THE INQUIRY INTO HYPONATRAEMIA-RELATED DEATHS

SUBMISSIONS ON BEHALF OF MR PATRICK KEANE

Overview

1. These submissions are made at a point in time when the Inquiry has not completed its consideration of the case of Adam Strain. In particular, the fairly fundamental issues arising from Professor Kirkham's report have not yet been fully explored or determined. These submissions proceed on the basis that the cause of death as recorded by the Coroner is correct.

2. The cause of Adam Strain's death was cerebral oedema due to dilutional hyponatraemia resulting from the administration of too much of the wrong type of fluid over too short a time. The kidney transplant operation was the setting for this tragic event, however, the conduct of the surgery did not cause or contribute to Adam's death. One reason for this is obvious in that it seems clear that Adam's condition had become irreversible before the new kidney was transplanted. Professor Gross suggested in his written evidence[1] that if the kidney had worked well immediately after the operation, it might have excreted free water and helped Adam. However, when he gave his oral evidence[2], he acknowledged that Adam had probably coned before the new kidney had any chance to work and there seems to be a consensus about this among the independent experts.

3. The Inquiry has devoted a considerable amount of time to the surgical aspects of Adam's case. Evidence has been provided by a number of independent experts. It is not at all surprising that the experts have, at times, expressed different views on matters that often involve a considerable degree of professional judgment. It is submitted that it would be quite wrong for the Inquiry to criticise Mr Keane (or indeed any other clinician) where his conduct in relation to clinical and surgical matters is supported, or accepted as reasonable, by one or more of the independent experts. It is further submitted that the conduct of all of the clinicians should be assessed by reference to the standards that were current in 1995, and not 2012[3].

---

[1] 201-002-070
[2] day 20; page 112 line 23 – page 113 line 5
[3] See exchange of correspondence between Carson McDowell Solicitors dated 8th February 2012, and the Inquiry Solicitor's response dated 15th February 2012.

4. It is submitted that the transplant operation was performed with reasonable care and skill.

5. What may be potential areas of criticism of Mr Keane are listed below together with a brief note of Mr Keane's position.

Were the processes whereby Adam was placed on the waiting list for a kidney transplant and consent taken for the transplant operation satisfactory?

6. Mr Keane was working within a system devised by others at a hospital that was not his own. His position is that it would have been preferable if he had been involved at a much earlier stage[4]. Mr Keane offered to come into the hospital to speak to Adam's mother on the night (or in the early hours of the morning) before the operation but was told by Dr Savage that this was not necessary[5]. Mr Keane has explained to the Inquiry why he did not consider it appropriate to become involved in taking or reviewing consent on the morning of the operation[6]. It is submitted that Mr Keane's evidence in this regard is entirely understandable.

Should the donor kidney have been accepted for Adam?

7. The independent experts differ somewhat on this issue. Messrs Forsythe and Rigg would not have accepted the kidney[7]. Mr Koffman[8] and Dr Coulthard[9] would have accepted it. Mr Keane agrees with Mr Koffman and Dr Coulthard. He has explained his reasoning[10]. Messrs Rigg and Forsythe acknowledged in their written evidence that other colleagues in the United Kingdom would have accepted the kidney[11] and they agreed in their oral evidence that this is not a black and white issue[12]. In the circumstances it would not be appropriate to criticise the decision to accept the kidney.

The timing of the surgery

8. This issue was explored in some detail. Mr Keane's position was not really challenged by the independent experts[13]. It is submitted that it was appropriate to commence the operation in the morning, when the members of the team would be

[4] Day 10, page 135; lines 5-8
[5] WS- 006/3; page 21 Q38 (g)].
[6] Day 10; page 56; lines 2-18; and WS- 006/3; page 20 Q39
[7] Day 18; page 27; lines 9-17
[8] Day 23; page 12; line 6
[9] Day 19; page 120; line 10
[10] Day 9; page 156; lines 14-15; page 43; lines 7-10; and page 68; lines 11-25
[11] 203-004-064
[12] Day 18; page 27; line 25 – page 28; line 1
[13] WS 006/3 page 3; Q3(d) and day 10; page 47; lines 7-25 – page 48; lines 1-3

fresh or at least fresher, rather than at 0300 hours, which Mr Rigg acknowledged in his oral evidence[14] was a correct estimate of the earliest achievable "knife to skin" time.

The need for a urethral catheter

9. Different views were expressed about this. However, there was support for the proposition that it was reasonable not to insert a urethral catheter, particularly in circumstances in which Mr Keane had decided to use a supra pubic catheter[15].

Fluid management and intra operative monitoring of Adam's vital signs including CVP

10. There was a clear consensus among the independent experts that these areas of Adam's management were primarily the responsibility of the anaesthetist.

11. The Inquiry is understandably concerned to establish whether Mr Keane had an opportunity to detect the over-administration of fluid and the disastrous consequences of that. It is submitted that there is no evidence that would support such a finding. Neither Mr Keane nor Mr Brown was aware that an excessive volume of fluid was being administered to Adam. Nor were they aware of the problems with the CVP. Dr Savage, who was in the operating theatre at 0930, was not aware, or made aware, of any difficulty with regard to the CVP until after Adam's surgery[16]. Only Dr O'Connor seems to have been aware of an issue with the CVP. For whatever reason, Dr Taylor seems not to have informed any other member of the team. It is submitted that in the absence of any indication to the contrary, Mr Keane was entitled to assume that Dr Taylor was competently attending to the anaesthetic and fluid management.

12. The Inquiry has considered whether there would have been anything in Adam's physical appearance during the operation, such as bloating or puffiness, that would have alerted Mr Keane to what was happening, but there was no support for such a proposition in the evidence of the independent experts.[17]

The choice of vessel for the anastomoses

13. Mr Keane explained to the Inquiry why he decided to use the external iliac artery for the arterial anastomosis[18]. Mr Koffman emphasised in his oral evidence that

---

[14] Day 18; page 68; lines 3-19
[15] 203-004-061-063 and day 18; page 125; lines 19-23
[16] See for example day 6; page 150; line 21 – page 151; line 16
[17] For example, day 23; page 24; lines 4-7
[18] Day 12; page 69; lines 9-25; page 71; lines 17-25; and page 75; lines 9-25 – page 76 line 1.

none of the independent experts had seen the donor kidney and its vessels or Adam's vessels[19]. While the other experts, including Mr Koffman, would have used a different vessel, Mr Koffman felt that it was perfectly justifiable for Mr Keane to use the external iliac artery if, having seen the vessels, he considered that it was appropriate to do so[20]. It is submitted that this is a classic example of clinical judgement on the part of the operating surgeon and that there is no proper basis on which to challenge Mr Keane's judgement.

14. We know from Dr Armour's autopsy report that the vessels were found to be intact[21] and from her oral evidence that she was satisfied that nothing had gone wrong with the surgery[22]. There was no post mortem evidence of arterial or venous thrombosis and the ureter was draining freely[23]. In other words, all of the surgical components of the procedure were accurately performed. Various causes were suggested for the infarction of the kidney that was found post mortem but, as Professor Risdon acknowledged towards the end of his oral evidence, this may be explained by the lack of oxygen being delivered to the tissues secondary to coning and oedema of the tissue due to fluid overload[24]. A similar view was expressed by Dr Armour who felt that the kidney had become infarcted because Adam was so poorly or sick or in extremis[25].

Blood loss

15. There was some degree of debate about the amount of blood that was lost by Adam during the course of the operation. Whatever the exact amount, the independent experts are clear that the blood loss was within the spectrum of what one would expect during surgery of this kind.[26]

The perfusion and performance of the donor kidney

16. The Inquiry has heard a lot of evidence about these issues. It is submitted that the best evidence is that contained in Mr Keane's contemporaneous operation note[27]. This note was made on a routine basis at a time when Mr Keane believed that the transplant operation had been a success and before there was any concern about Adam's condition. As Dr Coulthard pointed out in his oral evidence, people looking at the same event may see or recall perfusion differently.[28] It is submitted that over-analysing the rather subjective language that has been used by various

---

[19] Day 23; page 36; lines 6-25 – page 37; lines 1-10
[20] Day 23; page 34; lines 22-24 – page 35; lines 1-2
[21] 011-010-038
[22] Day 27; page 95; lines 18-20
[23] 011-010-038
[24] Day 17; page 38; lines 7-24
[25] Day 27; page 99; lines 10-14
[26] See for example evidence of Mr Rigg day 18; page 162; lines 9-18
[27] 058-038-134
[28] Day 20; page 108; lines 11-15

witnesses to describe the appearance of the kidney is unlikely to advance the Inquiry's understanding of these issues.

Was it reasonable for Mr Keane to leave Mr Brown to close the wound?

17. It remains unclear whether Mr Keane left Mr Brown to close the entire wound or whether Mr Keane closed the first, more difficult, layer. In his evidence to the Inquiry on 10 September 2012, Mr Keane thought that he had closed the first layer[29]. Be that as it may, Mr Brown was a very experienced paediatric surgeon and the independent experts agreed that it was within his competence and acceptable for him to close the wound[30].

Did Mr Keane know that Adam was in difficulty before he left the operating theatre?

18. The suggestion that Mr Keane may have know that Adam was in difficulty before he left the operating table has its origins in the evidence of Eleanor Donaghy[31], but took on greater significance following the rather belated disclosure of the attendance note relating to the consultation on 14 June 1996[32].

19. Ms Donaghy's evidence was premised on a conversation with Nurse Sharratt. Nurse Sharratt explained to the Inquiry why Ms Donaghy's evidence could not be correct[33].

20. As regards the attendance note, this remains something of a mystery. Neither Mr Keane nor Mr Brown was at the consultation. They are both adamant that the attendance note is incorrect in a number of respects, most importantly: the bladder was not opened early in the procedure; a needle was not inserted into the artery; and (if the opposite is the proper interpretation of the paragraph) they were wholly unaware that Adam was in difficulty at any time before they left the operating theatre[34]. If the position were otherwise it would make nonsense of the contemporaneous medical notes and records, including Mr Keane's operation note[35]. It would mean that a number of clinicians, some of who barely knew each other, would have engaged in something approaching a conspiracy of silence and given misleading evidence to at the Inquest, to the police and to the Inquiry. It is

[29] Day 38; page 17; line 1 – page 18; lines 1-4
[30] For example, Mr Forsythe - Day 18; page 135; lines 17-22; and Mr Koffman - day 23; page 135; lines 10 - 15
[31] Day 13; pages 121; lines 19-23 and 093-016-049
[32] 122-001-005
[33] Day 13; page 154; lines 1-18
[34] Day 37; page 3; lines 7-16; page 19; line 19-page 20; lines 1-5 and page 124; line 7-15 and page 135; lines 14-25
[35] 058-035-134

submitted that the evidence falls a long way short of even beginning to establish any of this.

The operation note

21. In his oral evidence to the Inquiry, Mr Koffman described the operation note as a 'fairly standard note that included the bare bones and had no glaring omissions[36]. The absence of certain details, such as the cold and warm ischaemic time and the anastomosis time, were not, in Mr Koffman's, opinion very significant[37]. He accepted that these details assumed importance in the context of the Inquiry's concern to establish when various events occurred but he did not consider that they were important more generally. Of course, the operation note was not written with the scrutiny of a public inquiry in mind. Messrs Forsythe and Rigg describe the note as brief, and refer to information that, in their opinion, should have been included, but they confirmed that the key points are there.[38]

Should Mr Keane have spoken to Adam's mother following the operation?

22. Mr Keane did go over to the Children's Hospital the day after the operation with the intention of speaking to Deborah Strain. He has explained why the conversation did not happen, which is a matter of regret to him[39]. Mr Keane acknowledges that he should have spoken to Adam's mother. It is submitted that this is primarily a matter of good manners and courtesy rather than clinical or surgical management.

Mr Keane's involvement in events following Adam's death

23. It is clear from the Trust's documents that Mr Keane and Mr Brown were not considered by the Trust to be central to the Trust's post mortem consideration of the events surrounding Adam's death. Mr Keane was invited to attend and attended one meeting, on 17 April 1996[40]. This is not at all surprising because the Trust took the view, quite rightly it is submitted, that Adam's death was a matter of anaesthetic, as opposed to surgical, management. On those occasions when the Trust's consideration touched on surgical issues (such as the consultation on 14 June 1996) Mr Keane should have been invited to attend so that his views could be obtained and taken into account. That Mr Keane was not invited to attend cannot be blamed on Mr Keane. It is submitted that to expect Mr Keane to have been more proactive does not pay due regard to his position as a visiting surgeon

[36] Day 23; page 100; line 24 – page 101; line 10
[37] Day 23; page 110; lines 3-6
[38] Day 18; page 178; lines 7-15
[39] Day 12; page 166; lines 2-11
[40] 059-043-098

based in a different hospital. There is also a danger in reading back to 1995/96 an approach to governance issues that was not prevalent at that time.

24. The Inquiry has questioned the brevity of and lack of detail in what became Mr Keane's deposition to the Coroner[41]. It is submitted that any criticism of Mr Keane in this regard is not justified. Mr Keane's letter is typical of the rather matter of fact statements that were routinely submitted by hospital authorities to the Coroner on behalf of involved clinicians[42]. Mr Keane's role at the Inquest was as a witness of fact. He was not there to express opinions about matters such as the fluid management and the cause of Adam's death. He had already made his views known to Dr Savage. He felt, quite reasonably it is submitted, that it was for the Coroner to determine the cause of death with the assistance of appropriately qualified experts[43]. Mr Keane attended the Inquest and from the notes of his evidence that are available to the Inquiry, it is clear that he answered all of the questions that were asked of him by the Coroner and by counsel for Adam's family[44]. His evidence, as recorded in these notes, is consistent with his evidence to the Inquiry.

ROBERT MILLAR
BAR LIBRARY
23rd OCTOBER 2012

[41] Day 9; page 59; lines 1-25; page 60; lines 1-2
[42] 011-003-010 and 011-013-093
[43] Day 9; page 61; lines 5-12
[44] 011-013-093 and 122-044-029