(136)

SPERRIN LAKELAND
HEALTH AND SOCIAL CARE TRUST

ERNE HOSPITAL
ENNISKILLEN, CO. FERMANAGH. BT74 6AY. TELEPHONE [redacted] FACSIMILE [redacted]

Dr J Kelly,
Medical Director,
Erne Hospital,
Enniskillen

24-Aug-03

Re: Lucy Crawford Erne Hospital Number: 123000

I was called to see Lucy on the day of admission by the SHO on duty (Dr Malik) because he was unable to site a drip. Lucy had been admitted with a history of vomiting and drowsiness. On examination she was sleepy but rousable. Since blood had been sent for urea and electrolyte measurements I applied local anaesthetic cream to the areas where I thought I was most likely to be able to insert an IV cannula. In the meantime I gave her a bottle of fluid which she took well.

When the local anaesthetic cream had had time to take effect I inserted a cannula. While strapping the cannula in situ I saw Dr Malik writing as I was describing the fluid regime ie. 100 mls as a bolus over the first hour and then 30 mls per hour. The 100 mls was approximately 10 ml/Kg and to cover the possibility that the cannula might not last very long and the succeeding rate was relatively slow since I had seen her taking oral fluid well and presumed the rate of fluid need was relatively small.

I looked into the treatment room a few minutes later and Lucy was standing on the couch in front of her mother and looking better.

I was next called at approximately 03.00 because Lucy had had what sounded like a convulsion. My initial presumption was that this was a febrile convulsion. However since she showed no signs of recovering by the time I arrived and since there was a history of profuse diarrhoea I took a specimet for repeat urea and electrolytes. My recollection is that Dr Malik had started the intravenous normal saline before calling me and that the 500 mls given was virtually complete before I arrived. Her repeat urea and electrolyte measurement showed the sodium had fallen to 127. When I took over bagging from Dr Malik it was clear that there was no respiratory effort and her pupils were fixed and dilated. I continued bagging until Dr Auterson arrived and he intubated her and she was transferred to ICU

I arranged transfer to the Paediatric Intensive Care Unit in the Royal Belfast Hospital for Sick Children and since there was no anaesthetics to travel with her I accompanied her. I was unable to make a diagnosis for her deterioration prior to transfer. She was hand bagged until arrival in Belfast either by myself or the accompanying nurse from ICU. The only problem in transit was a fall in her blood pressure towards the end of the journey at which point I started a dopamine infusion.

The only respect in which this report differs from the previous version is in respect to the infusion of 500 mls of normal saline, to which I did not refer in the version I sent to you previously. Since this is approximately 50 ml/Kg a much larger volume than I would use I believe this had been started following the first episode of diarrhoea ie. before the convulsion.

(3)

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ERNE HOSPITAL
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You have supplied me recently with a copy of Dr Summers report. I would remind you of the article from the British Medical Journal which drew this issue to attention in 2001 - it referred to "the wide belief in paediatric practice that "maintenance fluids" should be hypotonic. In describing a group of patients it says that "hypotonic solutions were infused using current guidelines" and quotes Nelsons Textbook of Pediatrics (one of the standard pediatric textbooks) as the source of advice. As recently as February 2003 an article titled "Prevention of Hospital-Acquired Hyponatremia: A Case for Using Isotonic Saline" appeared in the Journal "Pediatrics" which is produced by the American Academy of Pediatrics which says "The current standard of care in pediatrics is to administer hypotonic saline in maintenance parenteral fluids". While they recommend the use of the fluids recommended by Dr Summer this practice cannot be described as routine if a mainstream journal such as Pediatrics has published such an article so recently. I am not trying to defend this practice except in the sense that at the time in question it was common practice and recommended by standard textbooks and journals to which we would be expected to turn for advice.

In the light of the information in the above article from the British Medical Journal and guidelines issued by the Department of Health in Belfast we have modified our fluid regimes here and 0.18% saline would no longer be considered a standard fluid in this situation.

Yours sincerely,

Dr J M O'Donohoe
Consultant Paediatrician.

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