Making Northern Ireland Safer For Everyone Through Professional, Progressive Policing

13 February 2006

Doctor Edward Sumner MA BM BCh FRCA
Consultant Paediatric Anaesthetist
[redacted]

Dear Dr Sumner

RE ADAM STRAIN, RAYCHEL FERGUSON

Thank you for your continued assistance and for your agreeing to meet us on the afternoon of 22 February 2006, prior to the main consultation on 23 February 2006.

1. I have received documentation from various sources, including some medical and nursing notes that were not available to me when we last spoke. It may be of little significance but I am forwarding it. If it contains anything that would impact on your report regarding Adam already provided to police, then we can discuss this on 22 February 2006. This documentation is marked 'File 57 – Adam Strain Case Notes.'

An analyst has reviewed the papers which you already have and has recommended that I seek clarification of the following:

2. Did Adam's CVP and BP from 0800 to 0900 hours during the operation warrant an increase in fluid?

3. When Adam was in theatre from 0900-1000 hours it would appear from your report that appropriate action was taken in relation to the red blood cells. Did additional action need to be taken in relation to the sodium level? Could a different action have been taken at that time? Was it already to late?

4. Again, in the period 0900-1000 hours you have stated the volume replacement was excessive for that stage in the operation and in the light of the total blood loss over the whole of the operation. Bearing in mind that Adam normally received 2100 mls fluid per day, is there arguably fluid overload at that stage?

AS - PSNI

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5. In relation to theatre, from 1000 hours onwards you state that HPPF also contains sodium, would this have any bearing on Adam's sodium levels at this stage?

6. Can you give an estimate of how much extra fluid above a patient's normal fluid requirement would be given to ensure good perfusion during a kidney transplant?

I enclose the following documents for your consideration and ask you to highlight anything that would be relevant in your opinion to the defence or prosecution cases, and anything that would support or challenge your previous reports.

7. Two medical articles – **"Prevention of Hospital – Acquired Hyponatraemia: A case for Using Isotonic Saline"** by Mortiz and Ayus, and a Commentary Entitled **"Reducing Errors in Fluid Therapy Management"**. These articles were sent by Dr Taylor, Anaesthetist for Adam Strain, to "Peter", possibly Dr Peter Crean in March 2003 with the comment, "See very recent debate in 'Paediatrics' on this subject. It is very complex and the 2 sides are very polarised". Furthermore, can I ask you to clarify what concentrations are required to be classified as hypotonic, isotonic or hypertonic?

8. A deposition from Dr Taylor, and letter to Dr Murnaghan from Dr Taylor. I would point out at page 011-005-036, last paragraph, Dr Taylor comments on the "presence of normal monitoring signs". Were the monitoring signs normal – I thought the CVP was highly abnormal?

9. Medical notes relevant to earlier admissions. It has been stated that Adam suffered a long-standing problem with sodium. I note that on 26/11 his sodium was 118, on 27/11 after N/2 saline it was 130, then 131, on 28/11 it was 131, and on 29/11 it was 146, remaining in that area until it dropped to 135 on 4/12, but rising again to 142 on 5/12. The fluids prescribed are recorded. Can you advise me as to whether:

Kidneys see Nx

1. The fluid management was appropriate. Good treatment.

2. If it was appropriate for Dr Savage (049-029-088) to prescribe what appears to me to be ~~0.18%~~ saline to replace fluid loss. 0.45% ok

3. If this variation in sodium levels indicates a problem and that Adam perhaps metabolised sodium in a way that defied management. Dr M.D. waterlow Nx.

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If this sodium fluctuation appears to be significant I believe you should then examine further old notes that are available. If you think this necessary, email me and I will bring them on 22 February 2006. Treatment perfect.

10. Reports from the files of the Royal Belfast Hospital for Sick Children. I would ask you to consider these and comment on anything you think is relevant. In particular can I ask your opinion on:

(a) Page 059-067-155, bottom paragraph. Comment has been made elsewhere that fluid management was satisfactory to the extent that Adam's haemoglobin fell but was restored to the level at the beginning of the operation. Here we are told the lowest level (6.1) is only an estimation. Does this indicate it was not measured intra-operatively, but only guessed? machine estimate

(b) Page 059-067-156, first paragraph: "The donor kidney did not appear well perfused after an initial period of apparently good perfusion". If perfusion is good, and there clearly is a surplus of fluid circulating, what are the possible reasons for perfusion diminishing? Often physical - kinking / pressure.

(c) Page 059-067-156, second paragraph: "CVP ... gave me no cause for concern". At what point would you have been concerned re CVP?
Good line, free flow, zeroed, soon as see it.

(d) Page 059-067-156, second paragraph, "a blood gas at 09.30 am ... any indication of problems". I understand this blood gas revealed a low sodium reading, and since the fall was so rapid, it indicated a very serious problem. Does this indicate that Dr Taylor failed to spot the low sodium, does his reaction to the blood gas result during the operation indicate an attempt to address low sodium? Compare to comment on page 059-004-007.

(e) Page 059-053-108, point 1: "The major argument used by both experts is seriously flawed in this case".

(f) Page 059-053-108 point 2: is the blood glucose relevant?

(g) Page 059-053-108 point 3: is this a valid point? Key on monitor.

(h) Page 059-053-108 last paragraph: is this a valid criticism of your opinion? Well overlooked Didn't measure urine.

(i) Page 059-036-072 – please comment on paragraph entitled hyponatraemia and any other relevant statements in the letter. Not true

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(j) Page 059-014 –039 point 3: Can a gradient difference explain the CVP readings? Is the high CVP produced by an obstruction or by excess fluid?

I will discuss this with you on 22 February but would request that either before or after that meeting you address these points in writing.

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D/SERGEANT

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