Witness Statement Ref. No. 039/2

NAME OF CHILD: RAYCHEL FERGUSON

Name: Donncha Hanrahan

Title: Doctor

Present position and institution:

Consultant Paediatric Neurologist, Royal Belfast Hospital for Sick Children

Previous position and institution: Consultant Paediatric Neurologist, Royal Belfast Hospital for Sick Children

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 2nd August 2005]

None further

Previous Statements, Depositions and Reports:
[Identify by date and title all those made in relation to the child's death since your Witness Statement of 2nd August 2005]

None further

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

Ref:	Date:	
039/1	02.08.2005	Inquiry Witness Statement

IMPORTANT INSTRUCTIONS FOR ANSWERING:

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

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

I. QUERIES IN RELATION TO YOUR MEDICAL QUALIFICATIONS, EXPERIENCE, TRAINING AND RESPONSIBILITIES

(1) Please provide the following information:

(a) State your medical qualifications and the date you qualified as a doctor.

MB, BCh, BAO, DCH, MD, MRCPI, FRCPCH 1 July 1985

(b) Describe your career history before you were appointed to the Royal Belfast Hospital for Sick Children.

I qualified in 1985 and commenced my career in Paediatrics in 1988. I practiced at junior level in Paediatrics, including Paediatric neurology, in Temple Street and Crumlin Hospitals, Dublin, and in Neonatology in the National Maternity Hospital, Dublin. I spent a year in Yorkhill Childrens' Hospital, Glasgow, and trained in London in Paediatric neurology from 1993-1998, when I was appointed to my current post. In London I worked in Great Ormond Street Childrens' Hospital and the Royal London Hospital, Whitechapel, as well as in Hammersmith Hospital, where I undertook research that led to the awarding, in 1997, of the MD degree from University College Dublin.

(c) State the date of your appointment to the Royal Belfast Hospital for Sick Children and the capacity in which you were employed.

July 1998 as Consultant Paediatric Neurologist

(d) State the date of your appointment to the role of Consultant Paediatric Neurologist at the Royal Belfast Hospital for Sick Children.

July 1998

(e) Describe your work commitments to the Royal Belfast Hospital for Sick Children from the date of your appointment at that Hospital to the 9th June 2001, stating the locations in which you worked and the periods of time in each department/location.

I was a full-time Consultant Paediatric Neurologist in the Royal Belfast Hospital for Sick Children. The on-call rota was 1:2 and I contributed to the neurological care of children in that hospital and, the post being a Regional one, in the rest of Northern Ireland,

dealing with all aspects of diseases of the nervous system, including epilepsy, neurometabolic conditions, brain tumours, developmental disorders, neuromuscular conditions and acute encephalopathies. A large proportion of the service related to outpatients, and I delivered weekly clinics as well as frequently communicating on an *ad hoc* basis with parents, usually by telephone. Most of our inpatients were located on Paul Ward, and this is where the bulk of my inpatient work was concentrated, along with Paediatric Intensive Care (see f).

(f) Describe your duties in the Paediatric Intensive Care Unit of the Royal Belfast Hospital for Sick Children on the 9th and 10th June 2001.

I had no fixed or regular duties in Paediatric Intensive Care, but would have frequently visited the unit, either having been consulted because of a neurological problem in a patient on the unit or because a patient of mine required to be admitted there. It was presumably my turn to be on call since I was asked, rather than my colleague, to become involved in the assessment of Raychel Ferguson because of her encephalopathy.

(2) QUERIES ARISING OUT OF YOUR INITIAL STATEMENT TO THE INQUIRY (WS-039/1)

(b) *"...CT showed cerebral oedema. Sodium was noted to have dropped to 118mmol/l from 137 mmol/l (as recorded at 04.30). It remained low at 09.00 (119 mmol/l), when her fluids were changed to Normal (0.9%) Saline from 0.18% Saline 4% Dextrose.*

"When I examined Raychel, I found no evidence of brainstem function and I felt 'she seems to have coned with probably irreversible brain stem compromise'.

" I considered brain stem tests necessary. I carried out two sets of tests, at 17.30 on 9th June and 09.45 on 10th June. On neither occasion was any sign of life elicited. I wrote in her notes at 10.00 on 10th June that she was brain dead.

"I carried out the tests in conjunction with Dr. P Crean, Consultant Paediatric Anaesthetist. I have not commented explicitly on the reason for Raychel's deterioration but did note her hyponatraemia in my clinical entry of 9th June..." (Ref: WS-039/1 Page 2)

(a) What factors led you to the conclusion, following examination, that Raychel had coned and had probably suffered irreversible brain stem compromise?

This was on the basis of my clinical assessment in the knowledge of the CT findings of cerebral oedema. There was no evidence of brain stem function, with, as I documented in Raychel's notes, no corneal, gag, pupillary or dolls-eye reflex, or response to either hypercapnia or caloric stimulation.

(b) You have stated that you did not comment explicitly on the reason for Raychel's deterioration, although you noted her hyponatraemia. Nevertheless, did you reach any conclusions in relation to the most likely cause(s) of the cerebral oedema, then or subsequently?

Her hyponatraemia was severe and the fact that I mentioned it in my entry suggests that I considered it to be a likely cause. I did not instigate other investigations looking for

alternative explanations like infective, traumatic, toxic, ischaemic, inflammatory, metabolic reasons.

If so,

(i) State the conclusions which you reached.

I considered that hyponatraemia was a likely cause of the cerebral oedema

(ii) When did you reach those conclusions?

I cannot identify exactly when, but presumably over the 9th – 10th June 2001.

(iii) What material or information did you consider when reaching those conclusions?

Clinical history, fluid balance charts, electrolyte results

(iv) What factors did you take into account when reaching those conclusions?

Severity of hyponatraemia

(c) If you have not already addressed the point in your previous answers, have you reached any conclusions in relation to the relevance of hyponatraemia to the cause of Raychel's deterioration? If so, please explain as fully as possible the conclusions which you have reached?

See above

(d) Were you able to reach any conclusions, then or subsequently, in relation to the likely cause(s) of the hyponatramia in Raychel? If so,

(i) State the conclusions which you reached.

I would have considered the possible effects of her IV fluid management.

(ii) When did you reach those conclusions?

I cannot recall exactly. I came to the conclusion, during her time in PICU, that the low sodium was likely to have been fluid-related.

(iii) What material or information did you consider when reaching those conclusions?

The information concerning the fluid administered (020-020, 020-018) and the biochemical results (020-022).

(iv) What factors did you take into account when reaching those conclusions?

The degree of fall in the sodium level

(e) At the time the decision was taken, was it appropriate to transfer Raychel from the Altnagelvin Hospital to the PICU of the Royal Belfast Hospital for Sick Children? If so, please explain why it was appropriate to do so.

I played no part in this decision process and so cannot comment on the appropriateness of the decision.

(f) Insofar as you are aware, please explain the reasons behind the decision to transfer Raychel from Altnagelvin Hospital and to admit her to the PICU of the Royal Belfast Hospital for Sick Children?

I played no part in this decision process and so cannot comment on the reasons behind the decision.

(3) Other Matters

(c) Insofar as you are aware, please explain the circumstances in which the Royal Belfast Hospital for Sick Children ceased the practice of prescribing Solution 18 to post-operative children, and state:

(a) On what date was the practice of prescribing Solution 18 to post-operative children ended?

(b) Who took that decision?

(c) What were the reasons for that decision?

(d) Was the decision taken in response to any particular incident(s) or circumstances? If so describe the incident(s) or circumstances which brought about this decision?

(e) Was any other person or group of persons consulted before the decision was reached to end the practice of prescribing Solution 18 to post-operative children? If so, identify all of those who were consulted in relation to the decision?

(f) If you were consulted in relation to the decision, did you contribute any view and if so what view did you express?

(g) Was the decision by the RBHSC to end the practice of prescribing Solution 18 to post-operative children communicated to any of the following organizations or bodies:

(i) Any other hospital or trust;

(ii) The Eastern Health and Social Services Board;

(iii) The office of the Chief Medical Officer;

(iv) DHSSPS;

(v) Any other organization or body.

And if the decision by the RBHSC to end the practice of prescribing Solution 18 to post-operative children was communicated to any of the above organizations or bodies, please state:

- What were they told about the reasons for discontinuing the use of Solution 18 with post-operative children?
- When were they given this information?

(h) If the decision by the RBHSC to end the practice of prescribing Solution 18 to post-operative children was not communicated to any of the above organizations or bodies, please explain why the decision was not communicated?

(d) If you are unable to answer any of the questions set out at (3) above, please identify any person who may be in a position to address those questions.

I am unable to answer the questions set out at (3). I have no primary involvement in the care of post-operative children and do not pronounce on their fluid management. I was not consulted concerning changes in post-operative fluid administration and did not contribute to decisions made in that regard. I am unsure who may be able to provide such details.

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

Signed: Dominic Hannah **Dated:** 14/6/2012