

BRIEF

TO ADVISE ON THE NATURE OF THE GOVERNANCE RELATIONSHIP BETWEEN SPERRIN LAKELAND TRUST AND THE WHSSB AND DHSSPS

RAYCHEL FERGUSON (LUCY CRAWFORD AFTERMATH)

Introduction

1. This briefing paper sets out the background to Lucy Crawford's case, and explains the work of the Inquiry. It concludes by identifying the discrete issues which you are asked to address in a report for the Inquiry.
2. It is anticipated that those issues - *the nature of the governance relationships which existed or ought to have existed between Sperrin Lakeland Trust, the Western Health and Social Services Board and the DHSSPS, the obligations (if any) of the Board having been notified of the death of Lucy Crawford, and whether the Department ought to have been notified* - will be examined as part of the Inquiry's public hearings in due course.

Background

3. Lucy Crawford was born on 5th November 1998. She died on 14th April 2000 at the Royal Belfast Hospital for Sick Children ("RBHSC"), having been transferred there after treatment in the Erne Hospital, Enniskillen.
4. At the time of Lucy's death a hospital post mortem was conducted, rather than a post mortem conducted under the auspices of the Coroner. A death certificate was completed which certified that Lucy had died by reason of a cerebral oedema due to or as a consequence of dehydration and gastroenteritis [Ref: 013-008-022].
5. However, following an Inquest conducted in 2004 by Mr. John Leckey (HM Coroner for Greater Belfast) the cause of Lucy's death was found to be: I. (a) cerebral oedema, (b) acute dilutional hyponatraemia, (c) excess dilute fluid and II. Gastroenteritis [Ref: 013-034-130].
6. This Inquiry will examine certain of the clinical, hospital management and governance issues arising from Lucy's death. The Inquiry is particularly concerned to examine why the contribution played by hyponatraemia in causing her death was not recognised at the time and acted upon.

BRIEF

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2. It is anticipated that those issues - *the nature of the governance relationships which existed or ought to have existed between Sperrin Lakeland Trust, the Western Health and Social Services Board and the DHSSPS, the obligations (if any) of the Board having been notified of the death of Lucy Crawford, and whether the Department ought to have been notified* - will be examined as part of the Inquiry's public hearings in due course.

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7. The care and treatment which Lucy Crawford received does not of itself form part of the Inquiry's work and her name is not now formally included within the Inquiry's terms of reference. However, the initial failure to recognise that hyponatraemia caused Lucy's death and to disseminate this information to the wider medical community in Northern Ireland is viewed by the Inquiry as being of potential significance in the context of the death of another child who died some 14 months later. This forms the primary reason for the Inquiry's decision to examine Lucy's case.

Raychel Ferguson

8. The child who died 14 months after Lucy was Raychel Ferguson. She is one of four children who are the subject of this Inquiry which is being conducted under the chairmanship of John O'Hara QC.
9. Raychel was born on 4th February 1992. She was admitted to the Altnagelvin Area Hospital on 7th June 2001 with suspected appendicitis. An appendicectomy was performed late on 7th June 2001. She was thought to be recovering well from this surgery, but during the 8th June 2001 she experienced severe vomiting before suffering a seizure in the early hours of the 9 June 2001. She was transferred to the Royal Belfast Hospital for Sick Children ("RBHSC") later that day. Brain stem tests were shown to be negative. She was pronounced dead on 10th June 2001.
10. A post-mortem was conducted and in his autopsy report dated 11th June 2001 the neuropathologist concluded that Raychel's death was caused by a cerebral oedema secondary to hyponatraemia.
11. The Inquest into Raychel's death was opened on 5th February 2003 by Mr. Leckey. He engaged Dr. Edward Sumner as an expert. At that time Dr. Sumner was a Consultant Paediatric Anaesthetist at Great Ormond Street Hospital for Sick Children.
12. The Coroner accepted the findings of the post-mortem. He found that the hyponatraemia was caused by a combination of inadequate electrolyte replacement following severe post-operative vomiting and water retention resulting from the secretion of anti-diuretic hormone (ADH).
13. The other 3 children who are the subject of this Inquiry are:-
 - (1) **Adam Strain**
Adam was born on 4th August 1991. He died on 28th November 1995 in the RBHSC following kidney transplant surgery. The Inquest into his death was conducted on 18th and 21st June 1996 by Mr. Leckey (Coroner), who engaged as experts: (i) Dr. Edward Sumner; (ii) Dr. John Alexander, Consultant Anaesthetist at Belfast City

Hospital; and (iii) Professor Peter Berry of the Department of Paediatric Pathology in St. Michael's Hospital, Bristol. The Inquest Verdict identified cerebral oedema as the cause of his death with dilutional hyponatraemia as a contributory factor.

(2) Claire Roberts

Claire Roberts was born on 10th January 1987. She was admitted to the RBHSC on 21st October 1996 with a history of malaise, vomiting and drowsiness and she died on 23rd October 1996. Her death certificate recorded the cause of her death as cerebral oedema and status epilepticus. That certification was subsequently challenged after the UTV television documentary referred to below.

The Inquest into Claire's death was carried out nearly 10 years after her death by Mr. Leckey (Coroner) on 4th May 2006. He engaged Dr. Robert Bingham (Consultant Paediatric Anaesthetist at Great Ormond Street) and Dr. Ian Maconochie (Consultant in Paediatric A&E Medicine at St Mary's, London) as experts. The Inquest Verdict found the cause of Claire's death to be cerebral oedema with hyponatraemia as a contributory factor.

(3) Conor Mitchell

Conor Mitchell was born on 12th October 1987 with cerebral palsy. His mother brought him to the Accident and Emergency Department of Craigavon Hospital on 8th May 2003 with signs of dehydration and for observation. He was admitted to the medical ward of that hospital where he suffered a seizure later that day. He was transferred to the RBHSC on 9th May 2003 where brain stem tests were shown to be negative and he was pronounced dead on 12th May 2003.

The Inquest into Conor's death was conducted on 9th June 2004 by Mr. Leckey (Coroner) who again engaged Dr. Edward Sumner as an expert. Despite the Inquest, the precise cause of Conor's death remains unclear.

The clinical diagnosis of Dr. Janice Bothwell (Paediatric Consultant) at the RBHSC was brainstem dysfunction with Cerebral Oedema related to viral illness, over-rehydration/inappropriate fluid management and status epilepticus causing hypoxia. Dr. Brian Herron from the Department of Neuropathy, Institute of Pathology, Belfast performed the autopsy. He was unsure what 'sparked off' the seizure activity and the extent to which it contributed to the swelling of Conor's brain but he considered that there was evidence of major hypernatraemia and that this occurred after brainstem death and therefore probably played no part in the cause of the brain swelling. He concluded that the ultimate cause of death was

Cerebral Oedema. Dr. Edward Sumner commented in his report of November 2003 that Conor died of the acute effects of cerebral swelling which caused coning and brainstem death but he remained uncertain why. He noted that the volume of intravenous fluids was not excessive and the type appropriate but queried the initial rate of administration. That query was raised in his correspondence shortly after the Inquest Verdict. In that correspondence, Dr. Sumner described the fluid management regime for Conor as 'sub-optimal'.

The Inquest Verdict stated the cause of death to be brainstem failure with cerebral oedema, hypoxia, ischemia, seizures and infarction and cerebral palsy as contributing factors.

14. The impetus for this Inquiry was a UTV Live 'Insight' documentary 'When Hospitals Kill' which was shown on 21st October 2004. The documentary primarily focused on the death of Lucy Crawford.
15. The programme makers identified what they considered to have been significant shortcomings of personnel at the Erne Hospital. In effect, the programme alleged a 'cover-up' and it criticised the hospital, the Trust and the Chief Medical Officer. The programme also referred to the deaths of Adam and Raychel in which hyponatraemia had similarly played a part. At that time, no connection had been made with the deaths of Claire and Conor.

The Revised Terms of Reference

16. The revised terms of reference require particular consideration in the case of Lucy, since it was following representations made by her parents that a decision was made that an investigation would not be carried out into the care and treatment she received.
17. On 30th May 2008, the Chairman of the Inquiry made a public announcement that the circumstances around the death of Lucy Crawford would no longer be considered by the Inquiry. The Minister of Health thereafter issued Revised Terms of Reference in November 2008, which whilst removing Lucy's name left open the possibility that the aftermath of her death might still be investigated in relation to its implications for the investigation into Raychel's case.
18. On 10th June 2009, the Chairman issued a paper to the interested parties which contained the following:

"7. While the original terms of reference in 2004 permitted the Chairman to extend the work to include additional deaths and issues, they had to be

amended by the Minister if Lucy's death was excluded. The amended terms of reference were issued by the Minister in November 2008. The extent of the amendment was to remove any reference to Lucy but otherwise to leave the terms unaltered. This leaves the amended terms open to two possible and quite different interpretations:

- (a) By deleting any reference to Lucy the Inquiry is to proceed on the basis that Lucy's death and its surrounding circumstances and aftermath are not to be enquired into in any way. This would mean, for example and in particular, that the initial failure to identify the correct cause of death and the alleged cover-up on the internal review by Sperrin Lakeland Trust would be excluded because to investigate them would be to continue to look at Lucy's death.*
- (b) Alternatively, the terms still permit and indeed require an investigation into the events which followed Lucy's death such as the failure to identify the correct cause of death and the alleged Sperrin Lakeland cover-up because they contributed, arguably to the death of Raychel in Altnagelvin. This reflects the contention that had the circumstances of Lucy's death been identified correctly and had lessons been learned from the way in which fluids were administered to her, defective fluid management would not have occurred so soon afterwards (only 14 months later) in Altnagelvin, a hospital within the same Western Health and Social Services Board area."*

19. After hearing from the parties the Chairman made a ruling regarding the approach that would be taken by the Inquiry concerning the death of Lucy:

"My decision is that I shall take the option set out at paragraph 7(b) of the June 2009 paper. This means that there will be an investigation into the events which followed the death of Lucy Crawford such as the failure to identify the correct cause of death and the alleged Sperrin Lakeland cover-up because they contributed, arguably, to the death of Raychel Ferguson in Altnagelvin."

20. That ruling followed a public announcement on 30th May 2008 that the Inquiry would investigate the case of Claire Roberts, who had died at the RBHSC on 23rd October 1996, to the same extent as the cases of Adam Strain and Raychel Ferguson.
21. Accordingly, the relevant portion of the Revised Terms of Reference may now be said to be construed as requiring:

"an Inquiry into the events surrounding and following the deaths of Adam Strain, Claire Roberts and Raychel Ferguson, with particular reference to:

...

2. *The actions of the statutory authorities, other organisations and responsible individuals concerned in the procedures, investigations and events which followed the deaths of Adam Strain, Claire Roberts and Raychel Ferguson [including an investigation into the events which followed Lucy's death such as the failure to identify the correct cause of death and the alleged Sperrin Lakeland cover up]*
22. The reference in the Revised Terms of Reference to investigating the "*procedures, investigations and events which followed [Lucy's] death,*" therefore raises important management and governance issues, and poses significant questions about the ability of the relevant bodies to learn lessons and to act upon them.
23. Given the volume of documentation that is available for consideration this briefing paper will now seek to summarise for you the clinical background to Lucy's case and the steps which were taken by the various actors after Lucy's death with a view to establishing its cause. The paper then concludes by identifying some of the specific matters which require investigation.

Lucy Crawford - the Clinical Background

24. On 12th April 2000 at 7.30pm, Lucy was admitted to the Erne Hospital with a history of drowsiness and vomiting.
25. The Erne Hospital was located in Enniskillen (population 11,500), some 80 miles from Belfast, and served a largely rural population. It was a facility which was managed as part of the Sperrin Lakeland Health and Social Care Trust ("the Trust").
26. Lucy's GP had queried whether she had a urinary tract infection and whether she required administration of fluids.
27. Lucy was cared for by Dr. Amerullah Malik (SHO in Paediatrics) and Dr. Jarlath O'Donohoe (Consultant Paediatrician), whilst she was a patient of the Erne Hospital.
28. It is understood that following admission Lucy was given a 100ml bolus of fluids and some juice and that she was started on IV fluids at approximately 10.30pm-11.00pm. The IV fluid was solution 18 and it appears to be accepted by clinicians and nursing staff that this was administered at a rate of 100ml/hr for some 4 hours before her acute collapse. However, there remains some uncertainty about the precise volume of fluids received by Lucy both before and after that collapse.

29. At approximately 2.55am on 13th April 2000, Lucy was found to be suffering what was recognised as a seizure. Her mother was present at that time. Her fluids were changed from solution 18 to normal saline which was allowed to run freely [Ref: 027-017-057].
30. Lucy was intubated and ventilated by Dr. Thomas Auterson (Anaesthetist) who noted that her pupils were fixed and dilated: [Ref: 027-010-024] & [Ref: 013-007-020].
31. Lucy was transferred to the intensive care unit at the Erne Hospital at 4.00am where steps were taken to stabilise her prior to transfer to the RBHSC.
32. At the Erne Hospital Dr. O'Donohoe had taken bloods for repeat urea and electrolyte measurement some time after her seizure had commenced. It is understood that electrolytes were measured after she had been started on normal saline, although the precise timings are unclear. The results showed that her serum sodium had fallen from 137mmol/L on admission [Ref: 027-012-031], to 127mmol/L after her seizure [Ref: 027-012-032].
33. Lucy was transferred from the Erne Hospital by ambulance on 13th April 2000 at 6.30am and arrived at the RBHSC shortly after 8.00am. She was bagged by hand throughout the journey.
34. Clinicians at the RBHSC quickly recognised that Lucy's prospects were hopeless. Following two sets of brain stem tests [Ref: 061-019-070] ventilatory support was removed and Lucy was declared dead at 1.15pm on 14 April 2000 [Ref: 061-018-068].

Cause of Death and Report to the Coroner

35. Lucy's death was reported to the Coroner's Office by a member of clinical staff at the RBHSC (Dr. D. Hanrahan). The Coroner's Office did not arrange a post mortem. Instead a decision was taken by staff at the RBHSC to conduct a hospital post mortem. It would appear that Lucy's death was treated as having occurred by reason of natural causes.
36. It is unnecessary for present purposes to explain in detail the various issues which arise from the failure to examine Lucy's death within the coronial system at that time. These are issues which are being examined by the Inquiry through other experts. It suffices to note that it was some three years later and only after the Inquest into the death of Raychel Ferguson that steps were taken to arrange an Inquest in relation to Lucy's death.

37. A death certificate was issued on the 4 May 2000 by Dr. Dara O'Donoghue (Clinical Fellow, Paediatrics, RBHSC) – not to be confused with Dr. O'Donohoe (Consultant Paediatrician, at the Erne Hospital). As noted above, the death was certified as having been caused by a cerebral oedema due to or as a consequence of dehydration and gastroenteritis [Ref: 013-008-022].
38. After Raychel's Inquest the Coroner's Office was asked to look again at Lucy's death. Mr. Leckey obtained the views of the same expert in paediatric fluid management (Dr. Sumner) who had assisted him at Raychel's Inquest, and thereafter the Attorney General for Northern Ireland ordered that an Inquest should take place [Ref: 013-52e-286].
39. At the Inquest, the Erne Hospital and RBHSC offered no evidence in opposition to Dr. Sumner's view that the cerebral oedema was due to acute dilutional hyponatraemia.
40. Indeed a range of witnesses associated with those hospitals or instructed to provide expert opinion on their behalf expressed the view that Lucy's death was related to hyponatraemia. That was also the conclusion reached by Dr. Dewi Evans (Consultant Paediatrician) who had prepared a report upon the instruction of the Crawford family solicitor [Ref: 013-024-088].
41. The Inquest Verdict recorded the cause of Lucy's death in the following terms:
- "I(a) cerebral oedema (b) acute dilutional hyponatraemia (c) excess dilute fluid II gastroenteritis"* [Ref: 013-034-130].

42. The following specific findings were recorded:

"The collapse which led to her death was a direct consequence of an inappropriate fluid replacement therapy in that the use of 0.18% saline to make up deficits from vomiting and diarrhoea was wrong, too much of it was given and there had been a failure to regulate the rate of infusion. This led to the development of dilutional hyponatraemia which in turn caused acute brain swelling and death. The errors in relation to the fluid replacement therapy were compounded by poor quality medical record keeping and confusion by the nursing staff as to the fluid regime prescribed." [Ref: 013-034-131]

Response to Lucy's Death by the Sperrin Lakeland Trust

43. Lucy's death was notified to the Sperrin Lakeland Trust on 14th April

2000. The Trust did not report Lucy's death to the Coroner then or subsequently.

44. It would appear that before Lucy's death had been confirmed Dr. O'Donohoe made contact with Dr. James Kelly (Medical Director of the Sperrin Lakeland Trust). Dr. Kelly provided an account of that discussion in his first interview with the PSNI on 6th April 2005: [Ref: 116-043-002].

"Dr. O'Donohoe contacted me by telephone on either Thursday 13th of April...or on the morning of the Friday 14th of April 2000. Dr. O'Donohoe explained he wanted to apprise me of the events surrounding a child who had been admitted to the Paediatric Ward of the Erne Hospital on 12th of April. Dr. O'Donohoe outlined that he was raising this under Critical Incident Reporting. Dr. O'Donohoe informed me that the child had been admitted with diarrhoea and vomiting and had subsequently suffered an unexplained collapse requiring resuscitation and incubation (sic)....Dr. O'Donohoe said he was not sure what happened stating there may have been a misdiagnosis, the wrong drug had been prescribed or the child had an adverse drug reaction. Dr. O'Donohoe explained that there had been some confusion over fluids...."

45. On 14th April 2000, Mrs. Esther Millar (Clinical Services Manager, Erne Hospital) completed a clinical incident report in respect of Lucy [Ref: 036a-045-096]. This recorded, inter alia, *"Concern expressed about fluids prescribed, administered..."*
46. Again on 14th April 2000, Dr. Kelly contacted Mr. Hugh Mills (Chief Executive of the Trust) and they agreed that a case review of the care which Lucy had received at the Erne Hospital should be taken forward and that it should be coordinated by Mr. Eugene Fee (Director of Acute Hospital Services, Erne Hospital) and Dr. William Anderson (Clinical Director of Women & Children's Services, Erne Hospital): See [Ref: 030-007-012], [Ref: 030-010-017] and [Ref: 036b-058-094].
47. Following a meeting between Dr. Anderson and Mr. Fee on 19th April 2000 [Ref: 033-102-285], it was decided to ask Mr. Mills to arrange for an external paediatric opinion to be provided on the management of Lucy's care. Mr. Mills asked Dr. R.J. Murray Quinn, a Consultant Paediatrician at Altnagelvin Hospital to assist with the review, and on 21st April 2000 he was contacted by Mr. Fee to discuss his role [Ref: 030-10-017].
48. On the 21 April Dr. Quinn was provided with the Erne Hospital's clinical case notes in respect of Lucy and asked to provide his opinion on three issues: the significance of the type and volume of fluid

administered; the likely cause of the cerebral oedema; the likely cause of the change in the electrolyte balance i.e. was it likely to be caused by the type of fluids, the volume of fluids used, the diarrhoea or other factors [Ref: 033-102-296].

49. Dr. Quinn had a telephone discussion with Mr. Fee on 2nd May 2000. [Ref: 036a-053a-129]. In this conversation he appears to have given his preliminary views. We cannot obtain a full sense of the conversation from this record, but Dr. Quinn appeared to be saying that it was "difficult to get a complete picture of the child." He appears to have indicated that the type of fluids given was appropriate, and that he would have expected Lucy to have been given the fluid at a rate of 80 ml/hr. He had calculated that she had received fluid at a rate of 80 ml/hr on the basis of the amount of fluids received "divided over the length of stay..."
50. In a related development on 5th June 2000, Dr. M. Asghar (Staff Grade Paediatrician at the Erne Hospital) wrote to Mr. Mills in order to report his concerns about Dr. O'Donohoe's treatment of Lucy, as well as other issues: [Ref: 032-090-175]. In his letter, he explained that "*this child may have been given excess of fluids*" and that "*all through the night fluids were running at 100 mls per hour.*" Dr. Asghar was advised that Dr. Kelly had been asked to commence a review of Dr. O'Donohoe's clinical work [Ref: 032-089-173].
51. On 14th June 2000, Mr. Mills met with Mr. Clive Gowdy [Ref: 030-009-016] who at that time was the Permanent Secretary of Department of Health and Social Services and Public Safety ('DHSSPS'). The Inquiry has not been provided with the agenda or minutes for that meeting although these documents have been requested. It is unclear whether the case of Lucy was discussed at their meeting.
52. Dr. Quinn met with Dr. Kelly and Mr. Fee on 21st June 2000 [Ref: 036a-047-101]. The notes of that meeting record that Dr. Quinn was shown Lucy's post-mortem report and commented upon it. The notes also show that he was asked whether consideration should be given to the temporary suspension of Dr. O'Donohoe. He is recorded as stating that he saw no reason for suspension [Ref: 036a-047-102]. Dr. Kelly met with Dr. O'Donohoe on 28th June 2000 to discuss the views that had been expressed by Dr. Quinn.
53. Dr. Quinn explained in his police statement that he had advised the Trust that he was placing a number of caveats around his involvement in the review: [Ref: 115-041-002]. He claimed that he told Mr. Mills that he was not prepared to provide a report for the complaints procedure or for medico-legal purposes. He said that he had explained to Mr. Mills that the Trust should ascertain from staff

on duty the exact volumes of fluid which had been given to Lucy because he was not prepared to interview staff himself, and nor was he prepared to meet family members of Lucy. He claimed that he advised Mr. Mills that the Trust should obtain an opinion from a Consultant Paediatrician from outside of the Western Board area.

54. Mr. Mills has been asked about those reservations and he does not share Dr. Quinn's recollection: (ws-293/1, page 10)
55. Dr. Quinn has said that he was ultimately persuaded to provide a written report to the Trust when it had been his original intention to limit his involvement to a verbal commentary. He provided the report to Mr. Fee on 22nd June 2000 [Ref: 036a-048-103] and marked it 'Medical Report on Lucy Crawford'.
56. In the report Dr. Quinn expressed the view that he would be "surprised" if the volumes of fluid which Lucy had received "could have produced gross cerebral oedema causing coning" [Ref: 036a-048-105]. However, this conclusion was apparently based on an analysis which spoke of the fluids being given over a 7 hour period starting at the time of Lucy's admission into hospital at 7.30pm, through to the seizure at 03.00am, rather than focussing on the fact that IV fluids commenced at or about 11.00pm and were administered at a rate of 100ml/hr.
57. Dr. Quinn did not examine other possible causes of the cerebral oedema or debate the significance or otherwise of the recognised hyponatraemia, despite acknowledging that her serum sodium results had gone from 'normal' on admission to 'low' after the seizure.
58. He expressed the view that he was unable to be certain about what happened to Lucy at 3.00am on 13th April 2000, or what was the ultimate cause of her death [Ref: 036a-048-106].
59. It is notable that the Coroner subsequently recommended that Dr. Quinn should review the content of the report in the light of the Inquest evidence: [Ref: 013-041-165].
60. A draft Review Report, penned by Mr. Fee, was circulated to Dr. Anderson on 6th July 2000 [Ref: 036a-049-107]. This included Dr. Quinn's report as an appendix. Dr. Anderson gave his opinion in writing on 17th July 2000 [Ref: 033-101-258] and set out certain recommendations which were incorporated within the final report dated 31st July 2000 [Ref: 033-102-262].
61. As appears from the various appendices to the Review Report

nursing staff and clinicians who were responsible for treating Lucy during her time in the Erne Hospital were asked to provide factual accounts of their experiences. It is Dr. Quinn's recollection that those accounts were not provided to him: (Ref: WS-279/1, page 20). Moreover, nursing staff and clinicians were not questioned about the contents of their statements and nor it seems were they asked to express a view about the cause of Lucy's sudden deterioration.

62. The final Review Report found that there was a significant communications issue in that Dr. O'Donohoe and the nurses who had been on duty had different understandings of his intended prescription of fluids, there was no adequate record and that there was a need for standard protocols for treating patients in Lucy's condition and for ensuring accurate prescribing.

63. The report rehearsed Dr. Quinn's view that the total volume of fluid intake was within the accepted range [Ref: 033-102-267] and it was stated that,

"Neither the post-mortem result or the independent medical report on Lucy Crawford, provided by Dr. Quinn, can give an absolute explanation as to why Lucy's condition deteriorated rapidly, why she had an event described as a seizure at around 2.55am on 13th April 2000, or why cerebral oedema was present on examination at post-mortem" [Ref: 033-102-265].

64. The Trust took further steps to examine the cause of Lucy's death. On 14th September 2000 Dr. Kelly wrote to Ms. Pat Hamilton of the Royal College of Paediatrics and Child Health ("RCPCH") to seek assistance concerning professional conduct and competency issues associated with the practice of Dr. O'Donohoe [Ref: 036a-009-016]. It would appear that this correspondence was prompted at least in part by the concerns expressed in Dr. Asghar's correspondence to Mr. Mills referred to above.

65. Dr. Moira Stewart (Consultant Paediatrician) was nominated on behalf of the RCPCH to carry out a review [Ref: 036a-010-019]. As part of her review Dr. Stewart examined four cases in which care had been provided to patients by Dr. O'Donohoe, including the case of Lucy Crawford [Ref: 036a-025-052]. She examined Lucy's case by reference to the clinical notes, the post-mortem report and the report provided by Dr. Murray Quinn. In particular, she examined the fluid management regime which applied during Lucy's treatment in the Erne Hospital.

66. In her report (26th April 2001), she found that the volume of fluid provided to Lucy "does not appear to be excessive" but she stated "there is debate about the most appropriate fluid to use" [Ref: 036a-025-058]. She

referred to several possible explanations for Lucy's death and indicated that Lucy suffered the seizure like episode due to an underlying biochemical abnormality [Ref: 036a-025-56].

67. Dr. Kelly held a follow-up meeting with Dr. Stewart on 1st June 2001 to discuss her report. The notes from that meeting and associated with Lucy Crawford's case contain the following entry:

"Overall amount of fluids once started not a major problem but rate of change of electrolytes may have been responsible for the cerebral oedema" [Ref: 036a-027-067].

68. The notes from the meeting also express the view that there was *"insufficient suboptimal practice to justify referral to GMC"* [Ref: 036a-027-068].

69. Your attention is drawn to Dr. Stewart's witness statement and the account which she has provided of her meeting with Dr. Kelly and the information which she says she provided to him at that meeting (WS-298/1, pages 11 and 12). As will be explained in further detail below, Dr. Stewart's report and the notes relating to Dr. Kelly's discussion with her were sent to Dr. McConnell, Director of Public Health at the Western Health and Social Services Board ('WHSSB').

70. The RCPCH also carried out a broader professional competency review of the practice of Dr. O'Donohoe, arising out of a request made by Dr. Kelly on 7th February 2002 [Ref: 036a-129-273] following upon further concerns which had been raised by Dr. Asghar.

71. The authors of the report, which was issued on 7th August 2002, were Dr. Moira Stewart as well as a Dr. AW Boon (Consultant Paediatrician) [Ref: 036A-150-309]. The report revisited the case of Lucy Crawford and referred to the poor documentation in the prescription for her fluid therapy. It went on to say:

"With the benefit of hindsight there seems to be little doubt that this girl died from unrecognised hyponatraemia although at that time this was not so well recognised as at present" [Ref: 036a-150-312].

72. The Inquiry has been told that the Sperrin Lakeland Trust only became aware on 12 October 2001 that there was no plan to hold an Inquest in relation to Lucy's death (WS-293/1, page 19). The Trust accepts that it did not bring the findings of the reviews conducted by the RCPCH to the attention of the Coroner even when it became aware that there was no plan to hold an Inquest.

Communications between the Sperrin Lakeland Trust and the WHSSB

73. The Inquiry has obtained a number of witness statements which refer to the communications between the Sperrin Lakeland Trust and the WHSSB after Lucy's death, and the nature of the relationship between the two organisations.
74. You are referred in particular to the statements of Mr. Hugh Mills (WS-293/1), Mr. James Kelly (WS-290/1), Mr. Eugene Fee (WS-287/1) and Dr. William McConnell (WS-286/1).
75. According to Mr. Hugh Mills, the WHSSB was the main commissioner of services in the Erne Hospital at the time of Lucy's death (WS-293/1, page 7).
76. It is the Inquiry's understanding that the WHSSB was also the main commissioner of services at the Altnagelvin Hospital where Raychel Ferguson was treated some 14 months after Lucy's death. It is noteworthy that following the death of Raychel the Director of Public Health at the WHSSB (Dr. William McConnell) took an active role in disseminating to other health care providers the lessons to be learnt from her death (WS-286/1, page 12).
77. The Chief Executive of the WHSSB at the time of Lucy's death was Mr. Tom Frawley. Dr. William McConnell (as Director of Public Health) was accountable to Mr. Frawley through the Director of Health Care, Mr. Martin Bradley (WS-286/1, page 4). Each of these officers would appear to have been advised of Lucy's death and of the fact that the Trust was treating it as a death which required further investigation.
78. The Inquiry has directed witness statement requests to Mr. Frawley and Mr. Bradley and their response is awaited. Supplementary statement requests have been directed to Mr. Mills, Dr. Kelly and Mr. Fee. The Inquiry is also awaiting a response to further requests for documentation relating to the WHSSB's dealings with the Trust regarding Lucy's death. Requests have also been made for documentation relating to the Board's commissioning of services from the Trust.
79. It is the understanding of Mr. Mills that it was the responsibility of the WHSSB to receive from the Trust, reports of adverse incidents and for that Board to advise the Trust on any further details which it required and any particular action which it required the Trust to take (WS-293/1, page 8). It is Mr. Mills view that the Trust was required by the WHSSB to report to the Board significant issues occurring within the Trust (WS-293/1, page 11).

80. Dr. Kelly recalls that Mr. Mills had regular "accountability" meetings with the Chief Executive of the WHSSB (WS-290/1, page 16) and indeed Mr. Mills recalls that those meetings occurred on a monthly basis (WS-293/1, page 11).
81. It is the understanding of Dr. Kelly that since Dr. McConnell carried responsibility for the safe delivery of patient services and performance of clinical teams, it was necessary for the Trust to report Lucy's death to him. It is also his understanding that Dr. McConnell was responsible for disseminating any lessons learnt across the WHSSB and perhaps further afield (WS-290/1, page 12).
82. Accordingly, the records available to the Inquiry show that on the 14 April 2000 Mr. Mills informed Dr. McConnell of the adverse incident involving Lucy, advising him that she was 'brain dead': [Ref: 030-010-017]. The records indicate that Mr. Mills was told that Dr. McConnell would notify Mr. Martin Bradley of the incident, and indeed Mr. Mills met with Mr. Bradley on the 19 April to advise him of the issues.
83. Before that, on the 17 April, the records show that Mr. Fee notified Dr. Hamilton of the WHSSB of the death and the press interest surrounding it [Ref: 033-102-286] and on the 21 April Mr. Mills advised Dr. McConnell that the Trust had asked Dr. Quinn to provide advice on the case in the context of the Review [Ref: 030-010-018].
84. The records go on to show that on the 3 May Mr. Mills provided Mr. Frawley with a briefing on the issues [Ref: 030-010-018] and that he provided a further update on the 14 June [Ref: 036b-002-002].
85. On the 15 May 2000, prior to the completion of the review, Dr. Kelly wrote to Dr. McConnell to update him and to advise him that Dr. Quinn had indicated that "the fluid regime was probably irrelevant and [that the] cause of death is not clearly established..." [Ref: 036a-046-099].
86. There appear to be a number of errors in the correspondence issued by Dr. Kelly to Dr. McConnell: firstly, the impression given in the paragraph numbered (1) at [Ref: 036a-046-098] is that Lucy was admitted with a low sodium of 127, whereas this was the measurement taken after her seizure; secondly, it is suggested that Dr. O'Donohoe had advised the family that a review would be undertaken whereas later correspondence to the Trust from Mr. Crawford indicates that he was unaware that a review was being undertaken [Ref: 036a-046-099].

87. In this correspondence Dr. Kelly invited Dr. McConnell to make any suggestions or additional comments in relation to the case, but the Inquiry is unaware of any response from Dr. McConnell. Dr. Kelly has stated that Dr. McConnell did not reply to the letter (WS-290/1, page 12).
88. According to Mr. Mills a copy of the completed review report was sent to Dr. McConnell and Mr. Bradley at the WHSSB (WS-293/1, page 15). Dr. McConnell's recollection of receiving the report is somewhat vague, although he has expressed the view that he was satisfied that the correct issues were identified and that the appropriate range of staff contributed to the review (WS-286/1, page 8). He also recalls that since the specific cause of death was still unclear after the review (WS-286/1, page 8) he concluded that "*further work/review would be desirable to resolve this*". He believes that he discussed this with Dr. Kelly and that he advised that consideration should be given to conducting a "wider review" (WS-286/1, page 7).
89. However, the Inquiry has not been provided with any documentation tending to show that Trust and Board representatives discussed the review report, or that the WHSSB made a formal response, or that the WHSSB considered the report internally. Mr. Mills cannot recall any specific response to the review report from the WHSSB (WS-293/1, page 17).
90. Subsequently when the Trust obtained the RCPCH report prepared by Dr. Moira Stewart, it was forwarded to Dr. William McConnell, together with the notes of the meeting which took place between Dr. Kelly and Dr. Stewart: [Ref: 036a-028-069].
91. The letter prompted a response from Dr. McConnell on 5th July 2001 [Ref: 036a-029-070] and Dr. Kelly and Dr. Stewart met on 8 October 2001 when, according to Dr. Kelly's recollection of the meeting, they discussed Dr. O'Donohoe and the paediatric services at the Erne Hospital (WS-290/1, page 26). The Inquiry is not aware of any record of this meeting.
92. Dr. McConnell accepts that a meeting took place but has not been able to comment on what was discussed (WS-286/1, page 11). There is no suggestion in the answers provided by Dr. Kelly that the meeting examined the views expressed by Dr. Stewart in relation to the cause of Lucy's death, or any lessons which could be learned by that.
93. There is no record available to the Inquiry indicating that the Sperrin Lakeland Trust sent a copy of the second report prepared by the

RCPCH to the WHSSB. Dr. McConnell has no recollection of a copy being sent. He has said that he would have expected Mr. Mills to have briefed Dr. McConnell about it (WS-290/1, page 27). There is no indication from Mr. Mills that he did so.

94. While the witnesses from the Sperrin Lakeland Trust who have provided statements to the Inquiry appear to have understood the Trust's relationship with the WHSSB in terms which suggest that the Board had a responsibility to satisfy itself that the adverse incident giving rise to Lucy's death was properly reviewed, it is not clear that Dr. McConnell viewed the relationship in precisely the same way.
95. The extent to which there was a difference of emphasis or perspective can no doubt be clarified in due course. For his part Dr. McConnell has denied that the WHSSB had any direct regulatory or management responsibility for the Sperrin Lakeland Trust (WS-286/1, page 3-4). He has explained that in this sphere control rested with the DHSSPS. It was his understanding that there was a need for the Trust to report Lucy's death to the DHSSPS (WS-286/1, page 5), and indeed he believed that the Trust was in discussion with the DHSSPS about its review of Lucy's treatment and death (WS-286/1, page 7).
96. However, it is notable that representatives of the Trust have denied that the Department was notified of the review (WS-293/1, page 6, WS-290/1, page 14), and there is no indication on the papers currently available to the Inquiry that the Trust had notified the Department of the death, or that it considered that there was any obligation to do so.
97. Dr. McConnell is of the view that there was certainly an expectation that adverse incidents (such as Lucy's death) would be reported to the WHSSB as they were the major commissioning body (WS-286/1, page 5). He has explained that the WHSSB would have required assurance in relation to the ongoing provision of services, and that he would have wanted to be kept informed about the progress of ongoing reviews (WS-286/1, page 6).
98. However, he has emphasised in the final comments contained in his witness statement that it is important for the Inquiry to be clear about the respective roles of the Department, the Trust and the WHSSB, the implication being that the WHSSB had a limited role to play in addressing the governance issues arising from a death such as that of Lucy (WS-286/1, page 15).
99. Finally, in this context the Inquiry has been provided with a document by the DHSSPS which is undated and which appears to relate to discussions which were ongoing in relation to Lucy Crawford's case in 2004, following the Inquest: [Ref: 008-046-107]

100. The document reveals that a meeting took place with a Margaret Kelly (Director of Nursing WHSSB) at which concerns were expressed about issues in Sperrin Lakeland *"that are wider than the Lucy Crawford issue"*. It would appear that Ms. Kelly expressed the view that the WHSSB felt that it was *"in a difficult position due to not having accountability for the performance management of the Trust."*
101. The Department's response seems to have been to emphasise to Ms. Kelly that the Board was accountable *"for the population on whose behalf they commission services"* and that therefore they could ask the Trust to look into issues. A number of options were suggested to Ms. Kelly which the WHSSB could look at to address its concerns.

Requirements

102. As can be seen the Sperrin Lakeland Trust took steps to examine issues surrounding the treatment and death of Lucy Crawford, and (leaving aside the second report of the RCPCH which may not have been more widely disclosed) it shared the findings with senior employees of the WHSSB.
103. Nevertheless, it is clear that by June 2001, some 14 months after Lucy's death, when Raychel Ferguson was admitted for treatment in the Altnagelvin Hospital, there had been a failure to identify and disseminate the true underlying cause of Lucy's death.
104. As a consequence of this failure it might be contended that the medical profession and health care providers in Northern Ireland were deprived of an opportunity to extract and learn appropriate lessons from Lucy's case before Raychel died.
105. In due course, the Inquiry may wish to reach conclusions on what impact these failures may have had for the diagnosis and management of Raychel's condition in the Altnagelvin Hospital.
106. Before arriving at any such conclusions the Inquiry considers that it is necessary to examine the steps that were taken by both the Sperrin Lakeland Trust as well as by the RBHSC and others in their attempts to establish the cause of Lucy's deterioration and death, and to determine whether, given what was known at that time, those steps could be considered adequate.
107. For the purposes of this brief you are asked to focus specifically on the nature of the governance relationships which existed or ought to have existed at that time between the Sperrin Lakeland Trust and the

WHSSB on the one part, and between the Sperrin Lakeland Trust and DHSSPS on the other.

108. Furthermore, having clarified for the Inquiry the nature of those relationships, you are asked to comment on what steps should have been taken by each of those organisations pursuant to their responsibilities in a context where a child had died unexpectedly in what amounted to an adverse incident.

109. You are asked to address the following specific questions:

- (a) Define the nature of the governance relationship which existed between the following organisations as at April 2000:
 - (i) The Sperrin Lakeland Trust and the WHSSB; and
 - (ii) The Sperrin Lakeland Trust and the DHSSPS.
- (b) What information should the Sperrin Lakeland Trust have reported to the WHSSB in relation to the treatment and death of Lucy Crawford, pursuant to the governance relationship which existed at that time?
- (c) Having been provided with information relating to the treatment and death of Lucy Crawford, including the provision of the Trust's review report and the report of Dr. Moira Stewart, what action should the WHSSB have taken pursuant to the governance relationship which existed at that time?
- (d) Insofar as you can comment from the materials available to you, was the action taken by the WHSSB in response to Lucy's death adequate?
- (e) What ought to have been the role and function of a director of public health in an organisation such as the WHSSB in June 2000, when advised of an adverse incident giving rise to the death of a child such as Lucy Crawford?
- (f) From the perspective of a public health practitioner, was the action taken by Dr. William McConnell (Director of Public Health at the WHSSB) in response to Lucy's death adequate?
- (g) Would you have expected officials of the WHSSB to have -
 - (i) Scrutinised the review exercise which had been conducted by the Sperrin Lakeland Trust to assess whether it was adequate

and to determine whether Lucy's death had been adequately investigated;

- (ii) Directed or recommended the Sperrin Lakeland Trust to communicate with and seek the views of clinicians at the RBHSC in relation to the cause of Lucy's death in light of what was listed on the death certificate;
- (iii) Provided a formal response to the Sperrin Lakeland Trust in relation to the review report which it had sent to the WHSSB;
- (iv) Directed or recommended to the Sperrin Lakeland other action to take in order to address the cause of Lucy's death, the review report having failed to clarify the underlying cause of death;
- (v) Taken steps to determine whether an Inquest was definitely going to take place, or to take any steps to address the Coroner's Office in relation to Lucy's death at any time;
- (h) Would you have expected Dr. McConnell and Dr. Kelly to have specifically discussed Dr. Moira Stewart's comments about the treatment and death of Lucy (as contained in her report and in the notes of her meeting with Kelly) which Dr. Kelly sent to Dr. McConnell?
- (i) Having advised the Sperrin Lakeland Trust to consider having a wider review in relation to Lucy's treatment and death, what steps would you have expected Dr. McConnell to have taken to ensure that this was carried out, and that it was carried out adequately?
- (j) Would you have expected the Sperrin Lakeland Trust to have disclosed the second RCPCH report to the WHSSB pursuant to the governance relationship which existed at that time?
- (k) Should the WHSSB have notified other hospitals within its area or further afield, of the death of Lucy Crawford and the circumstances in which she had died?
- (l) Should the WHSSB have notified the DHSSPS of the death of Lucy Crawford and the circumstances in which she had died?
- (m) Should the Sperrin Lakeland Trust have made a report to the DHSSPS to inform it that there had been an adverse incident leading to the death of Lucy Crawford, and that her death was going to be investigated?

- (n) If the DHSSPS had been so informed by the Sperrin Lakeland Trust of the death of Lucy Crawford, what action would you have expected the DHSSPS to have taken pursuant to the governance relationship which existed at that time?

Conclusion

110. Your assistance in compliance with the Inquiry's requirements should be provided in the form of a fully referenced Expert's Report. Your Report, and any supplemental or addendum Reports will be made public and will be peer-reviewed in accordance with the Protocol No.4 on Experts.
111. In order to address the questions it may be necessary for you to refer to relevant legislation, protocols, guidance, standards or practices that were applicable to the issues raised from 2000 and which the Sperrin Lakeland Trust, the WHSSB and the DHSSPS may have been expected to take cognisance of and/or comply with.
112. You should refer to any available guidance in the UK generally and Northern Ireland in particular which may be germane to the issues raised and how they were applied at that time, together with an indication of how that guidance and its application have developed since then. You should identify the literature, if any, that was available in 2000 that discusses such issues.
113. You are also asked to identify and (only after approval by the Chairman) pursue any additional issues that arise from the papers provided but which are not raised in this brief.
114. If you believe that it is required for the purposes of reaching conclusions on any of the issues relevant to your report or to further clarify matters which arise out of the Inquiry's revised terms of reference, you are asked to identify particular lines of questioning that might be pursued with witnesses; specific documents that should be requested from individuals or organisations; or additional experts that should be retained and an indication of the questions or issues which might be posed for such experts.
115. It is of fundamental importance to the Inquiry that it receives a clear and reasoned opinion on the matters raised herein. Your report may form the basis for witness statement requests which the Inquiry will address to those who had responsibility for the governance issues raised by Lucy's case. Moreover, you are liable to be questioned in relation to the contents of your report at the public hearings of the Inquiry.
116. If any of the questions raised in the foregoing cannot be addressed in a comprehensive fashion at this stage for whatever reason, please

explain the position and identify what it is that you require in order to furnish a final opinion.

117. If any of the issues raised in the foregoing fall outside your area of expertise please advise the Inquiry accordingly. Equally, if you believe that any issue is better addressed by an expert in another field please inform the Inquiry of your view.
118. We have provided you with only the most relevant documents from the large volume of documentary material which is available to the Inquiry in relation to Lucy's case. You will note that some of the documents provided to you have been heavily redacted to exclude irrelevant material e.g. large sections of the RCPCH reports fall into this category.
119. We have not provided you with all of the documentation which is specifically referred to in the sections set out above. However, if you are of the view that it is necessary to see any particular document, the Inquiry will be happy to provide that to you.
120. The following particular documents are appended:-
 - (a) List of persons in Lucy's case
 - (b) Chronology
 - (c) List of issues (relevant to Lucy aftermath)
 - (d) The Inquiry witness statements of Mr. Mills, Dr. Kelly, Mr. Fee, Dr. Anderson, Dr. Moira Stewart, Dr. McConnell
 - (e) Mr. Mills note (14 April) logging contact with Dr. McConnell [Ref: 030-010-017]
 - (f) Note recording contact between Mr. Mills and Dr. McConnell on 21 April [Ref: 030-010-018]
 - (g) Note recording contact between Mr. Fee and Dr. Hamilton of WHSSB on 17 April 2000 [Ref: 033-102-286]
 - (h) Mr. Mills records logging updates provided to Mr. Frawley on 3 May [Ref: 030-010-018] & 14 June [Ref: 036b-002-002]
 - (i) Dr. Kelly letter to Dr. McConnell dated 15 May 2000 [Ref: 036a-046-098]
 - (j) The Sperrin Lakeland Review Report in relation to Lucy's death including appendices [Ref: 033-102-264]
 - (k) The RCPCH report produced by Dr. Moira Stewart [Ref: 036a-025-

052 -060]

- (l) Notes of meeting between Dr. Kelly and Dr. Stewart to discuss Dr. Stewart's report [Ref: 036a-027-067 & 068]
- (m) Letter from Dr. Kelly to Dr. McConnell dated 27 June 2001 (which enclosed Dr. Stewart's report and notes of the Kelly/Stewart meeting) [Ref: 036a-028-069]
- (n) Response from Dr. McConnell to Dr. Kelly dated 5 July 2001 [Ref: 036a-029-070]
- (o) The RCPCH report produced by Dr. Stewart and Dr. Boon [Ref: 036a-150-309]. See in particular [036a-150-312]
- (p) DHSSPS document recording notes of discussions with Director of Nursing of WHSSB on date unknown but believed to be 2004 [Ref: 008-046-107]