Witness Statement Ref. No. 048/2

NAME OF CHILD: RAYCHEL FERGUSON

Name: Daphne Patterson

Title: Ms.

Present position and institution:

Paediatric Diabetes Specialist Nurse, Paediatric Unit, Altnagelvin Hospital

Previous position and institution: Staff Nurse Grade D Paediatrics, 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 dated 15th June 2005]

Paediatric Diabetes Managed Clinical Network -February 2009- to present
Northern Ireland Paediatric Diabetes Specialist Nurse Group – February 2009 – to present

Previous Statements, Depositions and Reports:
[Identify by date and title all those made in relation to the child's death since your Witness Statement dated 15th June 2005]

None

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

Ref:	Date:	
048/1	15.06.2005	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

I. QUERIES ARISING OUT OF YOUR INITIAL STATEMENT TO THE INQUIRY (WS-048/1)

(1) Arising out of the information you have provided about your career background (WS-48/1 Page 1) please address the following:-

(a) From the date of your appointment as a Staff Nurse (Grade D) at Altnagelvin Hospital in March 1999 until June 2001, quantify the experience you had gained in providing for the care and treatment of children.

From March 1999 to June 2001 I worked in a general paediatric unit in Altnagelvin Hospital, gaining experience in caring for a large range of medical surgical, ENT and orthopaedic conditions. I worked as a Grade D staff nurse, as a member of a ward team, assessing, planning, implementing, and evaluating child and adolescent care to ensure the needs of each individual child were met. I gained experience in involving the parent/carers in the care of their child and in giving advice and support as necessary. I was aware of the importance of reporting any concerns to the nurse in charge and of accurate record keeping and documentation. I gained experience in liaising with other members of the multidisciplinary team and community services to ensure continuity of care and the importance of confidentiality.

(b) Describe your work commitments to the Altnagelvin Hospital from the date of your appointment to the 7th June 2001, stating the locations in which you worked and the periods of time in each department/location.

Work commitments between March 1999 - 7 June 2001, Staff Nurse Grade D - Paediatric Unit, Altnagelvin Hospital.

(c) Describe your duties as a Staff Nurse at Altnagelvin Hospital on the 7th June 2001.

I commenced duty on Ward 6 at 7.45pm on night of 7th June 2001. I along with other nursing and auxiliary staff received a handover report on the children who were inpatients in the main ward 6. Following handover, as part of the team I carried out observations (temperature, pulse, respirations and any further observations as required) on the children, assessing and aiming to meet the needs of each individual child. This continued throughout the night as necessary. I also, along with the other nursing staff, admitted any children requiring admission to Ward 6.

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

(a) Describe the training or induction which you received. General induction to Ward 6 on the ward layout and ward routine.

(b) State the date or the approximate date when you received any training or induction. March 1999.

(c) Identify the person(s) who delivered this training or induction. Sr Kathryn Little and senior nursing staff

(d) Indicate if you received any documentation at this training or induction. No written documentation.

(3) You have identified in your witness statement all of the training which you received between November 1990 until May 2005 (WS-048/1 Page 1).

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

- Hyponatraemia – Pre 2001 I received no training or advice on Hyponatraemia. But in 2002 training was provided by Dr Geoff Nesbitt on hyponatraemia and post operative fluid management and following this a poster was put up in ward 6 highlighting the risks of hyponatraemia. Department of Health, Social Services and Public Safety Guidelines (DHSSPS) on intravenous fluids and the risks of hyponatraemia were also in place from March 2002. In October 2003 I attended an in-house Paediatric Resuscitation Day in Altnagelvin where I would have been updated on intravenous fluids and the risks of hyponatraemia.

- Post Operative Fluid Management – Pre 2001 any instructions regarding post operative fluid management would have been verbal advice provided by senior nursing staff in ward 6. The advice given was that it was standard ward practice for surgical doctors to prescribe the intravenous fluids preoperatively and these fluids were recommenced post operatively. Following June 2001 No 18 solution was no longer prescribed for surgical children. Training was provided in 2002 by Dr Geoff Nesbitt on the risks of hyponatraemia and recommendations regarding regular urea and electrolytes checks for surgical children. Recommendations on intravenous fluid management in Altnagelvin were also given – No 18 Solution no longer to be used. Guidelines from The Department of Health, Social Services and Public Safety (DHSSPS) on intravenous fluids and the risks of hyponatraemia were also in place from March 2002. In October 2003 I also attended an in-house Paediatric Resuscitation Day in Altnagelvin where I would have been updated on intravenous fluid management including post operative fluids.

- Record keeping regarding fluid management – Instructions regarding record keeping in relation to fluid management would have been verbal advice provided by senior nursing staff in ward 6 and this would have been reinforced in the Paediatric Resuscitation Day

And address the following -

(a) Who provided this advice, training or instruction to you? Pre 2001 verbal instructions and advice regarding post operative fluid management would have been provided by senior nursing staff in ward 6.

Post 2001: Post operative Fluid Management and Hyponatraemia - poster was placed in ward 6 highlighting the risks of hyponatraemia and informed by senior nursing staff of recommendations regarding regular urea and electrolytes checks for surgical children and post-operative fluid management.

Post 2001: Paediatric Resuscitation Day training on intravenous fluids and post operative fluid management and hyponatraemia - Ursula McCollum (Resuscitation Training Officer) and Mary McKenna (Sr Ward 6)

Record Keeping – Verbal advice by senior nursing staff in ward 6 and Paediatric Resuscitation Day training (Ursula McCollum (Resuscitation Training Officer) and Mary McKenna (Sr Ward 6))

(b) When was it provided? Post Operative Fluid Management and Hyponatraemia – 2002 (approx.) Paediatric Resuscitation Day - October 2003. Record Keeping – verbal instruction ongoing in ward 6 and Paediatric Resuscitation Day - October 2003.

(c) What form did it take? Post Operative Fluid Management and Hyponatraemia – presentation by Dr Geoff Nesbitt. Poster on Ward 6 displayed reinforcing the information. Written guidelines from The Department of Health, Social Services and Public Safety (DHSSPS) on intravenous fluids and the risks of hyponatraemia (March 2002). Paediatric Resuscitation Day - Presentation, group discussion, scenarios. Record Keeping – verbal instruction on ward 6.

(d) What information were you given? I was made aware of the risks and dangers of hyponatraemia and the appropriate fluid management for surgical children (No 18 Solution no longer used for children) and importance of regular urea and electrolyte checks – pre or intra operatively and 12hrs post operatively.

(e) In particular what information were you given in relation to the allocation of responsibility for prescribing intravenous fluids for post-operative children? Pre June 2001 - no specific information was given, however it was standard ward practice for the surgical doctors to prescribe the intravenous fluids preoperatively and these would have been continued post operatively. Since 2001 it became trust policy that the anaesthetist prescribed the intravenous fluids for 12 hours post operatively on children. This was practice from 2001 within Altnagelvin. Written guidelines from The Department of Health, Social Services and Public Safety (DHSSPS) on intravenous fluids and the risks of hyponatraemia (March 2002).

(4) *"Raychel was alert and talkative on admission and complaining only of slight abdominal pain. The surgical SHO on call had seen Raychel in A&E (see pages 020-007-011 and 020-007-012) and spoke to her parents and the consent was signed (see pages 020-008-015). She was fasting to go to theatre for appendicectomy."* (WS-048/1 Page 3).

(a) In 2001, did Altnagelvin Hospital have in place any protocol, guidance or practice concerning the circumstances in which junior surgeons or anaesthetists were expected to confer with their senior colleagues before undertaking any surgical or anaesthetic procedure? This would not have been within my knowledge

(i) State precisely what this protocol, guidance or practice said. n/a

(ii) How did it apply to Raychel's case? n/a

(b) Do you know whether Dr. Makar conferred with any senior surgical colleague in relation to Raychel's case before deciding that it was proper to bring her to theatre to undertake an appendicectomy?

Provide full details of any conferral which you know took place. It was not within my knowledge that Mr. Makar conferred with any senior surgical colleague.

(c) Do you know whether Dr. Gund or Dr. Jamison conferred with any senior anaesthetic colleague in relation to Raychel's case before deciding that it was proper to anaesthetise her? I am unaware of who conferred with any senior anaesthetist; however an anaesthetist came to see Raychel on ward 6 prior to going to theatre. This would have been normal ward practice.

Provide full details of any conferral which you know took place.

(d) Was the decision to operate on Raychel discussed with you and if so,

(i) Who discussed it with you? I do not recall any discussion, but I believe I was informed on the decision.

(ii) Provide full details of what was discussed? Please see my response as above

(5) *"I brought Raychel back from theatre at 1.55am following the removal of a mildly congested appendix (see page 020-010-018). Her intravenous fluids were recommenced on return from theatre and again running at 80 mls per hr as prescribed by the doctor on the fluid balance sheet (page 020-021-040)."* (WS-048/1 Page 3).

(a) Insofar as you are aware, identify the person who decided what intravenous fluids Raychel was to receive upon returning to the ward from theatre? If you can identify this person, please explain how you are aware of this? As per standard ward practice the intravenous fluids were recommenced as prescribed by the doctor on her fluid balance sheet pre operatively.

(b) Did you receive an instruction in relation to the type of intravenous fluid to give to Raychel upon her return from theatre?

If so,

(i) Who gave you that instruction? Raychel's intravenous fluids were recommenced as prescribed by the doctor on her fluid balance sheet pre operatively as per standard ward practice.

(ii) Was that instruction given verbally or in writing? It was written/prescribed by the doctor on her fluid balance sheet pre operatively.

(iii) Was a prescription written in respect of Raychel's post-operative fluid management? No, this was not standard practice at that time.

(iv) If a prescription wasn't written in respect of post-operative fluid management, please comment on whether this was unusual or whether this was standard practice at that time? This was standard ward practice at that time.

(v) Please specify the type of fluid which you gave to Raychel upon her return to the ward? No 18 Solution.

(vi) If you did not receive a verbal or written instruction in relation to the type of fluid to give Raychel, on what basis did you give her the fluid which you gave her? Her intravenous fluids (No 18 Solution) were recommenced as prescribed/written on her fluid balance sheet, in accordance with standard ward practice.

(vii) Who erected/connected the intravenous fluids for Raychel upon her return to the ward? I connected the intravenous fluids for Raychel on her return to the ward.

(c) Did you receive an instruction to run intravenous fluids at 80 mls per hour upon Raychel's return to the ward from theatre?

If so,

(i) Who gave you that instruction? As per standard ward practice her intravenous fluids were reconnected at 80ml/hr as prescribed on her fluid balance sheet pre-operatively.

(ii) Was that instruction given verbally or in writing? It was prescribed /written on her fluid balance sheet pre-operatively as was standard ward practice at that time.

(iii) If you did not receive a verbal or written instruction in relation to the rate of fluid to give Raychel, on what basis was the rate set at 80ml per hour? It was prescribed /written on her fluid balance sheet pre-operatively as was standard ward practice at that time.

(iv) Did you give consideration at any time to whether it was appropriate to infuse Solution 18 at a rate of 80ml/hr to a child of Raychel's weight, post operatively? I continued her intravenous fluids at 80ml/hr as prescribed by the doctor on her fluid balance sheet. As a nurse it would not have been my responsibility to calculate intravenous fluids.

(6) *"I returned to duty at 7.45pm on the 8 June. I was allocated to work in the Infant Unit caring for infants up to 6 mths of age so I was not caring for Raychel that night."* (WS-048/1 Page 4).

(a) What time did you go off duty on the morning of the 8 June? Approx. 8.15am.

(b) By the time you had gone off duty, had Raychel vomited? I was unaware that Raychel had vomited.

(c) If she had vomited, did you report that vomit to anybody and if so, who did you report it to? n/a

(d) When you returned to duty at 7.45pm on the 8 June did you receive a 'hand-over' or a report on the condition of patients including Raychel?

No, I was allocated to work in the infant unit on the night of 8th June therefore I did not receive a handover or report on any of the patients on the main ward 6.

(i) Who provided you with that report? Please see my response as above

(ii) What were you told about the condition of Raychel? n/a

(e) You were Raychel's named nurse and the person who had drawn up her care plan. Who was responsible for allocating patients to nurses on the night of the 8 June, and explain, It is normally the nurse in charge of the ward during day duty who is responsible for allocation of staff for night duty.

(i) What factors are typically taken into accunt when allocating patients to nurses? Number of nurses on duty, skill mix, and level of experience of nurses on duty.

(ii) Why were you not the nurse allocated to Raychel's care for the night of the 8 June? I am unaware of why I was allocated to work in the infant unit and not the nurse allocated to Raychel's care on the night of the 8th June.

(7)*"However when walking through the main ward her dad gave me a vomit bowel (sic) with a small coffee ground vomit (see page 020-018-037) I reported this to the nursing staff caring for Raychel that night."* (WS-048/1 Page 4)

a)Please clarify what you are referring to at page 020-018-037. In particular identify the entry relating to the small coffee ground vomit which Raychel's father drew to your attention.

The infant unit is situated within ward 6. It is not staffed as part of the main ward and staff allocated to work in this area do not receive a handover on the patients on the main ward 6. When walking through the main ward 6 Raychel's dad gave me a vomit bowl with a small coffee ground vomit in it. I do not recall specifically why I was walking through the main ward 6.

b) Did you have any discussion with Raychel's father when he gave you the vomit bowl? If so, did he communicate any concern to you in relation to Raychel's treatment or condition? I cannot recall Dad expressing any concern to me. I informed him that although I was not caring for Raychel that night I would inform the nursing staff involved in her care.

c)Identify the nurse to whom you reported the small coffee ground vomit. I cannot recall the particular nurse who I reported it to.

d)Did you have any discussion with this nurse about Raychel's vomiting or what should be done about it? I cannot recall any discussion with the nurse but I recorded the vomit on Raychel's fluid balance sheet.

i)Outline the discussion which you had; I cannot recall any discussion.

ii)Was any consideration given to notifying a doctor of this further vomit? I cannot recall any discussion.

iii)Describe any action that was taken on foot of this discussion. I was unaware of any action that was taken.

e)Before receiving the vomit bowl from Raychel's father, had you received any update on her condition or on how she had been progressing in the period since you came on duty at 7.45pm? No as I was not working on main ward 6 that evening I had not received an update on her condition.

f)If so, what were you told about her condition or her progress in that period, and who provided you with this information?Please see my response above.

g)State precisely what you knew about Raychel's history, symptoms and treatment at the time when you received the vomit bowl from her father?
I was unaware of Raychel's history, symptoms and treatment at that time as I was not working on main ward 6 that evening.

h)In June 2001 were you aware of the factors that could cause an electrolyte imbalance in a Paediatric patient following surgery?
At that time I was not aware of factors that could cause electrolyte imbalance in children following surgery who were receiving intravenous fluids.

i) If so, please identify the factors that you were aware of that could cause an electrolyte imbalance in a Paediatric patient following surgery? n/a

j)Were any of those factors present in Raychel's case? n/a

k)Did you have any concerns about Raychel's condition when you became aware that she had suffered a coffee ground vomit, given her history to that point in time? If so, what were those concerns and what did you do about them? I was unaware of Raychel's history as I was not working on main ward 6 that evening. I reported the vomit to a nurse caring for Raychel that evening and I recorded the vomit on Raychel's fluid balance sheet.

l)If you had no such concerns, please explain why you had no concerns? I had no concerns as I was unaware of Raychel's history as I was not working on main ward 6 that evening.

(8) On the evening of the 8 June 2001 were you party to the discussion which led to the decision to contact the surgical JHO (Dr. Curran) and to ask him to see Raychel? If so, did you contribute to that discussion and what did you say? No I was unaware of any discussion as I was not working on main ward 6 that evening.

(9) When Dr. Curran arrived on Ward 6 to see Raychel, did you have any dealings with him with regard to Raychel? If so, please explain the dealings that you had with him? No I had no dealings with Dr Curran.

(10) Are you aware of whether any consideration was given to asking a more senior doctor (than a JHO) to see Raychel during the evening of the 8 June 2001? No.

(11) During the evening of the 8th June 2001 was a member of the paediatric medical team on duty at or near the Ward 6? Paediatic doctors would have been on duty on or near Ward 6.

(12) In what circumstances could nursing staff ask a member of the paediatric medical team to examine a 'surgical patient' about whom there was a concern? It was standard practice that the surgical doctors were responsible for the surgical patients, however if a child was unwell a medical doctor could have have been asked to review the surgical patient.

(13) On the evening of the 8th June 2001 would it have been possible to contact a member of the paediatric medical team to examine Raychel? Yes it would have been possible.

(14) On the evening of the 8th June 2001, what consideration, if any, was given to asking a member of the paediatric medical team to examine Raychel? As I was not working on main ward 6 I was therefore unaware of the situation.

(15) Why was a member of the paediatric medical team not asked to examine Raychel at any time before Dr. Johnston saw her at the time of her fitting? I am unable to comment as I was not working on main ward 6 and therefore not caring for Raychel the evening on 8th June.

(16) "*The purpose of a care plan is to allow nursing staff caring for a patient to assess, plan, implement and evaluate the nursing care given. This is to ensure that all care is carried out to an optimum level and that it is based on an individual patient and family needs. The care is evaluated and updated during each shift by the nursing staff caring for a particular patient (see pages 020-027-056 to 020-027-065 and 020-028-066 to 020-028-069).*" (WS-048/1 Page 4)

(a) Was the care plan available at the bedside, and if not, how was it accessed? No it was not standard practice to have careplan at the bedside. They were accessed in the nursing notes which were kept in the office on ward 6 or it could have been accessed via the computer.

(b) What arrangements were in place for evaluating the care provided under the care plan and state,

(i) How was this task performed? Evaluation of the care plan was performed by registered nursing staff via the computer.

(ii) Who was responsible for evaluating the care provided under the care plan? It was normally the responsibility of the nursing staff caring for the particular patient.

(iii) At what time, or in relation to what events, was evaluation to be carried out? Evaluation was carried out during and / or at the end of each nursing shift.

(c) What arrangements were in place for updating the care plan and state,

(i) How was this task performed? Updating the care plan was performed by registered nursing staff via the computer.

(ii) Who was responsible for updating the care plan? It was the responsibility of the nursing staff caring for the particular patient.

(iii) At what time, or in relation to what events, was updating the care plan to be carried out? Updating was carried out during and/or at the end of each nursing shift.

(d) When you drafted the care plan, what consideration, if any, did you give to including post operative nausea and vomiting as a potential problem for which nursing care might have to be planned and given? No, I did not include post-operative nausea and vomiting as it was not a problem while I was caring for Raychel.

(e) The nursing plan records "observe/record urinary output" (Ref: 020-027-063). How did you anticipate that this aspect of care would be performed and state:

(i) In what document should urinary output have been recorded? Urinary output would have been recorded in the fluid balance sheet.

(ii) What was the purpose of recording urinary output? To observe urinary output and ensure no post operative urinary retention.

(iii) For how long should urinary output have been recorded? Urinary output would be recorded for the duration of a child's stay in hospital.

(iv) Was this aspect of the care plan fully complied with? Yes it was complied with for my time on duty as I have documentated in Raychel's nursing notes that she had not passed urine during my time on duty until 8am on 8th June

(v) If not, in what respect was it not complied with? n/a

(f) The nursing care plan records, "encourage oral fluids, record" (Ref: 020-027-059). How did you anticipate that this aspect of care would be performed and state:

(i) In what document should intake of oral fluids have been recorded? Oral fluids would have been recorded on the fluid balance sheet.

(ii) What was the purpose of recording intake of oral fluids? The purpose of recording oral fluids was to observe oral intake.

(iii) For how long should intake of oral fluids have been recorded?
Oral fluids would have been recorded for the duration of a child's stay in hospital.

(iv) Was this aspect of the care plan fully complied with?
Yes it was complied with for my time on duty as Raychel remained fasting during my time on duty until 8am on 8th June.

(v) If not, in what was respect was it not complied with? n/a

(g) The nursing care plan records "take/record vital signs ¼ hourly x 2 hours" (Ref: 020-027-063), followed by half hourly for 2 hours etc.

Please address the following:

(i) Was this aspect of the care plan complied with? It was compiled with except the 6am observations on 8th June were not carried out until 7am.

(ii) If so, where is the record of the taking of vital signs? Observations were recorded in her post operative recovery sheet (Ref. No.: 020-014-022) and on her observation sheet on return to ward 6 (Ref. No.: 020-015-029).

(iii) If vital signs were taken/recorded on a less regular basis, please explain why the care plan was departed from?
Raychel's 6am observations were not carried out until 7am. I cannot recall the specific reason for this delay but it may have been due to the fact that all children on ward 6 would have had observations carried out around this time, therefore it may not have been possible to carry out her observations at the specific time stated.

(iv) If applicable, was any record made of the decision to depart from the care plan in this respect? No intentional decision or record was made to depart from the care plan. Her observations had remained stable post operatively.

(h) Raychel received Zofran on 8 June, administered by Dr. Devlin (Ref: 020-017-035). Should this event have been recorded in the care plan? I was not on duty at this time. It would have been normal practice to have been signed for by the person administering the medication on the child's medicine kardex.

II. QUERIES ON THE ISSUE OF FLUID MANAGEMENT

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

(17) Explain fully any action that you took in relation to the following aspects of Raychel's fluid management:

(a) Checking the appropriateness of the fluid that she was receiving;
As per standard practice No. 18 Solution was prescribed by the doctor for surgical children on the fluid balance sheet. Raychel's intravenous fluids were checked by two registered nurses - myself and S/N Bryce. The correct patient, date, fluid, expiry date, batch number

and rate were all checked as prescribed by the doctor. S/N Bryce and I signed for it following checking these details.

(b) Checking the appropriateness of the rate of infusion;
The rate of infusion was administered as prescribed by the doctor on her fluid balance sheet. Raychel's intravenous fluids were checked by two registered nurses - myself and S/N Bryce. The correct patient, date, fluid, expiry date, batch number and rate were all checked as prescribed by the doctor. S/N Bryce and I signed for it following checking these details.

(c) Monitoring her oral intake; Raychel remained fasting during my time on duty caring for Raychel until 8am on 8th June.

(d) Addressing the replacement of her gastric losses; I was not aware that she had vomited during my time on duty caring for Raychel.

I reported the small coffee ground vomit at 11pm on the night of the 8th June to one of the nurses caring for Raychel that night and I recorded the vomit on her fluid balance sheet.

(e) Monitoring her urine output; She had not passed urine during my time on duty.

(f) _Monitoring her vomiting. ; I was not aware that she had vomited during my time on duty caring for Raychel.
On the night of the 8th June I reported the small coffee ground vomit at 11pm to one of the nurses caring for Raychel that night and I recorded the vomit on her fluid balance sheet.

(18) In 2001, what did you regard as the appropriate nursing approach to a child who was still experiencing episodes of vomiting more than 12 hours after surgery, and who was in receipt of hypotonic intravenous fluids? Please set out all the steps that a nurse should have taken in those circumstances. In 2001 I was not aware of the term 'hypotonic'; therefore I was not aware of any dangers that could occur as long as a child was receiving intravenous fluids to maintain their hydration.

(19) In 2001, what did you understand were the possible dangers for a child who was experiencing prolonged vomiting after surgery and who was in receipt of hypotonic intravenous fluids? I was not aware of any dangers as I understood that as long as a child was receiving intravenous fluids this would maintain their hydration.

(20) 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? The surgical doctors would have been responsible.

(21) Prior to 8th 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 was not aware of these cases prior to 8th June 2001.

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

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

n/a

(22) Since 8th 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.
Since June 2001 I am now aware of the cases and the risks and dangers of hyponatraemia and I am aware of the ongoing inquiries into these cases.

(b) State the source(s) of your knowledge and awareness and when you acquired it. Through the media, internal hospital communication and guidelines from The Department of Health, Social Services and Public Safety (DHSSPS) on intravenous fluids and the risks of hyponatraemia (March 2002).

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

I have an increased awareness of the risks and dangers of hyponatraemia and the appropriate intravenous fluid management and guidelines for surgical children.

(23) Prior to Raychel's death were you aware of the literature which highlighted the dangers posed by the administration of hypotonic fluids to children during the immediate post operative period? e.g. 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. As a nurse I would not have been expected to be aware of this literature.

(24) 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 received my training as a registered sick children nurse in the Royal Belfast Hospital for Sick Children. I commenced in January 1985 and I qualified under The Professional National Board for Nursing, Midwifery and Health Visiting in Northern Ireland in April 1988.

My training included education on ensuring correct administration of intravenous fluids, as prescribed by the doctor, and checked by the nurses (one of which was a registered nurse) correct patient, correct dose, correct date, time, and route of administration and signed for following administration. I did not receive any specific training in hyponatraemia. The importance of record keeping was emphasised during my training.

My training for return to professional practice in October 1998 also included education on the ensuring correct administration of intravenous fluids. The importance of record keeping was emphasised but no specific training in hyponatraemia was given.

I obtained my BSC Hons. Degree in Specialist Practice (Diabetes) from the University of Ulster in June 2007. Education was provided on fluid management of children with diabetes receiving intravenous fluids, but not specifically for surgical children. No specific training on hyponatraemia was included in this course.

(b) Postgraduate level. None.

(c) Hospital induction programmes. In March 1999, when I commenced as a staff nurse Grade D in ward 6 – I received a general ward induction. There was no specific training related to Hyponatraemia. At ward level verbal advice and instruction was given by senior nursing staff on intravenous fluid management and on record keeping and documentation.

(d) Continuous professional development. IV additives course (November 2001), Altnagelvin Paediatric Resuscitation Day (October 2003) and Paediatric Immediate Life Support study days included training on hyponatraemia and updates and training on intravenous fluid management. Training on the importance of record keeping would also have been emphasised.

Keeping myself updated in current policies and guidelines and I am aware of recent update of policy for Prescribing and Administering Intravenous Fluids to Children (Western Health and Social Care Trust February 2012)

(25) You have stated in your witness statement (WS-048/1 Page 7) that you had no previous experience of hyponatraemia in post surgical patients. Since 8 June 2001, describe in detail your experience of dealing with children with hyponatraemia, including the:

(a) Estimated total number of such cases, together with the dates and where they took place. No experience in children post surgery of hyponatraemia. However, in my current role as a Paediatric Diabetes Specialist Nurse (from 2005 to present) I would have been involved in the care of children admitted to Ward 6 with diabetes in diabetes ketoacidosis having low sodium. I do not know the number of cases.

(b) Nature of your involvement.
As a paediatric diabetes specialist nurse I followed the British Society for Paediatric Endrincology and Diabetes (BSPED) (Edge 2009) for the management of children with diabetes in diabetes ketoacidosis. I ensured the doctors and nursing staff involved were aware and followed these guidelines regarding fluid and insulin management, observations to be carried out and regular blood glucose, blood ketones, urea and electrolyte checks.

(c) Outcome for the children. I am unaware of any adverse outcome due to hyponatraemia

III. GENERAL

Please address the following:

(26) The Inquiry has been provided with observation sheets in respect of Raychel for the 7th June (Ref: 020-016-031) and the 9th June 2001 (Ref: 020-016-032)? Do you know whether an observation sheet was completed for the 8th June 2001? Yes it is included in the documentation on observation sheet (Ref: 020.015.029) used for post operative patients.

If an observation sheet was completed for the 8th June 2001, please address the following matters:

(a) Do you know what has become of that document? Yes it is included in the documentation, on observation sheet (Ref: 020.015.029) used for post operative patients.

(b) Did you make any entries in that document? Yes, I documented Raychel's temperature on admission, and commented on her colour and her abdominal pain at 9:50pm on 7th June. I recorded her observations post operatively at 1:55am and 2:15am 8th June.

(c) If you did make entries in that document are you able to provide any indication of the content of those entries? These observations are documented on the observation sheet. (Ref: 020.015.029).

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

(a) Describe the process which you participated in. I know there was an incident review meeting, but I was unable to attend due to previously allocated work shifts (night duty).

(b) Who conducted it? Dr Raymond Fulton

(c) When was it conducted? 12th June 2001.

(d) What contribution did you make to it? None as I was unable to attend the meeting.

(e) Were you advised of the conclusions that were reached, and if so, what were they? Yes, I was advised that No. 18 Solution was no longer prescribed for surgical children. 0.45% Normal Saline with dextrose was the recommended fluid.

(f) Were you advised of any issues relating to your role in Raychel's care and treatment? No.

Describe any changes to fluid management practice that you were made aware of at Altnagelvin Hospital following Raychel's death. Immediate practice was that No. 18 solution was no longer prescribed for surgical children. 0.45% Normal Saline with dextrose was the recommended fluid.
Since 2001 it became trust policy that the anaesthetist prescribed the intravenous fluids for 12 hours post operatively on children. This was practice from 2001 within Altnagelvin. Written guidelines from The Department of Health, Social Services and Public Safety (DHSSPS) on intravenous fluids and the risks of hyponatraemia (March 2002).

I was made aware of the risks and dangers of hyponatraemia and the appropriate fluid management for surgical children (No 18 Solution no longer used for children and 0.45% Normal Saline with dextrose was the recommended fluid) and importance of regular urea and electrolyte checks – pre or intra operatively and 12hrs post operatively.

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

No further points or comments

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

(b) Record keeping.

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

(d) Working arrangements within the surgical team and support for junior doctors.

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

(f) Current Protocols and procedures.

(g) Any other relevant matter.

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

Signed: Daphne Patterson **Dated:** 15/6/12.