Witness Statement Ref. No. 138/2

NAME OF CHILD: Claire Roberts

Name: David Webb

Title: Dr

Present position and institution:

Consultant Paediatric Neurologist, Our Lady's Hospital, Dublin, Ireland

National Children's Hospital, Tallaght, Dublin, Ireland

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

Consultant Paediatric Neurologist, Royal Belfast Hospital for Sick Children.

Membership of Advisory Panels and Committees:
[Identify by date and title all of those since your Witness Statement of March 2012]

Previous Statements, Depositions and Reports:
[Identify by date and title all those since your Witness Statement of March 2012]

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

Ref:	**Date:**	
091-008-035	25.04.06	Deposition to the Coroner
WS 138/1	14.03.12	Witness Statement to the Inquiry

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 14th March 2012, please provide clarification and/or further information in respect of the following:

(1) **Answer to Question 2(b) at p.5:**

"I believe Dr Sands contacted me in person at lunch time on 22nd October 1996. This may have been after a hospital clinical meeting that we had both attended."

(a) **In relation to the "*hospital clinical meeting*" to which you refer, please state:**

(i) The time on 22nd October 1996 it took place

(ii) Where it took place

(iii) Who attended, other than you and Dr Sands

(iv) Whether Dr Heather Steen attended

(v) The subject matter of this "*hospital clinical meeting*"

I have a recollection that there was an educational clinical meeting that day. This may have been a lunch time meeting and would have taken place in a lecture room at RBHSC. It would have been attended by members of the Non Consultant and Consultant Medical staff but I cannot recall exactly who attended and cannot recall the subject matter.

(b) **Please explain why you believe that Dr Sands contacting you regarding Claire Roberts occurred after this "*hospital clinical meeting*".**

I am fairly sure Dr Sands approached me in the corridor of the hospital as I was leaving this meeting.

(2) **Answer to Question 2(t) at p.9:**

"If Claire had been taken over by the Paediatric Neurology team we would probably have moved Claire to the Paediatric Neurology Ward".

(a) **Please identify the location of the "*Paediatric Neurology Ward*" in October 1996 on the attached map of RBHSC (Ref: 300-005-005).**

The Paediatric Neurology Ward was located in St Paul's Ward on the Ground Floor of the Hospital.

(b) **Please explain the function and role of the "*Paediatric Neurology Ward*", including:**

(i) The qualifications and experience of the clinicians and nursing staff who would have worked there

The staff included two Consultant Paediatric Neurologists, a Registrar in Paediatric Neurology and a Senior House Officer in Paediatric Neurology. There was a Liaison Nurse in Paediatric Neurology and a cohort of nursing staff who would be familiar with children with neurological problems. I cannot recall the exact qualifications or experience of any of the staff.

(ii) The facilities available on the "*Paediatric Neurology Ward*" that would not have been available on the general paediatric ward

There were no specific facilities available on the Neurology Ward.

(c) **Please explain the criteria in October 1996 for admission to the "*Paediatric Neurology Ward*" and in particular:**

(i) Identify any guidelines, protocols and/or practice that governed admission to the "*Paediatric Neurology Ward*" in October 1996

There were no specific guidelines or protocols governing admission of patients to the Paediatric Neurology Ward except that the child had to be under the care of one of the two Consultant Paediatric Neurologists.

(ii) Explain why Claire Roberts was not admitted to the "*Paediatric Neurology Ward*" in October 1996.

I would not have admitted a child to the Neurology Ward if that child was under the care of another Consultant in the Hospital and I received no request to take over Claire's care.

(3) **Answer to Question 4(b) at p.11:**

"I may also have spoken to Dr Sands by phone prior to her starting on Midazolam at 3.25pm on 22nd October 1996 but I cannot recall for certain."

(a) **Explain why you believe you "*may also have spoken to Dr Sands by phone prior to her starting on Midazolam at 3.25pm on 22nd October 1996*".**

I have a recollection of speaking to Dr Sands about Claire by phone but I may be mistaken.

(4) **Answer to Question 4(h) at p.13:**

"The usual practice was that communication between Consultants was made through the respective Registrars on the two teams and formal communication was recorded in the written medical notes."

(a) **Identify any documents / guidelines / protocols that recorded this "usual practice" in October 1996 that "*communication between Consultants was made through the respective Registrars on the two teams and formal communication was recorded in the written medical notes.*"**

I don't believe there were any documents, guidelines or protocols that record this practice.

(5) **Answer to Question 4(l) at p.13:**

"To my knowledge, no other member of the Paediatric Neurology team examined Claire during her admission to RBHSC"

(a) **Please explain why you were the first clinician on "*the Paediatric Neurology team*" to see Claire.**

I was the first clinician on the Paediatric Neurology team to see Claire because Dr Sands did not contact the SHO or Registrar on the Neurology team but approached me directly.

(b) **Please explain why "*no other member of the Paediatric Neurology team examined Claire during her admission to RBHSC*".**

See 5(a)

(c) **State if any "*other member of the Paediatric Neurology team*" had any contact with you regarding Claire "*during her admission to RBHSC*". If so, please explain when this occurred, describe what happened / what was discussed, and describe what was done as a result.**

I don't believe any other member of the Paediatric Neurology team had contact with me regarding Claire.

(d) **Explain the overnight 'on-call' arrangements of "*the Paediatric Neurology team*" in October 1996, and in particular:**

(i) whether there would be a Paediatric Neurology SHO or Registrar on duty or on-call overnight in addition to an on-call Consultant Paediatric Neurologist.

The Paediatric Neurology SHO and Registrar participated in the General Paediatric on-call rota. They did not do Paediatric Neurology on call.

(ii) whether the paediatric registrar and SHO would cover for them during this time.

The Paediatric Registrar and SHO on call covered for all the Paediatric Teams on call.

(6) **Answer to Question 12(c) at p.19:**

"The basis of my clinical note ["appears to have improved following rectal diazepam 5mg at 12.30" Ref: 090-053-165] that Claire improved following rectal diazepam was from reports from those caring for her."

(a) **The prescription chart (Ref: 090-026-075) states that rectal diazepam was administered at 12.15 on 22nd October 1996 by Staff Nurse Kate Linsky. Please explain the source of the timing in your medical note (Ref: 090-053-165) which states "*rectal diazepam 5mg at 12.30*" (emphasis added).**

I would have recorded the time I was told in response to an inquiry as to when diazepam was administered. I do not know who informed me.

(b) **Please explain the effect of rectal diazepam on neurological assessment, including observations on the Glasgow Coma Scale, and in particular, whether you considered this in relation to Claire's neurological assessment.**

The response to benzodiazepines in children is quite variable but in general they would have a sedating effect. The observation that Claire's level of responsiveness appeared to improve following rectal diazepam would have been an indication to me that Claire had responded to anti convulsant medication. I believe this observation was an important factor in supporting a diagnosis of non convulsant status in Claire.

(7) **Answer to Question 15(b) at p.22:**

"I believed that the serum sodium of 132 mmol had been taken on the morning of the day that I attended to Claire."

(a) **State when you first became aware that your belief "*that the serum sodium of 132 mmol had been taken on the morning of the day that I attended to Claire*" was erroneous.**

I believe I became aware of this when I was preparing a report for the Coroner's Inquest. Dr Sand's note of the morning of 22/10/1996 includes reference to a serum Sodium of 132mmol/L.

(8) **Answer to Question 16(a) at p.23:**

"We had an EEG service for children at RBHSC but this was based on 1.5 EEG technician staff who provided an outpatient based service only. I believe this was the only EEG service for children in Northern Ireland. We did not have access to an emergency EEG service. It would not be routine to request an urgent EEG in a child with known epilepsy who has had a recurrence of seizures with an intercurrent infection."

(a) **Please explain what you mean by:**

(i) ***"1.5 EEG technician staff"***

We had one full time and one part-time EEG technicians. I believe the part-time technician was on maternity leave at the time of Claire's admission.

(ii) ***"provided an outpatient based service only"***

The EEG technician received requests for EEG from Consultant Paediatricians throughout Northern Ireland and children attended the hospital on an outpatient basis for this test. There were occasional infants with epilepsy who would have undergone "urgent EEG" while inpatients under the Neurology team and these would have been arranged during the child's admission following discussion between the Consultant Paediatric Neurologist and the EEG technician to be done during the week of admission – usually within one to two days.

(iii) ***"emergency"*** **EEG service**

Emergency implies a *same day* service. It was not feasible on the basis of the EEG technician staff available to provide EEGs on an "emergency basis". I would not have gone to our technician on an afternoon and expected her to provide an EEG that afternoon. This service was never discussed and was not available. I might have discussed undertaking an EEG the following day but this would have depended on the technician's workload for that day.

(iv) ***"urgent"*** **EEG.**

See 8(a) ii

(b) **State if the *"1.5 EEG technician staff"* were dedicated to RBHSC or were part of a service for the entire Royal Hospital site.**

No - the EEG staff were Paediatric EEG technicians only.

(c) **Please explain how far in advance, in October 1996, you would have had to inform the EEG service to request an EEG of a paediatric patient on Allen Ward.**

See 8(a) iii

(d) **Please see the attached letter from DLS to the Inquiry Solicitor dated 24th November 2010 (Ref: 302-005-001). It states "*EEG recording facilities were available in RBHSC in 1996. This service was provided Mon- Fri 9 am – 5 pm. The technicians also provided an ad hoc out of hours service at the request of the Consultant Neurologists, however this was an informal arrangement.*"**

(i) Please explain the "*ad hoc out of hours service*" in regard to EEGs that the technicians at RBHSC provided in October 1996.

My understanding was that we did not have an out of hours EEG service during my time at RBHSC ad hoc or otherwise.

(ii) Please explain the involvement of the Consultant Neurologists in this "*informal arrangement*".

See 8(d) i

(iii) With reference to this letter, please explain your comment that you "*did not have access to an emergency EEG service*" and "*Paediatric EEG was not available on an urgent basis at the time*" (Answer to Question 48(b) at p.67).

See 8(a) iii

(9) **Answer to Question 16(e) at p.23:**

"Intravenous phenytoin was the first choice drug for all prolonged seizures in childhood who had failed to respond to diazepam."

(a) **Please explain how Claire had "*failed to respond to diazepam*".**

My assessment of Claire was that she was still experiencing non convulsive seizure activity when I saw her. While she had reportedly had some response to diazeapam this was incomplete and I felt that she needed further anti – epileptic medication.

(b) **Please explain how you intended the "*starting iv Phenytoin 18mg/kg stat*" (Ref: 090-053-165) to be given, including the solution in which it would have been dissolved, and the rate and duration of the infusion of the loading dose.**

I would expect the Doctor involved to have checked the administration details for Phenytoin in the BNF (British National Formulary) from 1996. The dose reported then was 15mg/kg but we had been using a dose of 18mg/kg in Vancouver and the dose has since been further increased to 20mg/kg/day,

(c) **Please explain the effect of "*intravenous phenytoin*" on neurological assessment, including observations on the Glasgow Coma Scale, and in particular, whether you considered this in relation to Claire's neurological assessment.**

The effect of medication on children varies but for most children Phenytoin would have no or minimal sedating effect.

(10) **Answer to Question 16(h) at p.24:**

"I would not expect an additional dose of 8mg/kg to have any ill effects on Claire. Her subsequent phenytoin level was just above the recommended treatment range."

(a) **Please state what you considered to be the "*recommended treatment range*" for phenytoin in a patient of Claire's age and weight.**

The treatment range varies between laboratories but the figure stated in Claire's chart was 23.4 mg/L with a treatment range of (10-20 mg/L).

(11) **Answer to Question 19(c) at p.28:**

"Drug calculations are usually checked with two people at the time of the drug administration."

(a) **Please identify the "*two people*" whom "*drug calculations are usually checked with*" "*at the time of the drug administration*".**

This would usually be the member of nursing staff responsible for administering the medication and either another nurse or a doctor.

(12) **Answer to Question 19(h) at p.29:**

"I was not aware of the mistake in calculation [of] the loading dose [of Phenytoin] or that Claire had received the wrong dose. I became aware of this during this exercise."

(a) **State whether you would have expected the loading dose of Phenytoin during the afternoon of 22nd October 1996 to have been marked on the IV prescription chart (Ref: 090-038-135 add 136) and explain the significance or otherwise of the fact that it was not noted.**

The intravenous prescription chart would usually contain details of drugs added to the intravenous fluids. I don't think there is any significance to the fact that it was not recorded as the Phenytoin dose is recorded in the prescription sheet and the fluid given is documented in the Fluid balance sheet.

(b) **If you had known of the miscalculation of IV Phenytoin (632/635mg instead of 432mg) in October 1996, describe what you would have done or said.**

If I had known in advance I would have corrected the dose. Otherwise I think I would have felt that this miscalculation would not have caused Claire any significant problems. I think I would have explained this to her mother and arranged for measurement of Claire's Phenytoin level.

(c) **Please explain how you were not aware of this miscalculation of Phenytoin when you wrote your statement for the purposes of the Coroner's deposition in April 2006 (Ref: 091-008-035).**

I was not aware of it because I did not notice it during my review of Claire's records.

(13) **Answer to Question 22(b) at p.32:**

"The loading dose [of Midazolam] should have been given at 0.15mg/kg stat and I do not know how a dose of 0.5mg/kg was charted."

(a) **State when you were first aware of this miscalculation of 12mg of IV stat Midazolam rather than 3.6mg, how you became aware of this and what action you took in relation to this.**

I was not aware of this miscalculation and became aware of it during my review for the Inquiry.

(b) **If you had known of this miscalculation of IV Midazolam in October 1996, describe what you would have done or said.**

I would have been concerned by this miscalculation and would have spoken to the doctor involved. I believe I would have stopped Claire's Midazolam infusion for an hour and I would have informed her parents and arranged for her to be monitored for ill effects.

(c) **Please explain how you were not aware of this miscalculation of Midazolam when you wrote your statement for the purposes of the Coroner's deposition in April 2006 (Ref: 091-008-035).**

I was not aware of it because I did not notice it during my review of Claire's records.

(14) **Answer to Question 22(e)(vi) at p.33:**

"I think it is most unlikely that Claire received the loading dose of Midazolam as charted. It is very unlikely that this quantity of Midazolam (120mg) would be routinely available on the ward."

(a) **State which of the following you believe to have been the most likely course of events:**

(i) Claire received a 120mg loading dose of Midazolam

(ii) Claire received a 12mg loading dose of Midazolam

(iii) Claire did not receive a loading dose of Midazolam prior to the later administration by IV infusion at circa 21.30 on 23rd October 1996.

Please explain the reasons for your answer.

I don't know whether Claire received a loading dose of Midazolam because the notes are conflicting. On the basis that the loading dose was not signed for I think it is most likely that Claire did not receive the loading dose.

(b) **If you believe that Claire did not receive any loading dose of Midazolam, please explain how this was allowed to happen and why you noted "*Claire had had a loading dose of Phenytoin and a bolus of Midazolam*" in your clinical notes (Ref: 090-022-055)**

My clinical note would have reflected my conversation with the Junior Medical staff and or nursing staff on the ward at the time. I did not review the prescription chart.

(c) **Please explain the effect of Midazolam on neurological assessment, including observations on the Glasgow Coma Scale, and in particular, whether you considered this in relation to Claire's neurological assessment.**

Midazolam does cause sedation and may have ontributed to Claire's fall in GCS between 4pm and 5pm.

(d) **Please explain why you recommended the administration of Midazolam in Claire's case. Please reference a paediatric text in your answer, including the edition and page number.**

I recommended Midazolam because Claire had had a positive response to Diazeapm (a drug from the same family). Because it is short acting Midazolam had to be given as a continuous infusion. I had been using intravenous Midazolam during my Paediatric Neurology Fellowship in Vancouver with good results and Midazolam has since become the mainstay of first line treatment for epileptic seizures in children – although it is now given by the intra-nasal or intra-buccal route. It was being used intravenously at the time but has since been superseded by intravenous Lorazepam which is given as a bolus and does not require an infusion. I do not have a textbook reference for intravenous Midazolam dating to 1996 but there is a publication in the Archives of Disease in Childhood from 1997 documenting its use in children on a paediatric ward with status epilepticus – Koul RL et al. Arch Dis Child 1997;76:445-448.

(15) **Answer to Question 22(f)(ii) at p.33:**

"I have only become aware of this [120mg rather than 12mg of Midazolam being noted] during this exercise."

(a) **Please explain how you were not aware of this mistake regarding the dosage of Midazolam when you wrote your statement for the purposes of the Coroner's deposition in April 2006 (Ref: 091-008-035).**

I was not aware of it because I did not notice it during my review of Claire's records.

(b) **If you had known of this miscalculation of IV midazolam, describe what you would have done or said.**

I would have been very concerned by this observation particularly if I had also been aware of the mistake in Phenytoin prescription. I would have spoken with the Doctor involved and informed Dr Steen. I would also have explained the situation to Claire's parents. Claire would undoubtedly have needed admission to PICU and ventilation.

(16) **Answer to Question 23(d) at p.38:**

"I believed Claire's poor response was due to a combination of non convulsant seizures and possible viral meningitis based on her presenting history and observations of intermittent overt seizure activity reported in the nursing notes. Medication may also have affected Claire's responsiveness."

(a) **Explain how, and to what degree, you believe that *"[m]edication may also have affected Claire's responsiveness*." In particular, explain which medication in particular may have had an effect, and the degree to which you considered the effect of her medication during your assessment of her on 22nd October 1996.**

I think it is possible that the Phenytoin and Midazolam in particular may have had some impact on the drop in GCS from 7 – 6 between 4pm and 5pm.

(17) **Answer to Question 23(e) at p.38:**

"Claire's overall condition was very similar at 5pm from her condition at 2pm. Her vital signs (blood pressure, heart rate, respiratory rate and temperature) were not significantly changes. Her pupil responses were unchanged and my assessment of her GCS had reduced from 8 to 7. She had received intravenous midazolam during this period which could certainly have accounted for this change."

(a) **Please state to which administration of "*intravenous midazolam*" you refer in the above statement, including the dosage and the time of administration**.

My understanding at the time was that Claire had received a bolus of Midazolam at around 3.25pm. From 4pm she was on Midazolam infusion at 2microgram/kg/minute.

(18) **Answers to Question 24(b) & (c) at p.41:**

"Acyclovir is an anti-viral therapy that works on the herpes family of viruses. Herpes simplex encephalitis is an important cause of meningoencephalitis with seizures. [...] I believe Acyclovir was administered at 9.30pm."

"I recommended that Claire receive Cefotaxime and Acyclovir at 5pm."

(a) **Explain what you believe were the possible consequences, if any, of the delay in Claire receiving "*at 9.30pm*" the Acyclovir that you "*recommended*" "*at 5pm*".**

This would result in a delay in anti-viral therapy for Claire and if she had herpes virus infection this would have meant the infection continued untreated for the period 5pm to 9.30pm. Whether or not this would have had any adverse consequences for Claire is debatable.

(19) **Answer to Question 30(c)(i) at p.47:**

"I believed that hyponatraemia was the cause of Claire's cerebral oedema and that her cerebral oedema had caused brain herniation resulting in her brain stem compression and death."

(a) **State when you formed your belief that:**

(i) **"*hyponatraemia was the cause of Claire's cerebral oedema*" and**

(ii) **"*her cerebral oedema had caused brain herniation resulting in her brain stem compression and death.*"**

I believe I formed this belief when I saw Claire in the Intensive Care Unit at 4.40 am on October 23rd 1996.

(20) **Answer to Question 34(d) at p.52:**

"I don't believe I had any input into the decision to organise a limited post mortem and I don't know whether a full post mortem would have been helpful."

(a) **State whether you believe you should have had "*input into the decision to organise a limited post mortem*" and explain the reasons for your answer.**

Dr Steen dealt with the post mortem arrangements and I don't believe we discussed it. Dr Steen was competent to make this decision and it did not therefore require my input.

(21) **Answer to Question 34(e) at p.52:**

"I don't believe I had any discussion with Claire's parents on the nature of the post mortem."

(a) **State whether you believe you should have been involved in "*any discussion with Claire's parents on the nature of the post mortem*" and explain the reasons for your answer.**

See 20 (a)

(22) **Answer to Question 34(e) at p.52:**

"I was not involved in this decision [not to refer Claire's death to the Coroner at that time] and do not know why Claire's case was not referred to the coroner."

(a) **State whether you believe you should have been involved in any decision not to refer Claire's death to the Coroner and explain the reasons for your answer.**

Dr Steen dealt with the issue of whether the Coroner should be involved and I don't believe we discussed it.

(23) **Answer to Question 34(h) at p.53:**

"The purpose of this portion of the brain stem death analysis is to prompt consideration of any reversible metabolic or endocrine disorders that cause coma when assessing brain stem death. I did not believe that Claire's brain stem herniation was due to a reversible metabolic or endocrine disorder. It is not the function of this form to establish the cause of brain stem death but to confirm the fact of death. I had already recorded in the clinical notes my views on the cause of death."

(a) **Explain why you did not wait until Claire was no longer hyponatraemic (i.e. her serum sodium level was ≥ 135mmol/l) before:**

(i) Commencing brain stem death testing

(ii) Completing brain stem death testing

I did not feel it was necessary to wait until we had s serum sodium of > 135 mmol/ L before confirming brain stem death. Claire had had a partial correction of her hyponatremia with no change in her clinical state. One would not expect a serum sodium of129mmol/L to account for Claire's clinical picture at that time.

(24) **Answer to Question 35(e) at p.54:**

"I was not consulted on the completion of Claire's death certificate."

(a) **State whether you believe you should have been "*consulted on the completion of Claire's death certificate*" and explain the reasons for your answer.**

Dr Steen dealt with Claire's death certificate completion. My opinion on Claire's death was clearly indicated in my clinical note.

(25) **Answer to Question 37(c) at p.56:**

"I had no communication with Dr Herron prior to or after preparation of his [autopsy] report."

(a) **State if you were present at Claire's post-mortem examination, and if so, identify who else was present, and describe any discussions between you and those present.**

I was not present at Claire's post mortem.

(26) **Answer to Question 37(f) at p.57:**

"I wrote to Claire's parents but I cannot recall meeting with them after her death."

(a) **Explain why, in your letter dictated on 28th February 1997 (Ref: 090-001-001), you did not inform Mr. and Mrs. Roberts of the statements in the concluding section of the autopsy report that:**

(i) **"*a metabolic cause cannot be entirely excluded*" (Ref: 090-003-005)**

(ii) **"*No other discrete lesion has been identified to explain epileptic seizures*" (Ref: 090-003-005)**

(iii) **"*...though some viral studies were negative during life and on post mortem CSF*" (Ref: 090-003-005)**

I cannot recall dictating this letter but I believe I was trying to convey the important content of the post mortem in a way that could be understood emphasising the facts that the pathologist had identified. I believe the final two sentences covered the relevant negative observations.

(b) **Dr Heather Steen in her letter to Claire's G.P. Dr McMillin dated 6th March 1997 states that "*Doctor Webb and myself have since seen Claire's parents and discussed the post-mortem findings with them.*" (Ref: 090-002-002). Please state when you met with Mr. and Mrs. Roberts post-October 1996, including:**

(i) **Where you met**

(ii) **Who else was present**

(iii) **What was the purpose of the meeting(s)**

(iv) **What was discussed**

(v) **Please furnish copies of all records/notes and minutes of that/those meeting(s) and any other correspondence between you/RBHSC and the Roberts family following the meetings.**

If you did not meet Mr and Mrs Roberts to discuss the post-mortem report, explain why not, and explain, if you are able, why Dr Steen stated that you did.

I have no recollection of this meeting.

(27) **Answer to Question 53(j) at p.74:**

"I interpreted Claire's Glasgow Coma Scale during this period to reflect a combination of ongoing non convulsive seizure activity, post ictal effects and the possible effect of anti-convulsant therapy (Midazolam)."

(a) **Please state to which administration of "*anti-convulsant therapy (Midazolam)*" you refer in the above statement, including the dosage and the time of administration.**

See 17 (a)

(28) **Answer to Question 53(o) at p.76:**

"I cannot recall if there was a separate High Dependency Unit at RBHSC on 21st October 1996."

(a) **Please state whether the location of the HDU in October 1996 was as shown on the attached drawing of RBHSC (Ref: 300-005-005). If not, please describe the location of HDU in October 1996.**

I have no recollection of a high dependency unit separate from the Paediatric Intensive Care Unit at RBHSC. There may have been beds designated in the PICU as high dependency but I do not recall them being any different from the PICU.

(b) **Describe to what use this unit was put, what type of patients were admitted thereto at that time, and whether you considered admitting Claire to that unit at any time, and if so, why.**

See 28 (a)

(29) **Answer to Question 62(l) at p.83:**

"I think it is difficult to evaluate Claire's level of consciousness between 3pm and 5pm because she had received intra-venous midazolam. Her GCS appeared to improve for a period after 5pm until 8pm."

(a) **Please state to which administration of "*intra-venous midazolam*" you refer in the above statement, including the dosage and the time of administration.**

See 17 (a)

(b) **Explain why "*it is difficult to evaluate Claire's level of consciousness between 3pm and 5pm because she had received intra-venous midazolam*."**

Intravenous Midazolam will have had some effect on Claire's level of awareness. I suspect that she did not receive the bolus dose that I believed at the time she had and she was receiving a small amount by continuous intravenous infusion from 4pm.

QUERIES ARISING FROM THE AUTOPSY REQUEST FORM

With reference to the Autopsy Request form (Ref: 090-054-183 to 184)(attached), please answer the following queries:

(30) ***"CONSULTANT:***

Dr Webb / Dr Steen"

(a) **Explain why both you and "*Dr Steen*" are noted as the "*Consultant*".**

(b) **Explain why you are noted first.**

(c) **Describe any practice / protocols / guidelines concerning:**

(i) the noting of consultants

(ii) the noting of advising specialist consultants

on an autopsy request form.

This form was completed by Dr Steen and I am unable to answer the questions posed.

QUERIES ARISING IN RESPECT OF GOVERNANCE

(31) **Please state whether you were aware of any changes in guidance, protocols or practice in patient care, particularly with regard to fluid management, as between the death of Adam Strain in 1995 and the admission of Claire Roberts in 1996, including:**

(a) **Any changes that you made in respect of your own practice;**

(b) **To what extent any such changes resulted from lessons learned from Adam's death and his Inquest in 1996;**

(c) **How such changes were formulated and disseminated to you;**

(d) **To what extent any such changes affected or informed your approach to the treatment of Claire Roberts, or her treatment in general.**

I was not aware of any change in guidance, protocols or practice in patient care with regard to fluid management following the death of Adam Strain and before the death of Claire Roberts and I don't believe I made any changes to my own practice during that period.

(32) **Please state whether you were aware of any procedures in place to examine and investigate adverse incidents/unexpected deaths in 1996, including:**

(a) **Whether there was a hospital system or process to report such incidents throughout the RBHSC and to Trust management;**

(b) **Whether there was any investigation (either formal or informal) with clinicians regarding Claire's clinical management;**

(c) **Whether there was any learning arising from Claire's clinical management and Inquest, if so, what that was and with whom was it shared.**

I cannot recall any procedure to examine and investigate adverse incidents/unexpected deaths at RBHSC in 1996**.** I am not aware of any investigation with clinicians regarding Claire's management.

(33) **Please describe what teaching/training you received in relation to fluid management and record keeping, including:**

(a) **At the level of medical student as part of your qualification;**

(b) **As part of your hospital induction;**

(c) **As part of your training and continuous professional development.**

My undergraduate education was at University College Dublin Medical School and St Vincent's Hospital Dublin 1979 – 1985. Fluid management, biochemical derangements and hyponatremia in particular were covered initially in Medical Physiology (1981) and subsequently in Final Year Medical School (1985).

I don't believe I received any teaching/training in relation to fluid management and record keeping at the time of my hospital induction to RBHSC.

I cannot recall specific training or CPD in fluid management but I have been aware of developments in fluid management on an on-going basis since 1996

(34) **Were there any changes in the teaching/training:**

(a) **Between the death of Adam Strain and Claire's admission;**

(b) **Between the death of Claire Roberts and her Inquest in 2006;**

(c) **If so please provide full details of the same.**

I don't believe there was any change in the teaching/training of fluid management or record keeping in the years immediately following the deaths of Adam Strain and Claire Roberts.

(35) **Please describe the role, function and accountability of a Consultant Paediatric Neurologist as at 1996, including whether your performance in the role was supervised/appraised by any one and, if so, details of the same.**

The role of the Consultant Paediatric Neurologist was to work with professional colleagues and the Hospital management in the care of children with neurological problems and to undertake undergraduate and post graduate teaching. I don't believe there was any specific appraisal of my performance except that inherent in a close partnership with a Colleague Consultant Paediatric Neurologist.

(36) **Please describe your responsibilities in relation to communication and record keeping, with particular reference to:**

(a) **Clinical handovers eg. between the daytime and on-call Registrar**;

The responsibility for communication and record keeping in relation to clinical handover between daytime and on-call Registrar is with the individual doctors involved.

(b) **Nursing handovers;**

No medical input into this.

(c) **Communication with families of patients, including what they were told, by whom and when;**

All doctors would have responsibility for their own communication with families. The communication of medical diagnosis and management is usually left to the Registrar or Consultant. The child's Consultant will usually break bad news. Each Consultant tended to focus on the communication and record keeping of the SHO and Registrar attached to their own team.

(d) **Any guidance, protocols and practices in place at the time;**

I am not aware of any protocols in place at the time to guide communication or record keeping.

(e) **Any deficiencies that may have existed within the RBHSC at the time.**

If there were any deficiencies in record keeping and communication I would have raised those issues with the individual staff member within the Neurology Department.

(37) **Please describe the culture that existed in the RBHSC in 1996 and the impact of the same, specifically in relation to:**

(a) **The general day to day running of the RBHSC;**

(b) **The performance, accountability and working behaviours of Consultants;**

(c) **The interaction/communication between fellow Consultants;**

(d) **The interaction/communication between Consultants and Nurses.**

I was not aware of any difference in the culture that existed in the RBHSC in 1996 from any of the other NHS hospitals that I worked in.

(38) **Please provide any and all information you have in respect of the UTV Insight documentary ('*When Hospitals Kill*'- 21st October 2004) including:**

(a) **Whether you were engaged in this process at any level, and if so in what respect;**

(b) **What internal responses were generated by the requests for information received from UTV and/or the broadcast of the programme.**

I was not engaged in this process and have never seen the documentary.

(39) **Please state if any guidelines, protocols or practices informed the conduct of the brain stem tests carried out on Claire Roberts, including whether the case of Adam Strain had any impact of the conduct of the same.**

The protocol for Brain Stem Death Analysis was a standard one and had not changed from Adam's death.

(40) **Please provide any and all information you have in relation to Claire's Inquest in 2006, including:**

(a) **What lessons were learned from the Inquest;**

(b) **What steps did the RBHSC take in response to the Inquest;**

(c) **Whether any learning was disseminated throughout the RBHSC and the Trust;**

(d) **How the Inquest was viewed by the clinicians involved.**

I have not worked in the RBHSC since 1997 and cannot comment on the lessons learned or steps undertaken in response to the Inquest

(41) **With respect to the recommendations deriving from:**

(a) **Welfare of Children and Young People in Hospital (Department of Health 1993);**

(b) **The Quality of Medical Care- A Report of the Standing Medical Advisory Committee (Department of Health 1990);**

(c) **The Care of Sick Children- review in the wake of the Allitt Inquiry;**

(d) **General Medical Council – Good Medical Practice 1995;**

(e) **Tertiary Services for Children and Young People (British Paediatric Association 1995)**

Please state:

(a) **The extent to which you were aware of the same in 1996;**

(b) **What steps the RBHSC/ Trust took to disseminate, monitor and ensure compliance with the same.**

I was aware of the documents referred to but I don't believe the Trust made any recommendations on foot of these documents.

ADDITIONAL QUERIES

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

Because of illness I am uncertain how much I will be able to participate further in the Inquiry. I have acknowledged in my previous statement that I think, with hindsight, it was a mistake not to have taken any steps to discuss Claire's case with a PICU consultant after 17.00 on 22nd October 1996 and this is a mistake I will always regret. If circumstances had allowed me, I would like to have had the opportunity to do so in person at the Inquiry, but since I am not sure whether I will be able to attend or not, I would like to take this opportunity to express my sincere condolences to Claire's family.

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

Signed:  Dated: 18th Sept 2012