## CONOR MITCHELL DOB 12<sup>th</sup> October 1987

## CHRONOLOGY OF EVENTS: CLINICAL

Date	Time	Event	Source		
2003	2003				
08.05	10.00 (approx.)	Conor is examined by Dr Doyle (GP) at his home and is referred to RBHSC. The referral letter states: "Unwell for 10 days. Not feeding. ↓ fluid intake. ↑ drowsiness. Poor colour. Had URTI at start of illness. Had short course of penicillin (2-3 days). Chest clear, HR 62/min reg. Well perfused, abdo tender: no guarding. Family refuse admission to local hospital. Cerebral palsy. ?Cause of deterioration."	Ms Mitchell's Deposition (Ref: 087- 002-018) and GP referral letter (Ref: 088-002-022).		
	10.51/55	Conor arrives at the Accident and Emergency Department of Craigavon Area Hospital (CAH).	Dr Budd's Deposition (Ref: 087-029-133), A&E Sheet (Ref: 088-002-020).		
	10.51/55 to 12.10	Dr Budd saw Conor immediately was and with him for approximately 1 hour and 20 minutes.	Dr Budd's Deposition (Ref: 087-029-133).		
		On examination Conor was found to be pale with signs of dehydration. He was apyrexic but was haemodynamically stable and breathing spontaneously with normal oxygen saturation on room air. There was no local tenderness on examination of his abdomen and bowel sounds were present. Conor's temperature was recorded as 36.8°C, his pulse rate was 77 and his blood pressure was 118/69.	Dr Budd's Deposition (Ref: 087-029-133); A&E Sheet (Ref: 088-002-020) and Observation Chart (Ref: 088-004-042).		
		Dr Budd assessed Conor as being about 5% dehydrated.			
	10.51/55 to 12.10	Dr Budd obtained IV access and routine blood tests were sent, including blood cultures. Conor was fitted with a urine collection bag.	Dr Budd's Deposition (Ref: 087-029-133) and Ms Mitchell's deposition (Ref: 087-001-006).		
<u> </u>	10.59	Arterial gas sample performed.	Ref: 088-004-036		
	11.10	Dr Budd recommended intravenous antibiotics but Ms Mitchell wanted to await blood test results before administering further antibiotics as Conor had already received	Dr Budd's Deposition (Ref: 087-029-133 & 135), A&E Sheet (Ref: 088-002- 020) and Ms. Mitchell's		

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		antibiotics at home.	Deposition (Ref: 087- 002-026).
	11.20	110 mls of Hartmann's solution was erected. <u>Note:</u> There is no corresponding entry in the 'volume in' column	Intake / output chart (Ref: 088-004-063) and Particulars of Intravenous Fluids to be taken (Ref: 088-004-064).
	11.45	110 mls of Hartmann's solution was erected.	Intake /output chart (Ref: 088-004-063) and Particulars of Intravenous Fluids to be taken (Ref: 088-004-064).
		Conor's grandmother thought that his face looked swollen and puffy following administration of fluids.	Deposition of Ms. Mitchell (Ref: 087-002- 018)
	11.50	Paracetamol was given	Dr Budd's Deposition (Ref: 087-029-133) and A&E Sheet (Ref: 088-002- 020).
	12 midday	110 mls of Hartmann's solution was erected <u>Note:</u> There is no corresponding entry in the 'Particulars of Intravenous Fluids to be taken' chart (Ref: 088-004-064).	Intake / output chart (Ref: 088-004-063).
	12 midday (approx.)	Dr Paul Kerr attended Conor to examine the placement of a cannula. While Dr Kerr was in attendance he witnessed several jerks in the arm which lasted only a brief time. Dr Kerr did not make a note of what he saw.	Ms Mitchell's deposition (Ref: 087-001-006) and Dr Kerr's deposition (Ref: 087-027-127 & 128).
	12.09	Biochemical results are available showing Urea 7.8; Cre 57; Alb 45; HC03 21.0; Gluc 7.6; CRP <5; Sodium 138 and CL 97.	CAH Biochemistry Preliminary Report (Ref: 088-002-023) and Dr Budd's Deposition (Ref: 087-029-133)
	12.10	Conor leaves the A&E Department and is admitted on to the adult ward of Medical Admissions Unit (MAU) by Staff Nurse Bullas.	Dr Budd's Deposition (Ref: 087-029-134) and Staff Nurse Bullas' deposition (Ref: 087-017- 090)
	12.10-13.00	Conor was brought up to MAU. The urine bag fitted in A&E was overflowing.	Ms Mitchell's deposition (Ref: 087-001-007).
	13.00 -13.45	Conor is seen by Dr Catherine Quinn (Medical SHO). Dr Quinn states that her first contact with Conor was at 1pm and her last	Dr Quinn's deposition (Ref: 087-015-081) and History and Physical

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		contact was 1.45pm. On examination Conor was found to be drowsy and pale. He had flexion contractures of both arms from cerebral palsy. Conor's temperature was recorded as 36.7°C, his oxygen saturation was 97% and his blood pressure was 118/69. His chest was clear and his pulse was 72. Conor's abdomen was soft, non-tender with no masses and he had normal bowel sounds. Dr Quinn's impression was that Conor had a urinary tract infection. The plan on admission was to do a full blood test, adminster IV fluids and ciproxin, carry out a mid-stream urine sample, a chest x-ray and abdominal x-ray and provide analgesia PR.	Examination (Ref: 088- 004-037).
		Dr Quinn wrote a prescription for 3 litres of intravenous fluids over 24 hours – 1 litre normal saline (with added potassium) for 8 hours; then 1 litre 5% dextrose (with added potassium) for 8 hours; then 1 litre of normal saline.	Intake / output chart (Ref: 088-004-063); History and Physical Examination (Ref: 088- 004-037) and Dr Quinn's deposition (Ref: 087-015- 081).
	13.00	200ml IV Ciprofloxacin erected	Intake / output chart (Ref: 088-004-063).
	13.00/13.10	Dr Quinn sends for Dr Andrew Murdock (Medical Registrar). Dr Murdock's impression was that Conor was dehydrated, suffering from a urinary tract infection and possibly a viral illness. Dr Murdock asked Dr Quinn to decrease the rate of the fluids due to Conor's low weight and size for his age (see below).	In-patient Follow-up and Out-patient Notes (Ref: 088-004-044) and Dr Murdock's deposition (Ref: 087-025- 116).
	13.30 (approx.)	After discussion with Dr Murdock, Dr Quinn changed Conor's fluid prescription to 250mls of normal saline for 4 hours; followed by 250mls of normal saline for 6 hours; followed by 250mls normal saline for 8 hours. <u>Note:</u> The 'Intake / output chart' does not indicate whether normal saline was erected and administered before the venflon was extravasated at 2.00pm.	Intake / output chart (Ref: 088-004-063); Dr Quinn's deposition (Ref: 087-015-086) and Dr Murdock's deposition (Ref: 087-025-116).
	14.00	Venflon is extravasated. Dr Totten notified.	Intake / output chart

Date	Time	Event	Source
			(Ref: 088-004-063); 'Nursing Report / Evaluation' (Ref: 088- 004-091) and Nurse Bullas's deposition (Ref: 087-017-090).
	14.30	Dr Totten notified again.	'Nursing Report / Evaluation' (Ref: 088- 004-091) and Nurse Bullas's deposition (Ref: 087-017-090).
	14.45	Dr Totten notified again.	'Nursing Report / Evaluation' (Ref: 088- 004-091) and Nurse Bullas's deposition (Ref: 087-017-090).
	15.00	Dr Totten is informed of <i>"spasms"</i> . Nurse Lavery states that this entry in the notes was made between 2pm and 3pm.	Intake / output chart (Ref: 088-004-063) and Nurse Lavery's deposition (Ref: 087-019- 096).
	16.00	Venflon resited by Dr Totten.	'Nursing Report / Evaluation' (Ref: 088- 004-091).
	16.10	Fluids reconnected by Sister Brennan (nee Dickey). Nursing note that still awaiting specimen of urine. <u>Note</u> : the 'Intake / output chart' does not record the volume reconnected or the type of fluid.	Intake / output chart (Ref: 088-004-063); Nursing Report / Evaluation (Ref: 088-004- 091) and Sister Brennan (nee Dickey)'s deposition (Ref: 087-020- 100).
	17.00	An entry is made on the fluid balance chart of "250" in the 'Volume In' column. The other columns are not populated.	Intake / output chart (Ref: 088-004-063).
	17.30	Further ' <i>spasms</i> ' and small rash on abdomen and thighs noted. Conor was seen by the JHO. He was given Paracetamol PR and oxygen changed to nasal cannula.	Nursing Report / Evaluation (Ref: 088-004 091) and Nurse Bullas's deposition (Ref: 087-017- 091).
	18.00	Intake /output chart not completed.	
	18.30	Ms Mitchell is recorded as anxious to speak to doctor about spasms and intermittent rash.	Nursing Report / Evaluation (Ref: 088-004

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		However, Ms. Mitchell is of the view that what she was reporting were seizures. She has stated that between 13:00 and 20:00 Conor suffered "10-12 violent and wholly untypical seizures."	092). Deposition of Ms. Mitchell (Ref:087-002- 021)
	18.30/35	<ul> <li>Conor is seen by Dr Murdock. Dr Murdock finds no sign of a rash or any abnormalities of the abdomen. Conor's family are told that he is being treated for a urinary tract infection and dehydration.</li> <li>Dr Murdock agrees to speak to Dr McEneaney, Medical Consultant on call.</li> </ul>	Nursing Report / Evaluation (Ref: 088-004- 092); In-patient Follow- up and Out-patient Notes (Ref: 088-004-046) and Dr Murdock's deposition (Ref: 087-025- 117).
	18.50	Dr Murdock reports that he has spoken to Dr McEneaney who advised that there is no need for any change in Conor's treatment plan or transfer to RBHSC. A second opinion will be sought from the Paediatric Team. Dr Murdock contacts Dr Marian Williams, Paediatric Registrar who agrees to review Conor.	Nursing Report / Evaluation (Ref: 088-004- 092) and Dr Murdock's deposition (Ref: 087-025- 119).
	19.00	Urgent portable chest X-ray is requested.	Nursing Report / Evaluation (Ref: 088-004- 092).
	19.15	Urgent portable chest X-ray is requested.	Nursing Report / Evaluation (Ref: 088-004- 092).
	19.20	Family call nurses as they are concerned that Conor might have stopped breathing/ might have had a seizure.	Nursing Report / Evaluation (Ref: 088-004- 092).
	19.22	Conor is seen by Dr Murdock. His breathing is satisfactory and his observations are stable.	Nursing Report / Evaluation (Ref: 088-004- 093).
	19.30	Portable chest X-ray.	Nursing Report / Evaluation (Ref: 088-004- 093).
	19.40	IV Cyclizine 25mg is given by Dr Murdock. Chest X-ray is normal.	Nursing Report / Evaluation (Ref: 088-004- 093) and Dr Murdock's deposition (Ref: 087-025- 119).
	19.40	250ml normal saline erected to run for 6 hours.	Intake /output chart (Ref: 088-004-063).

Inquiry into Hyponatraemia-related deaths

Date	Time	Event	Source
		Note: 'Intake / output chart' is otherwise not completed at 7.00pm.	
	20.00	Awaiting Paediatric Registrar	Nursing Report / Evaluation (Ref: 088-004- 093).
	20.20 (approx)	Dr Murdock estimates that Dr Williams (Paediatric Registrar) arrives.	Dr Murdock's deposition (Ref: 087-025- 125).
	20.20	'Seizure' recorded in nursing notes.	Nursing Report / Evaluation (Ref: 088-004- 093).
	20.35 (approx)	Conor suffers a generalised seizure lasting seconds while being assessed by the Paediatric Registrar. He suffers a second seizure closely after which also lasts seconds and after which no respiratory effort is made by Conor. Dr Williams has stated that the second seizure was more prolonged. Dr Murdock was present during the second seizure.	Dr Murdock's deposition (Ref: 087-025- 125) and Dr Williams's deposition (Ref: 087-035- 164).
	20.45	<ul> <li>Dr Murdock's notes regarding the seizure are timed at 20.45. Dr Smith (Consultant Paediatrician) arrived (Dr Smith states that he was called urgently to see Conor at approx 9pm).</li> <li>Dr Murdock recorded at the time: "Discussed management to date with Dr Smith. Happy that appropriate fluids had been given. Feels appropriate management has been given to date."</li> </ul>	In-patient Follow-up and Out-patient Notes (Ref: 088-004-048 and 051); Dr Murdock's deposition (Ref: 087-025- 119) and Dr Smith's deposition (Ref: 087-037- 168).
	21.00	Breathing is supported with airbag. Airway is inserted and suctioning given. Dr Murdock requests anaesthetist on call.	Nursing Report / Evaluation (Ref: 088-004- 093) and Dr Murdock's deposition (Ref: 087-025- 119).
	21.05	Conor is seen by anaesthetist on call.	Nursing Report / Evaluation (Ref: 088-004- 093).
	21.10/15	Conor is intubated. He is given intravenous Phenytoin (300mgs erected via syringe driver to run over 30 minutes) and intravenous Acyclovir.	Nursing Report / Evaluation (Ref: 088-004- 093); Dr Murdock's deposition (Ref: 087-025- 119) and Dr Smith's deposition (Ref: 087-037-

Date	Time	Event	Source
			168).
	21.25	Nasogastric tube is passed - 50 mls of coffee grounds suctioned.	Nursing Report / Evaluation (Ref: 088-004- 093).
	21.37	Conor is put on ventilator.	Nursing Report / Evaluation (Ref: 088-004- 094).
	21.45	Transfer to CT scanner for emergency CT scan	Nursing Report / Evaluation (Ref: 088-004- 094).
	22.30	Transfer to ICU.	Nursing Report / Evaluation (Ref: 088-004- 094).