

Witness Statement Ref. No. 141/1

NAME OF CHILD: Claire Roberts

Name: Neil Stewart

Title: Dr

Present position and institution:

Senior Pastor, Kirk O' The Isles Presbyterian Church (PCA), Savannah, GA, USA

Previous position and institution:

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

Senior House Officer, Allen Ward, Royal Belfast Hospital For Sick Children

Membership of Advisory Panels and Committees:

[Identify by date and title all of those between January 1995- November 2011]

Not Applicable

Previous Statements, Depositions and Reports:

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

Not Applicable

OFFICIAL USE:

List of previous statements, depositions and reports attached:

Ref:	Date:	

IMPORTANT INSTRUCTIONS FOR ANSWERING:

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

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

- (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 Paediatric Medical 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 began working as a Senior House officer in the Royal Group of Hospitals in August, 1996. Having just completed my Junior House Officer year in the Ulster Hospital Dundonald, this was my first posting in paediatrics.

- (2) Describe your work commitments to the Royal from the date of your appointment as a Paediatric Medical 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 1996 to 23rd October 1996.**

As I recall, at the time of Claire Roberts' admission I was working as one of the Allen Ward Senior House Officers, and under the oversight of the Paediatric Registrars, I also covered the Royal Belfast Hospital for Sick Children's general medical wards, Clark Clinic, Haematology Ward, and PICU on an after hours on call rota system.

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

I would have arrived back at the hospital around 21:30hrs to receive a hand over from the other Senior House Officers in preparation to begin my shift at 2200hrs on the 22nd of October 1996, I remained on call over night. It is likely that I went home sometime after the morning ward round on the 23rd.

Apart from this I would have worked a normal day at the hospital on the 21st and the 22nd of October (Approx.: 0800-1730hrs).

Although I remember accompanying Dr. Andrew Sands on his ward rounds, I do not recall having any direct contact with either Claire Roberts or her family during the daytime hours of the 21st or the 22nd.

- (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 1996 until 23rd October 1996 when ventilatory support was withdrawn, and in particular:**

- (a) From Claire's attendance at A&E at RBHSC until her arrival in Allen Ward**
Not Applicable

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

As a very junior first term Senior House Officer, my duties were to accompany the Registrars and Consultants on their ward rounds, carry out any orders for further investigations/treatment they issued, administer any IV/IM prescriptions, add potassium and other supplements to prescribed IV Fluid bags, sign and document any new lab results, liaise with the nursing staff re their concerns, and report any significant changes to the Registrar in charge.

In this regard the notes clearly show that I wrote a prescription at 12:15hrs for 5 mg of Diazepam PR (090-026-075.). The clinical notes record this was ordered by Dr. Sands, the Allen Ward Registrar.

At 2330hrs, the U + E result returned. I do not recall how I learned of these numbers. However, the Serum Sodium concentration was clearly extremely low. I contacted Dr. Bartholome immediately requesting her assessment of Claire's condition. I suggested increasing the Sodium content of her IV

fluids. She instructed me of the importance of slowly correcting any electrolyte imbalances because of the danger of fluid shifts within the brain. She advised me to restrict Claire's fluids and to send the Urine for Osmolality. Although, she was tied up treating at least one other sick child, she told me she would see Claire as soon as possible.

My note (090-022-056) reads as follows:

Na 121, K 3.3, Urea 2.9, Creat. 33. Phenytoin 23.4mg/l (10-20).
Hyponatraemia - ? Fluid overload with low Na fluids. ? SIADH
Imp - ? Need for (increased) Na content in fluids. D/W Reg - Decrease fluids to $\frac{2}{3}$ of present value - 41mls/hr. Send Urine for Osmolality.

As I recall, that night was particularly busy for both Dr. Bartholome and myself. Both of us spent the night moving quickly from one urgent case to another.

- (c) **From admission to PICU until her death**
Not applicable. I had no part in Claire's care once she left Allen Ward for PICU.

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

- (a) **Claire's fluid administration, monitoring and management**
As the most junior member of the medical staff, my responsibilities were to carry out the instructions of my Registrars, alert them to any abnormal blood results, etc., or concerns raised by the nursing staff.

- (b) **The making and recording of observations of Claire including determining and reviewing the frequency of those observations.**
As a first term SHO, I was required to take very little initiative in proactively managing the fluid balance of the patients in the hospital. As we were told repeatedly by the senior medical staff, children behave very differently to adults. Anxious 'To do no harm', I always sought out and deferred to their wisdom. I also paid close attention to the concerns of the nursing staff and relayed any of these up the medical chain of command immediately.

(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**
The instructions of Dr. Bartholome.
- (b) **State which of them you carried out on the express instructions of a clinician, identifying in each case:**
- (i) **The clinician concerned**
Dr. Bartholome
- (ii) **The instructions they gave you**
Dr. Bartholome instructed me to reduce the fluids to $\frac{2}{3}$ of their previous value and that she would see Claire as soon as possible.
- (iii) **When they gave them to you**
During our telephone conversation at 2330hrs.

(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
Dr. Bartholome was the only clinician with which I liaised that night on call. I saw no need to look beyond her seasoned wisdom and counsel. I never had any reason to question her instructions or her plan of care for Claire or for that matter any other patient for which I was responsible.

(ii) State the nature of the advice you sought/the issues on which you consulted

Not applicable.

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

Not applicable.

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

I always found Dr. Bartholome to be an extremely competent and insightful clinician. I had neither the experience nor due cause to question any of her instructions that night - or for that matter any other night that I ever worked under her leadership.

(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:

I am responsible for the following notes in the charts:

I wrote a prescription at 12:15hrs for 5 mg of Diazepam PR 090-026-075.. The clinical notes show this was ordered by Dr. Sands, Registrar, Allen Ward (090-026-075).

I certainly wrote the note (090-022-056) reads as follows:

Na 121, K 3.3, Urea 2.9, Creat. 33. Phenytoin 23.4mg/l (10-20).

Hyponatraemia - ? Fluid overload with low Na fluids. ? SIADH

Imp - ? Need for (increased) Na content in fluids. D/W Reg - Decrease fluids to 2/3 of present value - 41mls/hr. Send Urine for Osmolality.

I also initialed the biochemistry result 090-031-099. This note was recorded in the notes by Dr Volprect (090-022-052). It is normal practice for the doctors on call to review the "hard copies" of lab results when they arrive on the ward. These generally came in the morning ward mail. As a rule, these results have already been acted upon, but these hard copies are reviewed to ensure nothing untoward is missed.

(a) when each of the identified entries was made

Apart from my initials on the biochemistry results (About which I neither recall the date nor the time), all the other notes are clearly dated and timed in the records.

(b) the source of the information recorded in the entry.

First hand observation.

(8) State precisely whether and how you communicated the diagnosis of Claire's condition during and following the ward round on 22nd October 1996 to the members of the medical and nursing team, and when this was done.

As it was normal for the medical registrar to liaise with the nursing staff directly during ward rounds, this

was not necessarily my responsibility,. I do not recall any specific conversations I had with the nurses during this particular ward round.

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

(a) Identify the clinician/s to whom you reported and state when you did so

I spoke with Dr. Bartholome after the 2330hrs U+E result and did so immediately upon receipt.

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

I informed her by telephone.

(c) State precisely the information conveyed to that clinician

As above

(d) State whether Claire was reviewed or reassessed as a result of that report or whether her care/treatment was changed and provide details thereof. If not:

As above. Dr Bartholome planned to see Claire as soon as possible.

(e) Explain the reasons why not.

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

I have been out of medical practice now for 12 years. I do not recall this information in any comprehensive way.

(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

(11) 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

As I recall, all of these required the written request of a senior doctor (Registrar and above). They certainly were beyond the purview of my position. I feel sure the EEG may have even required the authorisation of a consultant neurologist.

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 do not recall this information.

(12) State whether you considered requesting:

- (a) a CT scan and/or**
- (b) an MRI scan and/or**
- (c) an EEG**

on examining Claire on 21st and 22nd October 1996. If so, explain why and if not, explain why.
Not applicable to my position as a First Term SHO.

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

- (a) CT scan**
- (b) MRI scan**
- (c) EEG**

in RBHSC in October 1996.

I do not recall.

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

- (a) CT scan**
- (b) MRI scan**
- (c) EEG**

in RBHSC in October 1996.

I am not sure.

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

Not applicable

- (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.**

(16) State whether you discussed with any other person carrying out an urgent electro-encephalogram (EEG) in order to make a firm and unequivocal diagnosis of non-convulsive status epilepticus, and state:

Once Claire was reviewed by a consultant neurologist this decision was his to make.

- (a) With whom you discussed this**
- (b) The time, location and outcome of the discussion and any document recording the discussion**
- (c) Whether you made enquiries about whether a technician and equipment was available to carry out an EEG, the outcome of those enquiries and identify any note of your enquiries and whether a technician or equipment was available to carry out that test**
- (d) What EEG service was available in RBHSC on 22nd and 23rd October 1996**
- (e) Whether you considered closer observations of Claire on making this diagnosis and when the medicines (diazepam, midazolam and phenytoin) were being administered, and if so, state when and how you considered this, and the result thereof. If you did not consider this, explain why not.**

(17) State whether you considered carrying out more extensive biochemical tests including liver function tests, calcium, glucose, ammonia and toxicology on 22nd October 1996 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 do not recall the specific details of my thought processes that night. At that stage of my training, however, I would have sought the advice of the Registrar before ordering blood tests. This was to avoid having to repeat a painful blood test on a child unnecessarily.

- (a) Describe the consideration, if any, you gave to carrying out an electrolyte test on 22nd October 1996 to check Claire's serum sodium level.**

Up until 23:30 hrs, there was never any indication that Claire's sodium level would have been dangerously low.

- (b) State whether you discussed with a more senior clinician on 22nd October 1996, carrying out a blood test for electrolytes and if so, identify that clinician and state when this discussion took place.

As above.

- (c) State whether any decision was made as to whether a blood test for electrolytes was to be conducted on Claire, and if so, what that decision was.

As above.

- (d) Explain the reasons for not carrying out a blood test for electrolytes until the evening of 22nd October 1996.

As I recall, on a child with only a marginally low serum sodium concentration, it would not have been unusual to check the U+E twice daily, and for the second test to occur later in the evening.

(18) In assessing, determining and reviewing Claire's fluid management, state:

- (a) What consideration you gave on 22nd and 23rd October 1996 to fluid restriction in Claire's case, and when you considered this. If fluid restriction was not considered, explain why not.

As stated above, the first time we considered restricting Claire's fluids was at 23:30 hours when the U+E result came back. Having never before treated SIADH in a child, I relied completely on Dr Bartholome's counsel.

- (b) Whether you were aware of the possibility of inappropriate ADH secretion in Claire's case on 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 cannot recall the precise moment I considered the diagnosis of SIADH. My first record of it in the notes comes after we became aware of the worsening hyponatraemia at 23:30hrs. As I have previously stated, I informed Dr. Bartholome the moment this result came to my attention.

- (c) Whether you considered prescribing a higher sodium containing fluid on 22nd October 1996, and if so, state when and the reasons for considering this. If you did not consider this, explain why not.

At that stage of my training, with my limited experience in Paediatric fluid management, I deferred completely to the counsel of Dr. Bartholome. As the notes clearly state, I did suggest increasing the Na concentration of the fluids, however, Dr. Bartholome preferred the management plan outlined above. I saw no reason to demur.

- (d) If you regarded Claire as dehydrated, or potentially dehydrated at any time during your care and treatment of her.

I did not regard Claire as dehydrated. Certainly her normal Urea and Creatinine levels seemed to stand against this diagnosis.

- (e) What consideration you gave on 22nd and 23rd October 1996 to Claire's urine output, urine sodium and urine osmolality, when you considered this and what the result was of this consideration.

I do not recall.

- (f) Whether there was a reassessment or review of Claire's fluid management on 22nd October 1996, and if so, state when, by whom and the outcome thereof. If there was not, explain why not.

I do not recall.

- (g) Whether you considered measuring Claire's urine output from admission or from when you first became responsible as part of the team managing her care. If not, explain why you did not consider this.

I do not recall.

- (h) Whether you considered catheterising Claire on 22nd October or 23rd October 1996 and if so, state when you considered this and the reasons why. If you did not consider this, explain why.

I do not recall.

- (19) State if you received the faxed copies of Claire's notes and records provided by Dr Gaston from the Ulster Hospital (Ref: 090-013-015) and when you looked at same. If you did not receive them, explain why.

- (a) State if you passed these onto Dr Webb, and if not, why not.

I do not recall seeing these notes.

(20) "DRUGS ONCE ONLY PRESCRIPTIONS"

22/10/96 Diazepam 5mg" (Ref: 090-026-075)

- (a) Confirm the dose recorded in the note at the above reference.

I confirm the dose reads 5mg.

- (b) Confirm if this signature is yours, and if not, state the person who signed this order.

This is my signature.

- (c) State the reason for this dose of Diazepam being prescribed by you for Claire.

As the notes clearly state, the duty registrar, Dr. Andrew Sands ordered this on his ward round (090-022-053). I do not recall the precise reason for this. Given the working diagnosis at that time of non fitting status epilepticus, as I recall, this would have been an entirely normal first step measure in seeking to bring any existing seizure activity under control.

- (d) Identify the entry in Claire's medical notes which records this dose of Diazepam as being required.

I am unable to identify where this dose is written in the notes. Dr. Sands simply records, RECTAL DIAZEPAM (090-022-053). However, I asked Dr. Sands how much he wanted me to prescribe and he told me 5mg.

- (e) Identify the signature in the last column of the table under the heading "Given by initials" in respect of this entry relating to the diazepam, and state the position of that signatory.

I am not familiar with this nurse's name, nor can I read their handwriting.

- (f) State whether this dose of Diazepam was administered to Claire, and if so, by whom and at what time and identify the document where the administration of this dose of medicine is signed for and recorded.

The nursing staff would have administered this medication. I am unable to determine which nurse actually administered this medication.

(21) "Intravenous Fluid Prescription Chart

500mls , No. 18 20mmol.kil. 41mls..." (Ref: 090-038-136)

- (a) Identify the signature in the column "prescribed by" in relation to this entry.**
This is my signature. Although the additives were not 20mmol Kil but 20 mmol of Kcl. I would have been responsible for drawing this KCl up from a glass vial and adding it to the drip bag.
- (b) Identify the person/s who determined this prescription and rate of administration.**
Dr Bartholome.
- (c) State the reasons for the type and quantity of this solution being prescribed for Claire and being administered at this rate.**
As detailed above, my telephone conversation with Dr. Bartholome at 2330hrs.
- (d) State the time at which the type and quantity of this solution and rate of administration was prescribed.**
500 mls of No.18 Soln with the addition of 20mmol of KCL to be run at 41mls/hour (reduced from 64 mls/hour). I believe this bag was prescribed at 2330 hrs after my conversation with Dr. Bartholome.
- (e) State your method of calculating Claire's fluid requirements at that time.**
I do not recall my precise method. Whatever method I used, I followed Dr. Bartholome's instructions to restrict her fluids by 33%.
- (f) State the name and amount of additives to this solution as recorded on this intravenous fluid prescription chart.**
20 mmol/kcl
- (g) Identify by whom and the time at which the said fluid was erected.**
I would have been responsible for adding the KCL to the bag of fluids. I am unable to tell which of the nursing staff on duty that night actually erected the bag of fluids.

(22) "22/10 7.15pm. teeth clenched + groaned.

Duration 1 min..

State afterwards asleep." (Ref: 090-042-144)

- (a) State whether you or any other member of the medical team witnessed this seizure, and if so, identify the others who witnessed it.**
I did not witness this event.
- (b) State whether you or any other member of the medical team were informed of this seizure at 19.15 or at any time thereafter, and if so, identify who was so informed, by whom and state**

when and where you or s/he was so informed. If not, explain why not.

The records show I was not on call in the hospital until 22:00hrs

- (c) State whether Dr. Webb or the consultant paediatrician responsible for Claire was aware of this seizure at any time on 22nd October 1996, and if so, state when and how s/he became aware of it. If they were not aware of it, explain why not.

Not applicable

- (d) State whether Claire's diagnosis and treatment plan were reassessed in light of this episode, and if so, by whom, when and how. If it was not reassessed, explain why not.

Not applicable

- (23) "22/10 9pm Episode of screaming and drawing up of arms. Pulse rate ↑ 165 bpm. Pupils large but reacting to light. Dr informed." (Ref: 090-042-144)

- (a) State whether you or any other member of the medical team witnessed this seizure, and if so, identify the others who witnessed it.

I did not witness this event. From the nurses notes, it seems they did.

- (b) State whether Dr. Webb or the consultant paediatrician responsible for Claire was aware of this seizure at any time on 22nd October 1996, and if so, state when and how s/he became aware of it. If they were not aware of it, explain why not.

Not applicable

- (c) State if you were the "Dr informed" (Ref: 091-011-068)

Not applicable

- (d) If you were the "Dr informed":

- (i) Explain if you re-examined and/or reassessed Claire, including when you examined or assessed her, and your opinion of her condition once you had done so. If you did not re-examine and/or reassess her after being informed of this episode, explain why you did not do so.

Not applicable

- (ii) Explain whether you reassessed Claire's treatment plan in light of this episode, and if so, state in what way. If you did not reassess it, explain why not.

Not applicable.

- (iii) State if you discussed the episode with the paediatric registrar or a consultant, and if so, state whom you discussed it with, when you discussed it and what you discussed. If you did not discuss "the episode" with a consultant or paediatric registrar, explain the reasons why.

Not applicable

- (e) If you were not, state whether any other member of the medical team was informed of this seizure at 21.00 or at any time thereafter, and if so, identify who was so informed, by whom and state when and where s/he was so informed.

Not applicable.

(24) "22/10/96 17.00..."

Plan i) Cover to cefrotaxine and acyclovir x 48 hrs – I don't think meningoencephalitis v likely"
(Ref: 090-022-055)

- (a) Identify the person from whom you took over on the evening of 22nd October 1996 and describe what handover arrangements were made at that time.
I do not recall from whom I "took over" that night at 2200hrs.


(i) Explain why there was no note of any handover at that time.

We did not routinely document the hand over in writing. The doctors would liaise verbally with the doctor on call informing him of any outstanding work to be done on the ward, or of patients causing particular concern.

- (b) State the time at which Dr. Webb attended Claire for the third time on 22nd October 1996.
I do not recall.

- (c) Identify all persons who were present during Dr. Webb's third attendance on Claire.
I do not recall.

- (d) State whether you were present during Dr. Webb's attendance with Claire at 17.00 on 22nd October 1996 recorded in the clinical notes. (Ref: 090-022-053)
I have no recollection of this.

- (e) State whether Dr. David Webb communicated to you in terms of the urgency and timing of when Claire's blood sample was to be taken. If so, explain why he provided for this advice on timing of the sample; and state when and where Dr. Webb communicated this to you.
I have no recollection of any  communication with Dr. Webb.

- (f) State what the diagnosis of Claire's condition was at that time and the reasons for that diagnosis. In particular state what you, Dr. Andrew Sands, Dr. Roger Stevenson and/or Dr. David Webb attributed Claire's lack of responsiveness to at that time.
At this stage we had a working differential diagnosis of Meningo-encephalitis for which she was receiving broad spectrum antiviral and antibacterial therapy. A comprehensive neurological evaluation at 1700 hrs showed signs suggestive of upper motor neuronal compromise. Her Glasgow Coma Scale had fluctuated from 6-8 throughout the day. Her BP and HR remained stable. We had no reason to suspect a plummeting serum Na concentration. 132 is not an abnormally low figure for a child suffering the effects of presumed viral gastroenteritis (See Dr Webb's Statement 090-053-011. As I recall, Dr. Bartholome, she believed Claire's reduced Glasgow Coma Scale could well be explained by the Hypnoval infusion. Otherwise she seemed stable (See Dr. Bartholome's opening note 090-022-056).

- (g) Explain why Dr. Webb did not "think meningoencephalitis v likely."
I have no way of knowing what Dr. Webb was thinking.

- (h) Identify the conditions/illnesses which cefotaxime was to address and state the time at which this medication was administered to Claire on 22nd October 1996.
I was not involved in any discussions that may have taken place regarding the commencement of this antimicrobial agent. Given the nature of the case, however, I think it safe to assume this medication

was prescribed on the off chance that a bacterial agent was responsible for this little girls symptoms, the neglect of which could have been disastrous. This was routine during my time at RBHSC.

- (i) **Identify the conditions/illnesses which acyclovir was to address and state the time at which this medication was administered to Claire on 22nd October 1996.**

I was not involved in any discussions that may have taken place regarding the commencement of this antiviral agent. Given the nature of the case, however, I think it safe to assume this medication was prescribed to counter one of the working differential diagnoses, viral meningoencephalitis, the neglect of which could have been disastrous. Once again, this was routine during my time at RBHSC.

- (j) **As Dr. Webb decided to “cover” Claire with these medications to treat Claire for certain conditions/illnesses, explain why you did not administer these medications promptly or urgently, and the reasons why these medications were not administered until approximately 21.30 on 22nd October 1996.**

It is the normal practice for the prescribing doctor to administer the first dose of any “urgent” antimicrobial medication prescribed. I am unable to read the hand writing of this prescribing doctor, but the script definitely did not originate with me. In any case, I was not informed that any of this medication still needed to be administered. I do also note that the nurses notes record that **the first dose of Claforan was due at 21:30 hrs (090-040-141)**. Given this understanding on the nurses part, I would not have expected them to request either me or Dr Bartholome to commence this medication earlier. In any case, I have no recollection of any such a request.

(25) “2) check viral cultures ? enterovirus – stool, urine, blood and T/S” (Ref: 090-022-055)

- (a) **Explain the reasons for the lapse of approximately 4.5 hours between Dr. Webb’s request for a blood sample from Claire at 17.00 on 22nd October 1996 and the sample being taken at approximately 21.30.**

I note Dr. Webb did not specify precisely what bloods he wanted repeated. In his statement of witness he records his intention that by “bloods” he seems to have meant blood cultures (090-053-005). These it seems were taken (090-030-093). These were taken on 22.10.96.

As I recall, my understanding was that the only blood test pending that night with Claire was to check her Phenytoin levels at 2130 hrs. The nursing notes echo this understanding (090-040-141).

- (b) **State the results of the analysis of the urine samples taken on the ward.**

The urine sample results are recorded at 090-030-094 and -097

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

See 25(b)

- (d) **If there is no note or record of the said results, please explain why not.**

Not applicable.

- (e) **State whether you were aware of and took account of the results from the urine analysis in your care and management of Claire. If not, explain why not and state whether you took any steps to ascertain these results or to repeat the urine analysis and your reasons for not/doing so. There is no record of results until the reports were provided by the lab.**

(26) “3) Add IV sod valproate 20mg/Kg IV bolus followed by infusion of 10mg/Kg IV over 12 Hrs” (Ref: 090-022-055)

(a) State whether the sodium valproate was administered to Claire, and if so, state by whom, in what dose and at what time.

(090-026-075) - The signature for the bolus looks like that of Andrew Sands, but I cannot be sure. The nursing notes confirm this IV bolus dose of Epilim (**090-040-141**), but they make no note of the infusion Dr. Webb prescribed to follow this loading dose.

I note the Sodium Valproate infusion was discontinued on the same sheet (**090-026-075**). I do not recognise the initials of this doctor. They certainly are not mine. I do not recall the reasoning behind this action.

(b) State what effect that medication had on Claire’s presentation and how long that effect lasted.

I do not recall.

(c) State whether the sodium valproate improved Claire’s conscious level, and if so, state at what time this occurred.

I am unable to comment on this.

(d) If the sodium valproate did not improve Claire’s conscious level, state whether Claire’s condition, care and treatment was reviewed and reassessed, and if so state when, by whom and what was the outcome of that review. If there was no review/reassessment, explain why not.

I cannot recall this information.

(e) After Dr. Webb’s third attendance on Claire, describe the plan of care for Claire from 17.00 onwards on 22nd October 1996 and the arrangements in place for Claire’s condition, treatment and care to be monitored, reviewed and reassessed.

His note in the chart states his desire for 48 hours of IV antibiotics/antiviral cover, stool, urine, and Throat Swabs. As I recall, collecting specimens for these tests would normally have been the nurses responsibility. The blood cultures were taken. I do not recall which doctor fulfilled this responsibility. (**090-030-093**). He also suggested giving an IV bolus of Na Valproate followed by an IV infusion. As previously stated, I do not recall who made the decision to discontinue this or why this took place.

Given the fact that Dr. Webb had carried out a comprehensive neurological examination at 1700hrs, and that he had noted the presence of upper motor neurone signs, the depressed level of consciousness, his clinical impression of ecephalopathy, his instigation of significant anti-epileptic medication, and his plan to order a CT Brain for Claire on the morning of the 23rd “if she did not wake up” (**090-053-165**), our plan of care for Claire over night was simply to check her Phenytoin levels as ordered at 2100hrs and to watch for any signs of acute deterioration. I am not aware that any clinician raised concern regarding Claire’s sodium levels before the result of 23:30hrs. I note that Dr. Webb noted her biochemical assay was normal during his 1400hrs assessment(**090-053-165**). I note he explains his reasoning re this comment on the same report (**090-053-174**).

(f) After Dr. Webb’s third attendance on Claire noted at 17.00 in the medical notes (Ref: 090-022-055), state whether you considered that Claire’s condition required to be further investigated and/or treated as a matter of urgency, and if so, state when and the reasons why you considered this, and what action you took as a result of that consideration. If you did not consider this, explain why not.

See previous answer...

(27) "22/10/96 23.30 Na 121" (Ref: 090-022-056)

- (a) State when the bloods were taken that gave rise to these results.**
These bloods were taken at 2130hrs. This is confirmed by the nurses in their notes: (090-040-138). I do not know which doctor drew the blood for these tests.
- (b) State when you were made aware of this result, and by what means you were made aware.**
I do not recall.
- (c) State whether you contacted and informed a registrar or consultant of this blood result.**
I informed Dr. Bartholome of this result immediately as documented by my own note (090-022-056). This is also confirmed by the nurses in their notes ((090-040-138) who record that the change of fluid management came at the Registrars behest. I did not inform the consultant on call that evening. This would have been beyond the purview of my position. Unless left specific instructions by the consultant to the contrary, the registrar decided when and if the consultant should be notified. I do not recall which consultant was on call that night.
- (d) If so, identify the registrar or consultant, the time at which they were contacted and informed of this result, and their advice in relation to Claire's management in light of that result.**
Dr. Bartholome at 23:30hours. Her advice is duly recorded in my notes. Although tied up dealing with another patient at that time, I recall her telling me that she would see Claire as soon as possible.
- (e) If not, state the reasons for not contacting and informing a registrar or consultant of this blood result.**
- (f) State whether an urgent repeat blood sample was taken to check Claire's serum sodium level, and if so state when this was done, by whom and what was the sodium result of that 2nd sample. If not, explain why not.**
There is no record of an urgent repeat blood sample being taken. I do not recall why this was not ordered.
- (g) State whether you conducted a clinical reassessment of Claire, and if so, when you did so, what you considered and what was the outcome of this reassessment. If not, explain why not.**
There is no written record of precisely what level of clinical reassessment I made of Claire at 23:30hrs, and I am unable to recall this detail with certainty.

However, I can say this: when I left Allen Ward shortly after making my note:

- Claire's vital signs remained stable. (the nursing notes do record a fluctuating GCS through the day and into the evening [6-8-6]. I remember Dr. Bartholome commenting that she believed this was as a result of the hypnoval infusion).
- Claire was on appropriate medication addressing the risk of spreading infection and worsening seizures.
- I had informed Dr. Bartholome regarding the serum sodium concentration and that we had taken - what I thought were - appropriate measures to address it.
- Dr. Bartholome was aware of Claire's situation and I believed she would examine her as soon as possible.

- If there was the slightest change in Claire's condition, the nursing staff would have contacted one of the doctors immediately.
- Even though it was an extremely busy night at the hospital and I spent the evening running from one urgent call to another, I would never have left Claire had I not been completely satisfied that she was stable enough for me to do so.
- I also note the absence of any indication of concern regarding my departure in the nurses notes (090-040-138). It would not at all be unusual for the RBHSC nurses to call the Registrar directly were they not fully satisfied with the condition of the patient or the opinion/actions of the more junior doctors.

(h) Describe all actions you took in relation to Claire's management and care as a result of receiving this serum sodium result.

I contacted Dr. Bartholome, briefed her on the U+E result, requested her assessment of Claire's condition, and carried out her immediate instructions regarding fluid restriction.

(i) 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.

(28) "Hyponatraemic - ? Fluid overload and low Na fluids

? SIADH

Imp - ? Need for ↑ Na content in fluids

D/W Reg - ↓ Fluids to 2/3 of present value – 41 mls/hr

Send urine for osmolality" (Ref: 090-022-056)

(a) State what the result was of the urine osmolality sample being sent at 23.30 on 22nd October 1996.

I do not recall seeing a result for this.

(b) State what you discussed with Dr Brigitte Bartholome (Paediatric Registrar) and in particular who raised the issue of 'hyponatraemia'.

I raised the issue of hyponatraemia. After all, this was the reason why I called Dr Bartholome in the first place and to request her urgent assessment of Claire's condition.

(c) State if Dr Bartholome re-examined Claire after your discussion.

I am not able to comment on this.

(29) "3AM ... I attempted to intubate – not successful. Anaesthetic colleague came and intubated her orally with 6.5 tube. Transferred to PICU" (Ref: 090-022-056)

(a) Identify the person who made this entry on Claire's medical notes and their position.

The hand writing looks similar to Dr. Bartholome's. The note is not signed. I cannot be certain.

- (b) **State the identity of the anaesthetic colleague who successfully intubated Claire.**
I was not present at this time and do not know who was covering in ICU that night.
- (c) **Identify the person/s who contacted Dr. Steen at approximately 03.00 on 23rd October 1996, their position, and the reasons why they contacted Dr. Steen in relation to Claire.**
Dr. McKaigue records the doctor at 090-022-058 as Dr. Clarke.
- (d) **Explain why a CT scan was not arranged for Claire on 22nd October 1996.**
I do not recall the reasons for this decision. It was not one I was responsible to make.
- (30) State whether you considered increasing the frequency of Claire's central nervous system and respiratory observations and monitoring of her vital signs on 22nd October 1996, and if so, state when, the reasons why you considered this, and the reasons why no changes were made to the frequency of the observations/monitoring. If you did not consider this, explain why not.**
- (a) **State whether you discussed increasing the frequency of Claire's central nervous system and respiratory observations and monitoring of her vital signs with any other person, and if so, identify that person and state when and where you discussed this, and the outcome of the discussion. If not, explain why not.**
Dr. Webb requested hourly CNS and Respiratory observations at 1400 hours on 22/10/96 (090-040-141). I do not recall recommending any change in this regard.
- (b) **When the hourly CNS observations were started, state whether you considered passing a nasogastric tube, and if so, state when and how this was considered and what was the outcome thereof. If it was not considered, explain why not.**
I do not recall considering this.
- (c) **State whether consideration was given to admitting Claire to PICU and the reason/s why Claire was not admitted to PICU on 22nd October 1996, and in particular:**
- (i) **When Claire did not respond to any anti-epileptic medication**
- (ii) **At 21.00 when Claire's GCS dropped**
I do note that Claire's parents left the hospital at 2115hrs after the nurse noted that Claire's GCS had dropped to 6 (089-012-035). Claire's father notes how reassuring the nurses were at this time. Even with her dipping GCS (which had been fluctuating throughout the day) there was absolutely no sense on Allen ward that Claire was only a matter of hours away from catastrophe. Had there been, by his own testimony, Mr. Roberts would not have left the ward, and I feel sure the nursing staff would have personally called either me or Dr. Bartholome.
- (iii) **At 23.30 when Claire's serum sodium result of 121mmol/L was noted**
I do not recall any discussion regarding moving Claire to PICU. The unwritten policies surrounding admittance to the unit were closely policed by the anaesthetic staff, and First Term Senior House Officers had no part in the discussions of who should and who should not be admitted there.
- (d) **State whether you were aware of the recorded CNS observations (Ref: 090-039-137) on 22nd and 23rd October 1996, and if so, state what you did as a result thereof and the reasons for this. If not, explain why you were not aware of these CNS observations.**
I believe I was aware of these CNS observations and discussed them with Dr Bartholome. As I recall, she noted that the GCS level fluctuated throughout the day and may well have been related to

the hypnoval infusion. Whatever the case, her seizures seemed well controlled, she was covered by broad spectrum antimicrobial agents, she was on significant doses of anti-seizure medication, and at that stage we had no reason to suspect a plummeting serum sodium concentration as a cause of her coma (See Dr. Webb's note that day in which he states, Normal Biochemistry, 090-022-054. I realise this was made in the context of a serum Na of 132. He explains his reasoning for this statement later in the same report). I note Claire's pupils remained equal and reactive to light, and she developed no hypertension, or bradycardia commonly associated with increased intracranial tension.

I do note that Claire's parents left the hospital at 2115hrs after the nurse noted that Claire's GCS had dropped to 6 (089-012-035). Mr. Roberts notes how reassuring the nurses were at this time. Even with her dipping GCS (which had been fluctuating throughout the day) there was absolutely no sense on Allen ward that Claire was only a matter of hours away from catastrophe.

(e) State the Glasgow coma score that you consider to reflect the onset of coma.

I have not been licensed to practice medicine since the summer of 1999 when I left Northern Ireland to pursue a career as a Presbyterian minister in America. However, to the best of my recollection, using the original Glasgow Coma Scale (not the modified scale for use in very young children), a score of 8 is generally associated with the onset of coma.

(f) State at what GCS you would normally have discussed admission to PICU.

At this stage of my training, I would not have been party to such discussions.

(g) State the protocols, guidelines and procedures in RBHSC between 21st and 23rd October 1996 governing admission of children to PICU.

I do not recall.

(h) State the system of referral to PICU in RBHSC in October 1996.

As I recall, the Registrar would liaise with the Consultant physician on call who would in turn contact his opposite number on call for the Paediatric Anaesthetics department.

(i) State whether the process to seek advice from a Paediatric Intensive Care Specialist in October 1996 in RBHSC was solely via the treating Consultant or whether junior medical staff could seek support from PICU between 17.00 and 09.00 without necessarily informing their Consultant.

To the best of my recollection, even out of hours, as a general rule, these requests only came from one consultant to another.

(31) State whether you considered contacting Dr Steen, Dr. Webb, Dr. Sands or Dr. Bartholome on 22nd October 1996 between 17.00 and 23.30 in relation to Claire's GCS and deteriorating condition, and if not, why not, and if so, what exactly was discussed, what they did about it and what the response was. I did contact Dr. Bartholome as detailed above.

I would have had no reason to contact Dr. Sands that night as he was not on call for the hospital.

The decision to contact Dr. Steen and Dr. Webb would have rested with Dr. Bartholome.

(a) State whether you were aware on 22nd and 23rd October 1996 of which consultant you and Dr. Bartholome should call should you have needed advice, and if so, identify that consultant and the basis of your knowledge at that time.

I do not recall.

(b) State the threshold for calling a consultant in RBHSC in October 1996.

Pro re nata with respect to the medical registrars assessment.

(c) Explain what you understood to be the RBHSC policies and procedure and practice on 21st October 1996 for keeping the consultant informed and for seeking advice when required.

The SHO's liaise with one of the Registrars who in turn liaise with the relevant consultant. During the daytime, this unwritten rule was of course somewhat relaxed if the consultant happened to be on the ward at the time an SHO needed advice. But even then, it was regarded good practice to liaise first with the Registrar if he/she was available.

(d) State the periods of time when Dr. Andrew Sands and Dr. Brigitte Bartholome, Paediatric Registrars, was present on Allen Ward on 22nd October 1996 while you were on duty.

I do not recall.

(32) Describe any protocols or guidance, if any, in place at the RBHSC in October 1996 for referrals by medical staff of a patient to other consultants without first discussing the case with the Paediatrician in charge of the patient.

I do not recall.

(33) State whether you considered advising Claire's parents of her deteriorating condition and if consideration was given to addressing the situation.

I do note that Claire's parents left the hospital at 2115hrs after the nurse noted that Claire's GCS had dropped to 6 (089-012-035). Mr Roberts notes how reassuring the nurses were at this time. Even with her dipping GCS (which had been fluctuating throughout the day) no one on Allen ward seemed to have any sense that Claire was only a matter of hours away from catastrophe.

At 23:30hours, with the parents at home in bed, I would have wanted to wait for Dr. Bartholome's assessment before contacting the parents precipitously.

(34) 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 for this belief.

Dr. Heather Steen. My own recollection of the events surrounding the case and her name occurs under "Consultant" on the admission sheet (090-014-020).

(a) Identify the paediatric consultant who was responsible for Claire's care, treatment and management from 17.00 on 22nd October 1996 and thereafter.

I do not recall. However, it seems from the notes that Dr. Steen saw Claire in PICU which would lead me to conclude she may have been on call that night.

(b) Identify the duty paediatric consultant on call on the evening of 22nd October and the morning of 23rd October 1996.

As above.

(35) Identify the members of the paediatric medical team on duty when Claire was admitted to Allen Ward on 21st October 1996, and their respective job titles.

I do not clearly recall.

(36) Describe any changes to the members of that paediatric medical team during your care of Claire, the time when each change occurred and identify the additional/new members of the team and their

respective job titles.

I do not recall any such change.

- (37) Identify the members of the nursing team on duty on 21st October 1996 when Claire was admitted to Allen Ward and their respective job titles.

I do not recall.

- (38) Describe any changes to the members of that nursing team during your care of Claire, the time when each change occurred and identify the additional/new members of the team and their respective job titles.

I do not recall any such change.

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

Apart from what I have already stated above, I have no other knowledge.

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

I do not recall.

- (41) 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

(e) Describe any protocols, if any, in place at the RBHSC on 22nd October 1996 for referral of a patient from the admitting consultant to another consultant due to the unavailability of the admitting consultant.

Not applicable

- (42) 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:

Not applicable

(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.

Not applicable

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

Not applicable

(c) State what information you gave Dr. Heather Steen about Claire during each communication
Not applicable

(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

Not applicable

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

Not applicable

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

Not applicable

(g) State whether Dr. 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 that attendance and examination.

I was not present at any time that Dr. Steen examined Claire.

(43) State what communication you had with Dr. David Webb 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. David Webb about Claire during each communication.

(d) State what advice or instructions Dr. David Webb 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) Identify any protocols/guidelines from 22nd October 1996 to date governing the request for and provision of a specialist opinion by another consultant, and the transfer of care and management of a child to another consultant, and furnish copies thereof.

Not applicable

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

- (a) State what information you were given by that SHO about Claire's condition, care and treatment and plan of care.

I do not recall

- (45) 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 it was completed.

I am unable to explain the nature of this document in this case. Its status appears incomplete. I do not recognise the hand writing of the doctor in question. It is not my script.

- (46) 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.

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

Up until 23:30hrs on 22/10/96, I believed Claire to be in a serious but stable condition. After this time and with the arrival of U+E report, I was certainly aware that her condition was much more grave. Having said that, however, Dr. Bartholome stressed the importance of gradually returning the serum sodium level to a more normal range. So I knew this was not something we wanted to correct quickly with a more rapid IV bolus of NaCl. I thought, therefore, that we had time on our hands and that Dr. Bartholome's own assessment in the near future would have shed more light on how best to proceed. I had neither the experience nor any reason to doubt that Dr' Bartholome's plan to restrict Claire's fluids would prove effective in normalizing Claire's serum Na concentration.

Having informed Dr. Bartholome of Claire's condition, she did not request me to carry out a preliminary neurological examination. Given Dr. Webb's previous consultation at 1700hrs, the registrar would have been much better placed to carry out and interpret such a nuanced assessment. Believing the registrar would be assessing Claire in the near future, and believing all of the necessary immediate treatment modalities were in place to arrest Claire's worsening hyponatraemia, I left Allen Ward to deal with other pressing medical matters elsewhere in the hospital. The nurses record no further need to contact either Dr. Bartholome or me until around 0300 AM with Claire's unexpected and precipitous collapse.

- (48) 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.

I do not remember talking to Claire's parents during their stay.

- (b) Identify to whom you gave this information.

Not applicable.

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

Not applicable.

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

Not applicable.

- (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.
Not applicable.

- (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.**

Not applicable.

- (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.**

Not applicable.

(49) 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**

I have no knowledge of the case of Adam Strain.

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

Not Applicable

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

Not Applicable

(50) Since 21st October 1996:

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

Not Applicable

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

Not Applicable

- (c) **Describe how that knowledge and awareness affected your work**

Not Applicable

- (51) 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:**

I studied medicine at Queens University Belfast and received the normal training in these matters available to students during this time.

- (a) Undergraduate level
- (b) Postgraduate level
- (c) **Hospital induction programmes** - As I recall, there was no formal induction program during my initial posting at RBHSC in 1996. This made the transition from an adult Junior House Officer Year to a Paediatric Senior House Officer year more than a little stressful.
- (d) **Continuous professional development** - As I recall the RBHSC had weekly educational meetings/discussions/reports. I attended these lunchtime meetings when practical and found them helpful. Of course my own private study for the Part 1 and Part 2 examinations requisite for entry into the Royal College of Physicians (UK: Paediatric branch) also served to radically increase my level of understanding in all these areas. I also attended the APLS course on at least one occasion in the ensuing years.

(52) **Prior to 21st October 1996, describe in detail your experience of dealing with children with hyponatraemia, including the:**
I do not recall any.


(53) **Since 21st October 1996, describe in detail your experience of dealing with children with hyponatraemia, including the:**
I do not recall the precise number. Certainly, none of them demised.

(54) **Identify any 'Protocols' and/or 'Guidelines' which governed Claire's care and treatment.**
I do not recall.

(55) **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**

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

Signed: 

Dated: 17th February 2012