Witness Statement Ref. No. 137/2

NAME OF CHILD: Claire Roberts

Name: Andrew Sands

Title: Dr

Present position and institution: Consultant Paediatric Cardiologist, Belfast Health and Social Care Trust (BHSCT)

Previous position and institution:
[As at the time of the child's death]

Registrar in Paediatrics, Royal Belfast Hospital for Sick Children

Membership of Advisory Panels and Committees:
[Identify by date and title all of those since your Witness Statement dated 23rd December 2011]

Clinical lead for paediatric medicine. Women and Child Health division. BHSCT (since 1st December 2011)

Previous Statements, Depositions and Reports:
[Identify by date and title all those since your Witness Statement dated 23rd December 2011]

No additional statements etc.

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

Ref:	Date:	
WS-137-1	23.12.2011	Inquiry Witness Statement

IMPORTANT INSTRUCTIONS FOR ANSWERING:

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

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

QUERIES ARISING OUT OF YOUR INITIAL WITNESS STATEMENT

With reference to your Witness Statement dated 23rd December 2011, please provide clarification and/or further information in respect of the following:

(1) Answer to Question 2(a) at p. 3:

"I commenced work at RBHSC on 2nd February 1994 to the 2nd August 1994 for a period of 6 months as Senior House Officer. This was followed by one year working in Craigavon Area Hospital, before returning to RBHSC (see below)."

(a) State the position(s) which you held during your *"one year working in Craigavon Area Hospital"* and the nature of the work which you performed during that time.

At that time I worked as a paediatric senior house officer. My duties were divided between the management of neonatal and general paediatric inpatients. I would also have carried out on-call duties plus working in the outpatient department.

(2) Answer to Question 2(d) at p. 4

"I was working as a registrar in Paediatrics. I worked as part of the Allen Ward clinical team under consultant supervision...On the morning of the 22nd October 1996 I was carrying out a Ward Round in Allen Ward. This would have been conducted with any available Senior House Officer attached to Allen Ward and at least 1 nurse (usually a senior nurse)..."

(a) Identify the consultant under whose supervision you *"worked as part of the Allen Ward clinical team"* between:

(i) coming on duty on the morning of 22nd October 1996 and 2pm

I would have considered myself under the supervision of Dr Steen, at least until Dr Webb had initially seen and examined Claire. In terms of Claire's further management I would have seen myself as at least partly under the supervision of Dr Webb beyond this time.

(ii) 2pm and the end of your duties that day.

During this time period I would still consider myself under the supervision of Dr Steen. However I would also have seen myself as being supervised by Dr Webb in relationship to Claire's care.

(b) Explain what you mean by *"a senior nurse"*, with reference to job title, qualifications and experience.

It is my recollection that the most senior nurse available would usually join the ward round. This may have been a nursing sister or other senior nurse. I am unable to comment further on specific qualifications or experience.

(3) Answer to Question 3(a)(ii) at p. 5

" ...I would have considered it my responsibility to work for the benefit of the patient under consultant supervision and instruction. My recollection is that I would have had other hospital duties to carry out on the afternoon of the 22nd October 1996. This may have been seeing additional patients, in other wards, as part of the medical "take in", teaching or outpatient work. After Dr Webb's attendance it was my belief that Claire was under joint care between General Paediatrics and Paediatric Neurology. I still had a role in Claire's care later in the afternoon and gave an intravenous dose of Sodium Valproate on Dr Webb's instruction. I would have considered it partly my responsibility to communicate information regarding Claire's condition to appropriate members of the medical and nursing staff before my period of duty ended at approximately 5pm on 22nd Oct.96."

(a) Identify by name and job title the most senior member of the paediatric medical team present on Allen Ward during the afternoon of 22nd October 1996 with care of Claire when you were carrying out *"other hospital duties"*

I do not recall who the most senior member of the paediatric medical team present on Allen Ward during this period was. One or more senior house officers may have been present. I may well have returned to Allen Ward on at least one occasion during the afternoon.

(b) Describe how you discharged your responsibility as Paediatric Registrar on the Allen ward medical team for the care of Claire when you were carrying out *"other hospital duties"* during the afternoon of 22nd October 1996, other than giving *"an intravenous dose of Sodium Valproate on Dr Webb's instruction"* at approximately 17.15.

While carrying out other duties within the hospital, I would have been contactable by medical or nursing staff. I would have been carrying a pager at this time and would have been present in hospital. I may also have returned to Allen Ward during the afternoon period.

(c) Specify to which attendance of Dr. Webb you refer when you state *"[a]fter Dr Webb's attendance it was my belief..."*

I referred to Dr Webb's initial attendance and assessment of Claire.

(d) Explain precisely what you mean by *"Claire was under joint care between General Paediatrics and Paediatric Neurology"* and when you first held this belief.

It is my recollection that I held this belief following Dr Webb's initial assessment. I believe that this would have been reinforced following his subsequent attendance and management plan. I am not aware that there had been a formal transfer of Claire's care to the paediatric neurology team. She remained in the Allen ward. I believe therefore that both the medical team and the neurology team were contributing to Claire's care at that time.

(e) Identify by name and job title who determined:

(i) whether Claire was *"joint care"/"shared-care"* (Ref: WS-137-1, p.21, Answer to Q10(l))

I do not recall if, or by whom this was determined.

(ii) the balance of responsibility between the paediatric and neurology teams

I do not recall if, or by whom this was determined.

State when and upon what basis this was determined.

I do not recall if or when this was determined. However such arrangements typically grew informally, depending on the nature of the patient's clinical problem.

(f) Explain what caused you to first form the *"belief that Claire was under joint care between General Paediatrics and Paediatric Neurology"*. *If "Claire was under joint care, between General Paediatrics and Paediatric Neurology"*, describe:

(i) The responsibilities of Dr. Steen, Consultant Paediatrician, towards Claire

I believe that Dr Steen would have been the consultant responsible for Claire's care following her admission to hospital, at least until the time of Dr Webb's first attendance. However given that Claire did appear to have a neurological problem, I believe that this responsibility would have become a shared one.

(ii) The responsibilities of Dr. Webb towards Claire

I believe that when Dr Webb initially saw and assessed Claire he would have begun to share responsibility for Claire's management, given the nature of her clinical problem.

(iii) Your responsibilities towards Claire

I believe that my responsibility towards Claire would have been to continue to act as a member of the clinical team caring for Claire. I would have considered myself under the supervision of Dr. Steen and Dr Webb. I may have anticipated that Claire's care would have been taken over more completely by the neurology team in time.

(iv) The responsibilities of the SHO(s) on the paediatric medical team towards Claire

I believe that the responsibilities of the paediatric medical senior house officers would also have been to act under the supervision of Dr Steen and Dr Webb to help provide medical care. They may also have anticipated that Claire's care would have been taken over completely by the neurology team in due course.

(g) State whether you recorded that "[a]*fter Dr. Webb's attendance...Claire was under joint care between General Paediatrics and Paediatric Neurology*" in Claire's medical notes or any other document, and if so, please identify that document. If you did not record this, explain why not.

I do not believe I recorded this. I do not recall why this was not recorded. However such a sharing of care may be gradual and informal process.

(h) State whether you informed:

(i) the medical or nursing team members on Allen ward

I do not recall whether I informed the medical or nursing team members on Allen Ward.

(ii) Claire's parents and/or family

I do not recall whether I informed Claire's parents or family.

that *"[a]fter Dr. Webb's attendance...Claire was under joint care between General Paediatrics and Paediatric Neurology"*, and if so, identify whom you informed and when they were so informed. If you did not inform anyone of this, explain why not.

(i) State if Dr. Webb had a registrar and SHO allocated to the Neurology department as part of the neurology service.

(i) On 22nd October 1996, identify Dr. Webb's neurology

- registrar
- SHO

I do not recall Dr Webb's neurology registrar or senior house officer at that time.

(ii) State if Dr Webb's neurology

- registrar
- SHO

liaised with you at any time during your treatment of Claire and if so, state when this happened, what was discussed and what happened as a result.

I am unable to recall if Dr Webb's neurology registrar or senior house officer liaised with me at during Claire's admission. However I think it likely that some discussion would have occurred.

(j) Identify any protocols, guidelines, procedures or accepted practice in October 1996 on changing the care of a patient from the sole care of a medical team to the joint care of a medical team and a team from another speciality, and the management of a patient under joint care.

I do not recall any protocols, guidelines or procedures relating to the changing of care of the patient from one medical team to another at that time. Such a process may have been gradual, depending on the nature of the patient's problem. This may also have involved verbal agreement between consultants.

(k) Explain the reasons why you considered it only *"partly"* your *"responsibility to communicate information regarding Claire's condition to appropriate members of the medical and nursing staff"*, given you were the Registrar and the most senior member of the medical team on Allen ward with care of Claire on 22nd October 1996.

(i) Identify all other persons by name and job title on 22nd October 1996 who had any *"responsibility to communicate information regarding Claire's condition to appropriate members of the medical and nursing staff"*, and explain the reasons for your answer.

I believe that all members of the medical and nursing team would have had a responsibility to communicate information regarding Claire's condition to other members of both the medical and nursing team. This would include consultant staff (Dr Webb and Dr. Steen), myself and perhaps the neurology registrar. Other members of the medical team prior to 5pm would have included Dr Stevenson and Dr Stewart. The neurology senior house officer or officers may also have had

a role in communication. On-call medical staff similarly would have had a role in communicating information. This would have included Dr Webb, Dr Steen Dr McKaigue, Dr Bartholome and Dr Stewart. I also believe that members of the nursing team, both during the day and that evening would have had an ongoing responsibility to communicate information regarding Claire's condition to other members of the medical and nursing team.

(4) Answer to Question 3(b)(iii) at p. 5

"...I recall speaking to Claire's mother in detail about my concerns, particularly about Claire's level of consciousness..... I do not recall if I had a further discussion with Claire's parents in Allen Ward that day. However I may have done so. I was present in Allen Ward again to administer Sodium Valproate at 17.15. I may have spoken to the family again, if present at that stage."

(a) Describe the *"concerns"* about which you spoke to Mrs. Roberts, and state *"in detail"* what you told Mrs. Roberts about each of those concerns.

I believe that my concerns specifically related to Clare's level of consciousness. On taking a history it was apparent that this was far from Claire's usual condition. I believe that we also discussed obtaining more information regarding Claire's past medical history. Although some of Claire's neurological signs were abnormal, some of these may have been long-standing. I recall mentioning this to Claire's family. I also recall discussing with her family that Claire may well have a significant neurological problem. I believe that I would have explained concerns regarding possible ongoing seizure activity and the need for specialist advice from a neurologist.

(5) Answer to Question 3(c) (ii) at p. 6

"The first entry in the notes by me is "encephalitis/encephalopathy"... This follows the words "impression non fitting status" entered by the senior house officer. This entry was made after I had sight of the ward round entry and immediately after my first conversation with Dr Webb whom I recall mentioning the term encephalopathy...."

(a) State the time at which you amended the ward round note on 22nd October 1996. Explain why you did not sign and record the time of your entry.

I believe that this ward round note was amended immediately after I had spoken to Dr Webb. This may have been at approximately 12:00 hours. I do not recall why I did not sign and record the time of this entry. However I believe that I felt it to be part of the ward round note. There had been no additional notes added beyond the ward round note at that point.

(b) State whether you informed any other persons, including the members of the Allen Ward medical team, the nursing staff or Claire's family, of the additional diagnoses/impression of *""encephalitis/encephalopathy"* which you recorded in Claire's medical notes,

(i) If so, identify the persons (by name and job title) whom you told, and state what you told them, and when and where you told them.

(ii) If not, explain why not and how and from whom the members of the medical and nursing teams and the Roberts family were to acquire this information.

(i and ii) I believe that the possibility of infection in the brain or encephalitis was discussed on the ward round. I think it likely that this was also discussed with Claire's parents. I believe that the term encephalopathy was mentioned by Dr Webb to me. I do not recall details of discussions with ward staff regarding Claire following my meeting with Dr. Webb. In the knowledge that Dr Webb was planning to see and assess Claire I would have also expected him to provide further information as appropriate to Claire's family and staff members.

(c) As a result of the additional diagnoses/impression of *"encephalitis/encephalopathy"*, explain:

(i) what additional consideration you gave to the care and management of Claire

I do not recall what additional consideration I gave to the care and management of Claire, following my conversation with Dr Webb and the additional possible diagnoses.

(ii) what additional action, test, investigation required to be considered and/or taken or carried out in the care and management of Claire

I believe that I and other members of the medical and nursing team would have expected investigations to have been directed by Dr Webb. However I believe that blood investigations had been carried out to look for a possible cause of viral encephalitis. I believe these samples, plus bacterial blood cultures were taken on 21st October. A urine sample for culture also seems to have been sent. [090-030]

(6) Answer to Question 5(a) at p. 7

"I believe Dr. Volprecht wrote the initial fluid prescription for Claire. This was continued by Dr. Stevenson. The decision to continue with the current fluid management was most likely part of the ward round discussion."

(a) Describe the *"ward round discussion"* relating to Claire's fluid management and identify the person who led that discussion.

I do not recall details of the ward round discussion relating to Clare's fluid management. I do not recall who led the discussion.

(7) Answer to Question 5(b) at p. 7-8

"It is my recollection that this fluid was considered standard maintenance fluid for children at this time. The ward round team did not have a certain diagnosis in Claire's case. ... The fluid would have been continued, pending a further check of urea and electrolytes. This was most likely also part of the ward round discussion as electrolytes were repeated later."

(a) Explain whether the absence of *"a certain diagnosis"* would prevent any alteration to Claire's fluid management.

I believe that the absence of a certain a diagnosis would not necessarily prevent an alteration to Claire's fluid management. However, a clear diagnosis may help to guide specific fluid management.

(b) Explain why *"at this time"* you considered the *"standard maintenance fluid"* to be appropriate for Claire given her condition and abnormal serum sodium concentration and your concerns, particularly about her level of consciousness [Answer to Question 3(b)(iii) at p. 5 of WS-137/1].

It is my recollection that 0.18% saline with glucose was the standard maintenance fluid at that time. It seems likely that I was unaware of the exact timing of the first serum sodium test. I feel that I, and the ward round team would not have thought this a very low result. However I believe that we would have considered it a blood test which should be repeated. I do not recall if the serum sodium result was considered immediately relevant to Claire's clinical condition.

(c) Describe clearly your actual recollection of the ward round discussion relating to *"a further check of urea and electrolytes"*, and in particular identify who discussed this, the nature of the discussion, and specifically what decision was made about this on the ward round.

I do not recall what discussion took place regarding a further check of urea and electrolytes. However electrolytes were repeated later that evening. I therefore think it likely that a decision was made to repeat a test of electrolytes. Decisions relating to repeating blood tests (or carrying out further tests) are often made at the ward round, although such decisions may also be taken at any other time.

(d) Identify the person who would have been responsible for recording this discussion and the decision/plan to carry out *"a further check of urea and electrolytes."*

I am unable to recall whether such a discussion was recorded or who may have been responsible for this. However such a request would often be made to a senior house officer who may record such a discussion and plan.

(e) Explain why the ward round note does not record any plan/decision for *"a further check of urea and electrolytes"*.

I am unable to say why the ward round note does not record any plan or decision for a further check of urea and electrolytes. However such an instruction may be passed on verbally or recorded on a separate sheet of work which needed attending to that day. This would usually have been held by a senior house officer as an aide memoire for junior staff. This would not be retained in the clinical notes.

(f) Explain why you did not amend the ward round note after you had sight of the ward round entry to include the discussion/plan or decision for *"a further check of urea and electrolytes"*.

I cannot be sure why I did not take such action. However such information may not always be recorded in the clinical notes. See (e) above.

(g) If *"a further check of urea and electrolytes"* was requested at the ward round or was planned to be carried out, explain whether this would usually have been recorded in any documents including the patient's medical (whether clinical or nursing) notes and records.

This request or plan would usually have been passed on verbally between members of the medical team. It may or may not be recorded in medical or nursing notes. It may be recorded on additional sheets of work which needed to be carried out. See (e) above.

(h) Explain the basis upon which you state that the reason the electrolytes were repeated later at approximately 21.30 on 22nd October 1996 was due to a ward round discussion / decision / plan for *"a further check of urea and electrolytes"* on the morning of 22nd October 1996, rather than any hospital policy/practice to check urea and electrolytes once every 24 hours.

I cannot be sure that the reason electrolytes were repeated later was because of a discussion/decision on the ward round on the 22nd of October 1996. However blood work was usually carried out within normal laboratory working hours wherever possible. It is my recollection that blood work carried out beyond these times had to be telephoned through as an emergency to the on-call laboratory staff.

(i) Explain your understanding on 22nd October 1996 as to whether the urea and electrolytes results recorded at Ref: 090-022-052 related to blood samples taken on 21st October 1996 or on the morning of 22nd October 1996.

I do not recall whether I understood the first urea and electrolyte result related to a sample taken on the evening of 21 October 1996 or on the morning of 22 October 1996.

(j) State whether you had read Claire's admission notes and medical records at Ref: 090-022-050 to 052 prior to your examination of Claire and the ward round discussion relating to Claire.

I do not recall whether I had read Claire's admission notes and medical records prior to my examination of Claire and the ward round discussion relating to Claire.

(8) Answer to Question 5(c) at p. 8

"Although no mention is made in the notes of repeating the serum electrolytes (including sodium), I believe this would have been part of the ward round discussion and planned to be carried out."

(a) Explain the basis for your belief that *"repeating the serum electrolytes (including sodium)... would have been part of the ward round discussion and planned to be carried out."*

At that time it would have been usual ward round practice to discuss investigations to be carried out that day. This remains usual practice. The particular time to carry out investigations may not have been specified.

(b) Identify the most senior clinician on the ward round team on 22nd October 1996 when attending on Claire.

My recollection is that I was the most senior clinician on the ward round team on 22nd October 1996.

(9) Answer to Question 5(e) at p. 8

"I am not aware of a re-assessment of Claire's fluid management prior to Dr Stewart's note of 23:30 on 22nd October 1996. During the earlier part of that day I believe the ward team would have considered that Claire's fluid balance was stable. There was no additional electrolyte result to influence a change."

(a) Explain why there was apparently no *"re-assessment of Claire's fluid management prior to Dr Stewart's note of 23:30 on 22nd October 1996"* given Claire's condition and level of consciousness, failure to respond to anti-epileptic medication and number of attacks.

I am unable to explain why there was apparently no reassessment of Claire's fluid management prior to Dr Stewart's note. Such a reassessment may have taken place. However I have no recollection of this. I think it likely that adjusting fluid management was not considered immediately necessary in Claire's case at that time. I believe that the main focus of Claire's care was in trying to control seizure activity and treating possible infective causes of this.

(b) Identify by name and job title the members of *"the ward team"* on 22nd October 1996.

I believe that the medical ward team members included Dr Roger Stevenson and Dr Neil Stewart. Dr Stevenson and Dr Stewart were working as paediatric senior house officers. I was the medical registrar as part of the ward round team. Collectively we would have been working under the supervision of Dr Steen or under the instruction of any other attending consultant. I do not recall specific members of the nursing team on that day.

(c) Explain what you mean by *"the earlier part of that day"*, stating times in so far as you are able to do so.

I would consider this to be the period up to and including the ward round on 22nd October 1996 and probably at least until the middle of the afternoon.

(d) Explain what you mean by *"stable"*.

By this I mean that the ward team may have felt that fluid input was roughly balanced by fluid output.

(e) Explain the basis upon which you and *"the ward team would have considered that Claire's fluid balance was stable"* in all the circumstances.

I think this is likely as Claire's initial electrolytes were not markedly deranged. There was no evidence of dehydration recorded. Claire appeared to be receiving the appropriate volume of maintenance fluid and had passed urine.

(f) the reasons why there *"was no additional electrolyte result"* prior to *"23:30 on 22nd October 1996"*.

I do not know the reason why there was no additional electrolyte result prior to 11:30 pm on 22nd October 1996.

(10) Answer to Question 5(f) at p. 9

"....As part of the ward round team I may not have thought it necessary at that point to alter fluid management.....Repeat electrolytes would most likely have been requested with the intention of using the result as a guide to further fluid management."

(a) Explain why you *"may not have thought it necessary at that point to alter fluid management"*.

I believe that the initial electrolyte result did not cause such concern as to prompt a change in fluid management. I think it likely that changing fluid management at that point was not considered a central part of Clare's care.

(b) Explain the basis for your belief that *"..[r]epeat electrolytes would most likely have been requested with the intention of using the result as a guide to further fluid management."*

I think it likely that the finding of a reduced serum sodium level would have prompted a decision to repeat serum electrolytes to determine if they had normalised or otherwise altered. This would then guide fluid management.

(c) If *"[r]epeat electrolytes [were]... requested"* at the ward round *"with the intention of using the result as a guide to further fluid management"*, specify the time at which you would

have expected a blood sample to have been taken from Claire on 22nd October 1996, particularly in light of the siting of a cannula on the afternoon of 22nd October 1996 (090-038-135, 090-040-138).

Routine electrolyte tests would usually have been carried out during normal laboratory hours. In children, blood is very often drawn at the time of siting a new cannula. This is usually to avoid further venepuncture. Such a time may have provided a good opportunity to recheck Claire's electrolytes.

(11) Answer to Question 5(g) at p. 9

"...There was no definitive diagnosis in Claire. Given that, providing maintenance fluid only was likely considered the best option."

(a) Explain the action(s) you took on 22nd October 1996 in order to make a *"definitive diagnosis in Claire"* In particular, explain why an EEG was arranged on 22nd October 1996 in order to reach a definitive diagnosis.

Actions taken by myself, and the ward round team included taking a history from Claire's parents and performing an examination. I also asked for paediatric neurology assistance, which was provided by Dr Webb. A request was also made to obtain additional information on Claire's background condition. I assume that the question should read "no EEG". I am unsure whether an inpatient EEG would have been possible on Claire at that time. I believe that a consultant neurologist would have had to arrange this.

(12) Answer to Question 5 (i) at p. 9

"... I do not recall a re-assessment prior to this. There may have been no definite evidence to suggest that fluids needed to be altered earlier in the day..."

(a) Describe the nature and type of *"definite evidence"* required *"to suggest that fluids needed to be altered earlier in the day"*.

At the time, such evidence may have been in the form of a serum sodium result which was the same, or lower than the initial result on repeat sampling. A major change in clinical condition or key investigation result may have prompted an urgent repeat of serum sodium earlier in the day.

(b) Explain whether in October 1996 an abnormal serum sodium concentration result would likely have constituted *"definite evidence"* which may have suggested *"that fluids needed to be altered earlier in the day..."*.

I believe that an additional serum sodium result which was the same or lower than the initial result would have provided more definite evidence that fluids needed to be altered.

(13) Answer to Question 5(k) at p. 10

"As part of the medical team until 5pm approximately on 22nd October 1996 ... It seems likely that electrolyte balance was not considered a significant problem at that point in Claire's care."

(a) Identify the clinician(s) by name and job title who bore the responsibility of considering and checking Claire's *"electrolyte balance"* on 22nd October 1996 prior to *"5pm approximately"*.

Although electrolyte levels were and are, often checked by paediatric senior house officers, I believe this responsibility would have been borne by all medical staff having responsibility for Claire's care during that day. This would have included Dr Steen, Dr Webb, myself, Dr Stewart, Dr Stevenson and any other medical staff who may have been involved in Claire's care.

(14) Answer to Question 6(a) at p.10

"...At the time of the ward round Claire's conscious level appeared depressed compared to normal. Her pupils were only sluggishly reactive to light and she is recorded as having bilateral long tract signs, suggesting tone was increased on both sides of Claire's body with abnormally brisk reflexes. Collectively these elements of history and examination were felt to point to a major neurological problem. At that point, further seizure activity in the absence of abnormal movements was considered the most likely diagnosis. I believe encephalitis was discussed on the ward round as a possible cause or complicating factor."

(a) Identify who discussed *"encephalitis ...on the ward round as a possible cause or complicating factor"*, describe the nature of that discussion and explain why encephalitis was not recorded in the original ward round note with the impression/diagnosis of *" Non fitting status"* (Ref: 090-022-053).

I do not recall who discussed encephalitis on the ward round. I believe this may well have been considered a possible cause of non-fitting status epilepticus.

(b) Specify the *"major neurological problem"* considered/discussed at the ward round.

Clare's impaired level of consciousness, and abnormal neurological signs appeared to constitute a major neurological problem.

(c) Specify the basis upon which encephalitis was considered *"as a possible cause or complicating factor"*, and Claire's symptoms which may have been caused by/attributed to encephalitis.

The beginning of Clare's illness may have suggested a possible infective process. The development of neurological signs and symptoms may have led to a possible consideration of encephalitis.

(15) Answer to Question 6(c) at p. 10

"I wrote the terms encephalitis/encephalopathy to add to the list of differential diagnoses. This was immediately after speaking to Dr Webb and only a short time after I left the ward round."

(a) Describe what you discussed with Dr. Webb *"after [you] left the ward round"* and identify any note recording the nature of the conversation.

I do not recall the details of my discussion with Dr Webb. However I believe that I raised the question of whether a CT scan would be appropriate. I also think it likely that I suggested a trial dose of rectal diazepam.

(b) Describe any advice given by Dr. Webb at that conversation and identify where and by whom that advice is recorded.

I do not recall any advice given by Dr Webb at that conversation. I am unable to identify any record of any advice given.

(16) Answer to Question 6(d) at p. 10-11

"I believe Dr. Webb mentioned the term encephalopathy. I felt this was a more accurate list of differential diagnoses, following the ward round and my discussion with Dr. Webb. Those were all only possible differential diagnosis. There was no firm diagnosis at this stage."

(a) Describe and explain the steps /tests which on 22nd October 1996 you agreed or directed be carried out in order to reach a *"firm diagnosis at this stage"*.

The ward round note records a decision to seek the help of the on-call consultant neurologist. There was also a decision to obtain further details regarding Claire's past medical history. Results of initial investigations from admission were awaited. I believe these were blood cultures and viral studies. Urine was also sent for culture.

(b) State whether there was a *"firm diagnosis"* at any stage, and in particular by approximately 17.00 on 22nd October 1996. If so, state that *"firm diagnosis"*, who made the firm diagnosis, the basis for that firm diagnosis, the record thereof and when that firm diagnosis was made. If there was no firm diagnosis by approximately 17.00 on 22nd October 1996, explain why not.

From the medical notes I believe that Dr Webb had concluded that Claire remained in a state of ongoing seizure activity. It was also planned to treat Claire with anti-viral and antibiotic agents in case an infective organism may have been the cause of seizure activity.

(c) Describe the *"list of differential diagnoses"* by approximately 17.00 on 22nd October 1996, identify who made those diagnoses and when each diagnosis was made, the basis for each diagnosis and the record of each diagnosis.

I do not recall what list of differential diagnoses was being considered by approximately 5pm on 22nd October 1996. However the medical notes suggest that Claire was considered still to be in a state of frequent if not continuous seizure activity.

(d) Describe all of the investigations and tests which were to be or were planned to be carried out to test the *"list of differential diagnoses"*

(i) following the ward round

I do not recall in detail what investigations or tests were considered at this point. I believe that there was an expectation that further tests and investigations would be guided by the on-call neurologist. However I recall raising the issue of possible CT scan of brain with Dr Webb.

(ii) approximately 17.00 on 22nd October 1996.

I do not recall what tests or investigations were considered at this stage.

(17) Answer to Question 6(e)at p.11

"...I believe that possible encephalitis was considered on the ward round. Cerebral oedema may have been considered in association with that."

(a) Explain the basis for your assertion that *"I believe that possible encephalitis was considered on the ward round."*

I recall considering that a CT scan of brain may be required. I believe that one of the reasons I considered this was the possibility of detecting evidence of encephalitis.

However it is also likely that CT scan was considered to exclude (or identify) other possible causes part of Claire's neurological condition.

(b) State whether you recall specifically that "[c]*erebral oedema*" was discussed during the ward round "*in association with [encephalitis].*" If so, identify who discussed it, and state the nature of the discussion and explain why consideration of "[c]*erebral oedema* "was not recorded at that time in the ward round note by Dr. Stevenson or by you.

I do not recall if cerebral oedema specifically was discussed during the ward round.

(c) If you do not actually recall this specifically, explain the basis for your assertion that "[c]*erebral oedema may have been considered in association with that.*"

A CT scan was discussed on the ward round. I believe that encephalitis was also considered. I think it likely that there would have been some discussion regarding what a CT scan might show in the event of encephalitis, in order to justify such an investigation. Cerebral oedema may be one such finding in the event of encephalitis.

(d) State any action of the ward round team to address any concern relating to "[c]*erebral oedema*" in Claire.

The main action taken by the ward round team was seeking urgent neurology assistance. However this was not specifically to address a concern relating to cerebral oedema.

(18) Answer to Question 6(k) at p. 12

"...The medical team would have anticipated further direction by Dr. Webb regarding additional investigations"

(a) State the basis of the above statement.

I believe that the decision to contact Dr Webb to ask for his assistance would have led to an anticipation that he would direct further investigation.

(b) Describe and explain the further directions and additional investigations which you and the medical team anticipated receiving from Dr. Webb.

I do not recall what specific direction I and the medical team anticipated receiving from Dr Webb.

(19) Answer to Question 6(l) at p.12

"A further sample for serum electrolytes including sodium is recorded in the evening. I am not certain at what time that sample was taken. The request was most likely made earlier in the day, probably as part of the ward round discussion. I do not know why it was not carried out until the evening time....I believe Claire had at least one additional intravenous cannula sited on the afternoon of 22nd October 1996... "

(a) Explain the basis for your assertion that "*The request was most likely made earlier in the day, probably as part of the ward round discussion*" and in particular whether you actually recall either making a request or a request being made on 22nd October 1996 for Claire's serum electrolytes to be checked. If so, state when this request was made, by whom and whether or not that request specified the time at which the serum electrolytes were to be checked, and if so, what that time was.

Although, I am unable to recall a discussion relating to further checking of electrolytes on the ward round; it would have been the usual practice and remains the case today for decisions regarding blood investigations to be taken at a ward round, or similar discussion.

(b) Explain why the alleged request was not recorded in Claire's medical notes or nursing notes.

I am unable to explain this beyond stating that requests for electrolyte tests to be repeated may be passed on verbally or recorded on a separate list of work required to be performed by staff.

(c) If a request was made to carry out a serum electrolytes blood test on 22nd October 1996, describe your responsibility prior to coming off duty at approximately 17.00 in relation to taking the required blood sample and also checking that the serum electrolytes had been tested and the results thereof.

Although such blood investigations would often have been carried out by a senior house officer, I believe that, as part of the medical team I would have had some responsibility for checking that serum electrolyte testing had not been overlooked. The results of blood investigations often did not return to the ward until quite late in the day. Therefore the task of following up blood investigations may have been delegated to on-call staff. It would have been quite a common occurrence that, only at this point would it be noted that a result was not available, because a sample had not been sent, was unsuitable for analysis or because a sample had been misplaced between the ward and laboratory.

(d) Prior to coming off duty on 22nd October 1996 state whether you checked that a sample for testing Claire's serum electrolytes had been taken, that the serum electrolytes test had been carried out and the results thereof. If so, state when and how you did so. If not, explain why you did not do so.

I do not recall whether I checked that a sample for testing serum electrolytes had been taken, or the results looked for.

(e) If a request was made to carry out a serum electrolytes blood test on 22nd October 1996 identify by name and job title the person/s who was/were responsible for:

(i) Recording the request for Claire's serum electrolytes to be tested

As explained above, this request may have been passed on verbally or recorded on a separate list of work to be carried out. I believe this would have been mainly the responsibility of the collective medical staff.

(ii) Determining when the *"further sample for serum electrolytes"* would be taken

I believe that in such a case, the exact timing of a further sample may not have been specified. However again the collective medical staff would usually share responsibility for this.

(iii) Taking a *"further sample for serum electrolytes"*

Although a senior house officer would often have taken such sample, I believe that the collective medical staff again would usually share responsibility.

(iv) Ensuring that the serum electrolytes test was carried out

Again I believe that the responsibility for this usually lies with the collective medical staff.

(v) Checking and recording the result of the serum electrolytes test

Although a senior house officer would often have checked and recorded the result of such a test, I believe that responsibility again usually lies with the collective medical staff. Nursing staff will often also contribute to this process.

(vi) Ensuring that the clinicians and nurses on duty were aware that a blood sample had yet to be taken to check Claire's serum electrolytes

I believe that medical and nursing staff together would share this responsibility and the responsibility of communicating such information to each other.

(20) Answer to Question 7(d) at p. 16:

"I recall that Dr Steen was informed (on the afternoon of 22nd October 1996) that Dr Webb had been consulted regarding Claire. This was by telephone, as Dr Steen was not in the hospital. I believe it was me who spoke to Dr Steen. I do not recall if this was my only conversation with Dr. Steen or whether other members of the ward team also spoke to her."

(a) Explain why:

(i) you did not contact Dr. Steen immediately after the morning ward round

I do not recall why I did not (or was unable) to contact Dr Steen immediately after the morning ward round.

(ii) you consulted Dr. Webb first before speaking to Dr Steen

I think it likely that I consulted Dr Webb, feeling that I was unlikely to be able to discuss Claire's case with Dr Steen immediately. I also believe that I, and the ward round team felt that Claire's problems were largely neurological.

(iii) You did not contact Dr Steen about Claire until the afternoon of 22nd October 1996.

I do not recall the exact time at which I spoke to Dr Steen. I do not recall a reason for not contacting Dr Steen prior to this.

(b) Explain the reason for and purpose of your telephone contact with Dr Steen on the afternoon of 22nd October 1996.

I believe that the main reason for contacting Dr Steen was to discuss Claire's case with her. I may also have discussed other patients.

(c) State the approximate time or period when you spoke to Dr Steen by telephone on the afternoon of 22nd October 1996.

I believe that this conversation took place on the afternoon of 22nd October 1996. I am unable to be more exact.

(d) Explain whether you recorded the fact that you had contacted Dr. Steen in any note or document, and if so, identify that document. If not, explain why not.

I do not recall recording the fact that I had contacted Dr Steen at that time.

(21) Answer to Question 8(a) at p. 16:

"I believe that the dose of diazepam was prescribed by Dr Stewart. This would have been following discussion. It was given by a member of nursing staff per rectum. It seems that Claire may have been more alert following this medication. Dr. Webb mentions this in his note."

(a) State whether you witnessed Claire's response, if any, to the administration of the diazepam on 22nd October 1996, and if so, describe her response to that drug. If not, identify who witnessed Claire's response.

I do not recall whether or not I witnessed Clare's response to the administration of diazepam. I am unable to recall who witnessed Claire's response.

(22) Answer to Question 8(d) at p. 17:

"... It was my understanding that Claire was being jointly cared for by the medical and neurology team."

(a) Identify all members of the *"neurology team"* by name and job title who on 22nd October 1996:

(i) had joint care of Claire.

Aside from Dr Webb I am unable to recall other members of the neurology team on duty at that time.

(ii) attended Claire

Aside from Dr Webb I am unable to recall other members of the neurology team who may (or may not) have attended Claire.

(b) State the point in time from which you understood *"that Claire was being jointly cared for by the medical and neurology team."*

As explained above, I think it likely that I considered that Claire was being jointly cared for by the medical and neurology team following Dr Webb's attendance. This was my understanding following Dr. Webb's first attendance and was reinforced by his ongoing direction of Claire's care.

(c) Identify and explain which team had primary care of Claire after 14.00 on 22nd October 1996

I do not recall which team had primary care of Clare at that specific time on 22nd October 1996.

(23) Answer to Question 8(e) at p. 17:

"At the time I believe that I (and the ward team) considered the consultant neurologist on-call was the most appropriate person to provide that help, particularly in the knowledge that Dr Steen was not in the hospital."

(a) Explain whether Dr. Steen could have been contacted/consulted by telephone during the morning of 22nd October 1996.

I do not recall whether Dr Steen could have been contacted or consulted immediately by telephone during the morning of 22nd October 1996.

(b) If so, explain why you did not first speak to and consult Dr. Steen about Claire before seeking help from any other consultant.

I do not recall where Dr Steen was at that time. I do not recall whether she was immediately available by telephone. I am therefore unable to answer this question more fully.

(24) Answer to Question 8(f)(ii) at p. 18:

"Dr. Steen would therefore have been aware of Dr. Webb's involvement in Claire's case."

(a) You have not adequately answered the question. State whether you discussed with Dr Heather Steen the input and role of Dr. David Webb and/or the neurology team in Claire's case and his/their responsibility for Claire's care, treatment and management.

I believe that I described Dr Webb's involvement with Claire's case. However I do not recall any further detail of this conversation

(25) Answer to Question 8(f)(iii) at p. 18:

"I do not recall discussing transfer of care to the neurology team. However I, or other staff may have discussed this with Dr Steen."

(a) Identify the *"other staff"* by name and job title who *"may have discussed this with Dr Steen."*

Although any other member of the medical or nursing staff may have discussed this with Dr Steen, (particularly if Dr Steen had phoned the ward to enquire about a patient or patients), I cannot confirm that such a discussion took place.

(26) Answer to Question 9(d) at p. 18:

"CNS observations were started because it was felt that Claire's level of consciousness and neurological status was abnormal."

(a) State every respect in which *"it was felt that Claire's level of consciousness was... abnormal"*

I believe that Claire's eye movement, speech response and movements led to the impression that Claire's level of consciousness was abnormal. This was having taken a history from Claire's parents.

(b) State every respect in which *"it was felt that Claire's ... neurological status was abnormal."*

I believe that the medical notes suggest that Claire had shown signs of an upper motor neurone problem bilaterally. This appears to have been recorded as bilateral long tract signs. The pupillary response to light is also recorded as sluggish. [090-022]

(27) Answer to Question 9(h) at p. 19:

"I do not recall if consideration was given to directing 1-1 nursing care for Claire. This would usually be under consultant direction."

(a) State whether you sought any direction from any consultant, including Dr. Steen and Dr. Webb, as to whether there should be 1-1 nursing care for Claire. If so, state from whom you sought that direction and when and where you did so, If not, explain why not.

I do not recall whether I sought a direction from a consultant as to whether there should be one-to-one nursing care for Claire.

(28) Answer to Question 9(i) at p. 19:

"I do not recall if consideration was given to admitting Claire to Paediatric Intensive Care on 22nd October 1996. This would have been a consultant decision."

(a) State whether you sought any direction on or discussed with any consultant whether Claire ought to be admitted to PICU / HDU on 22nd October 1996. If so, state from whom you sought that direction/with whom you had that discussion, and when and where you did so. If not, explain why not.

I do not recall whether I sought direction on or discussed with a consultant whether Claire ought to be admitted to paediatric intensive care on 22nd October 1996.

(29) Answer to Question 10(g) at p. 20:

"...I am unable to recall whether I made other contact with Dr Steen regarding Claire, or whether other members of the clinical team contacted her."

(a) Identify any other record or note relating to any further contact between Dr Steen and:

(i) you

I am unable to identify any other record or note relating to further contact between Dr Steen and myself.

(ii) any *"other members of the clinical team"*,

I am unable to identify any other record or note relating to contact between Dr Steen and other members of the clinical team.

and furnish a copy of that note or record.

(b) Identify by name and job title the *"other members of the clinical team"*, if any, who would likely have *"made other contact with Dr Steen regarding Claire"* on 22nd October 1996.

If initiated by medical staff within the hospital, Dr. Webb would have been the most likely to have made contact with Dr Steen, regarding Claire. However, if Dr Steen had phoned the hospital, she may have spoken to any members of medical or nursing staff.

(30) Answer to Question 10(l) at p. 21:

"I believe that I felt that Dr Steen was responsible for Claire's care, until the time I asked for Dr Webb's advice. Thereafter I would have felt that Claire was under joint management with increasing responsibility being passed to the neurology team, given the nature of Claire's condition. However I believe I would have expected Dr Steen to retain an interest in Claire's condition throughout the time she was in hospital. This approach of shared-care would, I believe have been appropriate to this situation with one team either formally or informally taking over eventual care. "Out of hours" care may have also been provided by other consultant paediatricians/neurologist, depending upon consultant rotas."

(a) Explain what you mean by *"This approach of shared-care"*.

By this I mean that more than one consultant, and by extension consultant team, takes responsibility for a patient's management.

(b) State the basis for your belief that:

(i) *"Claire was under joint management with increasing responsibility being passed to the neurology team".*

Although Claire was admitted under Dr Steen, it seemed her main problem was neurological. I believe that Dr. Webb also felt this to be the case. His regular attendance of Claire during 22nd of October 1996 and his hand written notes would have suggested a major ongoing involvement of the neurology team in Claire's care.

(ii) *"This approach of shared-care would... have been appropriate to this situation with one team either formally or informally taking over eventual care."*

It seemed the case that Claire's problems were largely neurological. Therefore I believe it would have seemed appropriate that Claire's care would increasingly be directed and carried out by the neurology team.

and state whether you recorded the change in any document or medical notes.

I do not recall recording details of this in the medical notes or other document.

(c) Explain what you mean by *"the nature of Claire's condition"* and why *"the nature of Claire's condition"* would have resulted in *"... increasing responsibility being passed to the neurology team"*

See answer to b (ii) above.

(d) Explain what you mean by *"I would have expected Dr Steen to retain an interest in Claire's condition throughout the time she was in hospital"* and in particular how retaining an interest in Claire's condition would manifest.

I would have expected Dr Webb and Dr Steen to discuss Claire's case together. I would have expected both consultants to offer advice on Claire's management. Dr Steen's ongoing interest may have been manifest by visiting Claire, talking to her parents and discussing matters further with Dr Webb.

(e) Explain the procedure by which one team takes over eventual care of a child from a paediatric team, both formally and informally.

I do not recall a specific procedure by which one team took over eventual care of the child from a paediatric team. However I believe that this was often an informal and sometimes gradual process. Actual transfer of care may or may not have been recorded in the medical or nursing notes. Transfer of care may or may not have involved physical moving of the patient to another ward. The latter would likely depend on bed availability.

(31) Answer to Question 11(j) at p. 25:

"I recall that I believed Claire to be under joint medical and neurological care once Dr Webb was contacted and given Claire's medical problems. I believe I expected that her care would most likely be fully taken over by the neurology team given Dr Webb's further assessment and treatment plan at 17:00. However, I believe that I, and other colleagues from the medical team would have provided ongoing care and treatment for Claire as directed by Dr. Webb and any other consultant involved."

(a) Explain what you mean by *"Claire's medical problems".*

By this I mean that Claire's medical problems appeared to be of a neurological nature with probable ongoing seizure activity.

(b) State the basis for your belief and expectation that Claire's *"care would most likely be fully taken over by the neurology team ... at 17:00"*

It seemed likely that Claire's care would be taken over fully by the neurology team. By 17.00 Dr Webb had seen Claire on three occasions and prescribed treatment as well as spoken to her family. It seemed that Claire's medical problems were of a neurological nature with probable ongoing seizure activity. However in my previous answer I was not stating that Dr Webb would have completely taken over Claire's care at 5pm. My reference to this time relates to Dr Webb's further assessment and treatment plant at 5pm.

(c) State whether Dr. Webb agreed and consented to the neurology team taking over Claire's care at any time, and particularly in or about 17:00, and if so, state when and where he did so, who else was present at that time and where this is recorded.

I do not recall whether Dr Webb agreed and consented to the neurology team taking over Claire's care during her admission.

(d) Describe your role and responsibilities towards the care and management of Claire on the afternoon of 22nd October 1996, and in particular with respect to fluid management, urea and electrolyte tests, general monitoring and management of Claire's condition.

I believe that my role and responsibilities in relation to Clare on that afternoon would have been to continue to work within the medical and nursing team, under consultant instruction and supervision, whether that be by Dr Steen or Dr Webb. This may have involved practical procedures, investigations or other action requested by consultant staff.

(32) Answer to Question 12 (k) at p. 26:

"I do not recall being aware of CNS observations at the time I gave an intravenous dose of sodium Valproate. I do not know if CNS observations were discussed with me at that stage."

(a) State whether you checked, or if you cannot recall, whether you likely checked Claire's CNS observations and her CNS observation chart at around 17:00 before coming off duty on 22nd October 1996.

I do not recall whether I checked Claire's CNS observations and CNS observation chart at around 5pm. I may have checked these observations or had them relayed to me by nursing staff.

(b) If you had read and checked Claire's CNS observations and her CNS observation chart at around 17:00 before coming off duty on 22nd October 1996 state what you would have done.

Give that I was aware that Dr Webb had just reviewed Claire and her observations, my action may have been limited.

(33) Answer to Question 12(q)(vii) at p. 28 and 29:

"I do not recall what the plan was for Claire's management from 17:15 on 22nd October 1996 and overnight. However I believe there would have been a handover from day time staff to on-call staff. This may have involved a discussion between junior medical staff from the day-time paediatric medical team and probably neurology team, together with on-call medical staff...."

(a) State whether you conducted a handover in relation to Claire before coming off duty on 22nd October 1996. If so, identify by name and job title to whom you handed over, what information you conveyed during the handover and when you carried out this handover. If not, identify by name and job title who did hand over Claire's care *"from day time staff to on-call staff."*

I do not recall the nature of the handover on this occasion. However it would have been my usual practice, and that of the other junior doctors to conduct a handover with on-call junior medical staff. I do not recall which staff were part of the handover on this occasion or what information was conveyed.

(b) Identify by name and job title the members of *"neurology team"* on 22nd October 1996 who may have been involved in handing over Claire's management to the on-call medical staff.

I do not recall the names of the members of the neurology team on duty, aside from Dr Webb on 22nd October 1996. However this team may have included a registrar and or a senior house officer.

(34) Answer to Question 12(q)(viii) at p. 29:

"I do not recall if a further full blood count and electrolytes was discussed at 17:15. However I believe there would have been an expectation that this had been carried out already and the result awaited."

(a) State what action you took to check that a urea and electrolytes test had been performed on 22nd October 1996 and the results thereof before you came off duty after 17:15. If you took no such action, explain why.

I do not recall what action I took to check this.

(35) Answer to Question 12 (q)(xi) at p. 29:

"By 17:15 on 22nd October 1996 I believed Dr. Webb's team to be primarily responsible for Claire's care. However I would have expected the medical team to still help with Claire's care, particularly as she was still in Allen Ward. All of Claire's direct consultant care had been given by the paediatric neurologist on duty."

(a) Explain what you mean by *"primarily responsible for Claire's care"*.

By this I mean management was predominantly being directed by Dr. Webb and it seemed that he had taken primary responsibility for Claire's care.

(b) State the basis upon which *"[b]y 17:15 on 22nd October 1996 [you] believed Dr. Webb's team to be primarily responsible for Claire's care"* and identify where this is recorded.

By this I mean that it seemed to have been established that Claire's problems were neurological. Dr Webb had been heavily involved with Claire's care on an ongoing basis. It seemed that Dr. Webb had taken primary responsibility for Claire's care. I am not aware of a written record of this.

(c) Explain in what respects you *"expected the medical team to still help with Claire's care"*

I do not recall any detail of this. However given that Claire remained in Allen Ward, ongoing involvement by the medical team may have been expected.

(36) Answer to Question 12(q)(xiv) at p. 30:

"...I may well have had brief further discussions with other family members..."

(a) Identify the *"other family members"* with whom you *"may ... have had brief further discussions"* on 22nd October 1996, and identify any notes or records of those discussions.

I do not recall any details of this. However, if present in Allen Ward, it is very likely that I would have communicated further with any of Claire's family who were present.

(37) Answer to Question 13(a) at p. 31:

"The neurology team I referred to was the neurology medical team, usually comprising a consultant neurologist, one or more registrars and one or more senior house officers..."

(a) Please clarify whether the registrars to which you refer were general paediatric registrars or specific neurology registrars attached to the neurology department or specialising in neurology.

Registrars in the neurology medical team may have been general paediatric registrars, rotating through neurology or registrars with a specific interest in training in paediatric neurology.

(b) Please clarify whether the senior house officers to which you refer were general paediatric medical senior house officers or specific neurology senior house officers attached to the neurology department or specialising in neurology.

It is likely that the senior house officer or officers attached to neurology were general paediatric senior house officers, rotating through neurology.

(c) Please clarify whether in October 1996:

(i) Dr. Webb had 24 hour neurology team cover, or only daytime neurology team cover.

I do not recall the extent of neurology cover at that time.

(ii) the paediatric medical team provided ward based cover of neurology out of hours

I believe that the on-call registrar would have covered for general medicine and the paediatric specialties. It may be that the paediatric on-call senior house officer was also supported by a "specialties" senior house officer. Consultant staff would have been available on call.

(iii) Dr Sands, Dr. Stevenson, Dr. Stewart, Dr. Hughes and Dr Bartholome may have carried out medical and neurology roles, irrespective of the lead consultant (medical and neurology).

During on-call periods Dr Bartholome and I are likely to have had a role in general paediatric and specialty cover, including neurology. I believe that Dr Stevenson and Dr Stewart worked primarily as general paediatric senior house officers at this stage. They may well have cooperated with and assisted with management of specialty patients, including neurology. I do not recall Dr. Hughes' role at that time.

(d) Explain the structure of the medical and neurology teams in RBHSC in October 1996 and how they relate to each other.

During the usual working day general medical and neurology teams would have typical inpatient and outpatient duties under the supervision of a consultant or consultants. There would certainly have been cooperation between these medical teams.

General, medical junior paediatric staff would have taken instruction from any attending specialist. At this stage I cannot be certain of the exact on-call arrangement. However I believe it to be approximately as described above (iii).

(38) Answer to Question 13 (b) at p. 31:

"Sometimes one consultant would have verbally asked another to take over care. This would, in some cases be written in the notes. ..."

(a) Describe the circumstances in which it would have been appropriate and acceptable in October 1996 for a:

(i) consultant paediatrician in RBHSC to *"have verbally asked another to take over care"*.

I believe this may have occurred, particularly if a patient's problem fell mainly within the specialist area of another consultant.

(ii) take over of care such as this not to have been *"written in the notes."*

I do not recall exactly how frequent an occurrence this was at the time. However, I believe it was not uncommon to have no specific statement in the medical notes of a transfer of care.

(39) Answer to Question 13(c) at p. 31:

"I believe that Dr Steen was the consultant responsible for Claire's care on admission and until Dr Webb was contacted. I believe that Claire was then under joint care between the neurology and paediatric medical team.... I also believed that the neurology team were the main specialty managing Claire at around 5pm on 22nd October 1996, accepting that Claire was still being cared for in Allen ward and was likely to have some of her care delivered by on-call general medical staff."

(a) Explain what you mean by *"on-call general medical staff"*.

By this I mean the general paediatric senior house officer on call, with the support of the registrar on call. The latter doctor may also have been providing cover for paediatric specialties.

(b) Explain the basis of your opinion that Dr Steen was the sole consultant responsible for Claire's care *"until Dr Webb was contacted...."*

I believe this to have been the case as Claire was admitted under Dr Steen and I am not aware of another consultant's involvement, prior to Dr Webb having been contacted.

(c) State the time when *"Dr Webb was contacted"* on 22nd October 1996.

I do not know the exact time when Dr Webb was contacted. However I believe it was shortly after Claire was seen on the Alan Ward round. It may therefore have been around midday.

(d) Explain the basis of your belief *"that the neurology team were the main specialty managing Claire at around 5pm on 22nd October 1996...."*

By this time it seemed to have been established that Claire's problems were mainly neurological. Dr Webb had been involved with Claire's care on an ongoing basis and as far as I am aware she had not been seen by another consultant. It seemed that Dr. Webb had taken primary responsibility for Claire's care.

(e) Describe all aspects of Claire's care on Allen ward on 22nd October 1996 which were likely to have been *"delivered by on-call general medical staff"* and state the reasons why. In particular state whether fluid management and testing, monitoring and management of electrolytes would have been included in the care to have been *"delivered by on-call general medical staff"*.

From the medical notes it appears that Dr Stewart was the on-call general medical senior house officer. It seems likely that he would have known of Claire's case, having been present during the daytime hours and likely part of a "hand-over" discussion. Claire also remained in Allen ward. These may well have facilitated involvement with ongoing tasks such as repeating and checking blood investigations. I believe, at that time that the general paediatric registrar would also have been on call for the paediatric specialties.

(40) Answer to Question 13(e) at p. 32:

"A formal agreement might simply be a verbal agreement between consultants or given by a consultant to other staff. This would sometimes have been recorded in the notes. Sometimes transfer of care would be less formal and dictated by the patient's main condition."

(a) State whether in Claire's case there was *"a verbal agreement between consultants"* relating to any transfer of care and/or which consultant would have ongoing primary and lead care of Claire.

I do not know whether there was a verbal agreement regarding transfer of care between consultants in Claire's case.

(b) Describe the circumstances in RBHSC in October 1996 when it was accepted and proper practice for the *"transfer of care to be less formal and dictated by the patient's main condition,"* and identify the person who assesses and determines this.

I do not recall what the specific circumstances in the RBHSC at that time would have been for this type of transfer of care. I am unable to identify the person who would have assessed and determined this.

(41) Answer to Question 13(i)(ii) at p. 33:

"I believe that sometimes this would have been made explicit to the family and medical and nursing staff. This may have been done by medical staff. However at such times communication may have been

deferred or needed clarification. This might be particularly the case if a patient's condition was gradually becoming more defined."

(a) State whether any transfer of care from the paediatric medical team to the neurology team in relation to Claire was made explicit to the Roberts' family, and if so, state when this first occurred and where it was first recorded.

I do not recall whether any transfer of care from the paediatric medical team to the neurology team in relation to Claire was made explicit to the Roberts' family.

(b) Explain whether in October 1996 Claire's *"condition was gradually becoming more defined."*

From the time of admission it seemed that Claire's condition was becoming more defined as a mainly neurological problem.

(42) Answer to Question 14(b) at p. 33:

"I do not recall at what time I left RBHSC"

(a) State at what time you would usually have left RBHSC on a Tuesday evening.

Given that I was not on call, I would assume this was likely to have been between 5 and 6pm.

(43) Answer to Question 14 (j) at p. 34:

"... I do not know who the on-call consultant paediatrician and paediatric neurologist was on the evening/night of 22.10.96. These consultants may still have been Dr. Webb and Dr. Steen..."

(a) Explain the basis for your statement that *"[t]hese consultants may still have been Dr. Webb and Dr. Steen..."*

Given that Dr Webb and Dr Steen both attended Claire when she became critically unwell, they may have both been on call that night.

(44) Answer to Question 14(k) at p. 34:

"I believe I was given a factual account of what had happened to Claire by Dr. Bartholome..."

(a) Describe the *"factual account of what had happened to Claire"*which you were *"by Dr. Bartholome..."*on 23.10.96 or shortly thereafter.

I believe that Dr Bartholome described Claire's respiratory arrest on Allen Ward and transfer to the paediatric intensive care unit. I do not recall any detail beyond this.

(45) Answer to Question 16(b)(i) at p.36:

"... It would have been necessary to arrange an ambulance also for this transfer and this could also lead to delays".

(a) State how long it would likely have taken on 22nd October 1996 to have arranged an ambulance to transfer Claire between RBHSC and "A Block (Royal Victoria Hospital) or main X-ray (RVH)"

I do not know exactly how long this is likely to have taken. However in the absence of major delays, I would estimate approximately 2 to 4 hours.

(46) Answer to Question 16(f) at p. 37:

"I do not recall Dr. Webb refusing to sanction a CT scan on 22.10.96. My impression was that he did not feel it was necessary as an urgent investigation at that time."

(a) Explain the basis of your impression that Dr Webb did *"not feel [a CT Scan] was necessary as an urgent investigation at that time."*

This is my recollection of events from the time. From the medical notes it seems Dr Webb had suggested a CT scan the following day if Claire's level of consciousness had not improved.

(47) Answer to Question 17(a)(i) at p. 37:

[On the ward round in the morning of 22nd October 1996]

"Although not specified in the ward round notes, further electrolytes are likely to have been requested. This would often have been documented by a SHO on a separate piece of paper or book as "work to do"."

(a) If *"further electrolytes...[had] been requested"* on the ward round and *"documented by a SHO on a separate piece of paper or book as "work to do""*, explain the reasons for a blood sample to test urea and electrolytes not being taken until approximately 21.30 on 22nd October 1996.

I do not know why a sample for urea/electrolytes was not taken until approximately 9:30pm on 22nd October 1996. However it seems that at this time a phenytoin level was also checked. The timing of this sample would have been in relation to when the loading dose of phenytoin was given. The two samples may therefore have been combined at this time.

(48) Answer to Question 17(a)(ii) at p. 37:

"Although not specified in the notes, further electrolytes and or a full blood count may have been requested later on 22.10.96."

(a) State the basis for your statement that *"further electrolytes and or a full blood count may have been requested later on 22.10.96."*

Such a request may have been made, particularly if it was evident that this had been overlooked, not carried out or the sample lost in the earlier part of the day.

(49) Answer to Question 23(a) at p.42:

"...I think it likely that these results were mentioned as part of the presentation of Claire's case on the ward round. I think it unlikely that I would have known the exact timing of that blood sample."

(a) State the basis for your belief *"that these results were mentioned as part of the presentation of Claire's case on the ward round."*

I do not recall if these results were specifically mentioned as part of the presentation. However given that they have been recorded by Dr Stevenson, I think it is likely they would have been mentioned during the ward round.

(b) Identify by name and job title the clinician/s who conducted *"the presentation of Claire's case on the ward round"*.

I do not recall who presented Claire's case on the ward round. However it may have been Dr Stevenson, who also made the ward round notes.

(50) Question 23(b) at p. 42:

"...I believe that, at that time, the electrolyte result is one that would have prompted a request for a repeat electrolyte sample, but probably not as a matter of urgency. At the time, I think it unlikely that these results would have prompted a higher level of monitoring, or action."

(a) Explain why the *"request for a repeat electrolyte sample"* was *"probably not... a matter of urgency"*.

I believe this to have been the case because the initial electrolyte result was not markedly deranged.

(b) If a request for a repeat electrolyte sample was made, state whether you would have expected someone to check whether a sample was taken, whether the electrolyte blood results from that sample were available and to have recorded those results in Claire's medical records. If so, identify the person responsible for each of those tasks and explain why.

If repeat electrolytes were requested someone would usually have checked for the result when the routine reports returned at around 6pm. If the sample was requested urgently someone would perhaps have been expected to check that the sample had been taken. This is less likely if a routine sample was requested. Unless an urgent sample was sent, the result may not be recorded in the patient's notes other than in the official laboratory printout.

Although the carrying out of such blood tests, checking of results and recording in the patient's chart was often carried out by a paediatric senior house officer, I believe these tasks to be the responsibility of any member of medical staff caring for a patient. Nursing staff would also, on occasion contribute to these tasks.

(51) Answer to Question 24(b) at p. 43:

"...Status epilepticus may be associated with cerebral oedema".

(a) Explain how and why *"[s]tatus epilepticus may be associated with cerebral oedema"*

I believe that status epilepticus may cause cerebral oedema. It may also be that cerebral oedema can cause status epilepticus.

(52) Answer to Question 24(d) at p. 43:

"Hyponatraemia was present in Claire's case. This biochemical finding seems likely due to high levels of ADH."

(a) State the role of and contribution of the administration of fluids in causing Claire's hyponatraemia.

I believe it is difficult to define the role and contribution of the administration of fluids in causing Claire's hyponatraemia. Claire's initial blood investigations suggested a mildly reduced sodium level. Presumably this was before any intravenous fluid was given. This was, and remains a common finding in paediatric patients. Levels may also be spuriously low, due to sampling technique. From the note made in accident and emergency and Dr. O'Hare's admission note it seems that Claire had evidence of a significant neurological illness at an early stage.

However, I believe that improved awareness in relation to hyponatraemia and hypotonic intravenous fluid, would today result in different fluid management of Claire throughout her admission.

(53) Provide any further points and comments that you wish to make, together with any documents

Although it may be difficult to define the contribution of the administration of hypotonic fluid to Claire's condition and tragic outcome, it is my belief that enhanced staff awareness and education in relation to hyponatraemia has been very important. I also hope that improved access to CT scanning and paediatric intensive care may help children, such as Claire who present to RBHSC today.

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

Signed: Dated: 18.6.12