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11th October 2013

INQUIRY INTO HYPONATRAEMIA-RELATED DEATHS IN NORTHERN IRELAND

RE: CONOR MITCHELL

SUPPLEMENTARY REPORT

1) RESPONSE TO WITNESS STATEMENTS GATHERED IN OCTOBER 2013

I have been provided with witness statements written by the following clinicians involved:

Francis Lavery	Staff Nurse on MAU
Dr Suzie Budd	Staff Grade in ED
Sister Irene Brennan (nee Dickey)	Sister on the MAU
Dr Andrew Murdock	Medical Registrar on the MAU
Dr Catherine Quinn	Medical SHO on the MAU
Dr Marian Williams	Senior SHO in Paediatrics acting at middle grade
Dr Michael Smith	Consultant Paediatrician

I have read these with particular reference to Conor's fluid management, and the appropriateness of admitting him to the adult Medical Assessment Unit. I have responded with reference to my preliminary report (260-002) dated 19 Sept 2013.

1. Dr Suzie Budd (WS 352/1)

Most of Dr Budd's account of the events at the time of Conor's admission to ED is compatible with my report. It appears that she assessed that he was significantly dehydrated and at risk of developing clinical shock. She also says that she took into account the family's concerns (WS 352/1 p 7). She describes the fluids given as 2 boluses of 110 ml of Hartmann's solution, given through a paediatric burette, in 2 separate boluses over a period of 40 minutes. It was given in 2 boluses because the burette used was not big enough to take the full amount. It seems quite clear that only

220 ml was given, and that the record of a possible third 110 ml bolus in the IV fluid chart at 088-004-063 was either wrongly recorded, or never given. This clarifies one uncertainty in my original report. Dr Budd says she did not discuss the fluid administration with the paediatric team. She justifies the use of Hartmann's solution (WS 352/1 p 7), which was acceptable as a resuscitation fluid at the time, and I concur with this. She also justifies taking 40 minutes to deliver this bolus, although she intended to give it over 30 mins. In my view this is longer than the time normally taken to deliver a resuscitation fluid bolus in paediatric practice in 2003, which would be over 10-15 minutes. However, it was not unacceptably long.

Regarding the appropriateness of his place of admission, Dr Budd states that she contacted the paediatric team first. She states that she '..believed that …Conor's admission was discussed with the Paediatric Consultant' (WS 352/1 p 6) , but the paediatric team still refused to take him onto the children's ward, on the basis of his age. This discussion is not reported by any of the other witnesses. She also checked whether he was under current paediatric follow up at Craigavon, and confirmed that he was not.

2. Dr Andrew Murdock (WS355/1)

Dr Murdock describes his calculation of the fluid administered when Conor was on MAU and gives acceptable reasons for arriving at this quantity and rate (WS 355/1 p8), although he does not distinguish clearly between maintenance and replacement fluids. His account is more or less consistent with my report. He confirms that he was not aware of, and did not use the fluid prescribing guidelines in the 2002 Guideline, but nonetheless arrived at a quantity that although less than the Guideline would have suggested, was not inappropriate. He admits that his documentation in the case notes of the process whereby he calculated the fluid regime is lacking. He confirms that the fluid management was discussed with a member of the paediatric team through his SHO Dr Quinn, and apparently they agreed to it.

Regarding the policy of admitting 15-year-olds, he states clearly that the policy in Northern Ireland at the time was that all children past their 14th birthday should go to an adult ward, and he confirms that this is still the policy at present (WS 355/1 p8). Dr Murdock is currently a Consultant Physician in Northern Ireland and thus aware of current policy.

An interesting observation from Dr Murdock's statement is that he first learned of Conor's death 5 months after the event, from a member of the family rather than from anyone at Craigavon (WS 355/1 p17).

3. Dr Catherine Quinn (WS 356/1)

She was the medical SHO involved in Conor's admission to MAU, under the supervision of Dr Murdock. She admits that she initially prescribed a regime of 3 litres of normal saline over 24 hours, which is what would be standard fluids for an adult, and then deleted this after discussion with Dr Murdock. She confirms that this fluid regime was never started. Most of her account of the fluid management reflects what is in Dr Murdock's statement. She does not recall discussing his fluid management with the paediatric team.

At 356/1 page 8 para 12 there is an error: she means that she prescribed ciproxin 200 milligrams not grams.

Dr Quinn played no part in the decision to admit him to the adult MAU.

4. Dr Marian Williams (WS 358/1)

Dr Williams was acting in the role of paediatric registrar at the time. She does not remember any involvement in the decision made to admit Conor to the MAU, and she does not recall any discussion about his fluid management before that. When she was asked to review him later in the day, she says she did not get time to consider the fluid management because of his sudden deterioration while she was with him.

She claims that it was a medical, not paediatric, decision to admit him to MAU (WS 358/1 p 4).

It is impossible to know with hindsight whether there was any paediatric involvement in planning Conor's fluids. It seems likely that Dr Williams would have been the paediatrician with whom the fluid management was discussed earlier but she is unable to recall this.

It is noted also that Dr Williams received no feedback after Conor's death.

5. Dr Michael Smith (WS 357/1 and 2)

Dr Smith was a consultant paediatrician on call. He was not involved at all until Conor's acute deterioration on MAU. He was not involved in any aspect of Conor's management up to that point.

Although he does not say he was involved in any discussion about where Conor should have been admitted, he confirms what Dr Murdock said, i.e. that the policy throughout Northern Ireland at that time was that after their 14th birthday, young people should be admitted to an adult ward. He does not concede that there was any flexibility about this, unless the young person was under paediatric follow up, which Conor was not (WS 357/1 p 5).

Dr Smith considers that the ED and MAU medical staff were competent to assess Conor, and his fluid requirement, and that an 'accurate calculation' was made. (WS 357/1 p 10).

Before the event, he says that he was aware of the 2002 guidance, but he is unable to recall from where he heard about it (WS 357/1 p 9).

Dr Smith goes on to discuss his involvement with publicising the guidelines on fluid management in children, and his involvement with an audit of its implementation, after the event.

6. Staff Nurse Francis Lavery, and Sister Irene Brennan (nee Dickey) (WS 351/1 and WS 353/1)

These were both members of the nursing staff on MAU. Neither of them can recall much about their management of Conor, as most of it was carried out by Nurse Bullas, who has not supplied a statement. Neither of them are able to explain the poor record keeping on the fluid chart. It appears that Staff Nurse Lavery made a number of attempts to contact a doctor at the time when Conor's IV had extravasated.

7. Awareness of CMO's 2002 Guidance on Fluid Management in Children

With the exception of Dr Michael Smith, none of the witnesses indicated any awareness of this guidance, and none remember seeing the A5 poster displayed on the MAU. None of them had any formal training on IV fluid management in children beforehand, but this is not surprising as these were primarily adult-trained staff.

Some of them describe what training was received after the event, but much of this was not until the NPSA safety alert in 2009, some 6 years later.

8. Learning from the event

It is notable that none of the witnesses can recall being involved in any feedback or discussion of the issues consequent upon Conor's unexpected death. This was a lost opportunity for learning.

9. Conclusion from witness statements

None of the evidence from the witness statements causes me to substantially alter my conclusions from my preliminary report. They contain some clarification of the actual fluid management given, which is much as I had surmised from the case records and the inquest statements.

There is also some useful information about policies on admitting 15 and 16 year olds in Northern Ireland at the time.

2) RESPONSE TO THE SOUTHERN HEALTH AND SOCIAL CARE TRUST'S RESPONSE TO MY PRELIMINARY EXPERT REPORT TO THE INQUIRY

INTRODUCTION

I have been furnished by the inquiry with the response from the Southern Health and Social Care Trust, which is responsible for Craigavon Area Hospital where Conor Mitchell died in May 2003 (Document 329-033). A team of clinicians and managers working for the Trust have considered my report (260-002) and made a number of comments, to each of which I reply below.

They start by indicating that they are generally accepting of the content of my report. They accept that it was written before I had read all the recent witness statements from the clinicians involved.

COMMENT 1

This comment makes reference to a possible typographical error in transcribing the inquest statement by Dr Kerr, the ED Consultant. I accept that Mr Kerr intended to say 'atypical seizure activity' instead of 'a typical seizure activity'. However I chose not to comment on Mr Kerr's evidence as he was involved very briefly. In any case, any seizure activity, where 'typical' or 'atypical', should have been investigated and acted upon, in my view.

The Trust go on to make a more general comment about my views on the seizure activity. I accept that my comments on this were not strictly within the brief, which was to look at the intravenous fluid management. However I was also asked to give my views on the sequence of events that led to Conor's death, and on whether fluid management may have contributed to it. As I made clear, I do not consider that inappropriate fluid management was a contribution to his death. It therefore behoves me to give an opinion as to what may have been the actual cause of his death. As I stated clearly in my report, I consider that continuing undiagnosed seizure activity is highly likely to have been a major cause, as was indicated in the coroner's verdict. In my view, this was a much more significant failing in his care than any issues relating to the fluid management.

COMMENT 2

This relates to the prescription of antibiotics. I accept that I overlooked the record in the Emergency Department notes that he was prescribed Cefotaxime (Claforan) 1g intravenously. It is also reiterated in Dr Susie Budd's witness statement that I received subsequently (WS-352/1 Page 14). It appears, however, that the Cefotaxime was never given because the family objected. This may be why Ciprofloxacin was given later instead. However I maintain that Ciprofloxacin is an unusual choice of antibiotic to give a child in this situation, as stated in my report (260-002-005). It is relevant in this case because of the need to give it in 200 ml of fluid. The antibiotics which are usually given to children in these circumstances require only a small amount of fluid to be given with them.

COMMENT 3

The Trust take issue with my conclusion on considering whether the 2002 guidelines had been complied with, in the category of 'appropriate senior member of medical staff' was not involved (260-002-018). The Trust point out that in ED he was seen and assessed by Dr Suzie Budd, who I accept, was a relatively experienced staff grade doctor. This is apparent from her witness statement, but I was not aware of her level of seniority when I wrote my preliminary report.

The problem here is interpreting exactly what the 2002 Guideline means by 'an experienced member of clinical staff' or 'a senior member of clinical staff' (see Comment 6 below).

COMMENT 4

The Trust make reference to my conclusion that in respect of using Hartmann's solution as a resuscitation fluid rather than normal saline, they did not comply with the guidelines. In this respect I was interpreting the wording of the guideline literally (i.e. Part 3 under 'Choice of Fluid'), which specifies that 'normal (0.9 %) saline is an appropriate choice'. I fully accept that Hartmann's is an entirely acceptable fluid to use in this circumstance. However strictly speaking, although using Hartmann's was indeed an appropriate action, the guideline was not complied with in this respect. I accept that the CMO in the advice that accompanied the 2002 guideline allowed some flexibility over this.

COMMENT 5

This relates to whether it was the Consultant Physician Dr McEneaney, or the Registrar Dr Murdock who asked for a paediatric review of the fluid management. This was not immediately clear from the case notes and I did not have access to Dr Murdock's witness statement at the time I wrote my report. I do not consider this to be an important issue.

COMMENT 6 (mis-labelled Comment 5 at 329-033-005)

This relates to the competency required by staff to assess children.

I accept that the ED doctor, who first saw Conor, would have been competent to do immediate assessment and institute resuscitation fluid (see comment 3). However I maintain that neither the ED staff, nor the adult medical doctors who subsequently saw him, were best placed to manage his fluids after the immediate resuscitation. Although, as stated elsewhere in my report, I do not feel that his fluid management was inappropriate, nonetheless it appears from the witness statements that his requirements were not assessed in the way that would have been common practice in a paediatric unit, and I believe that his care would have been better had he been admitted to a children's ward.

The 2002 guideline is of necessity somewhat vague in its stipulation for 'competent' or 'senior' doctors to become involved and this will obviously depend on who is

available at that time. However I maintain that throughout Conor's stay at Craigavon, there was a middle grade paediatrician ready and available to take over his management.

In general, in most DGHs when unwell children requiring urgent fluid management present to Emergency Departments, paediatric staff are involved very early on, and they would normally either see the child in the Emergency Department and supervise the ongoing management there, or ask for rapid transfer to the children's ward, perhaps within an hour or so. I fully accept that it is impractical and undesirable for every child presenting to a district general hospital ED to be seen by a paediatrician on arrival. However, ED doctors are trained and experienced in immediate resuscitation, not ongoing fluid management. I maintain that most Emergency Department staff do not have the skills to deliver continuing satisfactory fluid management in children over a number of hours.

COMMENT 7 (Comment 6 at 329-033-005)

The Trust makes it clear from various documents that the policy in most units in Northern Ireland at the time was to have the 14th birthday as the cut off point for distinguishing between admission to adult and children's unit. I was not aware that this was province-wide policy at the time I wrote my report, but it has become very apparent from reading the recent witness statements.

I maintain that this policy was out of keeping with the rest of the UK, and to my certain knowledge, very few DGHs in England in 2003 had age 14 as the cut-off point, and most used 16. Similarly most specialist children's hospitals and PICUs, would at that time have taken children at least up to their 16th birthday.

I accept that if the staff had already been aware that there was no possibility of transferring him to the PICU on admission because he was age 15, then that discussion may not have taken place.

However in spite of this new information, I still find it surprising that more flexibility was not shown. In this particular situation, where it should have been obvious to all concerned that this was a very immature, child-like 15 year old, I would have expected greater flexibility both at Craigavon and in Belfast; I do not believe that age cut-offs should have been so rigidly applied.

I am very pleased to learn that policy is being slowly changed throughout Northern Ireland in this respect, to allow children up to their 16th birthday to be admitted to children's wards. However I might comment that it seems to be taking an inordinately long time to implement this: it could have been implemented much earlier, as the numbers of young people involved in any one hospital would be very small. There is considerable evidence that young people prefer to be given the option of a children's ward, and that they receive more appropriate care there.

COMMENT 8 (Comment 7 at 329-033-008)

This relates to my criticism of the record keeping on the fluid chart (088-004-063). The Trust point out that it would not have been policy to record the absence of any

stool or vomiting if none were passed. I accept this, but the whole point of my comment here is that no *urine* output was recorded which in this case is the most important issue. It is difficult to believe that he passed no urine at all during this time, and indeed the mother's witness statement states that he passed plenty. There is no record of this at all on the chart (087-002-019).

CONCLUSION

I concede the Trust's points about the seniority and expertise of Dr Budd in ED, and about the appropriateness of using Hartmann's as resuscitation fluid. The other comments are either unimportant, or I do not accept them, for the reasons given above.

Declaration
I declare that the above is my own true opinion having studied all the relevant documents supplied to me, given to the best of my knowledge and ability. I have no personal interest in supporting any particular point of view.

Dr Robert Scott-Jupp
11 October 2013