THE INQUIRY INTO
HYPONATRAEMIA RELATED
DEATHS

ADAM STRAIN

SUBMISSIONS ON BEHALF OF
DR MARY O'CONNOR

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1. Dr O'Connor received two letters from the Inquiry putting her on notice of issues in respect of which she potentially faces criticism and one letter of clarification. The areas of potential criticism set out in these letters, as subsequently clarified, are as follows:-

   (1) *Whether Dr O'Connor appreciated towards the end and at the end of surgery that there were serious problems and, if she did, why she didn't communicate them to Adam's mother.*

   ... the issue is whether Dr O'Connor knew, and when she knew it, about Adam's low sodium level and generally what, if anything, she kept Mrs Slavin informed of.[1]

   (2) *Whether on learning of the high CVP reading she should have intervened and raised a warning flag which might have prompted action from Dr Taylor and/or Mr Keane.*

   ... the issue is that Dr O'Connor accepts that she became aware of a high CVP reading. It appears however that she did not pursue that matter to any extent and that instead she somehow had doubts about the accuracy of the readings. [2]

[1] Chairman's letter dated 23rd March 2012, as clarified by the letter from the solicitor to the Inquiry dated 17th April 2012

[2] Chairman's letter dated 23rd March 2012, as clarified by the letter from the solicitor to the Inquiry dated 17th April 2012

(3) *Whether in view of her opinion on what had happened to Adam she had a duty to report her concern within the Royal Trust to a person/s in a position of authority and/or to the GMC.*[3]

2. Dr O'Connor also received, through the Inquiry, a letter addressed to the Chairman from Hunter Associates Solicitors dated 16th January 2012. That letter identified four themes of potential criticism. Given that (i) two of these themes subsequently appeared in the letters from the Chairman referred to above: the role played by Dr O'Connor in the transplant surgery (in reality, her identification of the high Central Venous Pressure during the surgery) and the quality of information provided to Mrs Slavin during that surgery; and (ii) no questions were asked of Dr O'Connor in respect of the other two themes (the information provided by Dr O'Connor to Mrs Slavin prior to the surgery[4] and the information about Adam's serum sodium levels provided by Dr O'Connor to Dr Webb), by or at the behest of Hunter Associates[5], these submissions will address the areas of potential criticism identified specifically by the Inquiry.

3. Prior to addressing these issues a general submission is made that Dr O'Connor, who is currently the lead clinician in paediatric nephrology at the Children's Hospital, is a caring clinician who has always acted in the best interests of her

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[3] Chairman's letter dated 8th June 2012

[4] In her letter to Dr O'Connor dated 22nd March 2012 the solicitor to the inquiry stated that Hunter Associates would be asked by the Inquiry to respond to Dr O'Connor's request (made by letter dated 12th March 2012) that they identify the appointments at which it was said that Dr O'Connor provided information to Mrs Slavin about renal transplant. Dr O'Connor, whose previous contacts with Adam and his mother would have been as a paediatric registrar at a time when Adam was not on dialysis and was not being considered for renal transplant, and who went to Bristol in 1994 for training in paediatric nephrology, has not been advised of any response to this request and proceeds on the basis that none was forthcoming.

[5] Dr O'Connor was asked questions on this issue by Counsel to the Inquiry before the break in which Counsel canvassed further questions from the parties. Dr O'Connor's evidence was that (i) she would not have had the 119 serum sodium result when she first attempted to contact Dr Webb on 27th November 1995 (this result was written against a later entry in the notes made by Dr O'Connor): see Day 11 page 162 line 2; and (ii) she could not recall her discussion with Dr Webb (who had by then done the first brain stem test and had seen the notes) on 28th November 1995, although it is likely that they would have exchanged ideas as to what had gone wrong: see Day 11 page 164 line 16.

patients. This has always included open communication with parents[6] and making an accurate record of events and results as she learned of them and (where relevant) her own thought processes[7]. In Adam's case it has also included providing as much assistance to the Inquiry as she is now (having regard to the lapse of time) able to give.

(1) Adam's Low Sodium Level During Surgery

4. The constituent elements of this issue are:-

(a) whether Dr O'Connor appreciated towards the end and at the end of surgery that there were serious problems with Adam's sodium level;

(b) if Dr O'Connor did appreciate that there were serious problems with Adam's sodium level, why she didn't communicate them to Adam's mother;

(c) more generally, what information did Dr O'Connor provide to Adam's mother.

5. As to each of these:-

(a) Dr O'Connor did not appreciate until after the surgery that there were serious problems with Adam's sodium levels, as:-

(i) whether or not there should have been, there were no concerns about Adam's sodium level prior to the surgery and so no concerns

[6] Dr O'Connor's acceptance that it is likely to have been her who told Adam's mother during the surgery that after the transplant Adam would need to be catheterised several times a day is an illustration of this approach: see Day 11 page 173 line 22 to page 174 line 15

[7] This includes her record in the margin of the notes that the anastamosis took place at 1030 hours, supported by her prescription of the anti-rejection drugs, which must be given prior to the release of the clamps, at 1020 hours and the anaesthetic record: Day 36, page 162 line 6

were passed on to Dr O'Connor when she discussed Adam with Dr Savage prior to the latter's departure for the University[8];

(ii) there is no record in Adam's notes of the laboratory result which carries the specimen date 26th November 1995 and the report date 27th November 1995, on which the sodium is recorded at 133, Dr O'Connor was only made aware of this result in November 2011[9];

(iii) at the time that Dr O'Connor arrived at work on the morning of 27th November 1995 the result for Adam's sodium level available was the laboratory result timed at 2300 hours pm on 26th November 1995, of 139 mmol/L[10]. This is within the normal range[11];

(iv) little or no attention was paid by Dr Taylor to the blood gas result at 0932 hours showing sodium at 123 mmol/L. Dr Taylor did not act upon this result (he has said that he effectively rejected it as unreliable[12]); and it was not suggested to Dr O'Connor that Dr Taylor did pass it on to her during one of her visits to the theatre[13];

(v) while Professor Savage has now included a low sodium amongst the factors for consideration when he and Dr O'Connor first postulated fluid overload as the cause of Adam's cerebral oedema (when Dr Savage was first summoned from the University by Dr

[8] Dr O'Connor is confident (and submits that the Inquiry can also be confident) that if there had been any such concerns Dr Savage would have told her about them and she has no recollection of him doing so: Day 11 page 64 line 24. Dr Savage has confirmed that there were none: Day 6, page 146 line 13
[9] Day 11, page 68 line 6
[10] 058-035-144. It was later that Dr O'Connor mis-transcribed the 139 as 134
[11] Dr Coulthard, at 200-002-037
[12] For example, Day 8, page 105 line 5
[13] WS-008/6 page 3. Dr Taylor was asked if he passed the result on to Mr Keane and answered that as he was not himself relying upon it he would not have seen it as important and would not have passed it on: Day 8, page 114 line 10

O'Connor)[14], he (for the perfectly understandable reason of time) is wrong to do so[15], as:-

(1) Dr O'Connor knows that she did not have the sodium result of 119 mmol/L from the laboratory until after 1320 hours, because of where she noted that result in the notes[16], ie in the margin against the untimed entry made (by another clinician) after her own note of 1320 hours[17];

(2) had Dr O'Connor known about the blood gas result of 123 mmol/L at 0932 hours when she examined Adam after the surgery (at or about 1205 hours on 27th November 1995) she would have recorded that result in the notes[18];

(3) the blood gas result of 123 mmol/L at 0932 hours could not have slipped Dr O'Connor's mind, as it would have shocked her at the time, as it did when she first saw it in 2005 (see below) [19];

(4) Dr O'Connor's record of 1205 hours on 27th November 1995 is a record of her thought process in attempting to find a reason for Adam's cerebral oedema. It does not include the 0932 hours result or any reference to a low sodium[20];

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[14] Day 6 page 151 line 1
[15] Professor Savage has not sought to challenge Dr O'Connor's evidence to this effect
[16] 059-006-016
[17] Day 11, page 117 line 14
[18] Day 11, page 112 line 5
[19] Day 11, page 112 line 5
[20] Day 11, page 114 line 23

(5) the blood gas result of 123 mmol/L at 0932 hours was not attached to the anaesthetic record until later, ie after Dr O'Connor's involvement with Adam (see below);

(vi) while the blood gas result at 0932 hours of 123 mmol/L is now to be seen attached with sellotape to the anaesthetic record, and was there when Dr O'Connor saw the records again when reviewing them for the purposes of a statement in 2005[21], it was not there when Dr O'Connor was reading that record at about midday and thereafter on 27th November 1995[22];

(vii) it was not ultimately suggested to Dr O'Connor that she did see the blood gas result at 0932 hours of 123 mmol/L during or immediately after the surgery[23];

(b) Dr O'Connor did not communicate concerns about Adam's sodium level to Adam's mother because:-

(i) when Dr O'Connor did learn that Adam was so ill (ie after she was called at the end of the surgery, and in the period immediately prior to her making her note at 1205 hours on 27th November 1995) her role was to investigate why and to provide care for him in ICU;

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[21] Day 11, page 111 line 16

[22] The blood gas machine was not in theatre but in the room between the theatres and ICU which was known as the kitchen: Day 11 page 54 line 9. When the print off was brought into theatre it was likely to have been attached to anesthetic machine with sellotape, where it would remain for the duration of the operation, to be secured into the notes when the notes were written up by the anaesthetist after the operation. Given that Adam required intensive care following the surgery, including from Dr Taylor, this is likely to have taken place at some later time.

[23] See, for example, Counsel to the Inquiry's question at Day 11, page 117, line 14, following up Dr O'Connor's evidence that (because of its presence in a note by her in the margin at 059-016-006) she received the result at about 1320 hours: 'So that's when you knew about this sodium level?', to which Dr O'Connor's response was 'Yes.'

(ii) while as a paediatric nephrologist Dr O'Connor would have formed the view from the amount and nature of the fluids administered to Adam alone that there was a risk that his sodium level was low[24]:-

(1) she only became aware of the amount of fluid he had received when she examined the anaesthetic record, by which time Adam was in ICU and she was committed to his care (see (i) above);

(2) she was not aware of that Adam's sodium level was so low in the sense of having available to her a test result: it was appropriate to want confirmation from the laboratory result before acting;

(iii) Dr O'Connor did not see Adam's mother after Adam was admitted to ICU. Dr Savage was back in the hospital soon after Dr O'Connor's telephone call to him and Dr Savage (in Dr O'Connor's view because Dr Savage knew her best[25], in his own view[26] and objectively) was the right person to have the necessary discussions with Adam's mother[27];

(c) the precise time of Dr O'Connor's last discussion with Adam's mother may be unclear. Dr O'Connor recalls that it took place between 1000 and 1030 hours[28]; Adam's mother puts it at about 1030 hours[29]. From what Adam's mother recalls being told (that the operation was taking longer

[24] Day 11, page 118 line 5
[25] Day 30, page 130 line 18
[26] Day 30, page 5 line 131 (intervention by Mr Fortune)
[27] That Dr Savage and Dr Taylor would speak to Adam's mother was point 5 of the Plan for Adam's management which Dr O'Connor recorded in the notes: 058-035-137
[28] Day 30, page 130 line 5
[29] WS-001/2 page 12

than expected because of Adam's previous surgery and his weight[30]) it may be that the discussion took place before anastamosis, which would otherwise have been mentioned. At that stage Dr O'Connor either:-

(i) did not have any reason at all for concern about Adam's welfare, because she had not yet had her discussion with Dr Taylor about the high CVP: it is submitted that, given that the discussion is likely to have taken place shortly before the clamps were released and the release of the clamps was not mentioned to Adam's mother, this is the most likely scenario); or

(ii) (if she had had the discussion with Dr Taylor about the high CVP before speaking to Adam's mother) she had expressed her concern for Adam's welfare to Dr Taylor and had been reassured (see submissions in respect of the issue of CVP below), in which case only distress could have come from providing information about her (past) concerns to Adam's mother.

In either event, Dr O'Connor appropriately sought to reassure Adam's mother that all was proceeding satisfactorily, and this was the impression Adam's mother gained[31].

(2) CVP

6. The issue for Dr O'Connor to address is whether, having learned of the high CVP, did she as a matter of fact pursue the matter (to any extent) and whether she should have intervened (so as to prompt action from Dr Taylor or Mr Keane). As to each of these:-

[30] WS-001 page 4
[31] WS-001 page 4: 'Dr Savage and Dr O'Connor were very good at keeping me informed of what they understood to be happening in theatre.'

(a) Dr O'Connor did pursue the issue of the high CVP with Dr Taylor (but - appropriately - not with Mr Keane[32]), in that Dr O'Connor saw the CVP reading of 30 during one of her visits to the theatre and, being concerned about it, initiated a discussion with Dr Taylor about it[33] in which she voiced her concern[34];

(b) it was appropriate for Dr O'Connor to take no further action, as:-

(i) having asked Dr Taylor about it, Dr O'Connor was informed by Dr Taylor that the line was not functioning properly, including that the reading for CVP had been – in Dr O'Connor's view, a very unlikely – 17 at the time of insertion of the line[35];

(ii) the Inquiry's experts agree that a CVP measurement of 17 at the outset of surgery is likely to have been unreliable[36];

(iii) it would not have been a part of Dr O'Connor's role to check on issues such as the fluid administration rate and the CVP readings, unless the anaesthetist had chosen to discuss them[37];

(iv) the anaesthetist did not choose to discuss the CVP with Dr O'Connor. When asked about it by Dr O'Connor, Dr Taylor did not express any concern about the CVP. In fact:-

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[32] As Dr O'Connor would have been interested in the CVP shortly before release of the clamps, Mr Keane's attention would have upon the surgery: Day 11, page 90 line 17
[33] WS-014/2 page 4; Day 11, page 82 line 23
[34] WS-014/3 page 5; Day 11, page 93 line 8
[35] WS-014/2 page 8
[36] Dr Coulthard, transcript of the meeting of experts at 307-008-182; Dr Haynes at 2-4-004-155 and 204-004-168 (at (g)) and Day 17, page 122 line 17
[37] Dr Coulthard, Report on the Conduct of the Paediatric Nephrologists who cared for Adam Strain, Dr Savage and Dr O'Connor, paragraph (15), at 200-007-130

(1) Dr Taylor has not told this Inquiry that he was concerned about the CVP;

(2) Dr Taylor reassured Dr O'Connor that the CVP reading was not a matter of concern and required no action from anybody[38]. Dr O'Connor did not observe concern on the part of Dr Taylor[39];

(v) the fact that Dr Taylor did not express any concern about the CVP to Dr O'Connor is consistent with the evidence of the vast majority of the surgical, medical and nursing staff in theatre that there was no indication until the end of the surgery that anything was wrong[40] and her own evidence (to the effect) that there was nothing unusual in the atmosphere in the operating theatre on the occasions when she went in[41];

(vi) Dr O'Connor's instinct that nothing could be achieved by intervention at the stage of her noticing the high CVP (shortly prior to completion of the anastamosis[42]) is supported by Professor Forsythe and Mr Rigg[43]; Mr Koffman would if necessary proceed

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[38] Day 11, page 90 line 22; and page 132 line 6
[39] Day 11, page 129 line 11.
[40] For example, Mr Keane at Day 10, page 194 line 24
[41] The atmosphere was not one of 'stoney silence': Day 11, page 61 line 23. Dr O'Connor is of course aware of the evidence of Ms Eleanor Donaghy and the terms of the Brangham & Bagnall conference note of 14th June 1996. Dr O'Connor does not make submissions in respect of that note: she was not at the meeting and it was not suggested to Dr O'Connor that she was not now telling the truth about the atmosphere she met on her visits to the theatre or about her discussions with other clinicians after the surgery (see Day 36). The observation is however made that (quite apart from the fact that a number of qualified witnesses gave evidence as to why the note cannot be right in many respects), if and to the extent that it implies a conspiracy to hide the truth the note is not credible: the overwhelming balance of the evidence from the surgical, medical and nursing staff, including the still serving and the retired, who were present in theatre is that there was no atmosphere of concern, until the end of the operation; at this remove in time, if Ms Donaghy is right she would not be alone in her recollection to the opposite effect.
[42] Day 11, page 90 line 17; and Day 36, page 195 line 15
[43] Day 18, page 109 line 10; page 111 line 20; and page 201 line 18

with a transplant without a reliable CVP[44]; and Dr Coulthard would also have wished to see the surgery continue[45];

(vii) Dr Coulthard's evidence to the effect that Dr O'Connor should have taken matters further[46] is not consistent with the evidence that the readings were likely to have been unreliable, ignores the evidence that Dr Taylor had given assurances (in effect) that things were under control; takes no account of the fact that (entirely reasonably[47]) Dr O'Connor was only making short visits to the theatre (and had not therefore followed the progress of the surgery in any depth) or of the fact that fluid management while the patient is anaesthetised is properly the role of the (fully trained and experienced) consultant anaesthetist[48]; and it proposes a series of investigations which ignore both the fact that nothing could have been done about the CVP at this stage of the surgery and the need in Adam's interests to complete the surgery as soon as possible (see (vi) above), permitting the surgeons time and space to complete it successfully. Dr Coulthard does not appear to have considered whether this late (see below) suggested approach pertained in 1995.

Of further concern, this suggestion did not appear in any of Dr Coulthard's reports, despite the facts that (1) he was provided with all of the witness statements and the clinical records; (2) his original brief included a request that he advise upon additional questions that might usefully be put to any of the practitioners who

[44] Day 23, page 53 line 6
[45] Day 20, page 29 line 7
[46] Day 20, from page 27 line 3
[47] Even today in the majority of centres the nephrologists to not go into theatre at all: Day 11, page 9 line 10
[48] As Dr O'Connor put it on Day 36, page 180 line 24: 'A physician would never have the clinical responsibility for a patient who was anaesthetised and having an operation.'

were involved in Adam's care[49]; and (3) his additional brief specifically required him to 'focus and report specifically upon the role and conduct of the nephrologists, Dr Maurice Savage and Dr Mary O'Connor'[50].

Coming as it did only during questions from Counsel to the Inquiry, Dr Coulthard's evidence on this issue appears ill-considered, highly subjective (no reference having been made to how other nephrologists would have acted), lacking connection with the reality of the situation in theatre on 27th November 1995 and unfair. Dr O'Connor does not accept that it properly represents the role of the nephrologist, now or in 1995, or that other nephrologists would agree with it.

(3) Duty to Report

7. The issue to be addressed is whether, in view of her opinion on what had happened to Adam, Dr O'Connor was under a duty to report her concerns (a) within the Royal Trust to a person in a position of authority; and/or (b) to the GMC. As to:-

(a) the Trust: it was not necessary for Dr O'Connor to report her opinion as to what had happened to Adam or any concerns as to what had happened to Adam to a person of authority within the Trust, as:-

(i) Dr O'Connor was aware that the Coroner had been informed of Adam's death[51] and that both Dr Savage and Dr Taylor, with whom she had discussed what had happened to Adam[52], were

[49] 200-001-022
[50] 200-006-099
[51] Day 30, page 112 line 18
[52] Day 30, page 111 line 21

assisting the Coroner, to the extent of giving evidence at the Inquest;

(ii) Dr O'Connor was aware in the immediate aftermath of Adam's death of a process of investigation taking place, which included an inspection of the equipment in theatre[53] and meetings between the administrative authorities in the hospital and Dr Savage and Dr Taylor[54];

(iii) all of the information which Dr O'Connor had acquired in respect of Adam on 27th November 1995 was available to those who needed it: it was recorded (by Dr O'Connor herself) in Adam's medical records[55] and was discussed with her colleagues, particularly Dr Savage[56], who was involved in the discussions within the Trust and the Inquest;

(iv) Dr Savage (who was involved in the discussions within the Trust and the Inquest) shared Dr O'Connor's views as to what had happened to Adam[57];

(v) Dr O'Connor, who was not a party to the meetings within the Trust, was given no cause to believe that anyone – including Dr Taylor – thought differently to her with regard to what had happened to Adam[58]. This was borne out for Dr O'Connor by the fact that at later renal transplants at which Dr Taylor acted as the

[53] Day 30, page 112 line 1
[54] Day 30, page 112 line 21
[55] Day 30, page 114 lines 17 and 25
[56] Day 30, page 114 lines 18 and 25; and page 115 line 15
[57] Day 30, page 115 line 22
[58] Day 30, page 117 line 9

anaesthetist, there was never any disagreement or difference of opinion from him as to the plan for managing the patient[59];

(b) the GMC: it was not suggested to Dr O'Connor at the oral hearings that she ought to have reported Dr Taylor to the GMC[60]. *Good Medical Practice (1995)* required doctors, after doing their best to establish the facts, to 'tell someone from the employing authority or from a regulatory body'[61]. Dr O'Connor was aware that inquiries were under way within the Trust. Dr O'Connor had provided all the information she had to the Trust (see (a) above); she was not under a separate obligation to report to the GMC. If the GMC should have been informed, the appropriate authority to make the report was the Trust, at the conclusion of its investigation.

Conclusion

8. It is respectfully submitted that, in light of the answers she has provided to the Inquiry and the other evidence identified in this submission, Dr O'Connor's actions in respect of Adam do not merit criticism by the Inquiry.

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18th October 2012

[59] Day 30, page 118, line 22; page 120 line 13;and page 125 line 24
[60] See the transcript for Day 30
[61] Paragraph 19, at 210-003-404