Witness Statement Ref. No. 008/8

NAME OF CHILD: ADAM STRAIN

Name: Robert Taylor

Title: Dr

Present position and institution:

Consultant Anaesthetist, Belfast HSC Trust

Previous position and institution:
[Since your Witness Statement of 1st March 2012]
Consultant Anaesthetist, Belfast HSC Trust

Membership of Advisory Panels and Committees:
[Identify by date and title all of those since your Witness Statement of 1st March 2012]

N/A

Previous Statements, Depositions and Reports:
[Identify by date and title all those since your Witness Statement of 1st March 2012]

N/A

OFFICIAL USE:
List of previous statements, depositions and reports:

Ref:	Date:	
011-002	30.11.1995	Draft Statement
011-014	21.06.1996	Deposition of Witness
008/1	18.07.2005	Inquiry Witness Statement
093-038	17.10.2006	Transcript of PSNI interviews
008/2	16.05.2011	Second Inquiry Witness Statement
008/3	28.09.2011	Third Inquiry Witness Statement
008/4	28.09.2011	Fourth Inquiry Witness Statement
008/5	09.01.2012	Fifth Inquiry Witness Statement
008/6	01.02.2012	Sixth Inquiry Witness Statement
008/7	01.03.2012	Seventh Inquiry Witness Statement

IMPORTANT INSTRUCTIONS FOR ANSWERING:
Please attach additional sheets if more space is required. Please identify clearly any document to which you refer or rely upon for your answer. If the document has an Inquiry reference number, e.g. Ref: 049-001-001 which is 'Chart No.1 Old Notes', then please provide that number. If the document does not have such a number then please provide a copy of the document.

I CVP LEVELS

(1) The evidence of Mr. Keane on 23rd April 2012 and 26th April 2012 refers to some specific exchanges with you in relation to the CVP readings during Adam's transplant surgery on 27th February 1995. Your attention is drawn to the following references in the attached transcripts:

23rd April 2012

- Page 83, lines 2-5
- Page 84, lines 21-25
- Page 85, lines 2-5 & lines 10-14
- Page 95, lines 22-25 & Page 96, line 1-3
- Page 96, lines 7-12 & lines 15-21
- Page 97, lines 15-25 & Page 98, line 1
- Page 98, lines 7-18
- Page 114, lines 8-24
- Page 115, lines 5-15
- Page 116, lines 3-9
- Page 117, lines 10-17
- Page 123, lines 20-25
- Page 124, lines 5-10

26th April 2012

- Page 182, lines 15-19
- Page 184, lines 9-25
- Page 185, lines 1-3

Please state and explain:

(a) The extent to which you accept Mr. Keane's evidence of the exchanges between you as identified in those extracts as an accurate account of what took place

I cannot recall the specific conversations with Mr Keane prior to or during Adam's operation. Please see answer to part (b).

(b) Your own account of what happened in relation to any parts of Mr. Keane's evidence in those extracts that you do not accept as accurate

I have been asked to comment on the accuracy of the above extracts. I cannot ever remember a surgeon asking me for a CVP reading on 10-20 occasions (Page 83, lines 2-5, Page 182, lines 15-19). I cannot recall Mr Keane asking me if Adam was all right (Page 84, lines 21-25). I cannot remember what

CVP readings Mr Keane asked for or what numbers I told him (Page 85, lines 2-5). I would not have misled Mr Keane about the CVP. If a surgeon asked for a specific number it would be my usual practice to give it and I cannot accept that I would have deviated from that practice. If asked for a number I would give the number that was displayed on the monitor and offer an explanation, as was the case with Dr O'Connor.

I cannot remember Mr Keane cleaning Adam up or coming to the monitors (Page 85, lines 10-14, Page 95, lines 22-25 & Page 96, line 1-3). I cannot remember Mr Keane inspecting the nappy or the catheter as Adam did not have a catheter (Page 96, lines 7-12 & lines 15-21). I cannot remember confirming with Mr Keane that the CVP was reliable (Page 97, lines 15-25 & Page 98, line 1). I would not have misled him about the reliability of the CVP when I knew that the tip of the CVP line had directed itself up into the neck. It was and is my usual practice to ensure that the surgeon has a clear view of the anaesthetic monitor which would have been turned towards the surgeon before the start of the surgery. Mr Keane confirms that he could see the monitor when he looked sideways. It is my usual practice to show the surgeon where the CVP reading was displayed on the monitor so that he can see the CVP reading himself before and during the operation (Page 98, lines 7-18), although I cannot specifically remember doing it in Adam's case. Mr Keane is quoting specific CVP readings at these points but I would not have told him these numbers if they were not displayed on the monitor which he could also see (Page 114, lines 8-24, Page 115, lines 5-15, Page 116, lines 3-9, Page 117, lines 10-17, Page 123, lines 20-25, Page 124, lines 5-10, Page 184, lines 9-25, Page 185, lines 1-3).

II RE-ZEROING

(2) The evidence of Dr. Coulthard on 9th May 2012 describes the process of re-zeroing in the context of CVP readings during Adam's transplant surgery on 27th February 1995. Your attention is drawn to the following references in the attached transcript:

- Page 1, line 13 to Page 3, line 14
- Page 6, lines 10-23 & lines 18-25
- Page 7, lines 1-20
- Page 10, lines 17-25 to Page 11, line 25

Please state and explain:

(a) The extent to which you accept Dr. Coulthard's evidence, as set out in the those extracts, of the manner in which re-zeroing is achieved

I accept Dr Coulthard's evidence at (Page 1, line 13 to Page 3, line 14) that if the transducer is adjacent to the patient then a spirit level is not required to zero the CVP transducer. With a child on a standard size operating table there is usually sufficient space to permit the transducer to be attached to the ether screen or to a drip stand beside the child's chest. In either of these methods it would be a straight-forward matter of setting the transducer to the same level as the mid-axillary line on the child's chest. The drip stand would also have the benefit of holding the flushing fluid column that keeps the transducer and CVP line patent.

I agree with Dr Coulthard that if the transducer is at a fixed height and the patient's "chest height" is altered then re-zeroing is required (Page 6, lines 10-23 & lines 18-25). A spirit-level is not necessarily required if the transducer is adjacent to the child's chest as described in either of the above methods. I agree with Dr Coulthard that a spirit-level or some other device would be necessary if the transducer is not adjacent to the patient (Page 7, lines 1-20). It is my usual practice

in theatre to have the CVP transducer adjacent to the patient so that a spirit level or other device is not necessarily required for re-zeroing but it would still be acceptable to use a spirit-level (Page 10, lines 17-25 to Page 11, line 25).

(b) Your own account of how the re-zeroing was achieved during the course of Adam's transplant surgery on 27th November 1995. to the extent that it differs from what Dr. Coulthard describes in those extracts

I cannot recall exactly how re-zeroing of the CVP was achieved with Adam or if a spirit-level was used. I think it most likely that the transducer was secured to a drip stand adjacent to Adam's chest as described above in answer (2) (a). But is also possible, as Mr Shaw has described, that it may have been attached to the ether screen. In either case the transducer would have been re-zeroed by opening the transducer to the atmosphere and pressing the zero button on the monitor. A spirit level would be available for use if required.

In these extracts Dr Coulthard suggests that the transducer was perhaps some distance away from Adam but that was and is not my practice.

III DOPAMINE

(3) The evidence of Professor Gross on 9th May 2012 addresses the reasons why you might have administered *"two small boluses of dopamine"* at about 10:00 in addition to the *"low-dose dopamine infusion ... commenced near the start of the case"*:

- Page 113, line 17 to Page 114 line 22
- Page 117, line 16 to Page 119, line 21
- Page 125, line 2 to Page 126, line 15
- Page 155, lines 3-16

(a) Please comment on the evidence of Professor Gross in those extracts in relation to:

(i) The administration of those doses of dopamine at those times

I have seen that there has been confusion following my deposition evidence at (011-014-101) regarding my estimates of the timing of the two dopamine boluses which I suggested was around 10 am.

At the outset of the operation a low dose dopamine infusion would have been commenced as was usual practice in 1995. It would then be usual practice for the surgeon to indicate in advance when he would release the clamps so that the immunosuppressive drugs and dopamine were in the child's circulation at the most effective doses at the most opportune moment. During Adam's operation I do not recall when or how long in advance of the clamp release Mr Keane informed me. I would have given the immunosuppressive drugs and ensured that the dopamine was at a favourable level when asked.

The two small boluses of dopamine could have been given prospectively to ensure that the syringe pump was pressurised and delivering the dopamine directly into Adam's circulation at the rate and dose required before the clamps were released, or given in response to the condition of the kidney which would have been after the clamps were released. If the boluses were given prospectively the condition of the kidney would not be relevant. If the boluses were given in response to the condition of the kidney then the 10 am timing would be wrong.

I agree with Professor Gross that presently there is no good evidence that low-dose dopamine

infusion has a beneficial effect on kidney function (Page 113, line 17 to Page 114 line 22).

(ii) Their effects on Adam

I accept Professor Gross's assertion that as it was a low-dose dopamine infusion the two small boluses may not have produced any significant changes in Adam's heart rate or blood pressure (Page 117, line 16 to Page 119, line 21). I would have been aware that higher doses of dopamine would have caused vasoconstriction and thereby potentially worsened the transplanted kidney function (Page 117, line 16 to Page 119, line 21). No matter when the dopamine infusion was commenced or when the two small boluses of dopamine were given my intention was to improve kidney perfusion. As I mentioned above, I agree with Professor Gross that there is now no good evidence that low dose dopamine infusion improves kidney function.

(iii) The extent to which any effect would be discernable in the CVP readings

I agree with Professor Gross, I would not have expected a significant change in Adam's CVP with the administration of low-dose dopamine (Page 155, lines 3-16).

(b) Please identify in Adam's medical notes and records:

(i) The prescription for both of the *"low-dose dopamine infusion ... commenced near the start of the case"* and the *"two small boluses of dopamine"* administered at about 10:00

It is an oversight that the administration of dopamine is not recorded on the anaesthetic sheet.

(ii) The note of both of those doses being administered to Adam

I regret that the administration of dopamine is not recorded on the anaesthetic sheet. It is an oversight. The low-dose dopamine infusion is usually prepared prior to the start of an anaesthetic and given at the discretion of the anaesthetist as part of his/her clinical judgement.

(iii) If there is no record of the:

- prescription
- administration

of those doses of dopamine, then please explain why not

Usually drugs are administered and recorded in the anaesthetic chart. I cannot explain why the administration of dopamine was not recorded on the anaesthetic sheet. It was an oversight.

THIS STATEMENT IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF

Signed: [signature] **Dated:** 22nd May 2012