not less than six months shall be spent on the Common Foundation Programme followed by not less than eighteen months on the appropriate Branch Programme.

(9) Where, in the case of any student or category of students, the Council is satisfied on the recommendation of a Board that the course of preparation could be completed within a lesser period than that specified in any of paragraphs (2), (5) and (6) or in any of sub-paragraphs (a) to (c) of paragraph (8) of this Rule, those paragraphs shall, in relation to that student or category of students, have effect as if, for any period there specified, there were substituted such lesser period as the Council may require.

(10) The content of a course of preparation shall include a period of practical experience of nursing of such duration as the Council may from time to time require in relation to any particular approved educational institution.

(11) A student undertaking a course of preparation to which this Rule applies-

(a) shall be directed throughout the course of preparation by the approved educational institution; and

(b) shall have supernumerary status.

(12) A course of preparation leading to a qualification the successful completion of which shall enable an application to be made for admission to Part 12 of the register shall meet the requirement of the Nursing Directive.

(13) In this Rule-

(a) "Nursing Directive" means Council Directive No. 77/453/EEC concerning the co-ordination of provisions laid down by law, regulation or administrative action in respect of the activities of nurses responsible for general care;

(b) "supernumerary status" means, in relation to a student, that she shall not as part of her course of preparation be employed by any person or body under a contract of service to provide nursing care." .

Diploma level exit from courses leading to registration required the involvement of third level education institutions and the co-operation of Departments of Health in all four countries of the UK. Following successful negotiations, both bursary supported supernumerary status and diploma level programmes were introduced in 1990. The revised syllabus was known as the Project 2000 programme (P2000). The introduction of the new arrangements in 1990 impacted significantly on the student's experience. All syllabi prior to 1990 required the student to spend 20% of the three-year programme in the classroom and 80% in the clinical area in the presence of patients. With the introduction of P2000, classroom time increased to 50% with a corresponding decrease in clinical experience. The other significant change was the common foundation programme (CFP) and branch programme were 18 months duration.

The emphasis during the CFP was on health promotion rather than illness, while the branch programme continued to follow the illness model. The changing of the underpinning philosophy necessitated an updated set of competencies:-

Preparation for entry to Parts 12, 13, 14 and 15 of the register

18A (1) The content of the Common Foundation Programme and the Branch Programme shall be such as the Council may from time to time require.

(2) *The Common Foundation Programme and the Branch Programme, shall be designed to prepare the student to assume the responsibilities and accountability that registration confers, and to prepare the nursing student to apply knowledge and skills to meet the nursing needs of individuals and of groups in health and in sickness in the area of practice of the Branch Programme and shall include enabling the student to achieve the following outcomes:-*

(a) the identification of the social and health implications of pregnancy and child bearing, physical and mental handicap, disease, disability, or ageing for the individual, her or his friends, family and community;

(b) the recognition of common factors which contribute to, and those which adversely affect, physical, mental and social well-being of patients and clients and take appropriate action;

(c) the use of relevant literature and research to inform the practice of nursing;

(d) the appreciation of the influence of social, political and cultural factors in relation to health care;

(e) an understanding of the requirements of legislation relevant to the practice of nursing;

(f) the use of appropriate communication skills to enable the development of helpful caring relationships with patients and clients and their families and friends, and to initiate and conduct therapeutic relationships with patients and clients;

(g) the identification of health related learning needs of patients and clients, families and friends and to participate in health promotion;

(h) an understanding of the ethics of health care and of the nursing profession and the responsibilities which these impose on the nurse's professional practice;

(i) the identification of the needs of patients and clients to enable them to progress from varying degrees of dependence to maximum independence, or to a peaceful death;

(j) the identification of physical, psychological, social and spiritual needs of the patient or client; an awareness of values and concepts of individual care; the ability to devise a plan of care, contribute to its implementation and evaluation; and the demonstration of the application of the principles of a problem-solving approach to the practice of nursing;

(k) the ability to function effectively in a team and participate in a multi-professional approach to the care of patients and clients;

(l) the use of the appropriate channel of referral for matters not within her sphere of competence;

(m) the assignment of appropriate duties to others and the supervision, teaching and monitoring of assigned duties.".

The bursary allocation to each student was for one programme only. A second qualification bursary was available but only if there was an identified need for qualified nurses in that area through DHSS&PS workforce planning. These areas included the care of children, learning disability or mental ill health.

Another significant policy decision taken as part of the acceptance of P2000 programmes commencing was that in future there would only be one level of nurse and that enrolled training should be discontinued. Included in the new rules was provision for enrolled nurses to undertake further study thus enabling them to access Parts 1, 3, 5 or 8 of the register. More information will be provided under the section below entitled Enrolled Nurse Conversion Course.

Commission for Nurse Education 2002

A committee under the chairmanship of Sir Len Peach considered the structure and content of courses leading to registration in Parts 12, 13, 14 or 15 of the register. Following wide consultation with key stakeholders including Departments of Health

in the four countries, the Peach recommendations were accepted and changes in legislation were enacted[21].

This resulted in new programmes of training that comprised a one-year common foundation programme and a two-year branch programme. The changes included the requirements of E.E.C. directive 77/453/EEC for general care. The balance between theory and practice should be 50% for both the common foundation and branch programme. Students must have a compulsory three-month period of clinical experience at the end of the programme to consolidate clinical skills.

The competencies of Rule 18A(1) were replaced by Outcomes to be achieved for entry to the branch programme at the end of year 1 and competencies for entry to the register at the end of year 3. The outcomes are further sub-divided into domains as follows[22]:

Outcomes to be achieved within a Common Foundation Programme

Domain – care delivery

- *Discuss in an informal manner the implications of professional regulation for nursing practice*
  1. *demonstrate a basic knowledge of professional regulation*
  2. *recognise and acknowledge one's own limitations*
  3. *recognise situations which require referral to a registered nurse*
  4. *demonstrate an awareness of the NMC Code of conduct*
  5. *commit to the principle that the primary purpose of the registered nurse is to protect and serve society*
  6. *accept responsibility for one's own actions and decisions*

- *Demonstrate an awareness of, and apply ethical principles to nursing practice*
  1. *demonstrate respect for patient and client confidentiality*

[21] The Nurses, Midwives and Health Visitors (Training) Amendment Rules 2000, contained in the Schedule to The Nurses, Midwives and Health Visitors (Training) Amendment Rules Approval Order 2000

[22] UKCC, *Requirements for Pre-registration Programmes*, April 2001. Reprinted by NMC, April 2002, pages 10-21

2. *identify ethical issues in day-to-day practice*
3. *demonstrate an awareness of legislation relevant to nursing practice*
4. *identify key issues in relevant legislation relating to mental health, children, data protection, manual handling and health and safety etc*

- *Demonstrate the importance of promoting equity in patient and client care by contributing to nursing care in a fair and anti-discriminatory way*
  1. *demonstrate fairness and sensitivity when responding to patients, clients and groups from diverse circumstances*
  2. *recognise the needs of patients and clients whose lives are affected by disability, however manifest*

- *Discuss methods of, barriers to and the boundaries of effective communication and interpersonal relationships*
  1. *recognise the effect of one's own values on interactions with patients and clients and their carers, families and friends*
  2. *utilise appropriate communication skills with patients and clients*
  3. *acknowledge the boundaries of a caring relationship*
  4. *demonstrate sensitivity when interacting with and providing information to patients*

- *Contribute to enhancing the health and social well-being of patients and clients by understanding how, under the supervision of a registered nurse*
  1. *contribute to the assessment of health needs*
  2. *identify opportunities for health promotion*
  3. *identify networks of health and social care services*

- *Contribute to the development and documentation of nursing assessments by participating comprehensive and systemic nursing assessment of the physical, psychological, social and spiritual needs of patients and clients*
  1. *be aware of assessment strategies to guide the collection of data for assessing patients and clients and use assessment tools under guidance*

2. *discuss the priorities of care needs*
3. *be aware of the need to reassess patients and clients as to their needs for nursing care*

Domain care Management

- *Contribute to the identification of actual and potential risks to patients, clients and their carers, to oneself and to others and participate in measures to promote and ensure health and safety*
  1. *understand and implement health and safety principles and policies*
  2. *recognise and report situations which are potentially unsafe for patients, clients, oneself and others*

- *Demonstrate an understanding of the role of others by participating in inter-professional working practice*
  1. *identify the roles of the members of the health and social care team*
  2. *work within the health and social care team to maintain and enhance integrated care*

- *Demonstrate literacy, numeracy and computer skills needed to record, enter, store, retrieve and organise data essential for care delivery – no sub-divisions*

Domain – personal and professional development

- *Demonstrate responsibility for one's own learning through the development of a portfolio of practice and recognise when further learning is required*
  1. *identify specific learning needs and objectives*
  2. *begin to engage with, and interpret, the evidence base which underpins nursing practice*
  3. *Acknowledge the importance of seeking supervision to develop safe nursing practice*

End of Year 3 Competencies for Entry to the Register:

- *Manage oneself, one's practice, and that of others, in accordance with the NMC's Code of professional conduct, recognising one's own abilities and limitations*
  1. *practise in accordance with the NMC's Code of professional conduct*
  2. *use professional standards of practice to self-assess performance*
  3. *consult with a registered nurse when care requires expertise beyond one's own current scope of competence*
  4. *consult other health professionals when individual or group needs fall outside the scope of nursing practice*
  5. *identify unsafe practice and respond appropriately to ensure safe outcomes*
  6. *manage the delivery of care services within the sphere of one's own accountability*

- *Engage in, develop and disengage from therapeutic relationships through the use of appropriate communication and interpersonal skills.*
  1. *utilise a range of effective and appropriate communication and engagement skills*
  2. *maintain and, where appropriate, disengage from, professional caring relationships which focus on meeting the patient's or client's needs within professional therapeutic boundaries*

- *Create and utilise opportunities to promote the health and well-being of patients, clients and groups*
  1. *consult with patients, clients and groups to identify their need and desire for health promotion advice*
  2. *provide relevant and current health information to patients, clients and groups*
  3. *provide support and education in the development and/or maintenance of independent living skills*
  4. *seek specialist advice as appropriate*

- *Undertake and document a comprehensive, systematic and accurate nursing assessment of the physical, psychological, social and spiritual needs of patients and clients*
  1. *select valid and reliable assessment tools for the required purpose*
  2. *systematically collect data regarding the health and functional status of individuals, clients and communities*
  3. *analyse and interpret data accurately to inform nursing care and take appropriate action*

- *Contribute to the planning of nursing care, involving patients and clients and, where possible, their carers to make informed decisions*
  1. *identify care needs based on the assessment of a patient or client*
  2. *participate in the negotiation and agreement of the care plan with the patient or client*
  3. *inform patients and clients about intended nursing actions, respecting their rights to participate in decisions*

- *Contribute to the implementation of a programme of nursing care, designed and supervised by registered nurses*
  1. *undertake activities which are consistent with the care plan and within the limits of one' own abilities*
  2. *access and discuss research and other evidence in nursing and related disciplines*
  3. *identify examples of the use of evidence in planning nursing interventions*
  4. *demonstrate a range of nursing skills under the supervision of a registered nurse to meet individual's needs to include communication and observational skills, administration of medicines, taking physiological skills*

- *Formulate and document a plan of nursing care, where possible in partnership with patients, clients their carers within a framework of informed consent*
  1. *establish priorities for care based on individual or group needs*

2. *develop and document a care plan to achieve the optimal health and rehabilitation based on assessment and current nursing knowledge*
3. *identify expected outcomes, including a time frame for achievement with members of the health care team*

- *Based on the best available evidence, apply knowledge and an appropriate range of skills indicative of safe practice*
  1. *ensure that current research findings are incorporated into practice*
  2. *contribute to the application of a range of interventions to support patients and clients and which optimise their health and well-being*

- *Contribute to the evaluation of the appropriateness of nursing care delivered*
  1. *demonstrate an awareness of the need to assess regularly a patient's or client's response to nursing interventions*
  2. *contribute to the evaluation based on own observations*
  3. *contribute to the documentation of the outcomes of interventions*
  4. *recognise when an agreed care plan is no longer appropriate and refer to the appropriate practitioner*
  5. *accurately record observations made and communicate these to the relevant members of the care team*

- *Demonstrate sound clinical judgement across a range of differing professional and care delivery contexts*
  1. *use evidence based knowledge from nursing and related disciplines to select and individualise nursing interventions*
  2. *demonstrate the ability to transfer skills and knowledge to a variety of circumstances and settings*
  3. *recognise the need to adapt nursing practices to meet varying and unpredictable circumstances*

- *Contribute to public protection by creating and maintaining a safe environment of care through the use of quality assurance and risk management strategies*

1. *apply relevant principles to ensure the safe administration of therapeutic substances*
2. *use appropriate risk assessment tools to identify actual and potential risks*
3. *communicate safety concerns to the relevant authority*

- *Delegate duties to others, as appropriate, ensuring that they are supervised and monitored*
  1. *take account of the role and competence of staff when delegating work*
  2. *maintain one's own accountability and responsibility when delegating aspects of care to others*
  3. *demonstrate the ability to co-ordinate the delivery of nursing care*

- *Demonstrate key skills*
  1. *literacy*
  2. *numeracy*
  3. *information technology and management*
  4. *problem solving – demonstrate sound clinical judgement which can be justified even when made on the basis of limited information*

Domain – Personal and Professional Development

- *Demonstrate a commitment to the need for continuing professional development and personal supervision in order to enhance knowledge, skills, values and attitudes needed for safe and effective practice*
  1. *identify one's own professional development needs by engaging in activities such as reflection, in, and on, practice and lifelong learning*
  2. *develop a personal development plan which takes into account personal, professional and organisational needs*
  3. *take action to meet any identified knowledge and skills deficits likely to affect the delivery of care within the current sphere of practice*
  4. *contribute to the learning experiences of others by facilitating the mutual sharing of knowledge and experience*

5. *demonstrate effective leadership in the establishment and maintenance of safe nursing practice*

Following the integration of pre-registration nursing and midwifery education into Higher Education Institutions, there were many concerns expressed on a UK wide basis regarding the quality of registered nurse that was emerging into the workplace. The UKCC, and latterly the NMC, were urged to set statutory assessment criteria for all students at the point of registration. Building on the above domains that were required to be evident at the point of registration, the NMC took a policy decision to select six core domains to be assessed in the clinical setting[23]:

- Caring and compassion
- Medicines management
- Nutrition
- Communication
- Hygiene and infection control
- Record keeping.

Sufficient progress was made to enable the statutory requirement to be in place by September 2007 so that curriculum planners took account of the need to create an assessment timetable towards the end of year 1 and year 3. The project work was successfully completed and partially implemented in 2007. Further refinement is still ongoing to finalise the exact nature and construct of the assessment profile.

[23] NMC, *Circular 07/2007 - Essential Skills Clusters for Pre-registration Nursing Programmes (Annex 2)*, 2007

PRE-REGISTRATION NURSE EDUCATION ACADEMIC LEVELS

Pre- Registration Certificate Of Nurse Education

All of the Curriculum guidance documents listed above set out details of content that must be developed and included in training programmes in order to receive regulatory body approval. All students from the 1973 syllabus through until the present day are required to have tuition in the importance of the body's ability to maintain fluid balance in health and the disease processes that would cause disturbance of it. This would include knowledge of fluid constituents to include sodium, the role of kidneys and endocrine systems. The students would receive information on the effect of disease processes such as gastroenteritis on the maintenance of normal fluid balance. The curriculum guidance includes an outline content of what a nurse is required to be taught regarding the action to be taken by a nurse following a written prescription of intravenous fluids by a doctor. The content requires the nurse to understand the make up of normal extra-cellular and intra-cellular fluids, the need for body fluids and the routes by which the fluids may be administered.

They would also have understanding of what type of observations of the patient's condition would be required and the need to make appropriate and accurate records of these. The curriculum guidance documents also refer to the need for students to have tuition in all aspects of records and record keeping. Also included in the guidance is the entire notion of personal accountability by the nurse for his/her actions once they are registered.

The 1973[24] and 1983[25] syllabi of training required the students to have 20% teaching/learning time and 80% clinical experience. Qualified nurse teachers taught

[24] Northern Ireland Council for Nurses and Midwives, *Syllabus of Subjects for Examination and Record of Practical Instruction and Experience for the Certificate of General Nursing*, 1973
[25] National Board for Nurses, Midwives and Health Visitors for Northern Ireland, *Syllabus for Part 1 of the Register of Nurses, Midwives and Health Visitors: General Nursing*, 1983

anatomy, physiology and related sciences and doctors taught speciality related disease processes. In essence there was more emphasis on structure with less on body functions. The 1990 and 2002[26] syllabus altered the amount of time to a 50/50 split between theory and practice. The 50% extra tuition time included more information on the physiological functioning of the human body, which was contained in curriculum guidance and in taught programmes. Comparison of pre and post 1990 curriculum documents indicates that all students would have had many opportunities to learn about the importance of fluid balance maintenance to the health and well-being of an individual.

In relation to the care of children, the theme of fluid balance was addressed in physiology lectures which included information on disease processes likely to cause disturbance, care of a child with fluid loss and care of a child receiving fluids by the intravenous or other routes.

Project 2000 / Diploma in Nurse Education

Prior to 1990, statutory body curriculum guidance required students to have knowledge of anatomical structures that made up the human body. Students were also required to understand the structure of each organ, how it functioned and the interrelation and interdependence of body organs. After the introduction of Diploma level education in 1990, there was a change in emphasis towards physiological function rather than body structure. The other significant change was that the depth of study changed from certificate to diploma level. It was claimed that the enhanced knowledge base for students provided better insights into the rationale for a specific observations, medical intervention and related nursing care.

Content of curricula introduced after 1990 placed a greater emphasis on learning outcomes with the student's ability to demonstrate an increased knowledge of the biological sciences and in particular an in-depth knowledge of how the body

[26] NMC, *Requirements for Pre-registration Nursing Programmes*, 2002

functioned. This included the important role that body fluid and its constituent parts played in the maintenance of health and how abnormal fluid levels or changes in fluid constituents affected body functioning leading to symptoms of illness. Sample programme documents that have been forwarded by both universities since 1999 have identified teaching content, learning outcomes and module objectives in relation to all aspects of the management of fluid balance in children. Recommended reading such as topic specific textbook chapters and contemporaneous journal articles are available for inspection.

Specific Reference to Intravenous Fluid Management and Record Keeping In Pre-Registration Documents

To assist in this quest a very large number of guidance and curriculum documents have been sourced from a wide variety of places to include Northern Ireland, the Republic of Ireland and the United Kingdom.

A **guidance document** is produced by the regulatory body and contains an outline of course content that must be included in the curriculum. The guidance document will also detail the length of the course, attendance requirements, clinical placement arrangements and examination profile. Reference to the E.E.C. Directives for general care will always be included in statutory body guidance. These include curriculum guidance produced by the Statutory Body for the training of Registered Sick children's Nurse & Registered General Nurse in 1973, 1983, 1990 and 2002. It is clear in 1973 that, while each UK country had its own regulator, there was close collaboration when developing the curriculum guidance documents. For example, the only difference between the English and Northern Irish guidance documents is that the dust proof cover on the English document is replaced by the Northern Irish Council title and an acknowledgement that the document belongs to the Nursing Council for England and Wales.

A **curriculum document** is produced by the education establishment where the students are educated and contains a comprehensive guide to the subject matter that is taught over the three-year period. It also details the programme organisation and delivery strategies. In Northern Ireland, Schools/Colleges of Nursing and laterally the universities planned curriculum documents following the guidance produced by the Northern Ireland Council for Nurses and Midwives (1970–1983) and the National Board for Nurses, Midwives & Health Visitors (1983–2002). Since 2002, the Nursing and Midwifery Council has produced the guidance for curriculum planners developing programmes leading to a qualification in the Register.

Curriculum Content in the 1973 Syllabus

The following details are extracts from the curriculum guidance documents relating to intravenous fluid management (with specific reference to hyponatraemia), record keeping, communication and accountability dating back to the 1973 syllabus for General Nurses.

Syllabus of Subjects for Examination for the Certificate of General Nursing 1973[27]

I. *Principles And Practice Of Nursing And First Aid*

- *Relationship between the nurse, patients and relatives*
- *Observation and reporting on the general condition and behaviour of patients*
- *Measuring and recording fluid intake and output*
- *Taking and charting temperature, pulse respirations and blood pressure*
- *Giving and receiving reports*
- *Care of the unconscious patient*
- *Care of patients before and after anaesthesia*
- *General pre- and postoperative nursing care*
- *Intravenous, subcutaneous, and other parental infusions*

[27] The General Nursing Council for England and Wales and adopted by the Northern Ireland Council for Nurses and Midwives, *Syllabus of Subjects for Examination and Record of Practical Instruction and Experience for the Certificate of General Nursing*, 1973

- *The nurse patient and nurse relative relationship*
- *Administration and storage of Drugs*
  - *i. Dangerous Drugs Act*
  - *ii. Requirements under the Pharmacy and Poisons Act*
  - *iii. Weights and measures (metric and imperial system)*
  - *iv. Rules for and method of administration of drugs*

- *Skills of communication, organisation of care and the elementary principles and skills of learning and teaching*

II. *Study Of Man And His Environment*

- *General structure of the body in relation to function; how the body works*
- *Basic dietary requirements; the use of food and fluids*
- *The circulation of the blood; the functions of lymph and tissue fluids*
- *Elimination of waste products*

III. *The Nature And Causes Of Ill Health: Principles Of Prevention: Nursing Care And Treatment Of Sick People*

- *The nursing care of patients should be studied and practised in the sequence of the nursing process:-*
  - *(a) Observation of the patient in his total environment*
  - *(b) Assessment of need*
  - *(c) Giving care*
  - *(d) Evaluating the effectiveness/suitability of care*
- *Ability to interpret the observations made, to understand the significance of disturbed function and to know the pattern of defined diseases and the patient's response to treatment will be part of the equipment needed to carry out the nursing process intelligently. The following headings may be useful in this context, applied to any condition from which the patient may be suffering:-*
  - *(a) Relevant knowledge of normal function and structure*

(b) *Causes of the disease*

(c) *Symptoms and well-known signs*

(d) *Reasons for and methods of investigation*

(e) *Normal course of illness; possible complications*

(f) *Medical treatment*

(g) *Social aspects: convalescence and rehabilitation*

Training Syllabus Register of Nurses: General and Sick Children Nursing (Amended 1977 to take Account of EEC Directive)[28]

The above document provides guidance for an Integrated State Registered Nurse and a Sick Children's Nurse registration qualification and the course lasts for four and half years. Curriculum planners must include the following content as detailed in the 1973 syllabus above together with a section on *'Family participation with care'*.

The time allocated for clinical experience in nursing adults and children should be divided as follows:

- 40% nursing children
- 40% nursing adults
- 20% nursing either adults or children

The majority of practical experience will be gained in hospital and steps should be taken to include some aspects of community care. Other specific units of experience should be arranged as follows:

- Care of the mentally ill or mentally handicapped people
- Welfare of elderly people and care of the elderly sick
- Care of neo-nates (new born babies)

[28] General Nursing Council For England And Wales, *Training Syllabus Register of Nurses: General and Sick Children*, Amended 1977

Students were required to undertake at least 8 weeks night duty for comprehensive training purposes.

There was separate and specific guidance in relation to experience and observation in the operating theatre and care of the post-anaesthetic patient.

The general aims of these experiences are that, at the end of them the student should be able to

"have had the opportunity to observe the continuity of care in the anaesthetic room, operating theatre and recovery room to include checking of all drugs, including gases and infusion fluids."

Curriculum Content in the 1983 Syllabus[29]

In relation to Intravenous Management, Record keeping and Communication the outline content is very similar to that set out in the 1973 syllabus. The layout is different using language that was familiar at that time. The information presented is based on General Nursing guidance, as it has not been possible to locate a 1983 guidance document.

Curriculum Content in the P2000 / Diploma In Nursing Studies

The above programmes commenced in 1990 with the first cohort of nurses coming into the workforce in 1993. As a result of the archiving system, it has been possible to locate a Branch Programme developed at the Western Area College of Nursing based at Altnagelvin Hospital[30]. The following curriculum content is contained in that document. The curriculum reference to Intravenous fluid management, record keeping, communication skill and accountability is as follows:

[29] National Board for Nurses, Midwives and Health Visitors for Northern Ireland, *Syllabus for Part 1 of the Register of Nurses, Midwives and Health Visitors: General Nursing,* 1983
[30] Western Area College of Nursing Children's Branch, *Unit C9 The Sick Child,* 1991

Unit C8 - The Well Child

Objectives:

On completion of the unit the nursing student will:

7. *Adapt the core skills and knowledge of communication to use with children and family*

Unit C9

Objectives:

On completion of the unit the student will:

5. *Appreciate and apply the interpersonal skills necessary for delivering individual nursing care to children whilst maintaining the family unit;*
7. *Discuss the factors influencing the maintenance of breathing, nutrition, hydration, elimination and participate in care planned to maintain an equilibrium;*
8. *Utilise a model of nursing to assess, plan, implement and evaluate nursing care for individual children in the context of family centred care;*
9. *Demonstrate the ability to carry out peri-operative care, for the child undergoing surgery, in a safe and effective manner;*
12. *Appreciate what constitutes an emergency situation and demonstrate an understanding of the principles and procedures for rapid and appropriate interventions;*

Section 8: Nursing Theory and Practice

8(ii) Nutritional Problems:

- *Congenital and acquired*
- *Malnutrition*
- *Malabsorption*
- *Fluid and electrolyte imbalance*

Skills:

- *Assessment of nutritional status;*
- *Preparing the child and family for diagnostic procedures;*
- *Care of parental nutrition;*
- *Care of intravenous infusion;*

- *Feeding skill adapted to suit the needs of the child*
- *Continuous evaluation of care;*

Taught Practice Objectives:

The student will be provided with opportunity to:

(a) Assess the physical and psychological needs of the child and explain why nursing care practices require adaption to meet his/her needs;

(b) Assist in preparing nursing care plans to manage the problems identified, and maintain a safe environment for the ill child;

(c) Practise under supervision the nursing care required to relieve the problems identified;

(d) Demonstrate an understanding of the emotional needs of children/parents with regard to physical illness;

(e) Demonstrate skills in communicating with the parents/guardians of the ill child and understand the importance of obtaining consent for investigations/treatment to be carried out;

Unit C10 - Care Of Children With Specialist Nursing Needs

Objectives

On completion of this unit the student nurse will be able to:

1. *Adapt previously learned knowledge of assessment, planning, implementation and evaluation of nursing care to the critically ill child' the child in the peri-operative period;*
2. *Assess, plan, implement and evaluate care of an infant in the intensive and special baby care unit;*
3. *Assist interventions which are designed to maintain:*
    - *Adequate respiratory ventilation*
    - *Adequate fluid and electric balance*
    - *Nutritional status of the child*
    - *Circulatory efficiency*

Syllabus

The syllabus is directed towards meeting the specific needs of the child within a variety of specialist settings:

1. *Communication*

   The theme of this unit will be about promoting communication between child, family, nurses, multi-disciplinary team and with the development of alternative modes and channels of communication between individuals. Bonding, use of touch as therapy, supporting the child and family through a stressful time;

2. *Nursing theory and Practice*

   - *models of nursing*
   - *nursing care of the child with disordered function which disrupts homeostasis*

   Skills:

   - *Care of the child who is anaesthetised or ventilated*
   - *monitoring cardiovascular function*

3. *Nutritional problems*

   - *assess nutritional state*
   - *fluid and electrolyte imbalance*
   - *feeding difficulties*

   Skills

   - *monitor the child's hydration status*
   - *monitor the child's electrolyte status*
   - *management of total parental nutrition*
   - *use of feeding aids*

Taught Practice Objectives

On completion of the taught placement the student will be able to:

(a) Discuss the concept of intensive care nursing;

(b) Participate in the initial and ongoing assessment process as it pertains to the neonate requiring intensive care;

(c) Carry out the nursing activities required to implement a nursing care plan for a neonate requiring intensive care;

(d) Utilise appropriate technology to monitor progress of the ill child;

(e) Discuss the importance of frequent and accurate observations with particular reference to the intensive and high dependency care situations;

Unit C11 – Professional Management Of Care Through Research And Quality Management
Objectives
On completion of this unit the student will be able to:

1. *Apply previously learned concepts of professional judgement, responsibility and accountability to settings, maintaining and evaluating standards of care in children's wards;*
2. *Demonstrate the effective use of interpersonal skills in order to communicate with and educate the child, his family and other members of the multi-disciplinary team within the caring environment of a children's ward;*
3. *Critically analyse the nature of professional practice, the process of education, development and requirement for continuing competence to practise.*

The main children's hospital in Northern Ireland is based in Belfast and is part of the Royal Group of Hospitals. The Sick Children's Hospital contains almost all the regional specialities and therefore would care for the more seriously ill child. Extracts from the 1993 syllabus in relation to intravenous fluid management, record keeping, accountability and communication skills have been included in the following paragraphs.

Diploma of Nursing Northside College of Nursing 1993 edition – Children's Branch[31]

Theme 4 Nursing Perspectives
4.1 Philosophy Of Nursing;
Rationale:
The needs of the child and their patents are different from those of adults. They are complex and a different approach to nursing care. Paediatric nursing practice views the

[31] Northside College of Nursing, *Diploma in Nursing Studies - Programme of Preparation for Practice for Parts 12 or 15 of the Professional Register*, 1993, pages 158-177 & 210-217

parents/guardian/family as the primary care givers. The role of the paediatric nurse is therefore to enable the parents/guardians or family to care confidently and competently for the child during illness or incapacity, as well as in health.

Aims

To emphasise:

1. *the uniqueness of the child*
2. *the uniqueness of the family unit*
3. *the special needs of children who are well, sick or handicapped in various care settings*
4. *the difference in nursing children from other age groups*

4.2 Interpersonal Skills

Rationale:

The child is developmentally immature and cannot communicate as an adult would, therefore:

- *The role of the paediatric nurse includes explaining, advising and educating the child, parents or family;*
- *The nurse uses interpersonal skills in relating to the child, to families and to others as appropriate;*

Core Elements

- *Communicating with children and their families*
- *Building relationships*
- *Use of play*
- *Use of nonverbal cues*
- *Communications skills used in:*
    - *Stressed children and their families*
    - *Distressed children and their families*
    - *Angry, withdrawn children and their families*
    - *Written communication skills*
    - *Dealing with confrontation*
- *Interviewing skills*

4.3 Models Of Nursing

Rationale:

A model provides a conceptual framework for nursing practice

4.4 The Process Of Nursing

Rationale:

A critical, analytical, and research orientated approach should be adopted, providing excellence in nursing care for the child and his family.

Core Elements

- *Assessment skills*
- *Writing of care plans*
- *Identifying problems*
- *Priority of needs*
- *Implementation of care*
- *Evaluation of care*
- *Parental involvement*

4.8.3 Nursing In Hospital Settings

Placements

- *Medical wards*
- *Surgical wards*
- *Operating departments*

Rationale:

The majority of children in the hospital settings are there for diagnostic reasons, medical treatment or surgical interventions and the nurse acting as the child's carer, advocate and facilitator, needs to acquire the necessary skills to competently care for the child at all ages and stages of development to promote rehabilitation or passage to a peaceful death.

Aims:

The student will be provided with the opportunity to:

1. *Observe and develop the skills of assessing, planning, implementing and evaluating the care of children requiring medical/surgical treatments*
2. *Observe and assist with the preparation of the child requiring investigations and specialist medical/surgical treatments*
3. *Develop an understanding of the role of the family in the care of the child*
4. *Observe the care of the child requiring surgery*

4.8.4 Care Of The Child Requiring Specialist Medical And Surgical Treatment

Aims:
The student will be provided with the opportunity to:

1. *Assess, plan implement and evaluate the care of groups of children with varying dependency levels requiring medical/surgical treatments*
2. *Demonstrate an awareness of the registered nurse's responsibility and accountability in maintaining standards of care*
3. *Involve the family in the care of the child*
4. *Commence the process of accepting responsibility for the legal/moral/ethical aspects of caring for children as a nurse practitioner*

Appendix M; Part 15 of the Register: Taught Practice Assessment Profile
At appendix M pages 210-217 there is copy of the practical assessment that students undertake during their clinical allocations

Queen's University Belfast, BSc (Hons) Diploma in Nursing Science, 2006[32]

This recent curriculum document has no explicit reference to hyponatraemia, though there are many references at pages 7, 10, and 11 to intravenous fluid management.

[32]Queen's University Belfast, *Review of the BSc (Hons) Diploma in Nursing Science in partnership with Northern Ireland Health and Social Services Trust Personnel*, February 2006

POLICY DECISIONS TAKEN BY DHSSPS REGARDING THE FUTURE OF NURSING & MIDWIFERY EDUCATION

University Graduate Education

In 1984 the new university at Coleraine collaborated with the Department of Health to offer a graduate degree course. The students selected through the OCCA system were means tested like other university undergraduates. The programme lasted four years and was delivered at Honours Degree level. To obtain registration as a nurse they had to demonstration competency in all components of Rule 18(1).

Integration of P2000 Students into Higher Education in 1997

In line with Health Departments across the U.K., a decision was taken that nursing students in Northern Ireland should be afforded the same academic opportunities in higher education as other healthcare professionals. This resulted in the movement of all student nurses and teaching staff from Colleges of Nursing into the Higher Education Sector. There were already some Universities offering nurse education at degree level to students coming through the OCCA system. These were small in number and were grant aided. Higher Education Institutions were required to collaborate with local NHS Trusts to facilitate the students' clinical experience requirements.

By 1997, all student nurse education had moved into the Higher Education Institution (HEI) sector. A number of issues required to be addressed following the integration of nurse education not least the need to provide indemnity cover prior to them giving care to patients as they were no longer taught in colleges of nursing funded through the DHSS&PS.

When P2000 programmes were introduced, the centralised final written examination was dispensed with and the HEIs applied their own assessment criteria that satisfied the regulatory body's requirements for competence at the point of registration.

Following integration the university nursing department undertook the task of streamlining curriculum content from the five colleges into one document, while maintaining the integrity of the course and ensuring there was no disadvantage to students. The following content reflects the curriculum delivered for the years 1997 - 2002.

Diploma in Nursing Children's Branch 1997-2002 QUB[33]

Module Title: Practice of Children's Nursing

Learning Outcomes: On successful completion of the module students will be able to:

- *discuss the effects of becoming a patient and the impact on family*
- *in collaboration with family and multi-disciplinary team, assess plan implement and evaluate care of infants, children and adolescents with various disorders*
- *demonstrate a range of practice skills and interventions relating to the care of the child and family*

Content: care of the child with fluid and electrolyte imbalance

- *common causes of imbalance in children*
- *assessment of children experiencing fluid and electrolyte imbalance*

Teaching Handouts given to students:

1. *Nutrition: reference in 2 slides to Hyponatraemia and record keeping*
2. *Disturbance in fluid and electrolyte balance in children (dated 2005) slide entitled "Why are children particularly at risk of Hyponatraemia?"*
3. *Any child is at risk of Hyponatraemia DHSS&PS Guidance*
4. *Making sense of fluid balance in children RCN publication 2000*

[33] Queens University, Belfast, *Diploma in Nursing: Children's Branch Programme Semester 4 modules*, 1997-2002, p. 257

5. *Regulation of water, sodium and potassium: implications for practice RCN publication 1999*

Phase 4: Principles of Children's Nursing[34]

Intravenous Fluids

Aim: by the end of this practical session students will be able to demonstrate the skills necessary to ensure optimal function of Intravenous Fluids

Learning Outcomes: by the end of the session students will be able to:-

- *Prepare equipment for intravenous fluids*
- *Discuss the preparation of the child/family for this procedure*
- *Demonstrate the procedure for checking fluid*
- *Prime intravenous administration set using aseptic procedure*
- *Demonstrate fluid calculations and set rate of infusion*
- *Demonstrate checking procedure whilst changing intravenous fluids*
- *Demonstrate recording and reporting skills*

At Queen's University, the School of Nursing is located within the Medical Faculty and, in the main, is a separate entity. The only evidence of shared learning highlighted related to paediatric student nurses and medical students undertaking similar lectures on childhood conditions and related nursing and medical care. They also participated in learning projects related to children, but not hyponatraemia.

University of Ulster BSc/BSc Hons. Degree[35]

The 2006 curriculum delivered to student nurses contained an unpaginated section on "Intravenous Therapy - Principles of Care". Part way through the document students are asked to discover "why No18 solution has received negative press in Northern Ireland?" Accompanying this sample of online content (Branch) is a 48-

[34] Queens University, Belfast, School of Nursing and Midwifery, Phase 4, p.30
[35] University of Ulster, *BSc/BSc Hon. Nursing Module Nur681 sample of online content*, 2006

slide PowerPoint presentation[36]. While there are detailed content on care of patients, fluid components, observations required, there is no reference to patients suffering from hyponatraemia.

Ward/Department Based Student Learning Experience

Clinical experience, Ward based objectives & Clinical assessments

Prior to the introduction of P2000 programmes in 1990, student nurses were employees of the particular hospital/trust where pre registration programmes were delivered. In 1990 it was a requirement that the course had higher education accreditation and the students had supernumerary status. Colleges of Nursing in Northern Ireland were linked to either Queen's or Ulster University for accreditation purposes. The Colleges of Nursing continued to select students, provide the theoretical education and work with trusts to ensure that the students received the necessary clinical experience.

In 1997 there was total integration of the students into the HEI sector and Colleges of Nursing ceased to exist. All DHSSPS funded student training was based at QUB. University of Ulster continued to educate a small number of students who entered via the university clearing system and initially did not received a bursary.

Student nurses pursued programmes of education leading to either Registered Adult or Children's Nurses. In line with E.E.C. requirements, each student nurse must experience at least 4 weeks in a children's setting during the first year of the three-year programme. This first year is referred to as the Common Foundation Programme where all students gain experience in the same clinical settings irrespective of which part of the Register they aspire to. Prior to the introduction of Project 2000 in 1990, adult nurses could and would have spent up to sixteen weeks of

[36] University of Ulster, *BSc/BSc Hons Nursing Intravenous Therapy Principles of Care PowerPoint presentation*, 2006

their clinical experience in children's wards. Consequently they had more experience in the care of sick children.

Up to 1997, almost all student nurses were trained in Colleges of Nursing within a Health & Social Service Board area and the clinical experience was gained within the Board area too. A mutual collaborative working environment provided support for students as they progresses through their three-year programme. Resulting from collaborative meetings, ward managers indicated what clinical experience the student could expect to gain from a 4-6 week placement. The clinical experience was converted into ward-based objectives that the student was expected to complete during their placement.

While the students were on clinical placement, all ward staff were familiar with the learning objectives for the placement and what type of clinical assessment the student may have to undertake. Clinical assessments of the student's practical skills and associated knowledge in the presence of patients were a shared responsibility between the clinical based assessor and a member of teaching staff. On average, there were four assessments over the three years programme period.

This practice continued until September 1997 when the students became fully integrated into the university system.

Following the integration of students into the higher education sector their placement allocation to clinical experience was on a province wide basis. It took some time to realise the importance of students returning to familiar settings with previously known staff. This was an issue for all universities across the UK and in Northern Ireland was remedied by a concept known as "Zoning" where students were allocated to one or two hospitals for the totality of their clinical experience over the three-year period.

The University of Ulster provides each student with a "Clinical Skills Inventory" that sets out a list of skills performed by simulation in the laboratory and the evidence of practice in patient settings[37]. Pages 3 and 4 of the document reference the skills taught in relation to IV fluids including interpreting blood gas and electrolyte profile. On pages 9 and 10 there are again references to care of patients requiring IV fluids and the requirement for the student to demonstrate competence including assessment, monitoring and recording fluid and electrolyte status.

A more recent development is that students are also required to complete a placement portfolio for each placement during the Branch programme[38]. Booklet 4 addresses peri-operative nursing. This document reflects the domains of practice recently introduced by the NMC.

Queen's University, Belfast issues the student with what is known as a "Record of Achievement". In this portfolio there are outcomes to be achieved at end of year 1 and Standards of Proficiency to be achieved at year-end 2 and 3. The main assessment is entitled Total Patient Care Management. The student has to demonstrate proficiency in all aspects of care for a group of patients over a shift. This record of achievement with outcomes to be successfully negotiated at the end of year 1 and standards of proficiency at the end of year 2 & 3 reflects the NMC's most recent statutory requirements for registration as a nurse.

All curriculum guidance documents published since 1973 contain learning content on the maintenance of normal fluid balance, disease processes that upset fluid balance and measures to restore fluid balance including Intravenous therapy management. In all of the curriculum guidance documents that have been examined there is no mention of hyponatraemia.

[37] University of Ulster, *Development throughout the Branch Programme Clinical Skills Inventory*, 2002
[38] University of Ulster, Faculty of Life and Health Sciences School of Nursing, *Pre-registration Nursing Education Placement Portfolio for Adult Branch Peri-operative Nursing*, 2008/09

Enrolled Nursing[39]

An enrolled nurse was an individual who completed either 18 month or two-year programme that was mainly ward based with approximately 10% of the time spent in formal education. The enrolled nurse was described as a second level nurse and worked under the direction of a registered or first level nurse and could be involved in most aspects of care delivery. However the registered nurse was accountable for the quality of care delivered by the enrolled nurse. To assist clarity in relation to Parts 2, 4, 6, or 7 the legend is as follows:

- Part 2 - General nursing in England and Wales
- Part 4 – Mental Health
- Part 6 - Learning Disabilities (Mental Handicap)
- Part 7 - Generic trained enrolled nurse in N Ireland and Scotland

The rule governing the training for admission to parts 2, 4, 6, or 7 were detailed at Rule 18(2)[40]:

Courses leading to a qualification, the successful completion of which shall enable an application to be made for admission to Parts 2, 4, 6, or 7 of the register shall be designed to prepare the students to undertake nursing care under the direction of a person in Parts 1, 3, 5, or 8 of the register and provide opportunities for the student to develop the competencies required to:-

(a) assist in carrying out comprehensive observations of the patient and help in assessing her care requirements;

(b) develop skills to enable her to assist in the implementation of nursing care under the direction of a person registered in Part 1, 3, 5, or 8 of the register;

(c) accept delegated nursing tasks;

(d) assist in reviewing the effectiveness of the care provided;

[39] UKCC Circular Admin/84/03, *The Central Council and the Future of the Enrolled Nurse*, 1984; UKCC PS&D/88/05, *The Enrolled Nurse and Preparation for entry to a First Level Part of the UKCC's Register*, 1988; Nursing Times, *Open Learning Conversion Course*, 1993

[40] Nurses, Midwives and Health Visitors Rules 1983

(e) work in a team with other nurses, and with medical and para-medical staff and social workers;

related to the care of the particular type of patient whom she is likely to come into contact when registered in that Part of the register for which she intends to qualify.

Enrolled nurse training commenced around the 1960s and continued until about 1986. As part of the agreement by key stakeholders to accept Project 2000, it was also acknowledged that there should no longer be two levels of nurse. It was further agreed that all enrolled nurses would be given the opportunity to engage in further study via a statutory body approved programme entitled "Enrolled Conversion Course". Undertaking a shortened programme lasting approximately one year enabled those interested to convert to first level status.

There were approximately 3000 enrolled nurses working in Northern Ireland healthcare facilities in either a full or a part-time capacity. The Conversion Programmes were of fifty-two weeks duration, full-time, exclusive of holidays. The delivery mode included full time, part time and learning approaches to assist family and other commitments. The competencies required to gain admission to the register as a first level registered nurse were those listed at Rule 18(1). An exemplar of an Enrolled Nurse Conversion Court is appended to this report.

Strategies to Deal with Nursing Workforce Shortage

In respect of Northern Ireland two pieces of documentary information show a decline in the number of students recruited into training programmes over a nine to ten year period.

The table below sets out the reduction in student nurses numbers during the 1990s in Northern Ireland[41]:

[41] NMC, *Annual Report 2004/05 - Table showing Recruitment of Student Nurse numbers 1991-2005;* NMC, *Annual Report 2005: Registration Department Statistics*

Admissions to the register resulting from training in Northern Ireland	Initial Registrations	Subsequent Registrations
01/04/1989 - 31/03/1990	372	738
01/04/1990 - 31/03/1991	659	298
01/04/1991 - 31/03/1992	726	312
01/04/1992 - 31/03/1993	717	434
01/04/1993 - 31/03/1994	707	547
01/04/1994 - 31/03/1995	585	303
01/04/1995 - 31/03/1996	581	270
01/04/1996 - 31/03/1997	492	237
01/04/1997 - 31/03/1998	437	372
01/04/1998 - 31/03/1999	421	193
01/04/1999 - 31/03/2000	363	336
01/04/2000 - 31/03/2001	379	197
01/04/2001 - 31/03/2002	393	90
01/04/2002 - 31/03/2003	Not available	Not available
01/04/2003 - 31/03/2004	457	143
01/04/2004 - 31/03/2005	414	146

These statistics are supported by a document produced within the workforce-planning department DHSS&PS[42]. This document shows a decline in numbers from 811 students recruited annually in 1987/88 to 452 in 1996/97. Comparisons with other U.K. countries demonstrate that Northern Ireland had the greatest reduction at 16% compared with England 5.75%, Scotland 10.23% and Wales 14.5%.

This reduction in student numbers coincided with an increase in contracting out of elderly care to the private and voluntary sector nursing home. The UKCC Register for Nurses, Midwives and Health Visitors records 18,050 registrants with a Northern

[42] Killen D. & Smyth J, *Position Paper Recruitment and Retention of Nurses and Midwives and The Commissioning of Nursing and Midwifery Pre-registration Education and Training*, 2001, Appendix 1

Irish address at March 2001. This suggests that there are just over 3000 nurses, midwives and health visitors working outside the HPSS, for example in the independent and voluntary sectors in Northern Ireland[43].

Between 1990 and 2000, the number of nurses and midwives on the register who had trained in the United Kingdom declined by about a third (6000) between 1990-91 and 1998-99. The decline was steepest in the early 1990s, and there was a modest recovery in the next five years. This trend may be explained partly by a reduction in the overall number of training places in the early 1990s and then an increase since 1995.

This decline in numbers coincided with expansion in the private sector - mainly nursing homes for the elderly. Serious shortages in nurse staffing levels resulting in Health Service employers having to close some hospital facilities or function below expected operational levels. This was primarily evident in areas where highly skilled nurses were required such as intensive care and high dependency units, resulting, in the main, in the closure of many paediatric intensive care units.

The serious shortage in the nursing workforce in Northern Ireland was mirrored across the U.K. and the Republic of Ireland and required urgent action to remedy the situation. A three-pronged approach was employed. Funding was made available by the Department to increase student numbers by 100, year on year for three years. Incentives were offered to encourage nurses who recently left the workplace and still eligible for employment back into the service. Trusts Nurse Directors followed the action taken by colleagues in England and went overseas to recruit experienced nurses to fill posts especially in high dependency areas.

[43] DHSSPS, *Review of the Nursing, Midwifery and Health Visiting Workforce Final Report*, March 2002

Overseas Nurses Adaptation Programme[44]

The recruitment of nurses outside the U.K. was an expedient solution to the emerging crises that were developing in hospital facilities on a U.K. wide basis[45]. Recruitment from European countries inside the E.E.C., such as Spain, was straightforward as they benefited from freedom of movement regulations and therefore came straight on to the Council's register. Employers who travelled overseas, to places such as the Philippines, Africa or India to select nurses with the skill sets to meet their needs, understood that an Adaptation Course was part of the contract. According to DHSSPS statistics 779 overseas nurses joined the workforce up to 2005 and thereafter the numbers reduced considerably.

The process for registering as a nurse in the NMC register involves a number of processes[46]:

- Prior to coming into the U.K., each nurse has to provide proof of nurse registration in his/her own country.
- The nurse must pass the International English Language Testing System (IELTS) tests in literacy and numeracy at level 6.5.
- Following arrival in the U.K., he/she is required to undertake a statutory adaptation programme. The length of the programme is dependent upon the speed with which the nurse is capable of demonstrating the required competencies.
- The employer's representative, usually the ward manager, must sign the statutory documentation and forward to the regulatory body for registration as a nurse in the U.K. to be effected.

[44] UKCC Reg/86/09 *The Professional Register: Information, European Directive UKCC Circular Overseas Verification Guidance;*
[45] Rivett G, *National Health Service History*, Chapter 4: 1978-87, Chapter 5: 1988-97, Chapter: 6 1988-2007
[46] NMC, *Overseas Nursing Programme Requirements*, 2004

The UKCC issued a Registrar's Letter[47] setting out reasons for requiring additional experience. The relevant legislation[48] requires each applicant for registration to be considered based on:

- the length and content of original training
- any subsequent relevant post-registration experience and
- supporting references

Prior to 2005 it was the responsibility of the employer to ensure that the overseas nurse obtains the competencies of Rule 18 to enable registration with the regulatory body. In most cases the trust nurse director is responsible for ensuring that the overseas nurse has a mentor who works alongside him/her to facilitate learning and completion of the required competencies contained in a prepared portfolio.

In respect of Intravenous Fluid Management, record keeping, communication and accountability the following information is contained in the portfolio[49]:

Appendix 2: Index of Generic Competencies[50]

No. 2	*Use trust documentation correctly, in accordance with NMC Guidelines for records recording keeping*
No. 4	*Successfully complete the admission of a patient to their clinical area*
No. 8	*Identify specific policies, procedures and competencies and know the location of organisational policies and procedure manuals*
No. 12	*Correctly monitor patients' fluid balance and nutritional statutes and provide appropriate support via intravenous fluids, oral and tube feeding*

Competence No. 2: Ward and Hospital documentation[51]

- *Demonstrate understanding of principles of good documentation as outlined in the "Guidance for Records and Record Keeping" (UKCC 1998 and revised NMC 2002)*

[47] UKCC Registrar's Letter 20/1992, 3rd August 1992
[48] Nurses, Midwives and Health Visitors Rules 1983, Rule 8
[49] Craigavon Area Hospital Group Trust, *Supervised Practice Programme for Adaptation Nurses,* undated
[50] *ibid.*, p.6
[51] *ibid.*, p.8

- *Produce written documents that reflect UKCC/NMC guidelines*
- *Accurately and correctly record observations*

Competence No. 4: Admission of a Patient[52]

- *Identify and discuss the significance of observations and use these to develop an initial assessment*
- *Develop and implement a plan of nursing care, with the patient's co-operation (as appropriate), based on the assessment of the patient, taking into account medical instructions*

Competence No. 9: Medicine Administration[53]

- *Demonstrate understanding of the Trust Administration of Medication Policy*
- *Demonstrate understanding of the NMC "Guidance for the Administration of Medicines"*
- *Demonstrate understanding of the Trust prescribing documentation*
- *Demonstrate competence for the following clinical activities/procedures:*
    - *Administration of medicines*
    - *Checking and administration of blood products*
    - *Checking and administration of I.V. infusions*

Competence No. 12: Nutritional Assessment and Support[54]

- *Demonstrate knowledge and understanding of the need for accurate fluid intake/output recordings*
- *Demonstrate knowledge and understanding of patient's nutritional requirements*
- *Demonstrate knowledge and understanding of fluid and electrolyte balance and use of IV fluids to address deficits*
- *Demonstrate ability to pass on information to patients appropriate to their level of understanding*

[52] *ibid.*, p.10
[53] *ibid.*, p.15
[54] *ibid.*, p.12

Competence No. 13: Neurological Monitoring[55]

- *Demonstrate competence at monitoring and recording the patient's neurological status and report any changes that might indicate a neurological problem*

Competence No. 14: Management/Organisation of Patient Care[56]

- *Delegate tasks appropriately to other members of the nursing team and monitor same*
- *Liaise with medical staff and other members of the multi-disciplinary team, regarding care and treatment of patients*
- *Competently participate in a medical ward round, demonstrating understanding of patient's care, treatment and needs*
- *Discuss at an appropriate level and pace with the patient and/or their relative/significant other, information regarding their plan of care*

After 2005 all employers and overseas nurses had to comply with NMC directives in relation to programme outcomes and protected study time[57].

Attached to this report is a copy of the original portfolio and an approved overseas theoretical programme that includes a ward based induction and assessment profile. The programme followed by the students is similar in content to that outlined above as both documents were designed to meet the competencies of Rule 18(1) of the Nurses, Midwifes and Health Visitors Act 1979.

Return to Professional Practice Programme[58]

Across the U.K. there was a focus on encouraging nurses to return to the profession to augment the depleted workforce. Following a short period of updating they are ready to contribute to the nursing workforce as a more confident practitioner. Support for return to practice was evident as employers considered it to be an

[55] *ibid.*, p.13
[56] *ibid.*, p.14
[57] Overseas Nurse Programme briefing for approved educational institutions, undated
[58] DHSSPS Nursing Workforce, 2002; DHSSPS Nursing Workforce, 2005; UKCC, *Registrar's Letter: Return to Practice Programmes for Nurses and Health Visitors PS&D/86/06*, 1986; UKCC, *Registrar's Letter 7/1996 Revised Guidance*, 1996

expedient measure to enhance the nursing workforce. To attract a higher number of nurses back into the NHS some of the efforts made by the Departments of Health throughout the U.K. include:

- Media and advertising campaigns
- Establishment of NHS careers
- Provision of bursaries for Diploma Nursing Students
- More flexible pathways to entering nursing
- Flexible working arrangements and education programmes
- Provision of financial incentives to support the process of retraining

In Northern Ireland there was considerable success in encouraging nurses to return to the workplace. The returning nurses were all supported by participation on the 'Return to Professional Practice Programme' which was available free of charge to all who wished to avail of the opportunity. In Northern Ireland over 800 nurses have completed the Return to Practice Programme since it commenced around 2000.

All nurses out of practice for five years or longer are automatically removed from the nursing register and can only return when they have successfully completed a statutory Return to Professional Practice Programme[59]. The purpose of such a programme is to enable a nurse to re-enter professional practice with up-to-date knowledge and skills, and the confidence necessary to maintain safe and effective standards of patient and client care. The statutory requirement came into effect on 1st April 2000.

On completion of the Return to Practice programme the nurse will need to be able to demonstrate that she/he has achieved the following learning outcomes[60]:

- An understanding of the influence of health and social policy relevant to the practice of nursing, midwifery and health visiting

[59] Nurses, Midwives and Health Visitors Rules 1983, Rule 6(1D)
[60] NMC, *Guidance for Return to Nursing programmes*, 2000

- An understanding of the requirements of legislation, guidelines, codes of practice and policies relevant to the practice of nursing, midwifery and health visiting
- An understanding of the current structure and organisation of care nationally and locally
- An understanding of the current issues in nursing, midwifery or health visiting education and practice
- An ability to use relevant literature and research to inform the practice of nursing, midwifery and health visiting
- The ability to identify and assess need, design and implement interventions and evaluate outcomes in all relevant areas of practice. This will include the effective delivery of appropriate emergency care
- Appropriate communications, teaching and learning skills
- The ability to function effectively in a team and participate in a multi-professional approach to the care of patients and clients
- The confidence and skills to identify your strengths and weaknesses, acknowledge limitations of your competence and recognise the importance of maintaining and developing your professional competence and practice
- The knowledge and skills to provide safe, competent care.

Appended to this report is an In-service Consortia produced programme document in January 2006 entitled "A Return To Professional Practice - Course for Nurses" which includes the competencies to be achieved prior to becoming eligible for renewal of registration.

POST REGISTRATION NURSE EDUCATION (CONTINUING PROFESSIONAL DEVELOPMENT)

Historical Perspective Prior To 1990

Prior to the setting up of the UKCC and the regulation of Specialist Practice in 1995 each country had a system of providing short and long courses. These programmes were aimed at enhancing the knowledge and skill base of registered nurses working in areas where specialist skills not included in the basic curriculum were needed. These included high dependency areas such as Intensive Care for Adults or Children, Care of Elderly and Coronary Care.

Long courses of approximately six months or more would have been submitted to the local regulatory body for approval and they would then have reciprocity within the other U.K. countries. Most of these courses were approved and delivered at the larger Belfast Hospitals because they housed all the specialist units and had the only specialist sick children's hospital in the province. Nurses seconded on the programme attended the theoretical component and worked in the specialist unit until successful completion. The long courses are currently converted into specialist practice recorded qualifications or accredited modules that count towards a HEI award.

Short courses lasted between three and six days and were primarily theoretical programmes. Theses courses were more widely available in many of the Colleges of Nursing and addressed more general aspects of nursing care to include infection control, therapeutic management of violence, medicines management and the safe handling of patients.

Changes in Post Registration Education Since 1990

The UKCC was established by the Nurses, Midwives and Health Visitors Act 1979. The principle functions of the Central Council are to establish and improve standards

of training and professional conduct and guidelines for the three professions in relation to education practice and conduct[61].

In order to fulfil its responsibilities the Council published a number of policy and guidance documents that were widely circulated to registrants, employers and other key stakeholders. Standards for Education and Practice following Registration was published in 1994 and set out a number of changes for the future of post registration education and practice. These included:

- a new system of specialist practice recordable qualifications
- mandatory professional updating within a three year period
- return to professional practice programmes for persons out of practice longer than 5 years

The UKCC produced a number of guidance documents to employers and the professions of nursing, midwifery and health visiting, including:

- UKCC Code of Professional Conduct 1984, revised June 1992
- Exercising Accountability, March 1989
- Scope of Professional Practice, 1992
- Standards for Records and Record Keeping, April 1993
- Guidelines for Records and Record Keeping 1993, updated 1998
- Standards for the Administration of Medicines, October 1992
- Guidelines for Professional Practice, June 1996
- PREP and You, 1997
- Handbook 1999-2000
- PREP Fact Sheets, 1995

[61] Nurses, Midwives and Health Visitors Act 1979, s.2(1)

Code of Professional Conduct

In 1984 a revised Code of professional conduct was published. The code required:

Each registered nurse, midwife and health visitor shall act at all times in such a manner as to:

- *safeguard and promote the interests of individual patients and clients*
- *serve the interest of society*
- *justify public trust and confidence*
- *uphold and enhance the good standing and reputation of the professions*

As a registered nurse, midwife or health visitor, you are personally accountable for your practice.

The Code of Conduct was followed in 1989 by another very important guidance document "Exercising Accountability; A framework to assist nurses, midwives and health visitors to consider ethical aspects of professional practice"

This advisory document was produced in order to establish more clearly the extent of the accountability of those persons registered with the Central Council and to assist them to achieve higher standards of professional practice. The document includes the following guidance[62]:

Summary of the principles against which to exercise accountability

1. *The interest of patients and clients are paramount*
2. *Professional accountability must be exercised in such a manner as to ensure that the primacy of the interest of patients or clients is respected and must not be overridden by those of the professions or their practitioners*
3. *The exercise of accountability requires the practitioner to seek to achieve and maintain high standards.*
4. *Advocacy on behalf of patients and clients is an essential feature of the exercise of accountability by a professional practitioner.*

[62] UKCC, *Exercising Accountability*, March 1989, Section H

5. *The role of other persons in the delivery of health care to patients or clients must be recognised and respected, provided that the first principle above is honoured.*
6. *Public trust and confidence in the profession is dependent on its practitioners being seen to exercise their accountability responsibility*
7. *Each registered nurse, midwife or health visitor must be able to justify any action or decision not to act taken in the course of her professional practice.*

In 1990, the move of student nurse training from certificate to diploma level had an influence on the status of colleges of nursing and teaching staff employed in them. It also had an impact on a very large percentage of clinical nursing staff that were at certificate level and had to supervise diploma level students. The sponsoring university approved Colleges of Nursing and teaching staff to deliver university-validated programmes. Clinical staff was encouraged to increase their academic portfolio thereby enabling them to better support the new breed of student. Universities entered into an arrangement that allowed experienced nurses to undertake specialist practice diploma and degree courses assisted by an APEL (Assessment of Prior Experiential Learning) system.

Perusal of Specialist Practice Programmes delivered through the Higher Education Sector in Northern Ireland reveals that only one course in relation to the care of children in Intensive Care was delivered in the middle 1990s at Queen's University[63]. Some nurses were seconded to England to undertake courses in Neo-natal care of the new born. It is unlikely however that these nurses would have been deployed in general children's wards. However Queen's University delivered a number of accredited 12-week modules.

Specialist Practice Programmes

The UKCC working group, in collaboration with Government health departments and other key stakeholders, agreed that there was a need for some practitioners to

[63] Queen's University, Belfast, BSc (Hons) Specialist Practice in Nursing Intensive Care Nursing for Children, undated

practise at a higher level in order to meet the needs of patients and clients with specialist requirements[64]. As a wider policy it was recognised that nurses who were appropriately trained and had their qualification could competently deliver some care delivered by doctors. Nurses practising at specialist level exercise higher levels of judgement, discretion and decision-making in clinical care. They are expected to monitor and improve standards of care through supervision of practice, clinical audit, the provision of skilled professional leadership and the development of practice through research, teaching and the support of professional colleagues[65].

The regulatory body was keen to ensure that nurses received appropriate education and related experience to undertake the enhanced role[66]. This was considered necessary also to ensure public protection. The UKCC therefore required nurses practising at this level to have their educational qualification recorded in the Council's register.

From October 1995 new programmes of education leading to the qualification of specialist practitioner became available at higher education institutions across the U.K. To obtain a specialist practitioner qualification the registered nurse must undertake a programme of education with standards set by the regulatory body. On successful completion of the programme the regulatory body will enter the qualification and the area of specialist practice by the nurse's name on the register[67].

Preparation for Specialist Practice

The preparation for specialist practice concentrated on four main areas, and the practitioner should achieve the following outcomes in each area[68]:

- Clinical Practice

[64] UKCC, *Registrar's Letter 20/1994*, 14th December 1994
[65] UKCC, *PREP Fact Sheet 6*, 1995, p.1
[66] UKCC, *Registrar's Letter 20/1994*, 14th December 1994, Annexe One
[67] UKCC, *Registrar's Letter 11/1998 – Standards for Specialist Education and Practice*, 30th April 1998, s.9
[68] *ibid.*, s.11

- assess health, health related and nursing needs of patients and clients, their families and other carers by identifying and initiating appropriate steps for effective care for individuals and groups;
- set, implement and evaluate standards and criteria for nursing interventions by planning and providing and evaluating specialist clinical nursing care across a range of care provision to meet the health needs of individuals and groups requiring specialist nursing;
- assess and manage critical and clinical events to ensure safe and effective care;
- support and empower patients and clients, their families and other carers to influence and participate in decisions concerning their care by providing information on a range of specialist nursing care and services;
- facilitate learning in relation to identified health needs for patients, clients and carers
- provide counselling and psychological support for individuals and their carers;
- act independently within a multi-disciplinary/multi-agency context and
- support and empower patients, clients and their carers to influence and use available services, information and skill to the full and to participate in decisions concerning their care.

- Care and programme management
  - supervise and manage clinical practice to ensure safe and effective holistic research-based care;
  - initiate and contribute to strategies designed to promote and improve health and prevent disease in individuals and groups by identifying and selecting from a range of health and social agencies, those that will assist and improve care and

- recognise ethical and legal issues which have implications for nursing practice and take appropriate action

- Clinical practice leadership
  - lead and direct the professional team clinically, to ensure the implementation
  - identify individual potential in registered nurses and specialist practitioners, through effective appraisal systems. As a clinical expert advise on educational opportunities that will facilitate the development and support of their specialist knowledge and skills to ensure they develop their clinical practice and
  - ensure effective learning experiences and opportunity to achieve learning outcomes for students through preceptorship, mentorship counselling, clinical supervision and provision of an educational environment.

- Clinical practice development
  - create an environment in which clinical practice development is fostered, evaluated and disseminated;
  - initiate and lead practice development to enhance the nursing contribution and quality of care;
  - identify, apply and disseminate research findings related to specialist practice and
  - explore and implement strategies for quality assurance and quality audit. Determine criteria against which they should be judged, how success might be measured and who should measure success

In order to achieve the outcomes above, the content of the programmes of education should include[69]:

- health promotion, health education and health needs identification

[69] *ibid.*, s.12

- biological, behavioural, sociological and environmental studies;
- nature and causation of disease and/or conditions and their physical, emotional and social consequences;
- advanced pharmacological studies and nurse prescribing from a nursing formulary, where the legislation permits;
- diagnostic, therapeutic resuscitative, and technological procedures and techniques;
- ethics of professional practice and relevant literature/legislation;
- problem solving and decision making;
- preventative strategies and intervention techniques for abuse and violence
- counselling, support, communication and related therapeutic techniques
- quality assurance - evaluation of standards and outcomes of clinical nursing care;
- leadership, management and resource management skills;
- health economies and policy;
- research methodology and implications for practice;
- application of information technology and its application to practice;
- approaches to education and teaching skills and
- clinical supervision of practice, peer review and peer assessment techniques.

Eligibility for recording the specialist qualification is dependent on having completed a programme of preparation that is:

- at no less than first degree level
- no less than an academic year (32 weeks minimum), full time or part time equivalent and
- made up of 50% theory and 50% practice[70].

These programmes included courses in intensive care of adults or children, district nursing and nurse teacher qualification. Nurses undertaking programmes leading to "recorded" qualifications in Northern Ireland were therefore required to

[70] *ibid.*, s. 9.4

demonstrate similar competencies to those students pursuing the same course elsewhere in the U.K.

Successful completion of the programme was tested through a menu of written and practical assessments in line with the higher education institution assessment portfolio and was monitored by NBNI.

A Queen's University Specialist Practice Programme in Paediatric Intensive Care Nursing was approved in 1997 but was never utilised due to too few numbers of nurses to make the course viable.

A BSc (Hons) Specialist Practice in Nursing Intensive Care Nursing for Adults programme is also available and there is reference to IV fluid management in seriously ill patients, however no reference to hyponatraemia is evident. This programme has been commissioned by employers and has been delivered on a number of occasions.

Statutory Professional Updating / Continued Professional Development

In 1995, new legislation created by Parliament required the UKCC to implement statutory professional updating all nurses, midwives and health visitors. The primary function of this legislation was to maintain and update knowledge and skill thereby protecting patients and clients. The minimum updating requirement is the equivalent of 5 days of study in a three-year period and is an absolute prerequisite for renewal of registration. Professional updating has to be linked to the field of practice in which the nurse is working. Within the profession of nursing this updating is commonly known as PREP (Post Registration Education for Practice). The PREP timetable required that all practitioners were notified of the new requirements as they renewed their registration on or after 1st April 1995[71].

[71] UKCC, *PREP Fact Sheet 1*, 1995, p.2

The four key PREP elements to maintaining registration[72]:

- completing a notification of practice form at the point of re-registration every three years and/or when your area of professional practice changes to one where you will use a different registerable qualification;
- a minimum of five days or equivalent of study activity every three years;
- maintaining a personal professional portfolio containing details of your professional development
- a return to practice programme if you have not practised for a minimum of 750 hours or 100 working days in the five year period leading up to the renewal of your registration (from 1st April 2000).

In-service Training - Northern Ireland

When DHSSPS decided to integrate student nurse education into the higher education sector in 1997, it was also decided that statutory professional updating and role specific development of nurses and midwives would remain the responsibility of the DHSSPS and employers. The DHSSPS demonstrated their commitment by setting up In-service Education Units within each Health and Social Services Board area. Qualified teachers employed in the Colleges of Nursing who did not wish to transfer with the students into the HEI sector staffed the In-service consortia. To enable employers to access continuing professional development courses for their staff in an efficient and cost effective way it was decided to set up a service level agreement with the Trust.

Since 1997 most of the continuing professional development education has been delivered by the In-service Consortia. Many of the short courses that were delivered prior to 1990 continue to be delivered by the In-service Consortia and are updated on an ongoing basis in line with best practice guidelines. Many of these courses have been developed as work-based modules to include Emergency Care of the Child, Anaesthetic Course for Nurses and Principles of Paediatric Intensive Care Nursing.

[72] *ibid.*, p.3

All study days and short courses are contained in yearly brochures and available for inspection. Each study day, workshop or short course delivered has the broad lecture content and learning outcomes attached. The planned programmes detailed in the brochures resulted from strategic planning taking account of what was happening in health care generally and included service developments, departmental circulars, regulatory body guidance and statutory changes.

The records show that, from 2008 onwards, there was a significant increase in the number of study days or workshops on the Management of Intravenous Fluids particularly for children and for young adults. In relation to the themes of intravenous fluids, record keeping, accountability and communication skills contained in the In-service training brochures there are many study days, workshops and modules referenced.

In addition to the published brochure programmes the in-service units offer an education consultancy facility. The purpose of this service is to respond to urgent requests for training to enable competence in areas where nursing skills and knowledge were lacking or to facilitate service developments. The programmes are tailor-made to suit the specific trust requirements. Examples of such programmes include records and record keeping and erection of IV fluids by nurses.

The In-service provision of education and training is delivered employing three options: short courses, study days or consultancy. The benefit of consultancy is that Trusts can request a tailor made programme for a number of their staff and it is delivered on their premises.

Trust Managers communicate their requests to the In-service director indicating where, when and how they wanted the programme delivered. A very comprehensive record-keeping system was developed to provide the maximum information to

employers. This includes the date of request, programme content and learning objectives and attendees.

The benefit of training delivered by the In-service teams is that qualified teachers with clinical expertise develop the programme using evidence-based material. The In-service activity is quality assured by NIPEC on behalf of the Department of Health. Courses such as 'Return to Practice' are quality assured by Quality Assurance agents on behalf of the NMC. Stand-alone modules and foundation degree modules are subject to the validation process by the University of Ulster.

The letter circulated from DHSSPS in 2002 and 2007 to Trust managers regarding concerns about the care of children suffering from hyponatraemia was not circulated to education providers.

There are currently two In-service Units:

1. Beeches Management Centre (BMC) Nursing & Midwifery Education Unit (initially called Provider Support Unit) based on two sites at Craigavon Hospital and Knockbracken Health Care Park providing training for the Southern, South Eastern and Belfast Trusts

2. Educare based on two sites at United Hospitals Antrim and Altnagelvin Hospital providing training for Northern and Western Trusts.

Beeches Management Centre Nursing & Midwifery Education Unit[73]

Information provided by BMC Nursing & Midwifery Unit indicates that, when they became aware of the Department of Health's circulated letter in 2007 relating to Hyponatraemia, study days on this topic were offered to Trusts in the Southern and

[73] BMC Nursing & Midwifery Education Brochures 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009; BMC Nursing & Midwifery Education Consultancy Records

Eastern Health & Social Services Boards. However, the days had to be cancelled due to lack of uptake.

In 2008/09, and following the RQIA inspection, several requests came from trust managers to deliver the training on individual hospital sites. BMC Nursing & Midwifery Unit records show that in the period 1997-2009, 352 sessions on Records and Record Keeping were delivered to nurses, midwives and health visitors in the Eastern and Southern Health Board areas. Records also show that commencing 4th July 2008, 10 sessions on "fluid management in children" were delivered to registered nurses only in the Southern Trust[74].

Educare In-Service Education Unit[75]

Information provided by Educare shows that, though there were many sessions on I.V. management, there is no mention of hyponatraemia in the content until April 2008. Between September 1999 and August 2005, there were 21 x 4-day sessions on "Management of Intravenous Therapies" offered to trained nursing staff at the United Hospital trust[76]. However there are no references to hyponatraemia in either the aims or learning outcomes for the sessions.

Records[77] show three study sessions on Intravenous Fluid management in children, including reference to hyponatraemia, dated November 2006, January 2007 and November 2007 were cancelled due to insufficient numbers. Two sessions in April and May 2008 did proceed. During 2008 a number educational developments are noted including a module on "Emergency Care of the child", 2-day courses on the care of the 14-18 year old in acute hospital settings, as well as a PowerPoint presentation on the Role of the Nurse in Paediatric Intravenous Fluid Therapy. The

[74] BMC Nursing & Midwifery Education Consultancy Records
[75] North And West Unit: Extracts from In-service brochures from 1998,1999, 2000, 2001, 2002, 2003, 2004, 2005; United Hospital In-Service Unit: Extracts from Brochures 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005
[76] United Hospitals In-Service Education Unit, *In-Service Nursing Education Directory*
[77] North and West In-Service Consortium, *Education in the Prevention and Management of Hyponatraemia to Nurses in the former Western HSC Trust and Northern HSC Trust*

programmes highlighted above were delivered to nurses only. Meanwhile there were shared initiatives by doctors and nurses at ward/department level that will be developed later.

In-service Training - United Kingdom

In an effort to provide information on how In-service training is managed on a U.K. wide basis, a questionnaire was circulated to nine children's hospitals in England, Scotland and Wales to elicit their education approach and establish their awareness of the subject. The nine questionnaires were returned and are attached to this report for scrutiny.

Following the transfer of student nurse training into the higher education sector across mainland U.K., each trust was required to take responsibility for continuing education development and statutory professional updating. From the information collected, it appears that each trust set up a Practice Development Unit that supports practice development and on-going education needs.

In relation to hyponatraemia training, it is evident that the National Patient Safety Agency (NPSA) circulated alert notices to children's hospitals following the deaths of children in Northern Ireland. The questionnaire responses indicate that most trusts had safety measures in place prior to the NPSA alert. Some trusts state that their policies and procedures required minor alterations to comply with safe evidenced-based practice. Other responses indicate that the NPSA alert prompted a recognition that updating was necessary and training was delivered to nurses working in children's wards and departments. Policies and procedures were also updated.

Hospital Based In-Service Training & Documentation

Trust In-house Training

In-house training describes training of staff by Trust employers. It often included such topics as:

- health and safety
- protection of vulnerable adults
- control of substances hazardous to health regulations (COSHH)
- clinical conditions and related nursing care

Training was usually done on a need to know basis. In most cases, it was not possible to obtain records of what was taught or by whom or who attended or what quality assurance processes were in place. In this regard, there has been a failure to keep adequate records of these training procedures.

Care Planning Records

It is a legal requirement that documentation is completed on each patient regardless of how short the nurse/patient contact. In 1972, the Nursing Department decreed that the Nursing Process was to be implemented throughout hospital and community facilities. It was also a requirement that new documentation reflecting the four stages of the process would be made available in all settings where nursing care was delivered.

The assessment sheet is formatted with headings reflecting the 12 activities of daily living based on the Roper, Logan and Tierney model of Nursing. The admitting nurse will complete the assessment sheet reflecting the patient's condition on admission. Following the assessment, a plan of care will be devised that will take account of doctor's orders and the nursing care needs of the patient. A registered nurse must sign this plan and there is a requirement to update the plan in line with

the patient's condition. The implementation phase is the actual delivery of care to the patient and this should be in line with the care plan. When the care is delivered, an assessment is made of the patient's progress or deterioration and this is recorded on the evaluation sheet.

Apart from the legal requirement to have a care planning record, it is also a very important source of learning for student and registered nurses new to that clinical area. It is also an important source of communication for the whole team involved in a patient's care.

Depending upon the type of illness and related treatment other records may be required to supplement the care plan. These include instances where specific observations are required, to include intake/output recording, temperature pulse and blood pressure recording and coma scores to assess level of consciousness.

Procedure Manuals

In 1970, in line with Northern Ireland Council for Nurses and Midwives guidance, a decision was taken to group schools of nursing on an Area Board basis. This event happened just prior to the implementation of the 1973 syllabus that included the introduction of practical assessments into the student nurse education programmes. All possible efforts were made to standardise nursing procedures so that students were assessed against set criteria.

Each group school, in collaboration with clinical colleagues, set about collating a procedure manual that gave guidance on how best to deliver safe and effective nursing care in line with best practice. In the clinical situation the students were then assessed against the procedure. In more recent times, most hospitals across the UK have moved to using the Royal Marsden Procedure Manual[78]. This manual is very

[78] Prichard P, Mallett J, *The Royal Marsden Hospital Manual of Clinical Nursing Procedures*, 3rd edition, 1992

highly rated across healthcare facilities due to the research based evidence and rationale for each technique and is updated on a regular basis.

The importance of the Royal Marsden procedure manual as a legal document cannot be under estimated. Once the use of the manual is the accepted policy by a Trust Board it is the employer's expectation that all staff involved in caring for patients adhere to the recommended procedures e.g. safe invasive prone procedures, hygiene requirements, aseptic procedures to include wound dressing or erection of I.V fluids, etc.

HOSPITAL BASED RESPONSE TO DEPARTMENTAL GUIDANCE 2002 & 2006[79]

An extensive search has been undertaken to establish what action was taken following the circulation of the DHSSPS 2002 Guidance to hospital trusts on the management of hyponatraemia. The only documentary evidence discovered relates to activity at Daisy Hill Hospital Newry around 2003/04. This took the form of a very comprehensive document entitled "Audit on the Management of Hyponatraemia" and is available for inspection.

Around June 2003, the Clinical Resource Efficiency Support Team (CREST) under the auspices of the DHSS&PS Central Medical Advisory Committee issued guidelines on the "Management of Hyponatraemia in Adults". It appears that this document was widely circulated and attention was drawn to it at ward management meetings in some of the hospitals.

With the exception of Altnagelvin and Daisy Hill hospitals, and by Trust staff's own admission, there was little attention paid to the Department of Health Guidance on the Management of Hyponatraemia that was circulated in 2002. It appears that there

[79] CREST, *Hyponatraemia – A disorder of water balance which is potentially fatal*, 2003; CREST, *The management of Hyponatraemia in Adults*, 2003; Acting Chief Medical Officer, *Circular to Trusts: Prevention of Hyponatraemia in Children*, 2006; CREST, *Management of Hyponatraemia in Adults – PowerPoint presentation at Stormont Hotel and attendee list*, 2003

was tension between some Trusts' views and the DHSSPS guidance and this led to reluctance by some medical staff to proceed with the implementation. After discussion with medical colleagues and minor changes, the DHSSPS guidance was reissued in 2006.

Following the second circulation of the guidance, the Regulatory and Quality Improvement Authority (RQIA) in 2007 undertook a province wide assessment of how Trusts were implementing the revised directions. The RQIA report indicated that changes in practice were patchy and a further inspection was arranged for November 2009.

Appended to this report is a collection of Trust based documentation that includes policies, procedures, relevant in-house teaching information, attendance records and recording sheets i.e. fluid intake and output charts.

One significant finding is that every trust has revised and updated the prescription, administration instructions and fluid intake and output documents reflecting the efforts to prevent the development of hyponatraemia in children.
Another finding applicable to all trusts is the requirement for both nursing and medical staff to undertake and successfully complete the BMJ e-learning module on Hyponatraemia in Children. The participation in this training is an ongoing process for all trusts with new staff undertaking the module as part of an induction programme.

Belfast Trust

The above trust has provided a ring file containing a large amount of hyponatraemia related documentation[80]. All of the documents are of recent origin and it has not been

[80] Generic Medical Record Keeping Standards, September 2008; Policy guidance on "Hyponatraemia: reducing the risk in patients aged 1 month up to 15 years", September 2009; Paediatric Intravenous Fluid Therapy & Hyponatraemia (PowerPoint presentation), October 2009; Paediatric Fluid Prescription Chart, October 2009; In-house Attendance Record of Staff who Attended Training on Hyponatraemia; Preceptorship Programme; An Evaluation of how New Paediatric Fluid Balance Sheets fulfil NPSA recommendations on Intravenous Fluid

possible to locate documents from any of the previous trusts that now make up the Belfast Trust. In the bundle provided there are policy and procedure documents specifically developed to monitor fluid balance prescription, administration and observation of the child. The development of these documents, policies and associated in-house training was a shared effort including nurses, medical and pharmaceutical colleagues.

The Royal Marsden Procedure Manual has been the guidance document of choice since it was first published. The previously independent Trusts that have merged to become the Belfast Trust also used the Royal Marsden Manual and invested in the updated versions as they were published.

Northern Trust

All educational activity in the Northern Trust has been delivered through the In-service consortium based at Antrim Hospital since 1997, later amalgamating with the North West consortium to become Educare in 2005.

Documentation from the Trust includes a letter from the Medical Director dated 29th June 2007 advising that No.18 solution will not be on any wards in the trust except where it has been prescribed by a consultant[81]. Records of educational activity in relation to the management of intravenous fluids shows that there was no reference to hyponatraemia, however a handout entitled "Intravenous Therapy in Fluid and Electrolyte Imbalance" was circulated and it includes reference to the topic.

Prescription I Children, August 2009; RQIA Report following Validation Visits to Trusts: "Reducing the risk of hyponatraemia when administering intravenous fluids to children", September 2008; Recording Fluid Balance Charts, August 2008; Royal Hospitals and Dental Hospital Policy – Administration of Intravenous Medicinal Products, August 1994; Principles of Paediatric Intensive Care Nursing (200 Effort hours equivalent of 13 week module)

[81] Letter from Dr P Flanagan, Medical Director, Northern Health and Social Services Trust, *Fluid Management in Children*, 29th June 2007

In February 2008, the Trust introduced a "Clinical Incident Trigger List - Administration of IV Fluids to Children (1 month - 16th Birthday)"[82]. Towards the end of 2009[83], the Trust was in the process of implementing a suggested template of the prescription of intravenous infusions for children issued by NHS National Patient Safety Agency (NPSA)[84]. The template acts as a prescription and record document and contains specific guidance on "maintenance fluid, fluid deficit and ongoing losses."[85] The newly introduced trust documentation and identified training needs delivered in-house were the result of multi-professional collaborative working.

South Eastern Trust

Discussions with senior management revealed that, while there was no documentary evidence, training did take place. This took the form of an agreed teaching plan with awareness sessions for staff working in theatres and intensive care units. The teaching content was influenced by the DHSSPS 2006 guidelines.

The Woman and Child Health Directorate introduced a Guideline on "IV fluid Management in Children" in September 2005[86]. Point 4 of the Guideline highlights the possible complication of hyponatraemia in high-risk groups of children.

Since 2005 all newly appointed staff undertake an induction programme where competencies 9 and 12 refer to the management of I.V. fluids records[87]. The Trust has adopted the Northern Trust's "Clinical Incident Trigger List - Administration of IV Fluids to Children (1 month - 16th birthday).

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[82] Northern Health and Social Services Trust, *Clinical Incident Trigger List – Administration of IV Fluids to Children (1 month – 16th Birthday)*, February 2008
[83] Memorandum from Dr P Flanagan, Medical Director, Northern Health and Social Services Trust, *Implementing Trigger List for Administration of IV Fluids to Children (1 Month – 16th Birthday)*, 14th August 2009
[84] NHS National Patient Safety Agency, *NPSA/2007/22 Patient Safety Alert: Reducing the risk of hyponatraemia when administering intravenous infusions to children*, 28th March 2007
[85] NHS National Patient Safety Agency, *NPSA/2007/22 Suggested template for prescriptions for intravenous infusions for children*, 28th March 2007
[86] Ulster Community and Hospitals Trust, Woman and Child Health Directorate, *Guideline: (115) 2005:IV Fluid Management in Children*, September 2005 (Reviewed October 2006)
[87] Ulster Community and Hospital Trust, Induction Programme for D Grade Nursing Staff, 2005, pages 14 & 17

While most nurse and medical training was delivered on a uniprofessional basis, there was shared learning in relation to policy, procedure and documentation changes.

Southern Trust

The above Trust has also produced a ring file containing many documents that relate to past and present guidance for staff on the topics of concerned to this report[88].

Inspection of the file indicates that all of the in-house instruction on hyponatraemia was delivered in 2009 with the exception of one PowerPoint presentation delivered in Daisy Hill Hospital in 2007. The BMC Nurse Education team delivered this presentation. A large number of nurses and medical staff had undertaken the e-learning module on hyponatraemia[89]. In 2009 a small team of senior nurses appointed from within the trust undertook most of the in-house training delivered to nurses. The training lasted about two hours and was primarily information giving in nature.

The Trust operates a rotational programme for newly appointed staff nurses dating back to 2002 and there are a number of competencies that must be achieved. The relevant competencies are listed as follows[90]:

Competence No.5 Knowledge and skill based:

- *demonstrate the safe and accurate administration of medicines in their various forms – compliance with Trust Policy*

[88] Southern Health and Social Services Trust, Action Plan, November 2009; Hyponatraemia RQIA Independent Review, Self Assessment Questionnaire, September 2009; Paediatric Intravenous Infusion Policy and associated Medical, Nursing and Midwifery and Audit Procedure and Incident Reporting Trigger list, November 2009; Nurse Training and Induction (Paediatric & General); Audits completed for Newry & Mourne Trust 2004/05; Records Management Policy, November 2007

[89] Southern Health and Social Services Trust, *Statistical data on the attendance of hyponatraemia training (Nursing & Midwifery) and statistical data on the completion of the BMJ e-learning module*

[90] Craigavon Area Hospital Group Trust, *Staff Nurse Rotational Programme*, 2002

- *administration and recording of intravenous fluid*

Competence No.13 Management of Patient Care

- *demonstrate effective communication with all members of the ward team*
- *communicate effectively with patients and relatives*
- *demonstrate the correct procedure for setting up intravenous infusion*
- *identify the principles of accurate record keeping as outlined in the NMC document: Records and Record Keeping (2002)*
- *written documentation reflects the NMC's principles for practice*

Since approximately 1985 the Royal Marsden Procedure Manual was employed to provide guidance for both registered and student nurses when, in particular, undertaking invasive prone procedures.

Western Trust

Information provided by the Western Trust demonstrates that they acted on the first communication received from the DHSSPS back in 2002. This took the form of concerns regarding the accuracy of the information and guidance to trusts. The 2006 guidance emanating from the Department concurred with the medical views and the guidance was accepted. A consultant anaesthetist and a risk manager undertook the training of nursing staff in relation to the management of hyponatraemia. By the end of 2009 over 300 nurses had received training provided via CD-ROM programme.

In March 2008 the Trust circulated a "Policy for Prescribing Intravenous Fluids to Children"[91]. A PowerPoint presentation on hyponatraemia accompanied a handout from NPSA on "reducing the risk of hyponatraemia when administering intravenous infusions to children" was commenced in 2008[92].

[91] Western Health and Social Services Trust, *Policy for Prescribing Intravenous Fluids to Children*, 2008; Western Health and Social Services Trust, *Hyponatraemia Guidance Chart*, 2007

[92] NHS National Patient Safety Agency, *NPSA/2007/22 Patient Safety Alert: Reducing the risk of hyponatraemia when administering intravenous infusions to children*, 28th March 2007

EVIDENCE OF RECENT CHANGES IN NURSING PRACTICE ARISING FROM HYPONATRAEMIA DEATHS

The Hyponatraemia Inquiry search for information on pre and post registration nurse education in relation to the prevention of hyponatraemia and record keeping coincided with the RQIA inspection of children's facilities throughout Northern Ireland. There is clear evidence that the seriousness of the impact of hyponatraemia has been brought sharply into focus in both practice and education because of a less than favourable assessment of changes in practice recorded by RQIA. Notification of a second round of inspections created a flurry of activity to include training and policy development. This is evident from the number of new documents and training material during 2008/09[93]. The universities have included sessions in pre-registration programmes. In-service training records demonstrate that nurse managers are requesting training sessions on the topic. Discussions with nurse managers indicate that there have been shared learning sessions on both hyponatraemia and record keeping attended by junior doctors and nurses. Unfortunately there are not always records to support the fact that this training has taken place.

One of the main changes that have occurred in relation to the administration of Intravenous Fluids is that a solution known as No 18 is no longer administered to children[94]. The prescription of I.V. fluids in use in the clinical areas is very much in line with the DHSSPS revised guidelines circulated in 2007.

[93] For example, Southern Health and Social Services Trust, *Action Plan*, November 2009
[94] *ibid.*

THE REPUBLIC OF IRELAND

Historical Perspective

Prior to the partition of Ireland the Nurses Registration Act (Ireland) 1919 set up the General Nursing Council (GNC) that regulated nurses in Ireland, and in the South of Ireland following partition in 1921. The GNC remained in position until legislation[95] established a new regulatory body, An Bord Altranais (the Nursing Board), in 1950. It reports to the Department of Health and Children. Its main functions relate to the promotion of high standards of professional education and training and professional conduct including:

- the maintenance of the register of nurses
- the control of education and training of student nurses and the post-registration education and training of nurses
- the operation of fitness to practise procedures
- the ensuring of compliance with European Union Directives on nursing and midwifery.[96]

In line with other European countries, nurse training must comply with EEC Directives (77/452/EEC and 77/453/EEC). The legislation was updated in 1985 to prepare the way for changes to the apprenticeship model of training[97]. Up to 1994 pre-registration programmes in nursing were at certificate level and took place in healthcare agencies with attached schools of nursing that were under the auspices of the health service[98]. In 1994 the first 3-year pre-registration diploma in general nursing linked to higher education replaced the certificate qualification[99]. The four-year degree programme commenced in 2002 in all pre-registration programmes in

[95] Nurses Act, 1950
[96] An Bord Altranais, "*Nursing/Midwifery: A career for you*", 2010, p. 5
[97] Nurses Act, 1985
[98] An Bord Altranais, "*Nursing/Midwifery: A career for you*", 2010, p. 49
[99] *ibid.*

general, mental handicap and psychiatric nursing[100]. In 2006, a four and a half year honours integrated degree programme in children's nursing and general nursing was offered for the first time[101].

Children's nursing programmes are treated differently in that the three-year registered sick children's nurse qualification continued until 1997. In 1996, legislative changes were introduced that meant children's nursing programmes are only offered as a post registration twelve-month course[102] or as part of an integrated 4½-year registered general/children's nurse[103]. The other significant difference is that the student nurses undertaking the stand-alone post registration children's programme are paid employees and are not entitled to supernumerary status.

An Bord Altranais statistics indicate that across children's facilities in the South of Ireland approximately 50% of nursing staff caring for children do not have a children's qualification. Currently there are significant efforts to increase the ratio of children's qualified nurses, especially in Intensive Care and High Dependency Units.

Pre-Registration Nurse Education

Formal learning

An Bord Altranais curriculum guidance documents were considered from 1979 to date. The content and format of the curriculum guidance documents are similar in presentation to those in circulation in the Northern Ireland or UK mainland. This is to be expected, as all guidance documents are required to meet EEC directives in relation to course content, hours of formal teaching and hours of clinical experience in the presence of patients.

[100] *ibid.*
[101] *ibid.*
[102] *ibid.*, p.47
[103] *ibid.* p.15

The An Bord Altranais Curriculum Documents for Registered Sick Children's Nursing in 1985[104], 1989[105] and 1992[106] contain the following details on Intravenous Fluid Management and Record Keeping:

2. *Physical Science And Related Subjects*

   (a) *Biochemistry and Biophysics*[107]

   - *solution, suspension, osmosis and diffusion*
   - *chemistry of body fluids, including physiological normals*

   (b) *Anatomy and Physiology*

   (iv) Body maintenance[108]

   - *the blood*
   - *the circulatory system*
   - *dynamics of circulation*
   - *water, electrolytes and acid-base regulation*

3. *Principles Of Sick Children's Nursing And Related Procedures*

   (a) *Role of the Sick children's Nurse*[109]

   - *responsibility to patient and family in hospital*
   - *involvement of family in care- patient/parent relationship, patient/nurse relationship, patient/parent/nurse relationship*

   (b) *Understanding the Child*[110]

   - *acutely ill children*
   - *Communication and relationships*
     - *the communication process*
     - *factors influencing communication*
     - *attitudes and feelings*
     - *nurse and child*
     - *nurse and parent*

[104] An Bord Altranais, *Syllabus of Training for Sick Children's Basic and Post Registration*, 1985
[105] An Bord Altranais, *Syllabus of Training for Sick Children's Basic and Post Registration*, 1989
[106] An Bord Altranais, *Syllabus of Training for Sick Children's Basic and Post Registration*, 1992
[107] *ibid.*, p.5
[108] *ibid.*, p.6
[109] *ibid.*, p.8
[110] *ibid.*, p.9

- *interpersonal relationships*

(c) *The hospital ward/department – Ward team*[111]

- *responsibilities*
- *duties*
- *relationships*
- *communications*
- *assisting in planning the patient's day and involvement of parents in care*

(d) *Admission of infants and children*[112]

- *obtaining and recording information*
- *information to parents*

(h) *Care of infants and children*[113]

- *care of patients confined to bed – measuring and recording intake and output*
- *taking and charting temperature, pulse, respirations, apex beat and blood pressure*

4. *Nursing the Infant and Child with Health Problems*

Nursing the child with

- *disturbance of fluid and electrolyte balance*
- *the child in shock*[114]

Consideration of the curriculum documents for 2000[115] and 2005[116] reveals that the syllabus/indicative content is at a conceptual level and details of specific nursing interventions are not included. The indicative content does refer to the importance of all aspects of therapeutic communication and accountability of the role of the nurse.

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[111] *ibid.*, p.10
[112] *ibid.*, p.11
[113] *ibid.*, p.12
[114] *ibid.*, p.15
[115] An Bord Altranais, *Requirements and Standards for Nurse Registration Education Programmes (2nd edition)*, November 2000, section 2.6
[116] An Bord Altranais, *Requirements and Standards for Nurse Registration Education Programmes (3rd edition)*, February 2005, section 2.6

There is no reference in any of the curriculum documents to hyponatraemia as a complication of electrolyte imbalance or what symptoms the patient may present. Verbal feedback from educators and information provided by hospital managers indicate that there was no knowledge of the deaths of children due to hyponatraemia in Northern Ireland. The questionnaire responses concurred with this view[117].

Clinical learning

The clinical experience component of programmes is very clearly set out in the documents and complies with the relevant EEC Directives related to either the certificate or diploma/degree courses. The organisation of the clinical experience component is different to what students experience in the U.K. The final thirty-six weeks of the degree course are entirely clinically based[118] and the students become employees and are paid 80% of a first year staff nurses' salary[119]. During each clinical placement, the student has a specific set of ward-based objectives to achieve[120].

Rule 8 of the Nurses Rules 2004 makes provision for the educational institution to carry out written assessments of knowledge attainment and assessment of competency in clinical nursing skills throughout the period of education and training.

Successful achievement is determined through clinical assessments carried out by the ward-based preceptors who have responsibility for assisting the student's learning.

[117] Mary Godfrey, *Questionnaire in relation to programme content on the topic of Intravenous Therapy Management (with special reference to Hyponatraemia)*, 15th January 2010
[118] An Bord Altranais, "*Nursing/Midwifery: A career for you*", 2010, p. 12
[119] *ibid.*, p. 11
[120] An Bord Altranais, *Requirements and Standards for Nurse Registration Education Programmes (3rd edition)*, February 2005, section 2.6

An Bord Altranais published a guidance document[121] in 2007 for third level education institutions providing a range of academically accredited programmes. Again the syllabus/indicative content is high level and conceptual in presentation.

As a result of contact with the Nursing Department of University College, Dublin a PowerPoint presentation has been forwarded that includes reference to hyponatraemia[122]. The lecture content is focused on pre-registration student nurses training for the qualification in children's nursing and general nursing students.

Records & Record Keeping

Having reviewed all the curriculum guidance documents pertaining to pre-registration nurse training, there is no content related to the importance of Records and Record Keeping prior to the 2006 syllabus. The curriculum document does include indicative content in relation to the elements of the nursing process and the importance of students experiencing this approach to care. It is implicit in this approach that nursing process records are an absolute.

Continuing Professional Development

Continuing professional development of the nursing and midwifery professions in the Republic of Ireland is a relatively recent development and to date there is no statutory updating requirement necessary for renewal of registration. There is a recommendation that each nurse and midwife avail of two days updating every year but this is very much dependent on organisational commitment and availability. In or around 2002, a Commission for Nursing and Midwifery post registration education was accepted by the Department of Health and Children that provided an academic career pathway for the professions through funded programmes in the HEI

[121] An Bord Altranais, *Requirements and Standards for Nurse Post Registration Education Programmes*, April 2007
[122] University College Dublin, *Intravenous Fluids In Children*, 2009

sector. At this time about 1% of the profession possessed a diploma or degree qualification.

The Commission recommended a similar approach to that already in place in the U.K., which is that Universities will deliver specialist or advanced practice courses and the Health Service will be responsible for professional updating on an on-going basis.

In-Service Training Facilities

Centres of Nurse Education were set up in 2002 to provide on-going professional updating for adult and mental health trained nurses. Centres of Education for children's nurses and midwives came into operation in 2006. Due to a perceived shortage of children's trained nurses, there is much activity in relation to ensuring that children are competently and safely cared for by appropriately trained staff. In-service Training Programmes including Short Courses are delivered on an on-going basis throughout the 18 Centres for Nurse Education.

An overview of Continuing Education Programmes provided in 2008 by the Centre for Children's Nurse Education[123] includes a 1 day Intravenous Therapy Management Course[124], a 5-day course on the management of the acutely ill child[125] and a 6-month hospital based paediatric intensive care - foundation course.

A PowerPoint presentation entitled *"Fluid Balance"* dated 2009 is currently being delivered at the Children's Hospital, Crumlin, Dublin as part of In-service education programmes and includes reference to the serious consequences of hyponatraemia in children[126].

[123] NCNM Review, *Centres of Nurse Education*, Issue 29 Spring / Summer 2008, p.23
[124] Crumlin Centre of Children's Nurse Education, *Intravenous Study Day*, 12th March 2009
[125] Crumlin Centre of Children's Nurse Education, *Management of the Acutely Ill Child (ward level) 5-day Programme for Nursing Staff*
[126] Crumlin Centre of Children's Nurse Education, *Fluid Balance*, 2009

A questionnaire was compiled for this report in 2009 specifically addressing the training of children's nurses or adult trained nurses caring for children in relation to hyponatraemia was compiled and circulated to all In-service education units and children's units across Ireland[127]. In response to questions about inclusion of hyponatraemia in education programmes, only the 5-day short course satisfactorily addressed the issue for nurses. Some midwives responded and indicated that baby unit staff did receive in-house information about the topic. It is clear from the questionnaire responses that nurses working with and caring for children in the Republic of Ireland were unaware of the issues around hyponatraemia in Northern Ireland[128].

The Republic of Ireland, like Northern Ireland, experienced a shortage of nurses and, during 2001/2, had to recruit from overseas to fill the large number of vacancies in hospital wards[129].

Records & Record Keeping

An Bord Altranais developed and circulated the document "Recording Clinical Practice - Guidance to Nurses and Midwives" in 2002. This contained guidance on the standards of records and record keeping that should be implemented in all health care facilities. All health care managers have signed up to the circulated standards and there is no other local facility-based document.

The aim of the document is to assist nurses and midwives:

(a) to appreciate the professional and legal issues regarding the compilation and management of nursing and midwifery documentation

(b) to value professional responsibility associated with good practice in record management

[127] Mary Godfrey, *Questionnaire in relation to programme content on the topic of Intravenous Therapy Management (with special reference to Hyponatraemia)*, 15th January 2010
[128] *ibid.*, Questions 7, 8 and 18
[129] Department of Health and Children, *Report of the Expert Group on Midwifery and Children's Nursing Education*, December 2004, p.34

(c) to offer practical advice in attaining/maintaining acceptable standards of recording clinical practice[130].

The guidance document also references the importance of confidentiality[131] and legal considerations[132].

[130] An Bord Altranais, *Recording Clinical Practice - Guidance to Nurses and Midwives,* November 2002, p.1
[131] *ibid.*, p. 3
[132] *ibid.*, p. 5

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United Hospital In-Service Unit

- Extracts from Brochures 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005

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- Emergency Care of the Child 2008 Level 2/3 module
- Management of Intravenous Fluids in children (Sperrin Lakeland Trust) undated
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- Administration of Intravenous Drugs 2004/5/7/9 programme timetable, aims and objectives
- Education in the Prevention and Management of Hyponatraemia to Nurses in the former Western and Northern HSC Trusts

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- Generic Medical Record Keeping Standards September 2008
- Policy guidance on "Hyponatraemia: reducing the risk in patients aged 1 month up to 15 years". September 2009

- Paediatric Intravenous Fluid Therapy & Hyponatraemia (PowerPoint presentation October 2009)
- Paediatric Fluid Prescription Chart October 2009
- In-house Attendance Record of Staff who Attended Training on Hyponatraemia
- Preceptorship Programme
- An Evaluation of how New Paediatric Fluid Balance Sheets fulfil NPSA recommendations on Intravenous Fluid Prescription I Children August 2009
- RQIA Report following Validation Visits to Trusts September 2008: "Reducing the risk of hyponatraemia when administering intravenous fluids to children"
- Recording Fluid Balance Charts August 2008
- Royal Hospitals and Dental Hospital Policy - Administration of Intravenous Medicinal Products August 1994
- Principles of Paediatric Intensive Care Nursing (200 Effort hours equivalent of 13 week module)

Northern Trust

- NHS National Patient Safety Agency: Suggested template of the prescription of intravenous infusions for children (undated)
- Northern Trust February 2008, Clinical Incident Trigger List - Administration of IV Fluids to Children (1 month - 16th Birthday)
- Deputy Director Of Nursing 2007 Guidance letter "On Paediatric Fluid Therapy Guidelines Antrim
- Deputy Director of Nursing, August 2007 Guidance Circulation to Senior Medical and Nursing Staff
- Medical Director 2007 Fluid Management in Children Letter to Clinical Directors June 2007
- Stewart P, 2007 Sample Chart: Maintenance Intravenous Fluid schedule for Pre & Post Operative children

South Eastern Trust

- Ulster Community and Hospital Trust; 2005 Induction Programme for D Grade Staff, pages 14, 17.

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- Craigavon Area Hospital area Group Trust 2005 Staff Nurse Rotational Programme

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- Action Plan November 2009
- Hyponatraemia RQIA Independent Review, Self Assessment Questionnaire September 2009
- Paediatric Intravenous Infusion Policy and associated Medical, Nursing and Midwifery and Audit Procedure and Incident Reporting Trigger list – November 2009
- Nurse Training and Induction (Paediatric and General)
- Statistical data on the attendance of hyponatraemia training (nursing and Midwifery) and statistical data on the completion of the BMJ e-learning module
- Audits completed for Newry & Mourne Trust 2004/5
- Records management policy – November 2007

Western Trust

- Western Health and Social Care Trust, March 2008 Policy for Prescribing Intravenous Fluids to Children
- Western Health and Social Care Trust: 2007 Hyponatraemia Guidance Chart
- NPSA 2007 Alert 22: Reducing the risk of hyponatraemia when administering intravenous infusions to children

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- 2007 Paediatric Parenteral Fluid Therapy (1month-16years) Initial Management Guidelines DHSSPS publication Belfast
- 2003 CREST: The management of Hyponatraemia in Adults
- Acting Chief Medical Officer 2006 Circular to Trusts: Prevention of Hyponatraemia in Children
- Management of Hyponatraemia in Adults 2003 Stormont Hotel Belfast PowerPoint presentation and attendee list

South Of Ireland

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- An Bord Altranais 1979 Syllabus of Training for Registered General Nurses Dublin
- An Bord Altranais 1980 Syllabus of Training for Registered General Nurses Dublin
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- An Bord Altranais undated Syllabus of Course of Instruction for the Nursing of Sick Child Dublin
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- An Bord Altranais 2010 Nursing/Midwifery: A career for you
- An Bord Altranais 2002, Recording Clinical Practice Guidance to Nurses and Midwives Dublin
- An Bord Altranais 2007 Guidance to Nurses and Midwives on Medication Management Dublin
- Crumlin Centre of Children's Education, undated Management of the Acutely Ill child (ward level) 5-day Programme for Nursing Staff, Dublin
- Hyponatraemia Questionnaire 2009 compiled for this report
- University College Dublin 2009 Intravenous fluids in Children PowerPoint presentation Dublin

APPENDICES

APPENDIX 1: Record of Practical Instruction and Experience for the Certificate of General Nursing

APPENDIX 2: Supervised Practice Programme for Adaptation Nurses

APPENDIX 3: A Return To Professional Practice – Course for Nurses

APPENDIX 4: Questionnaire in relation to programme content on the topic of Intravenous Therapy Management (with special reference to Hyponatraemia)

APPENDIX 5 (File A): Enrolled Nurse Conversion Course

UKCC circular Admin/84/03 The Central Council and the Future of the Enrolled Nurse, London

UKCC PS&D/88/05 The Enrolled Nurse and Preparation for entry to a First Level Part of the UKCC's Register, London

Nursing Times 1993 Open Learning Conversion Course Macmillan Magazines Ltd 1993 First Ed

APPENDIX 6 (Files B & C): Collection of Trust-based documentation

Belfast Trust

- Generic Medical Record Keeping Standards September 2008
- Policy guidance on "Hyponatraemia: reducing the risk in patients aged 1 month up to 15 years". September 2009
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- Western Health and Social Care Trust, March 2008 Policy for Prescribing Intravenous Fluids to Children
- Western Health and Social Care Trust: 2007 Hyponatraemia Guidance Chart
- NPSA 2007 Alert 22: Reducing the risk of hyponatraemia when administering intravenous infusions to children