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William R Cross
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Dear Detective Sergeant Cross

Re: Raychel Ferguson

I have read the statements of the Doctors Trainor, McCord, Johnston, Jamison, Gund, Gilliland, Date, Butler, Nesbitt and Fulton which you recently sent me and I have re-read the clinical notes which were already in my possession.

I must stress that what I write are my opinions and interpretations, though I believe them to be reasonable.

It is my understanding that Raychel was admitted under the surgeons with Mr Gilliland being the consultant, though there is no record of whether he was informed of the admission and subsequent appendicectomy. Mr Makar and Mr Zafar were both Senior House Officers in surgery and Mr Makar performed the surgery. Post-operatively she was admitted to the Children's Unit but officially under the care of the surgeons. They both saw Raychel around 8 am the following day when she was found to be satisfactory, but not again until she suffered the seizure at 0315 the following day.

The role of the anaesthetist is to provide the anaesthesia and post-operative pain relief and usually the fluid management for 12-24 hours afterwards.

The surgeons, though in theory in control of the clinical course were not on the ward and it fell to the paediatricians to be involved as they <u>were</u> on the ward dealing with other patients, even though Raychel was not actually their patient.

Dr Gund, the anaesthetist says *"I do not prescribe in respect of a child, only adults. I understood that the nurses would ask a paediatrician to prescribe any fluids for Raychel." ". I have stated that later fluid management, after the operation, was left to ward protocols. I would explain that in Altnagelvin I was in a training position and therefore took advice on such matters and was advised that the protocol there was that the fluid management of a child after the operation was the responsibility of the ward doctors, not of the anaesthetists. I therefore struck out a prescription I had made and left that decision to others meaning by that the surgeons or paediatricians. I cannot say with certainty whether that decision was a matter for the surgeons or for the paediatricians".*

Dr MCord, the consultant paediatrician says, *"Neither (I) nor my staff were consulted regarding the prescription of fluids for Raychel. We would not have expected to be, it was a matter for the surgical team. "In Altnagelvin a surgical patient remains under the care of the surgical team. We would assist on request."*

It is thus clear to me that the surgeons were primarily, at least in theory, in charge of Raychel. The surgeon should therefore have been the first line of call for the nurses. However it was expected that patients, even though under the care of the surgeons, while on the Children's Unit would be given the fluids used on that ward. Dr Fulton

says, *"Raychel was transferred to the Paediatric Ward (6) prior to operation. Dr Makar changed the infusion to Solution 18 on Ward 6 at the request of SN Noble as solution 18 was the standard paediatric infusion used on Ward 6. SN Noble confirmed she had asked Dr Makar to do this and that this was ward policy."*

When I suggest in my report that there was a "system failure" I make the following comments:

1. I do not believe that there was a written protocol for the care of a postoperative child on the Children's Ward and that would not be at all unusual. There is usually a broad understanding of what should happen.

2. In my opinion, the nurses underestimated the vomiting and it is possible that there was no communication between them as a different nurse could have managed each episode and the total picture was then lost. Mr Gilliland says *"I would not expect a member of the surgical team to be told if a child vomited only once or twice. If more than that I would expect to be told. In Raychel's case an emetic was prescribed. Zofran did not control it so Valoid was tried. I believe the doctor should have noted the extent of the vomit if that was possible."*

The severity of the vomiting was never communicated to the medical staff whether surgeon or paediatrician

3. Whenever a junior paediatrician was involved, it was always because they happened to be on the ward – Dr Joe Devlin, the paediatric SHO wrote up the antiemetic which was given at 6 pm and Dr Butler (no previous paediatric experience) wrote up fluids and says *"At some stage on that morning, I cannot recollect precisely when, it would appear from the record on page 020-019-038, that I*

was requested by one of the nursing staff to continue prescribing fluids for a child, Raychel Ferguson.

Even at 0315 when Raychel first had a fit she was seen by Dr Johnston because he happened to be on the ward at the time.

This is very unsatisfactory as only the nurses are aware of the evolving clinical situation.

Mr Gilliland says *"I cannot decipher the signature of the doctor prescribing the Valoid, it could have been any doctor on duty"* This drug was given at 1015 in the evening and it is not clear to me which doctor was involved at that stage.

4. The junior surgeons, in theory looking after Raychel were more than likely either on their own wards and/or in the operating theatre. Sister Millar says *"Staff Nurse McAuley, the nurse looking after Raychel that day, rang the surgical SHO initially and then the SHO to come and give Raychel some iv antiemetic for her vomiting at approximately 4.30pm. They did not answer their bleeps immediately but a short time afterwards Dr Joe Devlin came to the ward to clerk in a new patient. Dr Devlin gave iv Zofran to Raychel at approx 6.00pm.*

It is not clear exactly who was called and indeed if they ever came; it thus took 90 minutes before the medication could be given.

It is my opinion that after Raychel suffered a seizure at 0315 the clinical situation was probably already not salvageable and the care and chain of command was excellent at that stage. In particular Dr Jeremy Johnston did exactly the right things and should be congratulated. He *says "At 03.05 hours I was finishing a paediatric medical admission on the ward when I was asked by Staff Nurse Noble to see Raychel*

Ferguson, a nine year old surgical patient, as I was the only doctor readily available. I promptly attended to the child who was having a generalised tonic seizure.

Again it was a paediatric doctor who came to the rescue. He called the pre-registration surgical house officer, Dr Curran (junior surgical house officer) who would normally have been the first doctor to have been called and suggested he inform his senior, which he did. Dr Johnston sought the help of Dr Trainor and their consultant Dr McCord was involved. The anaesthetists were appropriately summoned and Dr Nesbitt, the consultant came from home. Mr Gilliand never saw Raychel.

I believe that every step was taken to retrieve the situation and I can fully understand the need to repeat the electrolytes test in the light of such an abnormal finding the first time.

It is my opinion and committed practice to restrict intravenous fluids post-operatively. And maintenance fluids for the first 24 hours should be 2ml per kilo body weight per hour – in Raychel's case 52ml per hour. The "number 18" solution is fine for this as long as abnormal losses are replaced with an equivalent volume of saline or Hartmann's solution in addition to the maintenance. Raychel was being given considerably more than this and was also losing sodium chloride from extensive vomiting which was never appropriately replaced.

By the evening when the Zofran was given, it might have raised suspicion that the vomiting was becoming unusual for a post-appendicectomy patient and at 1015 when the Valoid was given this was a real missed opportunity to assess the patient properly, perhaps measure the electrolyes and change the fluids to normal saline or the equivalent. It is likely that if steps had been taken at that stage then this catastrophe

might not have occurred. There is no record of who was involved at that time. As Dr Gilliland suggested – *"it could have been any doctor"*

My final impression at this stage is that all the doctors involved in the care of Raychel until her seizure, were all junior doctors and some were very junior indeed.

I hope that this is helpful. Please come back to me if there is more information required or if there are points to be elucidated.

Yours sincerely

Edward Sumner

Consultant paediatric anaesthetist