Dr med Andrea Volprecht Witness Statement Ref. No. 136/1

[redacted]

NAME OF CHILD: Claire Roberts

Present position and institution:

Consultant Paediatrician in a Paediatric Practice, Bremervörde, Germany

Employed by: Petra Janssen Consultant Paediatrician
Paediatric Practice
Neue Strasse 23
27432 Bremervörde
Germany

Previous position and Institution (prior to and during 21st– 23rd October 1996):

- Qualified in November 1993 at Rheinisch-Westfälisch-Technische Hochschule Aachen, Germany
- Junior House Officer (JHO) post February 1994 – April 1994 Paediatric Wards and Neonatal Unit at Kreiskrankenhaus Aurich, (Aurich, Germany)
- JHO Position May 1994 – September 1995 Paediatric Wards and Neonatal Unit at Diakonie Krankenhaus Rotenburg Wümme, (Rotenburg Wümme,Germany)
- First Term Senior House Officer (SHO) at Royal Belfast Hospital for Sick Children May to August 1996 as cover for maternity leave (paediatric and surgical wards)
- First Term SHO at Belfast Children's Hospital August 1996 to February 1997 on a rotating post (Aug/Sept Allen Ward, Oct/Nov Surgical Wards, Dec/Jan Paediatric A&E)

Membership of Advisory Panels and Committees:

- None

Previous Statements, Depositions and Reports:

- I have not issued any previous Statements, Depositions or Reports.

(1) State the date when you were first appointed as a Senior House Officer by the Royal Group of Hospitals (Royal) and describe your experience as a Senior House Officer in the Royal Belfast Hospital for Sick Children (RBHSC) and any other hospital in which you worked prior to 21st October 1996.

- I was first appointed by the RBHSC in May 1996 as a 1st Term SHO and covered for a SHO on maternity leave. From May to August 1996 I covered the general paediatric and paediatric surgical wards (Musgrave and Allen Ward; Barbour Ward, Knox Ward and Infant Surgical Unit) and participated in the on-call rota. From August 1996 until August 1997 I held posts on the SHO rotation, spending 2 months on the general paediatric wards, 2 months on the paediatric surgical wards and 2 months in paediatric A&E.

My experience prior to looking after Claire had been:
From 08/1996

Senior House Officer at Royal Belfast Hospital for Sick Children

- Admission, care and discharge of patients with general paediatric diseases including infectious, rheumatic and respiratory diseases

- Involved in treatment of paediatric diabetic patients and diabetic keto-acidosis

- Working as part of the surgical team, pre- and post-operative care of children requiring repair of congenital malformation as well as patients with acute surgical problems

- During cover on the Infant Surgical Unit: Cared for children with congenital malformation of the gastrointestinal tract; being involved in their postoperative care including dealing with complications e.g. from prolonged use of TPN; septicaemia; bowel obstruction; short-bowel-syndrome etc.

- Participated in care of fracture patients

- Practical procedures including blood taking, siting of iv lines, bladder taps and lumbar punctures

Prior to my SHO jobs in Belfast I worked as a JHO in paediatrics in Germany for a total of 18 months

07/1994 - 09/1995

Junior House Officer in Paediatrics at the Diakoniekrankenhaus Rotenburg /Wümme, Elise-Averdieck-Str. 17, D-27342 Rotenburg (Wümme), Germany
Consultant Paediatrician: Dr Scharnetzky
(District General Hospital with a 60 bedded Paediatric Unit including a Special Care Baby Unit (SCBU) with two intensive care spaces and three high dependency cots)

- Responsible for the paediatric wards with admission, care and discharge of infants and children with general paediatric problems including Asthma and Diabetes
- Cover of postnatal wards and delivery suite with resuscitation of the newborn

- Involved in the care of ill neonates and premature patients including ventilation and nutrition

03/1994 - 06/1994

Junior House Officer in Paediatrics at the Kreiskrankenhaus Aurich Postfach1680, D-26586 Aurich, Germany
Consultant Paediatrician: Dr Janssen
(District General Hospital with a 30 bedded Paediatric Unit including a Special Care Baby Unit with one intensive care space and one high dependency cot)

(2) Describe your work commitments to the RBHSC from the date of your appointment as a SHO, including the department/s and locations in which you worked and the periods of time in each department/location, and particularly over the period 21st October to 23rd October 1996.

- May to August 1996: First Term SHO at Belfast Children's Hospital: cover for maternity leave (paediatric and surgical wards)
- August 1996 to February 1997: First Term SHO at Belfast Children's Hospital on a regular SHO rotation (Aug/Sept 1996 Allen Ward, Oct/Nov 1996 Surgical Wards, Dec 1996/Jan 1997 Paediatric A&E)
- 21st -23rd October 1996: surgical wards

(3) State the times at which you were on duty between 21st October to 23rd October 1996 and in particular:-

(a) Whether you were present in the hospital or

(b) Whether you were on call during that period

(c) **What contact you had with Claire and her family during that period including where and when that contact occurred**

- (a) and (b) According to my entries in Claire's chart (Ref: 090-022-052) I was on call on the night of 21st October 1996, which meant I would have been present in the hospital, in Infant Surgical Unit (ISU) from 9:00 to 17:00 and than covering all general paediatric wards and all paediatric surgical wards in RBHSC overnight until 09:00 the following morning. I would have gone off duty during Tuesday morning 22nd October 1996 to return to my work on Wednesday morning 09:00 23rd October 1996, probably for a normal day shift 09:00 – 17:00 in ISU.

- (c) I do not recall the night shift on 21st to 22nd October 1996. According to the clinical notes, there is no indication of my personal clinical contact with Claire or her family, therefore I assume I had no direct contact with Claire or her family.

(4) Describe what you considered to be your role in relation to and responsibilities towards Claire and her family over the period from her attending

A&E in RBHSC on 21st October until 23rd October 1996 when ventilatory support was withdrawn, and in particular:

(a) From Claire's attendance in A&E at RBHSC until her arrival in Allen Ward

- I had no responsibilities towards Claire during her attendance in A&E at RBHSC until her arrival to Allen Ward.

(b) While Claire was in Allen Ward until her admission to PICU

- My responsibility for Claire would have begun after she was admitted by Dr Bernie O'Hare (the Medical Registrar) to Allen Ward: her admission note is timed at 20:00 on 21st October 1996. My responsibility towards Clare would have ended on 09:00 am 22nd October 1996 at the end of my night shift. I have no personal recollection of this period of time.

- Claire was already clerked in to Allen Ward by Dr Bernie O'Hare. My responsibility towards Claire that night was to prescribe her initial fluid regime and medications and to chase her blood results. I would also have been the doctor of first contact if Claire's condition had deteriorated that night and if nursing staff were concerned about her.

- If I had been asked to see a child at the request of the nursing staff, my usual practice would be to evaluate the situation, examine the child and document the assessment in the child's medical records, followed by a management plan. There is no entry in the records of a review of Claire by myself, therefore, it is evident that I was not asked to review her by the nursing staff (as confirmed in the nursing observation (Ref: 090-040-140)).

- A night shift in RBHSC would have been very busy with 10-15 admissions not being unusual. I would have been the only doctor during the night being responsible for all admissions to the general paediatric and paediatric surgical wards (five wards in total), inserting intravenous cannulae, prescribing drugs and intravenous fluids, speaking to parents, reviewing patients who had become unwell, chasing laboratory results and checking bloods. As the the on-call doctor, I was dependent on the nursing staff to monitor the patients' general condition and to request me to review any patient about whom they had concerns.

(c) From her admission to PICU until her death

- I had no responsibility for Claire after 09:00 o'clock on Tuesday morning 22nd October 1996, when my on-call shift ended and I had therefore no involvement in Claire's care or any responsibilities towards her during her latter stay in Allen Ward or her admission to PICU until her death.

(5) Describe your role, responsibilities and actions in relation to:

(a) Claire's fluid administration, monitoring and management

- I prescribed Claire's first bag of fluids after her admission to Allen Ward (21st October 1996) and calculated her fluid regime. (see also answer Question 6)

- I also recorded her full blood count result in her medical record. This would have been the result from the bloods taken at her admission. I marked her raised white cell count by an upward arrow and marked her slightly low sodium result with a downward arrow (the U&E result was not written down by me). I signed for the recording of the full blood picture, but I did not time the entry. There is no documentation in Claire's medical record that I arranged for a subsequent blood test.

(b) The making and recording of observations of Claire including determining and reviewing the frequency of those observations

- Usually the admitting doctor specified the observations on a child, if any special observations were needed. The admitting doctor in this case was Dr Bernie O'Hare. As the doctor on call for the ward, my responsibility would have been to order or alter observations or the frequency of them, if I was called by the nurses to see a child who had deteriorated. But I was not asked to see Claire.

(6) In relation to the actions which you have described above in respect of Claire's fluid management etc. and the making of observations etc.:

(a) Explain the reasons for your actions

(b) State which of them you carried out on the express instructions of a clinician, identifying in each case

(i) The clinician concerned

(ii) The instructions they gave you

(iii) When they gave them to you

- I cannot personally recollect the night concerned and therefore I cannot recall if the medical registrar, Dr Bernie O'Hare, advised me specifically about a certain fluid regime or if the nursing staff may have asked me to prescribe the fluids. If not given specific instructions by Dr O'Hare, my usual practice would have been to check the information given in the management plan by the admitting doctor (Dr O'Hare), and to prescribe the fluid regime according to that plan. In Dr O'Hare's medical documentation from 20:00 at admission, there was no suggestion that she felt Claire had a condition which warranted fluid restriction. Unless I had information that a restricted fluid regime was requested, my normal practice would be to prescribe the fluid regime which was common practice at the time. I prescribed 500 ml 0.18% NaCl/4% Dextrose at 64ml/hr

(Ref: 090-038-134). This would have been the standard fluid type used in RBHSC at the time at a maintenance rate for Claire's weight. I do not recall if I received specific instructions regarding blood test results or further monitoring and there is no record according to this in Claire's chart.

- Dr Bernie O'Hare reviewed Claire at midnight (Ref: 090-022-052). The nursing notes (Ref: 090-040-140) indicate my presence. It is recorded in the notes that Dr O'Hare felt Claire was stable at the time and that she could be reviewed in the morning (presumably during the ward round). There was no plan regarding the frequency of further monitoring or observations recorded in her notes. I do not personally recall what exactly was discussed during the review.

(c) Whether you sought advice from or consulted with any other clinicians prior to taking any of those actions, and if so:

(i) Identify the clinicians from whom you sought advice/consulted and state when you did so

(ii) State the nature of the advice you sought/the issues on which you consulted the explain the reasons for doing so

(iii) State and explain the advice that you received and identify the clinician who gave it to you

If you did not seek any such advice or consultation, explain why not.

- Claire had been reviewed at midnight by Dr Bernie O'Hare and felt to be stable. The nursing notes (Ref: 090-040-140) indicate my presence. I do not personally recall the review and do not know what exactly was discussed during the review at midnight.

(7) In regard to Claire's medical notes and records, identify precisely the entries that you made or which were made on your direction and state below:

(a) When each of the identified entries was made

(b) **The source of the information recorded in the entry**

- I made 3 entries in Claire's notes and records (Ref: 090-022-052; Ref: 090-038-134)

(1.) After the midnight review entry from Dr Bernie O'Hare, I wrote down the FBC result and marked the increased WCC with an upward arrow. Below the result I signed my name. I did not date or time this result. I do not recall when or how exactly I received the result, it was likely by phone directly from the laboratory or through nursing staff, who might have taken the phone call from the laboratory.

(2.) The U&E result which was written prior to my entry was not written in the notes by me and I do not know who recorded the U&E result in the notes. I did mark the Na 132 with a downward arrow. Usually I would date and time any entry that I document in a patients record. May be I did not do so because part of the result was already recorded by someone else – I do not know by whom. I cannot recall the time, when I received the blood results or when I reviewed them noting the sodium level. It was likely the blood results would have been available at the midnight review, and Dr O'Hare had timed the clinical review already at midnight, which could have been the reason why I did not time the blood results separately. But I do not recall this fact personally.

(3.) On the prescribing chart, I prescribed 500 ml 0.18% NaCl / 4% Dextrose at 64ml/hr and signed for it (Ref: 090-038-134). At the time in 1996 the fluid prescription chart did not contain a column to document the "time of prescription", but as Claire's admission note is timed by Dr Bernie O'Hare as 20:00 and the nursing notes document fluids running from 22:30, the fluids may have written up between those two times.

(8) Describe and explain any discussions you had with any

(a) medical personnel and/or

(b) nursing staff

in relation to Claire whilst you were on duty between her attendance at A&E on 21st October and 23rd October 1996, the nature and location of these discussions and with whom you had those discussions.

- (a) Claire had been reviewed at midnight by Dr Bernie O'Hare and felt to be stable. The nursing notes (Ref: 090-040-140) indicate my presence. I do not personally recall the review and do not know what exactly was discussed during the review at midnight. There is no documentation that would indicate any other discussions with medical personnel. The morning ward round would have been conducted at 09:00 by the ward medical staff. It would have been unlikely for me to have joined the ward round as my shift had ended and I would have been back to the surgical ward (where I was based during daytime work). There is no note in the medical record suggesting I was present during the morning round. Although it would have been my usual practice to hand over new patients, problems or outstanding bloods from the night shift to the ward medical staff, I have no personal recollection to whom and when I handed over.

- (b) There is no documented discussion with nursing staff and I do not recall any discussion with nursing staff. Although I would have obviously spoken to nursing staff on Allen Ward during the night, but I have no personal recollection.

(9) State whether you reported Claire's condition including her blood results to any clinician at any time, and if so:

(a) Identify the clinician/s to whom you reported and state the time at which you reported.

(b) The means by which you conveyed that report e.g. orally, in person, by telephone, in writing etc.

(c) State precisely the information conveyed to that clinician.

(d) **State whether Claire was reviewed or assessed as a result of that report or whether her care/treatment was changed and provide details thereof. If not explain the reasons why not.**

(e) **State the threshold for calling a consultant in RBHSC in October 1996 and explain where that is to be found or how you became aware of that threshold.**

(a) to (d)
Claire had been reviewed at midnight by Dr Bernie O'Hare and felt to be stable. The nursing notes (Ref: 090-040-140) indicate my presence. I do not personally recall the review and do not know what exactly was discussed during the review at midnight. It is recorded in the notes that Dr O'Hare felt Claire was stable at the time and that she could be reviewed in the morning (presumably during the ward round). The morning ward round would have been conducted at 09:00 by the ward medical staff. It would have been unlikely for me to have joined the ward round as my shift had ended and I would have been back to the surgical ward (where I was based during daytime work). There is no note in the medical record suggesting that I was present during the morning round. Although it would have been my usual practice to hand over new patients, problems or outstanding bloods from the night shift to the ward medical staff, I have no personal recollection to whom and when I handed over. The clinical records do not indicate that I reported Claire's condition to any clinician, other than the discussion with Dr O'Hare at midnight.

(e) If I had concerns about a patient, I would have informed the medical registrar, who would have contacted the Consultant on call if necessary. If busy, the medical registrar would have asked me to contact the consultant. Specific criteria for calling a consultant were not written down as policy; however, the paediatric consultants provided a supportive environment that encouraged easy and accessible contact. Thresholds for calling a consultant were individual to the doctor seeking advice and the consultant concerned.

(10) *"1. Viral illness 2. encephalitis"* (Ref: 090-022-052)

(a) **Identify the person who struck out *"Encephalitis"* in Claire's medical notes by name and job title.**

- I do not know who crossed out the diagnosis. I am certain that it was not me, as I would use a line rather than crosses.

(b) State the date and time when this word was struck out and explain why it was struck out.

- I am not able to answer this question.

(c) Explain if there were any alternative diagnoses and, if so, identify each of them and explain why they were not noted at Ref: 090-022-052

- I do not recall if any other diagnoses were discussed at the midnight review of Claire. There is no documentation in the medical record and I have no personal recollection of the discussion at the time. However as no review of Claire was requested by nursing staff during the night shift, there was no need to reconsider the diagnosis at the beginning of her hospital stay.

(d) In Particular, state whether you or Dr Bernie O'Hare considered hyponatraemia and/or cerebral oedema as a diagnosis, and explain the reasons why/not, and if so, why this was not recorded in Claire's medical notes.

- I have no recollection regarding this.

(e) Explain any discussions you had with the triage nurse T. Blue, admission nurse E. A. Jackson, Dr. Janil Pathucheary (SHO in A&E) and with Dr. Bernie O'Hare regarding Claire's condition and diagnosis and what tests, scans or investigations were required.

- I do not recall a discussion with these staff members and I did not document any discussion like this in the records. I am not able to answer this question.

(f) **State whether you considered monitoring Claire's intracranial pressure at any time and if so, state when and the reasons why. If not, explain why not.**

- I do not recall whether or not I considered monitoring Claire's intracranial pressure. However, on admission Dr Bernie O'Hare conducted a neurological examination on Claire and noted "no meningism" and "fundi normal, discs not blurred" (Ref: 090-022-052). Claire was again assessed by Dr Bernie O'Hare at midnight. She appeared stable during this review and Dr O'Hare noted at midnight on 21st October "slightly more responsive, no meningism" and "observe + reassess am". I was not informed about any clinical deterioration of Claire during the rest of the night. Therefore, there would have been no clinical reason for intracranial pressure monitoring during Claire's first night in hospital.

(11) State what you understood on 21st October 1996 to be the reason/s for Claire's admission to Allen Ward and the diagnosis of Claire's condition at that time and the basis of your understanding.

(a) **Explain why hourly neurological observations or more frequent observation of vital signs were not commenced on Claire's admission or at any time prior to 13:00 on 22nd October 1996**

(b) On the basis of your observations of Claire on her admission, state what you would have considered Claire's Glasgow Coma Scale reading to have been and the reasons for this score.

(c) On the basis of your observations, state how serious you considered Claire's presentation to be at the time of admission.

(d) Identify the person/s who were responsible for informing the nursing staff on Allen Ward of the reasons for Claire's admission and the ongoing diagnosis of Claire's condition.

(e) **Explain what information you or any member of the Medical team provided to Staff Nurse Geraldine McRandal prior to 21:45 on 21st October 1996 about the reason for Claire's admission and Claire's diagnosis, and identify who provided that information to S/N McRandal.**

I do not recall what I understood Claire's reason for admission at the time or her diagnosis were.

I cannot comment on question (a), (b), (c) and (e), as I did not admit Claire and the earliest I may have seen Claire was at midnight on 21st October 1996 with Dr Bernie O'Hare.

(d) Usually the nursing staff in A&E would inform the nursing staff of the admitting ward about a new admission. The casualty doctor would speak to the registrar to arrange admission and might also inform the admitting doctor. The doctor admitting a child - in this case Dr O'Hare - would inform the nursing staff of her findings, the potential diagnosis, a treatment plan and any other specific requests for example special observations.

(12) *" inv. FBC, U&E, BCx, Viral titres …."* (Ref: 090-022-052)

(a) **Identify the person who took a blood sample from Claire Roberts on 21st October 1996 between her admission to Allen Ward and midnight on 22nd October 1996.**

- I am not able to identify the person, who took the blood sample from Claire Roberts between her admission and midnight.

(b) State the time at which that blood sample was taken from Claire Roberts.

- I do not know the time at which the blood sample was taken.
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(c) **State whether you considered carrying out more extensive biochemical tests including liver function tests, calcium, glucose and ammonia and toxicology on Claire's admission to Allen ward, and if so, explain why these tests were not conducted at this stage given Claire's condition. If not, explain why they were not considered.**

- I did not see Claire around the time of her admission to the ward.

(d) **State whether you attended and examined Claire Roberts between her admission to Allen Ward and the end of your shift on 22nd October 1996, and if so, state at what time you did so, identify any other person present, and state the findings on your attendance and examination.**

- I have no personal recollection of the night shift. If I had seen or examined Claire, I would have made a note in her medical chart and it would have been recorded in the nursing records. There is no entry in the medical notes and no nursing comment. I might have accompanied Dr Bernie O'Hare at the midnight review (Monday 21st October 1996, Ref: 090-022-052), but would not have examined her myself if she was examined by the medical registrar.

(13) "Urine direct √ O+S √" (Ref: 090-040-140)

(a) State the results of the analysis of the urine samples taken on the ward.

- I do not recall knowing any results of the urine analysis. I note there is no documentation in Claire's admission note that a urine had been requested or a urine result to be chased.

(b) Identify where these results are noted or recorded, and by whom the record or note of the result was made.

- I do not recall where these results are noted or recorded, and by whom they were recorded.

(c) If there is no note or record of them explain why not.

- I do not recall why there is no note or record of the result.

(d) **State whether you were aware and took account of the results from the urine analysis in making your diagnosis of Claire. If not, explain why not. State whether you took any steps to ascertain these results or to repeat the urine analysis. If you did not, then explain your reasons.**

- I do not recall being aware or taking account of the urine result. I note Claire was not admitted by me and I did not formulate a diagnosis.

- I do not recall whether or not I took steps to ascertain the urine results. I note there is no documentation in Claire's admission note that a urine had been requested or a urine result was to be chased.

(a) **State whether you considered measuring Claire's urine output on admission. If not, explain why you did not consider it.**

- I did not see Claire on admission.

(14) *"IV fluids …… Re-assess after fluids"* (Ref: 090-022-052)

(a) **Explain why you prescribed 500ml of 0.18% NaCl 4% Dextrose for Claire on 21st October 1996 to be administered at 64 ml/hr. (Ref: 090-038-134)**

- I do not have any personal recollection of the night shift, but it would have been my usual practice to read the admission note prior to the prescription of fluids or drugs. In Claire's admission note, there was no indication that she was dehydrated, her illness had just started a few hours prior to admission. The notes on admission indicated the working diagnosis of a "viral illness". There had been no specific fluid regime requested by the admitting doctor: the admitting notes only requested ˝iv (intravenous) fluids˝ (Ref: 090-022-052). If the admitting doctor had required restricted fluids, or a specific fluid regime, then this would normally have been specified in the management plan. Therefore, I prescribed the fluid type which was standard practice for paediatric patients at the time (0.18% NaCl 4% Dextrose) at a maintenance rate for Claire's weight.

(b) **Explain why Claire was administered IV solution of 0.18% Saline/4% Dextrose on admission when she had been *"Vomiting at 3pm and every hour since"* (Ref: 090-022-050).**

- There had been no note in the A&E chart (Ref: 090-012) or in the admission write up by Dr Bernie O'Hare that vomiting was still ongoing hourly - either in casualty or in Allen Ward (Ref: 090-022-050). There had been one ˝medium vomit˝ at the time of fluid prescription (Ref: 090-038-138).

(c) **Explain why you continued to administer IV solution of 0.18% Saline/4% Dextrose to Claire on 22nd October 1996 when on admission she had been *"Vomiting at 3pm and every hour since"* (Ref: 090-022-050), and she continued to vomit frequently overnight (Ref: 090-038-133).**

- Claire had been reviewed by Dr Bernie O'Hare at midnight (Ref: 090-022-052). During this review iv fluids were running and Claire appeared ˝slightly more responsive˝ and was for reassessment in the morning. There was no need to review the fluid regime unless a change in condition had taken place. I had not been informed about the ongoing small vomits overnight (Ref: 090-038-138), otherwise I would have reviewed Claire and possibly reassessed her fluid prescription. I was not called back by nursing staff to review Claire during the rest of my shift.

(d) Describe any monitoring of Claire's consciousness and serum sodium concentration directed or arranged on her admission to Allen Ward, and state when and why this was directed/arranged and who was responsible for that monitoring of Claire and any record made thereof.

- Claire had been admitted by Dr O'Hare, who would have made arrangements for specific monitoring if needed. I was not present on Claire's admission. Dr O'Hare reviewed Claire while iv fluids were running at maintenance rate and was satisfied with her improving condition at midnight (Ref: 090-022-052). Children receiving iv fluids did undergo regular nursing observations and, should the condition of the child change, the normal procedure was to inform the doctor on call, to review the child and alter the treatment regime if necessary. I was not called back to review Claire during the rest of my shift.

(e) Explain your method of calculating Claire's fluid requirements at that time.

- I calculated Claire's fluids as maintenance fluids. First I copied her weight from the treatment form (Ref: 090-021-049) as 24 kg and calculated the maintenance fluids according to the Advanced Paediatric Life Support Manual (2nd Edition, 1997) recommendation at the time: 4ml/kg/hr for the first 10kg bodyweight, 2ml/kg/hr for the second 10kg bodyweight and for every kg bodyweight thereafter 1ml/kg/hr = 40mls/hr + 20mls/hr + 4mls/hr equals 64mls/hr. On the fluid prescription form (Ref: 090-038-134) I noted Claire's weight in the upper right corner (24 kg) of the chart and wrote below the calculation (10 -40, 10-20, 4-4) to reach 64mls/hr.

(f) State whether you considered prescribing restricted fluids, and if so, explain why you did not prescribe them. If you did not consider this, explain why not.

- I do not recall whether or not I considered prescribing restricted fluids. I do not have any personal recollection of the night shift, but it would have been my usual practice to read the admission note prior to the prescription of fluids or drugs. In Claire's admission note, there was no indication that she was dehydrated, her illness had just started a few hours prior to admission. The notes on admission indicated the working diagnosis of a "viral illness". There had been no specific fluid regime requested by the admitting doctor: the admitting notes only requested ˝iv (intravenous) fluids˝ (Ref: 090-022-052). If

the admitting doctor (Dr O'Hare) had required restricted fluids, or a specific regime of fluids, then this would normally have been specified in the management plan. Therefore, I prescribed the fluid type which was standard practice for paediatric patients at the time (0.18% NaCl 4% Dextrose) at a maintenance rate for Claire's weight. Claire was reviewed by Dr O'Hare at midnight and was felt to be “slightly more responsive”. I was not asked to reassess Claire again during my night shift and had no reason to reconsider her fluid management.

(g) State if you regarded Claire as dehydrated or potentially dehydrated when she was admitted.

- I do not have any personal recollection of the night shift, but it would have been my usual practice to read the admission note prior to the prescription of fluids or drugs. In Claire’s admission note, there was no indication that she was dehydrated, her illness had just started a few hours prior to admission and there was no ongoing diarrhoea. There is no indication in Claire's medical chart that I made a clinical assessment of her state of hydration.

(h) **State whether you were aware of the possibility of inappropriate ADH secretion in Claire’s case on 21st and 22nd October 1996, and if so, state whether and how you modified Claire’s management and IV fluid regime to address that possibility. If you were not aware of this, explain why not. If you made no modifications to the IV fluid regime, explain why not.**

- I do not recall if I would have been aware at the time of inappropriate ADH secretion. I prescribed Claire's first bag of fluids and during my night shift there had been no clinical indication to reassess her fluids.

(i) State if there was any reassessment of Claire “after fluids”, and if so, identify who carried out that reassessment. If there was no reassessment, explain why not.

- The assessment carried out by Dr O’Hare at midnight on Monday 21st October 1996 was “after fluids”, as fluids were started at 22:30. She ended the assessment with the plan that Claire should be reviewed in the morning. I cannot recall if we had the electrolyte results back at the time of review and if we discussed the results or the fluid management. But no change in management was recorded in either the nursing notes or the clinical notes.

(15) In assessing, determining and reviewing Claire’s fluid management, state what consideration you or Dr. O’Hare gave on 21st , 22nd and 23rd October 1996 to:

(a) Fluid restriction in Claire’s case

(b) Use of higher NaCl concentration containing fluid

(c) Claire's urine output, urine sodium and urine osmolality

and when and why you / Dr. O'Hare considered this and where this is recorded in Claire's medical notes. If any of these factors were not considered, explain why not.

Claire was under my care until Tuesday morning 22nd October 1996.

- I do not personally recall considering these aspects of Claire's care and there is no indication in the records as to specific discussions about these aspects of care. It is possible that her fluid regime was discussed at the midnight review by Dr O'Hare on 21st October 1996. However, I cannot recall if we had the electrolyte results back at the time of review and if we discussed the results, the fluid management or these urine parameters.

(16) *"Na 132 (arrow down) … WCC 16.5 (arrow up)"* (Ref: 090-022-052)

(a) State on what date and at what time you received the U&E blood results of Claire Roberts, by what means were you made aware of these results and the time at which you recorded these results in Claire's medical notes at Ref: 090-022-052.

- I do not recall at what time I was made aware of the U&E result of Claire, but I may have received the full blood count at around or after midnight on my night shift, which would have been the early hours of Tuesday morning, 22nd October 1996. The result of the U&E was not written into Claire's chart by me (I had just added the downward arrow beside the sodium result of 132 mg/dl). So I don't know if I had been informed by nursing staff about the U&E result, or if I saw it first when documenting the full blood count. I do not know the accurate time when I recorded the FBC. It may be possible that both results were available at midnight and that this was the reason I did not note the time, because Dr O'Hare had timed the clinical review of Claire at midnight.

(b) Explain why you did not record the date and time on Claire's clinical notes when you recorded Claire's U&E results.

- I did not record Claire's U&E result, I had just added the downward arrow beside the sodium level.

(c) State whether you assessed the blood chemistry and white cell count results at any time, and if so, state when and how.

- I do not recall at what time I was made aware of the U&E result of Claire, but I may have received the full blood count at around or after midnight on my night shift, which would have been the early hours of Tuesday morning, 22nd October 1996. The result of the U&E was not written into Claire's chart by me (I had just added the downward arrow beside the sodium result of 132 mg/dl). So I don't

know if I had been informed by nursing staff about the U&E result, or if I saw it first when documenting the full blood count. I do not know the accurate time when I recorded the FBC. It may be possible that both results were available at midnight and that this was the reason I did not note the time, because Dr O'Hare had timed the clinical review of Claire at midnight. We might have discussed the blood results at the midnight review, but I have no personal recollection of what the discussion and the outcome was, but there is no change in plan documented in Claire's medical chart.

(d) Explain whether you reviewed Claire's fluid regime in the light of the results and explain the reason/s for doing/ not doing so.

- I do not recall whether I reviewed Claire's fluid regime in light of the blood result. The assessment carried out by Dr O'Hare at midnight on Monday 21st October 1996 was "after fluids", as fluids were started at 22:30 at a maintenance rate. Dr O'Hare ended the assessment with the plan that Claire should be reviewed in the morning. I cannot recall if we had the electrolyte results back at the time of review and if we discussed the results or the fluid management. But no change in management was recorded in either the nursing notes or the clinical notes.

(e) **State whether you drew those results to a more senior clinicians attention in order to reassess and review Claire's diagnosis, treatment and fluid balance and regime and if so, identify the more senior clinician contacted, state when and how s/he was contacted, and what action if any, resulted from this contact. If you did not do so, explain why you did not do so.**

- I do not recall whether I reviewed Claire's fluid regime in light of the blood result. The assessment carried out by Dr O'Hare at midnight on Monday 21st October 1996 was "after fluids", as fluids were started at 22:30 at a maintenance rate. Dr O'Hare ended the assessment with the plan that Claire should be reviewed in the morning. I cannot recall if we had the electrolyte results back at the time of review and if we discussed the results or the fluid management. But no change in management was recorded in either the nursing notes or the clinical notes. I would have recorded the discussion if I had drawn the results to the attention of any other senior clinician.

(f) Describe the consideration, if any, you or Dr. O'Hare gave to carrying out another electrolyte test to check Claire's serum sodium level on receipt of the sodium result received, and state when this was considered. If you or Dr. O'Hare did not consider this, explain why not.

- I do not recall what consideration we gave the sodium result at the time, but usually I would have considered this sodium level as only slightly below normal and therefore, in the context of Claire's stable condition at midnight, it would not have warranted being repeated immediately. My usual practice would have been to arrange a repeat test the following morning - either to do this myself or to hand it over to the medical day staff.

(g) State whether you discussed carrying out a further electrolyte test with a more senior clinician, and if so, identify that clinician and state when the discussion took place.

- I do not recall having discussed further electrolyte testing with a more senior clinician and my usual practice would have been to document the discussion in Claire's medical notes. There is no documentation of any contact with a more senior clinician other than Dr O'Hare in the medical or nursing notes.

(h) State whether any decision was made as to whether a further electrolyte test was to be conducted on Claire, and if so, what the decision was.

- I do not recall whether any decision was made as to whether a further electrolyte test was to be conducted on Claire.

(i) **Explain the reasons for not carrying out a further electrolyte test until the evening of 22nd October 1996.**

- I cannot give the reasons why the sodium result was not checked until the evening of 22nd October 1996 as I do not recall these events. The normal procedure would have been for me to have taken another sample prior to finishing the night shift. However, if there were many admissions during the early hours of the morning, I may have handed over outstanding blood tests to the day medical staff. Claire's condition would have been ordinarily reassessed together with her blood results and fluid management at the ward round, which would have taken place at 09:00. My shift on Allen Ward would have ended at 09:00 o'clock. It would have been unlikely for me to have joined the ward round as my shift had ended and I would have been back to the surgical ward (where I was based during daytime work). There is no note in the medical record suggesting I was present during the morning round. I am not able to comment on events after 09:00 on Tuesday 22nd October 1996.

(j) **State what consideration you gave to prescribing a higher concentration of salt containing fluid regime on receipt of the serum sodium results at midnight. If you did not consider this, explain why not.**

- I cannot comment on the consideration I gave to prescribing a higher salt containing fluid regime as I do not recall these events and there is no information about this in the clinical records.

(k) State whether you or Dr. O'Hare considered prescribing restricted fluids on receipt of the serum sodium results at midnight. If you/Dr. O'Hare did not consider this explain why not.

- I cannot comment on the consideration I gave to prescribing a restricted fluid regime as I do not recall these events and there is no information about this in the clinical records.

(17) Describe the equipment, service and facilities available to RBHSC patients in RBHSC and on the RVH site in October 1996:

(a) During working hours (09:00-17:00) Monday-Friday

(b) Out of hours (17:00-09:00) Monday-Friday

(c) At weekends

for carrying out a paediatric

(i) CT scan

(ii) MRI scan and

(iii) EEG.

- I cannot comment, because I would not have known this information.

(18) Identify the other medical or clinical staff who would be required to carry out and report on a paediatric:

(a) CT scan

(b) MRI scan and

(c) EEG

and describe their availability:

(i) During working hours (09:00-17:00) Monday-Friday

(ii) Out of hours (17:00-09:00) Monday-Friday

(iii) At weekends

in October 1996.

- I cannot comment, because I would not have known this information.

(19) State whether you or Dr O'Hare considered requesting:

(a) a CT scan and/or

(d) an MRI scan and/or

(e) an EEG

on examining Claire on 21st and 22nd October 1996. If so, explain why and if not, explain why.

- I cannot comment on this as I do not recall these events. The clinical records do not indicate that these investigations were discussed.

(20) State what the threshold was for requesting a paediatric:

(a) CT scan

(b) MRI scan

(c) EEG

in RBHSC in October 1996.

- I cannot state what the threshold was in 1996 to request a paediatric CT or MRI scan or a paediatric EEG as I would not have known this information.

(21) State what authorisation was required for obtaining a paediatric:

(a) CT scan

(b) MRI scan

(c) EEG

in RBHSC in October 1996.

- I cannot state what authorisation was required in 1996 to obtain a paediatric CT or MRI scan or a paediatric EEG as I would not have known this information.

(22) If you/Dr. O'Hare had requested a CT scan, MRI scan and/or an EEG of Claire on 21st or 22nd October 1996 state:

(a) where that would have been carried out
(b) how long it would have taken to arrange for Claire

(c) how Claire would have been transferred to the venue for the CT and/or MRI scan and/or EEG

(d) whether anaesthesia or sedation was likely or necessary, and

(e) how long that journey would have taken.

- I cannot comment, because I would not have known this information.

(23) Identify the Paediatric Consultant on call on the evening of 21st October and the morning of the 22nd October 1996.

- I do not recall who Claire's Paediatric Consultant was at the time. I note that Dr Heather Steen is the Consultant mentioned on the nursing admission sheet (Ref: 090-014-142).

(24) Identify the Consultant whom you believed to be responsible for Claire and her management, care and treatment between her admission on 21st October 1996 and her death on 23rd October 1996, and explain the basis of your belief.

- I do not recall who Claire's Paediatric Consultant was at the time. I note that Dr Heather Steen is the Consultant mentioned on the nursing admission sheet (Ref: 090-014-142). I cannot recall if I thought during my night shift about Consultant responsibilities regarding Claire's care. I cannot comment on the rest of Claire's admission.

(25) Identify the members of the medical team on duty between Claire's admission on 21st October 1996 and her death on 23rd October 1996, and the positions each person held during that period.

- I can only comment on my night shift and only based on Claire's nursing and clinical notes. I would have been the SHO on call during the night shift on 21st/22nd October 1996, Dr Bernie O'Hare would have been the medical registrar on call and possibly Dr Heather Steen the Medical Paediatric Consultant on call. I do not know who else was on with me that night, as I have no personal recollection of the night shift. I cannot comment on the rest of Claire's admission.

(26) Identify the members of the Allen Ward nursing team on duty between Claire's admission on 21st October 1996 and her death on 23rd October 1996, and the positions each person held during that period.

- I do not recall who was on with me on the night shift on 21st/22nd October 1996 from Allen Ward nursing staff. I am not able to comment on the rest of Claire's stay as I would not have known this information.

(27) In October 1996, state whether nursing care was prescribed by doctors, nurses or both.

- My recollection is that there was routine nursing care with 4 hourly observations of vital signs and temperature. The admitting doctor would request more frequent observations if warranted or special observations like hourly CNS observations. But usually if a patient deteriorated the nursing staff would often already start doing more frequent observations and inform the doctor to review

the patient. The doctor would assess the patient and formulate the management plan with a request for a certain frequency of observation. I do not recall if there was a written policy about who prescribed nursing care.

(28) Identify the ward sister/nurse in charge of Allen Ward between 21st and 23rd October 1996.

- I cannot recall this information.

(29) Describe the communications that you had with the Consultant responsible for Claire on her admission, including:

(a) Time of each communication

(b) Means by which the communication was made

(c) Nature of each communication

(d) Whether any advice or direction was given by the Consultant in relation to Claire's treatment and care, and if so, the nature of that advice or direction

- I do not recall any communication with a Consultant regarding Claire. It is my usual practice to document any communication with a consultant regarding a patient's care in the medical chart of the patient. I did not document any communication with a consultant during my night shift.

(30) State what communication you had with Dr. Heather Steen in relation to Claire between 21st October 1996 and c. 04:00 on 23rd October 1996 including:

(a) The date and time each communication was made, and the means by which communication was made e.g. in writing, telephone, in person etc.

(b) Identify who initiated each communication and the reason for each communication being made.

(c) State what information you gave Dr. Heather Steen about Claire during each communication.

(d) State what advice or instructions Dr. Heather Steen gave you in relation to Claire on each occasion and what the plan of care was for Claire following each communication.

(e) Identify any document where each communication is recorded and produce a copy thereof.

(f) If no communication was made, explain why not.

(g) **State whether Dr. Heather Steen attended and examined Claire at any time between Claire's attendance at A&E on 21st October 1996 and Claire's death on 23rd October 1996, and if so, state the date, time and location of attendance and examination.**

- I do not recall any communication with a Consultant regarding Claire. It is my usual practice to document any communication with a consultant regarding a patient's care in the medical chart of the patient. I did not document any communication with a consultant during my night shift.

(31) Identify the SHO to whom you 'handed over' Claire's management, treatment and care, the time at which you handed over this care.

(a) State which information you gave that SHO about Claire's condition, care, treatment and plan of care

- I have no recollection as to whom I handed over Claire's care and what would have been the content of the handover. It was my usual practice to hand over to the day SHO/Registrar in Allen Ward about all new admissions during the night to the ward and would have informed them about outstanding or abnormal results of investigations.
- Claire's condition would have been ordinarily reassessed together with her blood results and fluid management at the ward round, which would have taken place at 09:00. My shift on Allen Ward would have ended at 09:00 o'clock. It would have been unlikely for me to have joined the ward round as my shift had ended and I would have been back to the surgical ward (where I was based during daytime work). There is no note in the medical record suggesting I was present during the morning round. I am not able to comment on events after 09:00 on Tuesday 22nd October 1996.

(32) Explain the nature and status of the document entitled 'Discharge/Transfer Advice Note' at Ref: 090-007-009, identify who completed that document and state when and where this was completed.

- The 'Discharge/Transfer Advice Note' (Ref: 090-007-009) might have been filled in with the basic details on admission. It is finally filled in when a patient either leaves the ward to be for example transferred to another ward or hospital or if the patient is discharged. On transfer the form goes to the staff of the new ward or hospital; on discharge the form goes to the general practitioner. I do not know who filled in the form. I did not fill in the form.

(33) State whether you are a member of a medical defence organisation, and if so, state whether you have communicated with that organisation in relation to the treatment and death of Claire, and if so, state when you communicated with it.

- In October 1996 I had been a member with the Medical Defence Union (MDU). I informed the MDU about my involvement with Claire Roberts in March 2012.

(34) Describe your perception of the seriousness or otherwise of Claire's condition during your care of her, and explain the reasons for your view.

- I cannot recall personally my impression of the seriousness of Claire's condition, as I have no recollection of the night shift. I did not admit Claire and I did not perform a clinical examination on Claire according to the medical records.

- According to the clinical records, Claire had been admitted at 20:00 on Monday 21st October 1996 by the paediatric Medical Registrar Dr. Bernie O'Hare. Dr O'Hare reviewed Claire again at midnight (possibly together with me) (Ref: 090-022-052) and was satisfied that Claire's condition was stable. There would have been no reason for me to think that Claire was seriously ill that evening. The nursing staff did not contact me to review Claire during my night shift. Therefore I would have presumed that her condition remained stable during the time I was on call (until Tuesday 09:00 22nd October 1996).

(35) Describe your communication with Claire's parents and family and in particular:

(a) State what information you communicated to Claire's parents and family, and what information they gave to you.

(b) Identify to whom you gave this information.

(c) State when and where you told them this information.

(d) Identify where the information you communicated/received was recorded or noted.

(e) **State whether you recorded Claire's parents'/family's understanding of this information and their concerns, and if so, identify the documents containing that record. If you did not record this, explain why not.**

(f) State if you discussed Claire's condition at any time with her parents. If so, state when, who was present, and what was discussed, where this is noted, and if it was not noted, explain why it was not noted.

(g) State whether you informed Claire's parents/family of the diagnosis, its implications and the treatment needed, and if so, state when you provided this information, to whom and where this communication is recorded. If you did not provide this information, explain why not. If any such communication is not recorded, explain why not.

- I do not recall that I had any communication with Claire's parents. It would have been my usual practice to document communication with parents in the child's medical chart – there is no documentation in Claire's chart during my night shift.

(36) Prior to 21st October 1996:

(a) State your knowledge and awareness of the case of Adam Strain, his Inquest and the issues arising from it

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

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

- I do not recall having had any knowledge about the Adam Strain case prior to October 1996. The case happened prior to my time working in Northern Ireland (May 1996).

(37) Since 21st October 1996:

(a) State your knowledge and awareness of the case of Adam Strain, his Inquest and the issues arising from it

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

(d) Describe how that knowledge and awareness affected your work

- I cannot recall when I first heard about the Adam Strain case officially. The knowledge I acquired initially was mostly through conversation with medical colleagues. I am not sure if I had any explicit knowledge of details regarding the Adam Strain case prior to the ongoing inquiry, but I was certainly aware that there had been other cases in Northern Ireland where fluid management with No 18 solution (fluids containing 0.18% NaCl/4% Dextrose) had caused difficulties. During my training as a paediatric doctor in Northern Ireland (SpR from August 2001 to October 2008) I realised that the prescribing of iv fluids is as important (and has potential dangerous side effects) as prescribing drugs. So I made a point of trying (early on in my career) to get an accurate weight of the child and calculate the fluids on paper – if the fluid balance was difficult (e.g. patients with diabetic ketoacidosis) I would document the calculation in the medical record. This routine made it easier for colleagues to understand how the decision was made for a certain type of fluid and a certain rate. During my first SpR year at Craigavon Hospital I was annoyed that in patients with diabetic ketoacidosis the fluid balance chart had no room for the documentation of the U&E results and blood gases and no space for urinary output and so on. I created a fluid balance chart where all these important results and observations were combined. This made it easier for medical and nursing staff to see trends in the condition of the child and to alter the management accordingly.

(38) Describe in detail the education and training you received in fluid management (in particular hyponatraemia) and record keeping through the following, providing dates and names of the institutions/bodies:

(a) Undergraduate level

(b) Postgraduate level

(c) Hospital induction programmes

(d) Continuous professional development

- It is very difficult to remember the source of my knowledge regarding fluid prescription in 1996. I studied medicine in Aachen, Germany (1986-1993) and I recall general lectures about the physiology of fluid balance in the body, but no practical course were correct fluid prescription would have been taught. In Germany you would have learned this on the job.
  Fluid prescription might have been a topic at the time in 1996 in the RBHSC Hospital Induction program, but I cannot recall for sure. The practicalities of fluid prescription would have been learned from more senior colleagues and consultants and "learning by doing". I do remember that in the neonatal units there was already a great emphasis on correct and accurate fluid management. I am not able to provide accurate times and bodies of education.

- Certainly after the publication of the hyponatraemia cases in Northern Ireland the teaching became much more formal. Fluid Management was included in all Induction Programs for new doctors in paediatric wards. It became part of the regular teaching programs of the different hospitals providing paediatric care. The teaching about fluids and fluid types became more formalised. Later during my SpR training I joined a team consisting of paediatric nursing and medical staff and a pharmacist which wanted to make fluid prescription in children safer. We changed the paperwork to enable accurate prescribing (including dates and times for prescriptions; help to calculate fluid needs and reminders of accurate monitoring of the children whilst on fluids). In general the trend particularly for children with gastroenteritis went towards using oral rehydration and considering nasogastric tubes to achieve rehydration, rather than using iv fluids always.

(39) Prior to 21st October 1996, describe in detail your experience of dealing with children with hyponatraemia, including the:

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

(b) Number of the children who where aged less than 10 years old

(c) Nature of your involvement

(d) Outcome for the children

- Hyponatraemia is not a diagnosis but a laboratory finding caused by different illnesses and conditions. It is not unusual to see hyponatraemic children, particularly if the sodium is only slightly low, which often happens in ill children. I had looked after hyponatraemic children and infants before for example in the special care baby units. I cannot give an accurate account of figures and outcomes.

(40) Since 21st October 1996, 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

(b) Number of children who were aged less than 10 years old

(c) Nature of your involvement

(d) Outcome for the children

- As stated in the previous question, hyponatraemia is not a diagnosis but a laboratory finding caused by different illnesses and conditions. I cannot give an accurate account of figures and outcomes.

(41) Identify any 'Protocols' and/or 'Guidelines' which governed Claire's care and treatment.

- I can only comment on the night shift I looked after Claire. I do not recall a hospital guideline in RBHSC for fluid prescription. For the fluid management I used the current advice at the time from the Advanced Paediatric Life Support (APLS) Manual. The same fluid management was still recommended the following year (APLS Manual 2nd Edition, 1997).

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

(a) **The care and treatment of Claire from her attendance on 21st October 1996 to her death on 23rd October 1996**

(b) Record keeping

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

(d) Lessons learned from Claire's death and how that has affected your practice

(e) Current Protocols and procedures

(f) Any other relevant matter

- I certainly did learn from Claire's case and the cases of the other children, as I have also pointed out in my answers to question 37 and 38. Besides paying attention to detail while prescribing fluids, I found it extremely important to make the prescribing of fluids safer. During my paediatric training at Antrim Hospital I joined a group together with a Consultant Paediatrician, Nursing staff and the ward pharmacist to create a new sheet for fluid prescription and monitoring (whereby the emphasis was on fluid calculation and U&E results visible on the same sheet as the prescription). I also participated as a SpR Trainee in the multi-disciplinary group which was set up to create a "Care Pathway for Fluid Management" in 2004. As part of my training I was involved in undergraduate education and induction programs for new doctors at the various Hospitals and I always used this opportunity to emphasise the importance of correct fluid calculation in children and their monitoring through checks of blood electrolytes.

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

Signed:  Dated: 03.10.2012

Dr med Andrea Volprecht