Dr Sumner,

RE Adam Strain.

Here are some questions to which we would like a response. Some will require a very brief answer. The page references refer to the page numbers in the documents which I left with you, but some of the questions may refer to papers not left with you. I will be bringing a full set and we can examine them at the meeting. It is my view that you could answer everything here without preparation and therefore if you do not have time to consider these in advance I do not think that will disadvantage our discussions.

GENERAL

1. Can you provide a CV?

2. Please provide a unified report. At present we have your report to the Coroner and your draft report to the PSNI. It would be greatly beneficial to the consideration of the evidence if you could combine your final report to the PSNI into your report to the Coroner so that we present a single piece of evidence.

ELECTROLYTES

3. Was the existing Na problem a reason to be particularly careful with electrolytes and indicate a greater need for checking their levels? P 205, 33.

4. Was it practical to carry out electrolyte tests? P40.

5. 'There was no reason to believe there would have been a change in electrolytes.' Is that true? Was the opposite not true? P40.

6. Can you explain 'the fluids I gave were isotonic' since 0.18% solution is elsewhere referred to as hypotonic? P40. How quickly would dextrose be metabolised?

7. Would a blood loss of 2/3 make fluid management difficult? Is adjusting for such a situation a routine part of an anaesthetists work, or is it rare? P26

8. Is it right to say 'with the benefit of hindsight...should be monitored'? p27.

9. It is suggested there is a distinction in this case and those referred to by Arieff because in his cases hypoxia was present. Is that relevant? P27.

10. Is it true to say the Na level could be predicted by a 'simple calculation'? p42. Is there evidence anyone did that calculation and so could have predicted the hyponatraemia?

11. 'Blood gas should have...' p24. Why/How important is that?

12. How often would you personally have started an operation like this without electrolyte measurements?

URINE

13. Dr Keane says that urine is never measured during an operation (p30) and Dr Alexander says it is impossible to (p26). What is your opinion on these comments since you have highlighted the lack of such a record.

14. Prof. Berry states that the pre-operation electrolytes were OK (p176). I assume he means the tests from the night before? How far back does pre-op go?

OPERATION

15. Was it foolish to attempt to cannulate as described at p57?

16. How difficult technically was this operation compared to another paediatric kidney transplant? Depositions have highlighted the technical difficulties yet you say it was 'slightly' more difficult (p53). Would it not be the case that most recipients of a donor kidney would have had prior operations leaving adhesions? Did the surgeon make it unnecessarily more difficult by deciding to attach the renal arteries to the iliac rather than the more normal dorsal aorta?

17. Prof Berry refers to almost complete infarction of the donor kidney (p177). What does that mean? He states it happened at or before the transplant – is it possible to time the damage as accurately, is it possible that could have happened and not been seen at the operation? If it was the case at the operation and was seen, what should have been done? If that were true, would it alter your opinion of the cause of death?

18. Are you aware if anyone checked the fate and function of the other donor kidney. P177.

19. Can we check if the 'fluid regime employed successfully with Adam previously' is true? P40.

20. Should a better note have been made re the epidural, where, what extra details should be recorded, why? P55.

21. Explain PD. P55 (peritoneal dialysis?).

22. Explain 'physiological 3rd space'. P56.

23. Was it reasonable to say that Adam's decline and death had 'nothing to do with anaesthetics'? p220.

24. Is there a value in comparing past operation notes with the relevant operation notes?

25. What is the relevance of the 'enlarged bladder'? Would that have been caused during the transplant? P1.

26. Is it right to say that a final haemoglobin level near to that found before the operation confirms good intraoperative management of haemoglobin? P26.

27. Are the views of Dr Gibson reasonable? P180.

28. Where Dr Taylor's records meticulous? P82. Did he not omit recording urine/electrolytes/epidural/CVP?

29. Did anything appear on the anaesthetic monitor? P227.

30. Is it reasonable to read the anaesthetic records and not detect the problem? P227.

31. Is there evidence of hypoxia (p227 eight lines up from bottom)? Dr Alexander says there is not (p27). Also p85.

32. 'Problem with venous drainage'. P24. What was the problem? Did it have a bearing on the cause of death or on the degree of negligence?

33. Explain 'the space is not noted'? p101 (bottom of page).

34. Can you show where on the anaesthetic forms the CVP should have been recorded? P102.

35. Can you demonstrate from the charts the rise in BP. P108.

36. Can you show from the traces the signs of coning? P108.

CVP

37. Why were there no CVP figures and where did Dr Taylor record them? Does a copy of the letter referred to exist? P52, 102.

38. What is the significance of the raised CVP? What action ought to have been taken? What action was taken? P59.

39. How can a CVP of 28-30mmHg be achieved other than by excess fluid?

40. How can body position alter the CVP and what degree of change might one expect?

41. How does the anaesthetist predict such CVP changes and adjust treatment or readings?

42. If there is a suspicion that the transducer is giving a false reading is it possible to check if it is malfunctioning at that time?

43. Why were no tests done on the CVP equipment/transducer? P167.

44. Is it right to assume at first that the transducer was faulty? P26.

45. The Siemens Monitor measures blood pressure. Is this what measures CVP? P167.

46. What is your opinion re the extent of the testing of the equipment? P167.

47. What is your opinion on an initial CVP of 17mmHg? Is that high before any fluids? P79.

48. Explain 'titrated against BP and CVP'. P34a.

49. Explain your view of using 17mmHg as a baseline. P3

CONCLUSIONS

50. What is the meaning of 'on the balance of probabilities'? What other possible causes could there have been? How certain is this cause of death i.e. cerebral oedema caused by dilutional hyponatraemia? Did any medical opinion dissent from that conclusion? P60.

51. Had you seen Prof. Berry's report before preparing your report for the Coroner? Do you think you should have seen it?

52. Dr Alexander says he believes that renal failure may affect hyponatraemia and disagrees with you on that point. P28. Is he wrong and why?

53. 'Case management is extremely difficult' p24. How difficult is it to get it right? Will that amount to a reasonable excuse?