Witness Statement Ref. No. 024/2

NAME OF CHILD: RAYCHEL FERGUSON

Name: Claire Jamison

Title: Dr.

Present position and institution:
Consultant Anaesthetics
Ulster Hospital Dundonald Belfast

Previous position and institution: Senior House Officer Anaesthesia, Altnagelvin Hospital
[As at the time of the child's death]

Membership of Advisory Panels and Committees:
[Identify by date and title all of those since your Witness Statement of 20th November 2011]

N/A

Previous Statements, Depositions and Reports:
[Identify by date and title all those made in relation to the child's death since your Witness Statement of 20th November 2011]

none since

OFFICIAL USE:
List of previous statements, depositions and reports:

Ref:	Date:	
012-015-117	03.02.02	Statement
012-034-164	05.02.03	Deposition at inquest into the death of Raychel Ferguson
024/1	20.11.11	Inquiry Witness Statement

IMPORTANT INSTRUCTIONS FOR ANSWERING:

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

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

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

(1) With regard to your medical qualifications, experience, training and responsibilities:

(a) As of the 7th June 2001 state your medical qualifications and the date you qualified as a medical doctor.

Qualified medical doctor June 1998 Queens University Belfast MB BCH BAO

(b) State the date of your appointment to Altnagelvin Hospital, and the role to which you were appointed.

Appointed August 2000 , Senior House Officer in anaesthetics

(c) Describe your career history before you were appointed to Altnagelvin Hospital.

Junior house officer 1998-1999 Royal Group Hospitals Belfast

Anaesthetic Senior House Officer Ulster Hospital Dundonald 1999-2000

(d) Describe your work commitments to the Altnagelvin Hospital from the date of your appointment, stating the locations in which you worked and the periods of time in each department/location.

Appointed as senior house officer on the first on call rota. Commitments to providing anaesthetic cover for theatres. I cannot recall precise locations or dates within departments of Altnagelvin hospital, I covered the specialties of ICU, obstetrics, general theatre lists.

(e) Describe your duties as an anaesthetist at Altnagelvin Hospital on the 7th June 2001.

Was the second on call anaesthetist with specific duties of covering the ICU and the labour ward

(f) How much anaesthetic experience did you have by the time of Raychel's operation?

As above was appointed to the anaesthetic training scheme August 1999

(g) How much experience did you have of managing post-operative fluids in childrens' cases, by the time of Raychel's operation?

I had anaesthetized approx 100 children and this would have been a common case to be involved with

(2) At the time of your appointment to Altnagelvin Hospital were you provided with training or induction and if so,

(a) Describe the training or induction which you received.

Induction was of general orientation to the hospital, theatre suite and ICU with demonstration of anaesthetic equipment.

(b) State the date or the approximate date when you received any training or induction.

At commencement of attachment to Altnagelvin Hospital, August 2000

(c) Identify the person(s) who delivered this training or induction.

Dr G Nesbitt

(d) Indicate if you received any documentation at this training or induction.

I cannot recall receiving any documentation

(e) Indicate if you received any documentation at this training or induction.

As above, I cannot recall receiving any documentation

Provide full details of any advice, training or instruction which was provided to you at Altnagelvin Hospital in order to inform you of the appropriate approach to decision-making when considering assisting in the conduct of out of hours surgery in childrens' cases in that Hospital and state,

(f) Who provided this advice, training or instruction to you?

I cannot recall receiving any training or instruction

(g) When was it provided?

n/a

(h) What form did it take?

n/a

(i) What information were you given about the steps to be taken before agreeing to anaesthetize a child?

n/a

Provide full details of any advice, training or instruction which was provided to you at Altnagelvin Hospital in order to inform you of the appropriate approach to any of the following matters:

- Hyponatraemia
- I cannot recall any specific training
- Post-Operative Fluid Management
- I cannot recall any specific training, it would have been advice during daily working from experienced anaesthetists, if deemed necessary post operative fluids would have been prescribed and type used would have been based on electrolyte measurement from the patient and normal practice would be to use Hartmann's solution
- Record keeping regarding fluid management

I cannot recall specific training but it would be usual practice to prescribe on anaesthetic post op chart if fluids were required in post op period

And address the following:

(j) Who provided this advice, training or instruction to you?

It was general training from anaesthetic seniors, and via previous experience gained.

(k) When was it provided?

Throughout my time there

(l) What form did it take?

General discussions during working day

(m) What information were you given?

As above

(n) In particular what information were you given in relation to the allocation of responsibility for prescribing intravenous fluids for post-operative children?

I cannot recall being given any specific information for this group of patients

II. QUERIES ARISING OUT OF YOUR FIRST WITNESS STATEMENT TO THE INQUIRY (WS 024/1)

"I was not Raychel Ferguson's primary anaesthetist and thus was not present for entire procedure. A 1 litre bag of Hartmann's Solution was erected prior to induction of anaesthesia and was taken down as she left to return to ward." (WS-024/1 Page 2)

(o) Why was there a need for the involvement of a second anaesthetist in addition to the primary anaesthetist (Vijay Kumar Gund)?

There was no particular need. I was free from other duties at that time and was helping the team

(p) State precisely what your role was in the context of Raychel's surgery, and explain the functions which you performed?

Had no role in the surgery, helped at induction of anaesthesia

(q) Why were you not present throughout the entirety of Raychel's surgery?

Was required to fulfill the second on-call duties elsewhere in the hospital

(r) Were you present when the bag of Hartmann's Solution was taken down as Raychel left to return to the ward?

Yes

In the previous witness request directed to you by this Inquiry you were asked at question 2 to explain the circumstances in which a retrospective note came to be written regarding the amount of fluid administered. Arising out of that question and your answer to it, please address the following:

(s) Who asked you to make the retrospective note?

Dr Nesbitt

(t) Why was the primary anaesthetist (Dr. Gund) not asked to make the retrospective note?

I do not know the reason for this

III. FURTHER QUERIES RELATING TO THE ROLE OF THE ANAESTHETIC TEAM

At that time (June 2001) were you aware of the conclusions of the National Confidential Enquiry into Perioperative Deaths (NCEPOD) which in its 1989 report found, inter alia, that trainee anaesthetists should not undertake any anaesthetic on a child without consultation with their consultant?

No

Whether or not you were aware of this finding of the NCEPOD, how do you consider this conclusion applied to you in your role in Raychel's surgery?

It would have been normal practice to let the consultant on call be aware of cases on the emergency list, if it was a child, or if you had any concerns

In June 2001 did Altnagelvin Hospital have any protocol, written or unwritten, or any other form of guidance which required the on duty anaesthetist to inform either of the following persons that consideration was being given to conducting out of hours surgery

I cannot recall being aware of any protocol written or unwritten

(u) The Consultant Anaesthetist;

As above

(v) The Consultant Surgeon?

As above

(3) Insofar as you are aware, was the on call Consultant Anaesthetist or Consultant Surgeon informed about Raychel's admission on 7th June 2001? If so,

I cannot comment on surgical team communications

I cannot recall specifically informing the consultant on call but as previously stated it would have been normal practice to let the on-call consultant be aware of a child on the emergency list

(a) Identify the on-call Consultant Anaesthetist or Consultant Surgeon;

I cannot recall the consultant on call

I cannot recall the surgical consultant on-call

(b) State whether the decision to operate was discussed with either of them?

The decision to operate would have been taken by the surgical team. I would not have been aware or involved in this decision.

Are you aware whether any steps were taken by Consultant Anaesthetists at Altnagelvin Hospital to ensure that you had acquired sufficient knowledge to carry out all of the duties expected of you when working without supervision? If you are aware that steps were taken,

(c) Specify to the best of your knowledge the steps that were taken.

I cannot comment on the steps taken by the consultant team to ensure this

(d) Identify the Consultant(s) who took any particular steps to ensure that you had acquired sufficient knowledge.

As above

(e) Explain how you demonstrated that you had acquired sufficient knowledge to enable you to perform the duties expected of you without supervision

I demonstrated acquisition of sufficient knowledge through direct supervision by consultant teams during my daily working practice, from my appointment to anaesthetic training through SHO year 1 and on to year 2. This required that I was competent in delivery of routine anaesthesia, practically in skills required and that I had acquired appropriate knowledge for my level of training by attendance at required courses and had attained my first part FCARCSI.

Did Altnagelvin have any protocol, written or unwritten, or any other form of guidance in place for the purposes of allocating responsibility for post-operative fluid management? If so, outline your understanding of what that protocol or guidance said?

I cannot recall being aware of any protocol or guidance

Did you or the primary anaesthetist have any responsibility with regard to Raychel's post-operative fluid management?

I had no responsibility for this.

Before you commenced the surgery did you have any understanding of who was going to be responsible for prescribing Raychel's post-operative fluids? If so,

(a) Who did you understand would be responsible for prescribing Raychel's post-operative fluids?

It was commonplace for fluids to be managed on the paediatric ward if it was a post op child

(b) How did you reach that understanding?

I reached this understanding through daily working at Altnagelvin

Did you have any discussion with Dr Vijay Kumar Gund or anyone else about how Raychel's fluids were to be managed post-operatively? If so, provide a full account of what was discussed.

Cannot recall discussion on this subject, but as before it would have been usual for Raychel's fluids to have been managed on the paediatric ward

Who actually prescribed fluids for Raychel post-operatively?

Cannot answer that as I am not aware who did so

What was your understanding of the role, if any, that should have been played by the primary anaesthetist or the anaesthetic team in the management of Raychel's post-operative fluids?

It was my understanding that if the anaesthetic team felt it necessary to prescribe post op fluids then they would have done so

Were you aware that Dr. Vijay Kumar Gund wrote a prescription for post-operative fluids for Raychel which was then was crossed off (020-021-040)? If so, please provide a full account of what you know about the circumstances in which this prescription was crossed off.

Not aware

Would you have expected the post-operative prescribing decisions to have been the subject of a written prescription?

Yes, they are usually

At any time in the post operative period did you take any steps to check how Raychel's fluids were being managed having regard to the following matters:

I was not involved in Raychels post op care

(f) The type of fluid for maintenance;

(g) The rate of fluid (80 ml/hr);

(h) The total volume of fluid;

(i) The requirement, if any, for replacement fluids, and if so, whether this requirement was being met.

If you did check how Raychel's fluids were being managed in respect of any of the above matters, did you identify any concerns, and if so,

Was not involved in management

(j) What were those concerns?

(k) What steps, if any, did you take to address those concerns?

Did you discuss the arrangements for Raychel's post-operative fluid management with any of your nursing or medical colleagues? If so, please address the following:

I cannot recall having any discussions

(l) When did you have those discussions?

(m) Who did you discuss those arrangements with?

(n) What did you discuss?

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

Signed: C Jamieson **Dated:** 15/6/12

(q) Based on what you were told, what view did you form in relation to the appropriateness of the fluid management in Raychel's case?

IV FURTHER QUERIES ON THE ISSUE OF FLUID MANAGEMENT

Please provide clarification and/or further information in respect of the following:

(4) In June 2001 who in Altnagelvin Hospital was responsible for organizing the structure and allocation of responsibilities for post-operative fluid management for paediatric cases?

I was not aware who this was

(5) Prior to 7th June 2001:

(a) State your knowledge and awareness of the cases of Lucy Crawford, Claire Roberts, or Adam Strain, and the issues arising from those cases.

I had no knowledge

(b) State the source(s) of your knowledge and awareness and when you acquired it.

Publicity following the media reporting of the cases and the Inquiry

(c) Describe how that knowledge and awareness affected your care and treatment of Raychel.

Not applicable as had no awareness at that time

(6) Since 7th June 2001:

(a) State your knowledge and awareness of the cases of Lucy Crawford, Claire Roberts or Adam Strain, and the issues arising from these cases.

This comes from the Inquiry details, issues highlighted are the use of hypotonic fluids which in some patients can lead to hyponatraemia

(b) State the source(s) of your knowledge and awareness and when you acquired it.

Following media coverage of the cases in NI and the Inquiry which was to follow

(c) Describe how that knowledge and awareness has affected your work.

I am now very aware of the complications that can arise from the use of hypotonic solutions in all patients, especially children. I follow protocols and guidelines in place within my Trust with regards to fluid management in children

(7) Prior to Raychel's death were you aware are of the literature which highlighted the dangers posed by the administration of hypotonic fluids to children during the immediate post-operative period? eg. Arieff AI, Ayus JC. British Medical Journal 1992: 304; 1218-1222. Hyponatraemia and death or permanent brain damage in healthy children, or Halberthal M, Halperin ML, Bohn D.

British Medical Journal 2001: 322; 780-782. Lesson of the week: acute hyponatraemia in children admitted to hospital: retrospective analysis of factors contributing to its development and resolution.

No

(8) Describe in detail the education and training you have received in fluid management (in particular hyponatraemia) and record keeping, to include any particular training relating to fluid management in children, and provide dates and names of the relevant institutions/bodies, by reference to the following:

(a) Undergraduate level.

I cannot recall specific dates, teaching at undergraduate level on this subject would have been from physiology through to clinical attachments in both medical and surgical specialties throughout the 5 years

(b) Postgraduate level.

I cannot recall specific dates, this teaching would have been gained from teaching both during daily working tutorials during placements throughout postgraduate sub specialties and postgraduate courses as well as personal self learning to achieve knowledge for post graduate exams.

(c) Hospital induction programmes.

I cannot recall specific teaching on this matter at hospital induction programmes

(d) Continuous professional development.

Continued personal CPD in the areas I now practice

(9) Prior to 7th June 2001, describe in detail your experience of dealing with children with hyponatraemia, including the:

No experience

(a) Estimated total number of such cases, together with the dates and where they took place.

(b) Nature of your involvement.

(c) Outcome for the children.

(10) Since 7th June 2001, describe in detail your experience of dealing with children with hyponatraemia, including the:

No experience

(a) Estimated total number of such cases, together with the dates and where they took place.

(b) Nature of your involvement.

(c) Outcome for the children.

V GENERAL

Please address the following:

(11) After Raychel's death were you asked to take part in any process designed to learn lessons from the care and treatment which he received, to include any issue about her fluid management? If so,

I was not asked to take part in any process

(a) Describe the process which you participated in.

(b) Who conducted it?

(c) When was it conducted?

(d) What contribution did you make to it?

(e) Were you advised of any issues relating to your role in Raychel's care and treatment?

No

(f) Were you advised of the conclusions that were reached, and if so, what were they?

No

(g) Describe any changes to fluid management practice that you were made aware of at Altnagelvin Hospital following Raychel's death.

The default use of number18 solution which was common practice for the paediatric ward at that time was changed to a default of Hartmann's solution, daily electrolytes were to be checked on any child on IV fluids and urinary output was to be recorded

(12) Provide any further points and comments that you wish to make, together with any documents, in relation to:

(a) The care and treatment of Raychel in Altnagelvin Hospital between the 7th - 9th June 2001.

No comment

(b) Record keeping.

No comment

(c) Communications with Raychel's family about her condition, diagnosis, and care and treatment.

Was not involved in any communication with Raychels family

(d) Lessons learned from Raychel's death and how that affected your practice at Altnagelvin or elsewhere.

Heightened awareness of complications related to hypotonic solutions.

(e) Current Protocols and procedures.

The introduction of CREST guidelines and protocols within Trusts has increased awareness of this issue and is helping to prevent problems like this happening in the future

(f) Any other relevant matter.

C Jamison 15/6/12

Claire Ann Jamison

GMC No 4514495

MAIN QUALIFICATIONS

2007 **Certificate in Medical Law**
Distance Learning programme with Glasgow University

2007 October **Joint CCT**
Anaesthetics and Intensive Care Medicine

2004 June **Diploma in Intensive Care Medicine**
Conjoint Board In Ireland, Royal College Surgeons Ireland and College of Anaesthetists RCSI

2002 July **Fellowship Anaesthetics, FCARCSI**
College Anaesthetists, Royal College Surgeons Ireland

1998 July **MB BCH BAO (distinction)**
Queens University Belfast

CURRENT POST AND RESPONSIBILITIES

Current **Consultant anaesthesia and intensive care medicine**
Ulster Hospital Dundonald, Belfast

- Full time 11 PA consultant post with major workload in the intensive care unit providing a consultant lead and delivered service on a dedicated rota
- Also have a role in anaesthesia for major colorectal surgery
- Instructor on FCCS, ALS and EPLS courses
- Provide teaching on a rolling calendar for ICU trainees
- Consultant responsible for collecting ICNARC data in the ICU for national audit purposes

TRAINING AND EXPERIENCE

Jan 07-Nov 07	**SpR 5 Anaesthesia** **Ulster Hospital Dundonald** Final 11 months of training All major specialties. Working as a registrar on the second on call rota
Aug 06-Jan 07	**SpR Yr 4-5 Anaesthesia** **Belfast City Hospital** Vascular, thoracic and oncology anaesthesia
Feb 06-Aug 06	**SpR Anaesthsia /ICM** **Royal Group of Hospitals** Final 6 months training in ICM at advanced level
Feb 05-Feb 06	**Out of Programme Year** **Flinders Medical Centre Adelaide Australia** Senior registrar Critical Care Unit Prospective approval by RCA as 6 months training in anaesthesia and 6 months approved for advanced level training in ICM
Aug 04-Feb 05	**SpR Anaesthesia Year 3** **Joint appointment QUB Department Anaesthesia and Royal Group of Hospitals**
May 04-Aug 04	**SpR Year 3 Anaesthetics** **Mater Hospital Belfast**
Aug 03-May 04	**SpR year 2-3 Anaesthetics/Intensive Care Fellow** **Royal group of Hospitals Belfast** Cardiac, vascular and ICM modules
Feb 03-Aug 03	**Intensive Care Fellow** **Belfast City Hospital / Royal Victoria Hospital** Complimentary specialties Nephrology and Cardiology. General medical take in experience and on-call commitment to RICU
Aug 02-Feb 03	**SpR Anaesthesia Year 2** **Royal Group of Hospitals**
Aug 01-Aug 02	**SpR Anaesthesia Year 1** **Antrim Area Hospital**

Aug 00-Aug 01	**SHO Anaesthesia** **Altnagelvin Hospital, Co Londonderry, N Ire**
Aug 99-Aug 00	**SHO Anaesthesia** **Ulster Hospital Belfast**
Aug 98-Aug 99	**PRHO** **Royal group Hospitals**

ANAESTHESIA TRAINING AND EXPERIENCE

General surgery and Major vascular surgery

- Managed simple and complex cases with both immediate and distant supervision. These included Colorectal, Upper GI, Vascular, Hepatobiliary and Transplant surgery.

Gynae and Urology Surgery

- Supervised training in both regional and general anaesthesia for simple and complex cases in these specialities.

Orthopaedics and Trauma

- Experience in anaesthetising both adults and children for orthopaedic joint replacements and emergency trauma cases
- Wide experience in managing problems specific to the elderly in trauma emergencies and elective lists

Major Head and Neck Surgery, ENT and Maxillofacial

- Gained experience in radical neck dissection and micro vascular flaps, maxillofacial trauma and management techniques for the difficult airway
- Trained in the use of fibre optic scope for difficult intubations

Plastic Surgery and Ophthalmology

- Gained wide experience in the management of elective and emergency minor and major plastic procedures
- Trained with supervision in the placement of peribulbar and sub-tenon blocks

Paediatrics

- Supervised training in paediatric anaesthesia for ENT, general surgery, orthopaedics, dental lists, CT and MRI sessions at various district general hospitals.
- Training in anaesthesia for complex paediatric cases and neonates during training in the Royal Belfast Hospital for Sick Children

Cardiothoracic

- Gained experience in the use of different techniques of anaesthesia required for off-pump, on-pump CABG and valve replacement operations.
- In out of programme year was involved with the post operative care of cardiothoracic patients
- Gained experience in the management of thoracic cases and the use of the jet ventilator and placement of double-lumen tubes.

Day Case Surgery

- Gained experience in the running of day case lists, whilst gaining an understanding of the specific needs and logistics related to day case anaesthesia.

Emergency Surgical Theatre

- Worked in various departments with dedicated emergency theatre, consultant anaesthetist and theatre staff. I have gained experience in the co-ordination, and prioritising of services, to enhance communication and ensure smooth running of the lists, thereby ensuring equity of access regardless of specialty and based on clinical priority.
- Wide on-call experience with immediate and distant supervision both in and out of hours

Obstetric Anaesthesia

- Gained modular training experience through placements in Maternity hospitals with immediate and distant supervision of complex cases in tertiary referral centres
- Wide experience gained in the day to day running and management of patients in delivery suites within multidisciplinary team in district general hospitals both in and out of hours.
- Trained in the delivery of PCA and regional analgesia for labour including general anaesthesia for caesarean sections on both elective and emergency basis.

Trauma and A&E

- Gained experience in the assessment, initial management, resuscitation, investigation, transferring and subsequent treatment of polytrauma patients
- Trained in the management of both medical and surgical emergencies in the A&E department
- Recently certified in ALS and ATLS

Neurosurgery

- Supervised training and experience gained in a tertiary referral centre for the investigation and management in both trauma, emergency and elective neurosurgical conditions

TRAINING IN INTENSIVE CARE MEDICINE

UK Experience

- Have undergone modular training in Intensive Care Medicine.
- Training has been as a joint trainee in Intensive Care Medicine under the parent specialty of Anaesthesia after attaining a training number in Intensive Care Medicine following competitive interview process. This has provided a streamlined training programme of experience at basic, intermediate and advanced level within intensive care units throughout Northern Ireland and Australia
- Further expansion of knowledge and skills was attained with experience in both Nephrology and Cardiology as complimentary medical specialties alongside General Medical acute take-in experience.
- Wide experience has been gained in the management of critically ill patients from the initial assessment, resuscitation and management from admission through to discharge.
- Gained experience in working under pressure as part of a multidisciplinary team
- Gained experience in communicating effectively with liasing specialities
- Acquired communication skills valuable in discussions with patients and their relatives, also experience gained in dealing with difficult ethical and moral issues of consent, limitation and withdrawal treatment
- Wide experience gained in placement of invasive therapeutic and monitoring devices and placement of percutaneous tracheostomies, along with experience of various techniques of renal replacement therapies.
- Involvement in bed management, Data collection and Audit within units, which I have worked
- Experience gained within these units allowed me to attain knowledge and skills to fulfil competencies required to meet the requirements of the Intercollegiate Board for Training in Intensive Care Medicine in order to be eligible to be awarded Joint CCT in training for Intensive Care Medicine and Anaesthesia
- Non-clinical interests are those of teaching, am an instructor for the FCCS course on the faculty both in Northern Ireland and Ireland
- Have recently presented poster at the State of the Art meeting of the ICS in London
- Attended an EHCO in ICU course to update skills and knowledge in the use of ECHO and ultrasound in ICU

EXPERIENCE GAINED DURING OUT OF PROGRAMME YEAR

- Gained experience while working for a period of 12 months as one of 2 senior registrars in Critical Care Unit Finders Medical Centre, Adelaide Australia
- This is a 27-bedded unit, which manages more than 2000 patients per year. All major medical and surgical specialities being represented including over 400 post cardiac surgery patients. The unit acted as a state resource for the "sick obstetric" patients. It is also the state centre accepting acute liver failure patients and a transplant unit. It is one of 2 major trauma centres in South Australia with responsibility for the Aero medical Retrieval Service which undertakes approximately 250 missions per year, through this I gained experience in assessment, resuscitation continuing management and transferring both trauma and medical patients from the roadside and country hospitals by both air and road.
- Gained experience in the day to day management of a busy Intensive Care Unit with responsibility for bed management and patient movement
- Gained experience in overseeing 14 full-time registrars and their duties within the unit and as members of a medical emergency team and aeromedical retrieval team.
- Clinical skills consolidated whilst working in Flinders were those of renal replacement techniques, percutaneous tracheostomies and invasive monitoring.
- Wide experience gained in the placement of Intra-aortic balloon pumps and pacing wires.
- During the working week "first-on call" was alternated with the consultant gaining experience in the management of patients from a distance.
- Whilst in Flinders was also responsible for ICNARC and APACHE data collection along with input into weekly morbidity and mortality meetings.

AUDIT

2006 **Audit of Inhaled Nitric Oxide Usage in the ICU**

- This was a retrospective audit covering the previous financial year in the regional intensive care unit, which involved identifying all patients who had received NO treatment.
- To determine whether NO is a cost effective treatment
- 30 patients were identified
- Physiologial data regarding both respiratory and other organ support on these patients was collected from stored Carevue flowsheets and analysed
- The audit identified that patients were placed appropriately on NO while on maximal respiratory support

- This data showed that total expenditure on NO treatment was £67,000
- It is an expensive treatment as in this audit there was no significant benefit in outcome of the iNO group.
- This audit brought about the introduction of check sheet for commencement of NO

2004 **Audit of glycaemic control in ICU**

- Contemporaneous audit looking at glycaemic control in all patients in ICU over 2 week period showed patients were within defined guidelines 88% of the time
- Hypoglycaemic episodes were few
- Infusion increases rather than boluses were being used to control hyperglycaemic episodes
- Outcome was introduction of bedside BM machines rather than ABGanalysis
- Protocol for the blood sugar control was introduced

2003 **Audit of prescribing errors In ICU**

- Aim to review errors on drug charts over 24 hour period
- 18 patients charts were reviewed over a 24 hour period for corrections to prescriptions printed for that day
- Found errors on 10 cardexes
- Identified reasons were, staff unfamiliar with drugs used in ICU were printing charts, changes in prescriptions made on the rounds were not being transcribed to new chart and the time for drug chart 24hour period clashed with nurse handover
- Changes made included splitting workload of drug chart printing
- Changing time for 24 hour period of drug chart
- Re audit was to be carried out

2002 **Audit of patient satisfaction with epidural analgesia**
Antrim Hospital

- Aim to audit both the delivery of the epidural service and patient satisfaction, with reference to RCA standards
- Prospective audit of 100 patients receiving epidural analgesia
- Information was gathered on indications for the epidural, patient characteristics, time spread of requests, delays if present, method of placement and any difficulties encountered
- Results showed the service provided epidurals within 60mins 92% time as compared with RCA standard of 100%
- 100% mothers were happy with information provided
- Conversion rates to C section were 5% compared with standard of 3%
- Delay was due to anaesthetist being busy in another clinical area.
- Reaudit was to be carried out

1999 **Audit of emergency theatre usage**
Ulster Hospital

- Assesses retrospectively speciality usage of emergency theatres and analysed reasons for delays
- Identified reasons for unused theatre time was mainly unavailability of surgeon or anaesthetic cover
- Implemented dedicated anaesthetic covers and explored options for surgical time.

RESEARCH

2004 **Department of Anaesthesia QUB**
Participated in ongoing recruitment and carrying out of ongoing studies
Involved in the continuation of the high dose rocuronium study

2002 **Winner NHSSB Multiprofessional Audit competition**
Awarded for research/presentation on "Patient Satisfaction with Epidural Analgesia"

PUBLICATIONS

2007 **Chapter: Airway management and Endotracheal intubation**
Parrillo&Dellinger (editors): Critical Care Medicine:Principles of Diagnosis and Management in the Adult,3rd Edition
Co-Author of the above Chapter, G.G.Lavery, C.A.Jamison

2006 **Is Inhaled No therapy Cost effective in ARDS?**
P.Glover, C.Jamison, D.A.McAuley, et al
Published as abstract in ICM following the State of the Art meeting London 2006
Also pending publication in the supplement issue of the Journal of Intensive Care Medicine, following poster presentation at the ESICM 2007

PRESENTATIONS

2006	**Is Inhaled Nitric Oxide Therapy Cost effective in ARDS?** Presented in poster form at the State of the Art meeting London 2006 Accepted for presentation at the ESICM Berlin 2007
2004	**Reporting and Follow-up of Suspected cases of anaphylaxis: a questionnaire of current practice in N.Ireland** M Shields, RK Mirakhur, G McCarthy, C Jamison, K McCourt Presented in poster form
2003	**Case presentation: "Too Much Adrenaline post Tonsillar Bleed"** Presentated in poster form at the Irish Intensive Care society meeting
2003	**Case Presentation: "Cardiogenic Shock following Tonsillectomy"** Copple prize presentation submission
2002	**Patient Satisfaction With epidural analgesia** Oral presentation and winner at NHSSB Multiprofessional Audit competition
2001	**Ventilation strategies in ARDS** Oral presentation at Copple Prize

CLINICAL AND RESUSCITATION COURSES

2007	**European paediatric life support (EPLS)**
2007	**Echocardiography in Intensive care**
2007	**Advanced Life Support**
2007	**Advanced trauma and life support**

TEACHING EXPERIENCE

Formal Teaching experience

- Gained during my time in the Department of Anaesthesia QUB
- Organised and taught on the postgraduate revision course for FCA
- Involved in teaching of first year medical and dental students CPR skills, BLS, Peri-operative medicine lectures and simulator based teaching.

Formal training in teaching

- Attended Teacher Training for SpR course 2004
- Interprofessional communication skill course 2
- Completed the Generic Instructors Course and am now registered Instructor with UK Resusitation Council for both ALS and EPLS

MANAGEMENT

- Involved in Rota organisation in Antrim Area Hospital 2001-2002
- Trainee representative on the group for implementation of Investors in People for the royal Group of Hospitals 2004
- Trainee Specialist Registrar representative on the Training Committee for Anaesthesia 2004