EXPERTS' MEETING
9th March 2012

NOTE TO PROFESSOR COULTHARD FOLLOWING EXPERTS' MEETING

We refer you to your Note to the Agenda for the experts' meeting of 9th March 2012. This is an additional Note to Agenda relating to matters arising out of the meeting on 9th March 2012:

1. We enclose for your attention the translated Articles of Paut and Sicot.

2. Please furnish a copy of your article(s) involving hyponatraemia, neonates and the rate of fall of serum sodium concentration of 3mmol/hr, as requested by Professor Kirkham during the experts' meeting on 9th March 2012.

3. Please set out your final calculation of the rate of fall of Adam's serum sodium concentration (a) during the first hour of his surgery and (b) from the start of surgery until 9.32am on 27th November 1995.

4. Please explain the basis and reasons for your view that the CVP recorded at the outset of surgery was not compatible with Adam's physiological state.

5. Please comment on the fact that the transducer was rezeroed (Ref: 011-014-101, WS008/2 p35, Q92).

6. Please comment on your response to Professor Gross' view:

   (a) Re: CVP: that as there was a respiratory and cardiac wave form, 17mmHg was a real measurement taken distally and which was due to the possible partial obstruction/narrowing of the right internal jugular vein, and that 17mmHg did not represent Adam's volume status in his right atrium but rather the partial stenosis at that point in time.

   (b) Re: Adam's head down position in surgery (of possibly 5-7cm lower that it would normally be): that this head down position could have contributed to increasing Adam's venous pressure even beyond 17mmHg, and possibly beyond 20mmHg.

   (c) perfusion pressure in Adam's brain: that Adam had borderline perfusion pressure in his brain and that this may have contributed to his cerebral oedema.

7. You suggested that Adam did not produce urine after the first 20 minutes or half hour of the operation, and that the 49mls urine in his catheter was the only urine he produced during the operation. Please comment on:

(a) The fact that Mr. Keane had intended that the bladder become distended in preparation for ureteric reimplantation (Ref: WS 006/2, p10, Q13(b), (c)), and how this would have happened if no urine was being produced during the operation.

(b) Dr. O' Connor had informed Mrs. Slavin that Adam's bladder was enlarged and that after transplant Adam would probably need to be catheterised several times daily (Ref: 011-006-018,011-009-026, 093-003-004), and how this would have happened if no urine was being produced during the operation.

(c) The effect on the calculation of blood loss if Adam only produced 49mls of urine during the operation. If the bladder was catheterised at some time between 10.00 (Ref: WS006/2 p.6, Q6(b)) and 10.30 (WS 006/2, p.10 Q11(b)), and peritoneal dialysis ended at 06.00 (Ref: 057-014-019), please comment in so far as you are able on:

- Mr. Keane's statement that the "*blood loss of 1200cc was not all blood but contained fluid as well"* (Ref: 011-013-093) and that "*approximately 600cc was made up of urine, peritoneal dialysis fluid and slushed ice used to cool the kidney until the vascular anastomosis are complete"* (Ref: WS006/2 p.10, Q12(a))

- On what amount of that fluid would likely have been urine, given your suggestion about Adam's urine output

- On what amount of that fluid would likely have been peritoneal dialysis fluid.

8. State the basis of your assumption that children do not pass urine when anaesthetised.

9. Please comment on Professor Gross's statement that Adam's urine output may have dropped by 50% during the operation.

10. Please provide the paper or case report of A. Finbery in 1970 approximately relating to the rate of fall of sodium and the permitted/recommended rate of fall of 3mmol/hr, and any of your own papers on this issue.

11. Please comment on the cause of the greater degree of cerebral oedema which was severe in the posterior fossa, and the reasons why the cerebral oedema was not uniform.

12. Please comment on Professor Gross's statements that the effect of Adam being in a "head down" position may have been to add to the pressure in the veins, and that this would affect the posterior areas of the brain most.

13. Adam's urine output in PICU is recorded at Ref: 057-018-026 and 057-018-027.

LIST OF DOCUMENTS TO BE SENT

- Translated Articles of Paut and Sicot

13 March 2012