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**Expert Nursing Advisor Report into the circumstances
surrounding the death of Claire Margaret Roberts**

**Prepared by Susan Chapman (RGN, RSCN, MSc,
AdvDip) for the Police Service of Northern Ireland.**

24th March 2008

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My name is Susan Chapman and I am a Nurse Consultant for Acute and High Dependency Care at Great Ormond Street Hospital for Children NHS Trust in London.

I qualified as a Registered Nurse (Adult) in 1988 and as a Registered Nurse (Child) in 1994. I also hold additional qualifications in Intensive Care (adult), an Advanced Diploma in Child Development and a Master of Science Degree in Paediatric Critical Care (Advancing Nursing Practice). I am currently studying for a Research Doctorate through the Institute of Child Health, London.

I have worked within acute paediatrics since 1992 and was appointed to my current post in 2003. I also act as a Registrant member to the Conduct and Competence Committee of the Nursing and Midwifery Council (NMC). This is the panel that considers allegations of impaired 'fitness to practice' of nurses and decides whether they are fit to remain on the nursing register without restriction.

I have been asked to act as expert nursing advisor to the Police Service of Northern Ireland (PSNI) in their investigation into the circumstances surrounding the death of Claire Margaret Roberts (born 10th January 1987).

I have received photocopies of the following documents:

- a. Claire's medical notes
- b. Verdict on Inquest dated 4th May 2006
- c. A letter from Dr Walby (RBHSC) dated 16th December 2004.
- d. A statement from Mr Alan Roberts (Claire's father) consenting to medical and nursing professionals to assist PSNI in their investigation into the circumstances surrounding Claire's death dated 16th March 2007
- e. A statement from Mr Alan Roberts (Claire's father) dated 29th September 2005
- f. A statement from Dr Maconochie (not dated)
- g. A statement from Dr Sands dated 6th July 2005
- h. A statement from Dr Young (not dated)
- i. A statement from Dr Steen dated 16th March 2005
- j. A statement from Dr Webb (not dated)
- k. A report from Dr Dewi Evans dated 1st March 2008

I have examined all the documents in detail before preparing this report. I have been asked to advise PSNI on the following questions:

1. Are the notes complete in relation to nursing records? If not, what would you expect also to have been present for completeness?
2. Are the nursing records made to an acceptable standard?
3. Is there an appropriate nursing plan?
4. Was the nursing care appropriate?
5. Where you identify deficiencies in the nursing care, please state what should have happened, what did happen, who was responsible, and what were the consequences of the deficiency.

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Are the notes complete in relation to nursing records? If not, what would you expect also to have been present for completeness?

1. I have examined all the records related to Claire Roberts that I received. I shall confine my review to the nursing records related to Claire's admission to Allen ward RBHSC from 21st to 23rd October 1996. No comment will be made on the nursing care related to previous admission or within the PICU.
2. I would expect to find evidence of an initial nursing assessment, a plan of nursing care, an evaluation of the nursing care given, an observation chart, fluid chart and a prescription for drugs and intravenous fluids as a minimum for a child who required admission to a paediatric ward.
3. These are all present within the records I have reviewed. In addition, there is a 'Record of attacks observed'.

Are the nursing records made to an acceptable standard?

4. I shall comment on the standard of each part of the nursing record individually.

Nursing Assessment on admission:

5. A nursing assessment was undertaken by Staff Nurse Geraldine McRandel and is signed and dated for the 21st October 1996 at 9:45pm. It is a comprehensive document and has been completed thoroughly.
6. On page 1, SN McRandel completes all sections of the form, noting the reason for admission as '? seizures, vomiting'. She records details of Claire's illnesses and admissions to hospital, and under the heading 'Previous illnesses' notes 'Mental Handicap, Severe Learning Difficulties, Epilepsy (no seizures for past 3 years)'
7. On page 2, SN McRandel records Claire normal routine and undertakes an initial nursing assessment. She records the condition of her skin, hair and teeth and notes Claire's vital signs, weight and social history.
8. The only sections that are incomplete are Claire's height and urinalysis. SN McRandel records that Claire is drowsy and lethargic and I would therefore not expect Claire's height to be measured at this stage, given the late hour of her admission to Allen ward and her clinical condition. SN McRandel also notes that Claire wears a nappy overnight, so it would be difficult to obtain urine for urinalysis at that point.
9. Overall, the Nursing assessment is completed to an acceptable standard.

Nursing Care Plan:

10. SN McRandel also completed a nursing plan and this is dated 21st October 1996. SN McRandel identifies two nursing problems at this time. I shall discuss this in more depth in section 42 to 56.
11. Overall, the Nursing Care Plan is completed to an acceptable standard.

Nursing Evaluation:

12. An evaluation of nursing care should be documented at least once per shift or more frequently if significant events occur. All entries should be signed and dated.
13. There are entries that correspond to Claire's admission (22:00) and overnight care on the 21st -22nd October 1996 by SN McRandel, entries on the 22nd October 1996 timed at 8am - 2pm and at 2pm by SN Field, and a further entry by SN McCann recording the overnight care on the 22nd - 23rd October 1996. A record is made of the nursing care on all shifts on Allen ward.

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14. Overall, the Nursing evaluation is completed to an acceptable standard.

Observation Chart:

15. Claire had her observations recorded on admission (21:45) and this is recorded both on the nursing assessment on admission and on the observation chart. It is also remarked upon within the nursing evaluation as within normal limits by SN McRandel. I note that the pulse rate is elevated at 120 beats per minute, as is the blood pressure (BP) at 116/66. For a child of Claire's age, I would expect the pulse to be around 100 beats per minute with a BP of 100/60.
16. There are then additional observations of temperature, pulse and respirations recorded at 02:00, 6:00, 10:00 and 12:00. There are no further BP measurements at this time, but this is not uncommon in paediatrics as BP is considered a late sign of deterioration in children and often monitored infrequently.
17. The frequency of observations is in keeping with a child with a presumed viral illness, the clinical impression noted in the medical record. No additional observations had been requested by the doctors reviewing Claire.
18. Overall, the observation chart is completed to an acceptable standard.

Neurological observation chart:

19. This was commenced at 13:00, presumably after the ward round led by Dr Sands. A full set of neurological observations (coma score, pupil reactions and limb movements) were performed at this time.
20. From 15:00 on the 22nd October onwards, neurological observations are performed hourly until Claire was found with Cheyne Stoke breathing at 3am on 23rd October 1996.
21. Some neurological observations are incomplete during this period, specifically at 22:00, 23:00 and 24:00, when the BP is not recorded. No record is made of Claire's limb movement after 21:00 (22nd October 1996). However, I believe that these omissions do not constitute a failure in care, as the majority of the observations were made, indicating the nursing staff continued to monitor Claire's condition at least hourly.
22. It is the role of the nurse to record the observations and report any notable changes to the medical staff. All the neurological observations taken show a marked deficit in Claire's neurological state, with a coma score of between 9 and 6. Claire was reviewed at Dr Sands in the morning and then at 4pm by Dr Webb, a Consultant neurologist when her neurological observations were being recorded. In all she was reviewed at least 7 times by various members of the medical team. It was the doctor's role to interpret the neurological observations performed by the nursing staff and to recognise the severity of Claire's condition.
23. Overall, the neurological observation chart is completed to an acceptable standard.

Intravenous fluid prescription chart:

24. There are 2 pages headed intravenous fluid prescription charts. On neither chart is Claire's name, date or hospital number completed, but I suspect this is a two sided document, with the fluid chart on the reverse (where these details are noted as complete).
25. The first intravenous fluid prescription chart states that 500mls of 0.18% NaCl and 4% Dextrose are to be administered at 64 ml/hour. The prescriber has signed the entry but no record is made by the person who erected the fluids. I

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presume this relates to the night of Claire's admission. It may be that the fluid was erected in the A&E department and continued in the ward.

26. A second chart prescribes 500mls of 'No 18 soln' to be administered at 64 ml/hour but again no record is made by the person who erected the fluids. It would be expected that this new bag would be erected about 7am on 22nd October 1996.
27. There are two further prescriptions for an infusion of 69mg midazolam to be given over 24 hours and a further 500mls of No 18 with the addition of 20 mmols of KCl (potassium chloride) to be administered at a rate of 41 mls per hour. Both these entries are signed by the prescriber and the person who erected the fluids.
28. Although there are some omissions to the fluid chart, the areas of the Intravenous fluid prescription chart which relate to the nursing role are largely complete and constitute an acceptable standard.

Fluid Chart:

29. Recording of fluid balance charts is an essential part of caring for a child receiving intravenous fluids. Claire's chart indicates hourly entries from 22:30 on 21st October through to 02:00 on 23rd October. Note is also made of sips of water she drank at 10:00 on the 22nd October. There is only one entry which is missing at 14:00 on 22nd October. This is probably due to the administration of drugs and is acceptable.
30. All entries appear to be in keeping with the intravenous infusion running at an initial rate of 64 mls per hour and being reduced to 41 mls per hour 11:40. Good practice is to perform hourly checks of the child which includes assessment of the rate of infusion (to check that it remains as prescribed), assessment of the intravenous cannula for patency and recording on the fluid chart of the actual amount of fluid infused. This value is generally found on the 'drip counter' or fluid infusion device itself and represents the most accurate assessment of the actual amount of fluid infused. Recording in this way normally results in hourly recordings of values that deviate slightly from the rate of infusion that is prescribed, as it is virtually impossible to ensure that you arrive to perform the assessment at the same time each hour. It appears this was done in Claire's case.
31. Record is also made of the intravenous drugs administered and their total volume (170ml).
32. The chart also shows when Claire passed urine, noted by the entries 'PU' on the output side of the chart. She passed urine on once on the chart commenced on 21st October and 3 occasions on the chart commenced on 22nd October. On one of these occasions, the amount passed is noted as large and the entry indicates that a specimen was sent to the laboratory.
33. The record also records when Claire passed vomited noted by the entries on the output side of the chart. She vomited six times on the chart commenced on 21st October and twice on the chart commenced on 22nd October.
34. All entries are signed in the comments column.
35. Overall, the fluid chart is completed to an acceptable standard.

Drug Chart:

36. It is generally a nursing role to administer drugs to the patient, provided they are correctly prescribed and there is no other contraindication. Claire was prescribed a number of drugs, all which appear to have been administered and the charts completed correctly. The only drug which is not signed as administered is the

midazolam prescribed as a once only drug at 15:25 on the 22nd October. A note is made in the nursing evaluation that Claire was 'given stat IV hyponoval (midazolam) at 3.25pm' following review by Dr Webb. It may be that this was administered by the medical team.

37. Corresponding entries on the fluid chart support the administration of drugs as prescribed.
38. Overall, the areas of the drug prescription chart which relate to the nursing role were completed to an acceptable standard.

Record of Attacks observed:

39. This is a chart which documents the presence of seizures or any type of 'attack' noted.
40. There are four entries relating to the 22nd October. The final one is noted at 9pm and SN McCann notes that 'Dr informed'. The next review in the medical notes is at 23:30 and results in Claire's intravenous fluid administration being reduced to 41mls per hour. A signature on the intravenous fluid chart at timed at 11:40 indicates that this was done.
41. A request is also made for urine to be sent for osmolarity. The fluid balance chart indicates that Claire did not pass urine after this point before her transfer to intensive care, therefore the specimen could not be collected.
42. Overall, the Record of attacks observed chart is completed to an acceptable standard.

Is there an appropriate nursing plan? Was the nursing care appropriate?

43. SN McRandel completed a nursing plan in a timely manner and this is dated 21st October 1996. SN McRandel identifies two nursing problems at this time.

Nursing Care plan: Problem 1

44. SN McRandel identified Claire's first nursing problem as the potential for Claire to suffer from seizures, an appropriate problem as she was known to have suffered from seizures in the past. SN McRandel uses a standard care plan for the 'potential problem of further febrile convulsions' which she then adapts by replacing the words 'febrile convulsions' with 'seizures'. The plan is personalised to Claire and is signed and dated. SN McRandel notes that it should be reviewed daily, which is appropriate.
45. The nursing actions within the standard febrile convulsions care plan include actions appropriate to the management of seizures arising from any cause. SN McRandel further personalises Claire's care plan by adding an entry regarding the administration of medicines, assisting with investigations and reporting abnormalities to the doctor/nurse in charge.
46. There are no entries on the nursing care plan relating to the frequency of observations and there is a question over whether regular neurological observations should have been included in the plan of nursing care from the start. I believe their omission from the nursing care plan results from the clinical impression of the medical staff that Claire was suffering from a viral illness. She was seen by members of the medical team on admission (8pm) and again at midnight, but no formal request for neurological observations or closer monitoring was documented at this time. Her review by Dr Sands on the morning of 22nd October 1996 notes that the clinical impression has changed to non fitting status / encephalitis / encephalopathy. Even then, it is not made explicit in the medical notes that her condition warranted regular neurological observations, concern or closer monitoring.
47. The first entry on the neurological observation chart was at 1pm on 22nd October 1996, and is likely to be the result of the change in clinical impression noted by Dr Sands following the morning ward round. A subsequent entry in the nursing evaluation confirms this and states that she is to commence on hourly CNS (central nervous system) observations hourly.
48. Although the care plan was not updated to include neurological observations, it was recorded in the nursing evaluation and they were clearly performed on an hourly basis as discussed in section 19 to 23. Although the failure to document this is an omission in the written care plan, it does not represent a failure in nursing care, as the observations were performed once the need was established on the morning ward round.
49. I believe that Claire's neurology was significantly altered throughout her stay on Allen ward. I also believe that the medical team were aware of this, as she was examined and reviewed on a number of occasions by a number of different doctors. Although her coma score deteriorated from 8 at 8pm to 6 at 9pm on October 22nd 1996, she had previously been noted with a coma score of 6 at 4pm and 5pm, shortly after review by Dr Webb, a Consultant Neurologist. He acknowledges in his statement that on his first contact with her on 22nd October 1996 she was 'poorly responsive'.
50. Although nurses are generally responsible for performing observations, the decision on how frequently and what is recorded is strongly influenced by the working diagnosis and the perceived acuity by the medical staff of the child's

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clinical condition. My impression, from reading the notes, is that there was no concern expressed by the medical staff that Claire's condition warranted anything more than standard monitoring or observation, which the nursing staff performed.

51. In light of the clinical impression noted by the medical staff, the problem, goals and nursing actions for problem 1 on the nursing care plan were appropriate for a child with a viral illness and whom the medical staff do not express untoward clinical concern about.

Nursing Care Plan: Problem 2

52. Problem 2 is related to Claire's ability to eat and drink and identifies the problem as 'vomiting' and states that she 'requires an intravenous infusion'. The goal and nursing actions are noted and SN McRandel also requests that they should be reviewed daily, which is appropriate.
53. Within the nursing actions SN McRandel notes that intravenous fluids should be given 'according to hospital policy'. She also states that the nursing care should 'record [an] accurate fluid balance chart'. In 1996, it was acceptable practice not to calculate an accurate fluid balance by recording the actual volume of urine passed by a child receiving intravenous therapy. It was more common to make an estimate of the volume of urine passed (small medium or large), together with a note of the number of episodes of urination. Claire's fluid chart was therefore completed to the standard acceptable in 1996.
54. The medical team remain responsible for prescribing the fluid and ensuring the prescription is appropriate and correctly written. The nurse is responsible for ensuring the treatment is reasonable and correctly prescribed before commencing the therapy and that this is documented accurately.
55. 0.18% NaCl and 4% Dextrose (or Soln 18) was commonly used as intravenous fluid therapy in 1996 and the volume of 64ml per hour would be considered acceptable for a child of 24kg. The nurses would therefore have no reason to question a fluid regime of this type. It is the role of the medical team to obtain and monitor laboratory tests such as serum electrolyte levels and to re-evaluate the fluid regime in the light of the results.
56. The Problem, Goals and Nursing Action for problem 2 are comprehensive and appropriate to a child who is vomiting and requires intravenous fluid in 1996. The nursing care was planned appropriately and carried out to an acceptable standard.

Overall nursing care:

57. After examining the records regarding Claire, I believe that the nursing care was carried out to a standard acceptable in 1996.

Where you identify deficiencies in the nursing care, please state what should have happened, what did happen, who was responsible, and what were the consequences of the deficiency.

58. I find only minor deficiencies in the nursing care given to Claire Roberts in 1996. These are generally around failures to document aspects of care and are highlighted in sections 16-17, 21-22, 24-26, 29 and 36. I would consider that none of these represent a failure in nursing care, given the diagnosis and management prescribed by the medical team.
59. There was an overall lack of recognition of the seriousness of Claire's clinical condition. Her poor level of consciousness was monitored and recorded by the nursing staff, but it was the role of the medical staff to act on these results. She was reviewed on at least seven occasions by members of the medical team before her transfer to intensive care but at no time was additional monitoring, observation or treatment requested.
60. Therefore, I find the care delivered by the nursing staff acceptable by the standard expected in 1996.

Signed:

Susan Chapman,
RN (Child), RN (Adult), AdvDip, MSc
Nurse Consultant, Great Ormond Street Hospital for Children NHS Trust

Dated: 24th March 2008.