INQUIRY CHRONOLOGY OF EVENTS: CLAIRE (CLINICAL)
From 18th October 1996 to 23rd October 1996

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
FRIDAY 18TH OCTOBER 1996				
	Claire had a small loose bowel motion.	Ref: WS-253-1 p.21 (Statement of Alan Roberts)		
SATURDAY 19TH OCTOBER 1996				
	Claire visits her Grandparents (Roberts) and comes into contact with both Grandparents, her two brothers, her aunt and her three cousins. It is mentioned during this visit that one of Claire's cousins had a tummy upset that week.[1]	Ref: WS-253-1 p.2 (Statement of Alan Roberts)		
SUNDAY 20TH OCTOBER 1996				
	Claire attends church with her mother and Grandmother (Magill) and spent afternoon with her Grandparents (Magill).	Ref: WS-253-1 p.2 (Statement of Alan Roberts)		

[1] Ref: 090-022-055 (Clinical History, Examination and Progress) Dr Webb records: "Background from mum – contact with cousin on Sat who had a G.I.T. upset. Claire had loose motions on Sunday & vomiting Monday...."

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
MONDAY 21ST OCTOBER 1996				
	Claire attended school (Torbank Special School, Dundonald) during which time her teacher reported that she was pale and lethargic.	Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005 & WS-253/1 p.3 & p.19)		
15.00	Claire returns from school and continues to be unwell, vomiting on 2 or 3 occasions. She also has one loose bowel movement but no symptoms of diarrhoea.	Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)		
18.00	Claire's GP, Dr. Savage (Castlereagh Medical Centre), who had been called for advice, made a home visit to examine her. Claire referred to the Royal Belfast Hospital for Sick Children (RBHSC) by her GP: *9 year old girl with severe learning disability and past history of epilepsy. Fit free for 3yr - weaned off Epilim 18mths ago. No speech since coming home. Very lethargic at school today. Vomited x3. speech slurred. speech slurred earlier. On examination – pale. Pupils reacting, does not like light. No neck stiffness, Temp. Tone ++ [increased] R side plantar [reflex] ↑↑ up-going, L plantar [reflex] ↓↓ down-going. ENT – NAD [nothing abnormal detected]. Chest clear.* *?Further fit? underlying infection?*	Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005) Ref: 090-011-013 (Referral letter)		
19.03	Claire is seen by SN EA Jackson, the triage nurse in the A&E Department of the RBHSC, who records: *H/O [history of] Off form and Lethargic. GP referral with H/O ?Seizure*	Ref: 090-010-012 (A&E Nursing Assessment Notes)	Steen Puthucheary	Blue Jackson

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	Apyrexic O/A [on admission] Pale and Drowsy O/A H/O Mental Handicap She also records: *Medication NONE* SN Jackson records her observations of Claire as: *Temperature 36.9, Respiratory rate 24, Heart rate 96. Seen by medical registrar admit to Allen Ward at 20.45 on October 21st 1996*			
19.15	Claire was seen in A&E by the SHO Dr. Janil Puthucheary who records: *9 year old girl. H/O learning difficulties. H/O epilepsy – no fits for 3 years. Off anti-epileptic medication. Today vomiting (non-bilious), since this evening. No diarrhoea/ cough/ pyrexia. Speech very slurred, hardly speaking. O/E – drowsy, tired, Apyrexic, no enlarged lymph nodes. Pupils equal and reactive to light. No neck stiffness. Ears normal. Heart sounds normal with no murmurs. Pharynx – unable to examine. Abdomen soft and non-tender, no masses and bowel sounds present. Lungs – air entry good, no added sounds. Plantar [reflexes]↓↓ R + L (but see GP letter). No apparent limb weakness. Tone↑ Reflexes brisker on left than right. Plan – admit.* *Primary diagnosis – encephalitis?* The plan to admit is signed by Dr. Bernie O'Hare the Paediatric Registrar.	Ref: 090-012-0144 (A&E Notes)	Steen Puthucheary	Blue Jackson
20.00	Claire is assessed by Dr. O'Hare, the Paediatric Medical Registrar on call who decides at 20.45 that she should be admitted on to Allen Ward: *Nine year old girl admitted via A&E. Vomiting at 3.00pm and every hour*	Ref: 090-012-014 (A&E Notes), Ref: 090-022-050, Ref: 090-022-051, Ref: 090-022-052 (Clinical History, Examination and Progress)	Steen O'Hare	McRandal Maxwell Brownlee

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	since. Slurred speech + drowsy. Off form yesterday. Loose motions 3 days ago. Severe learning difficulties. Seizures 6 mths - 1year of age controlled by Na Valproate *Age 4 – X1 seizure* *Anti-convulsant gradually weaned until Epilim stopped …* *… can speak in sentences meaningful …* *Dr. Gaston … previously Dr. Montague* *Recently tried Ritalin – Dry mouth then became agitated. Dry mouth* *…Pres, sit-up + stares vacantly, ?Ataxic …* *Tone upper limb cogwheel rigidity …* *Clonus* *…not responding to parents voice/intermittently responding to deep pain…* *[Diagnosis] 1. viral illness 2. encephalitis [latter is crossed out]* O'Hare strikes out "encephalitis" between 8 – 9pm. She requires blood to be taken for full blood count, urea and electrolytes , bacteriological culture and viral studies *afebrile … IV fluids IV diazepam ? [if] ? seizure activity. Re-assess after fluids*	Results Ref: 090-031-099 (Laboratory Report – no. 19924)		
21.14	Claire is admitted on to Allen Ward under the care of Dr. Heather Steen Consultant Paediatrician. At about this time Claire appears more settled and is sleeping. Her parents leave the hospital.	Ref: 090-014-020 (Hospital Admission Sheet) Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)	Steen O'Hare	McRandal Maxwell Brownlee
21.45	Claire's weight is recorded as 24.1kg.	Ref: 090-041-142 , Ref: 090-041-143 (the Admission Sheet signed by SN Geraldine McRandall) and Ref: 090-021-049 (Treatment Form)	Steen O'Hare	McRandal Maxwell Brownlee

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
22.30	IV prescription chart prepared by Dr Andrea Volprech ordering 500mls of 0.18% sodium chloride in 4% dextrose to be given at 64mls/kg/24hr. IV fluids of 5/N saline are recorded as having been started as prescribed at 64mls/hr by Dr Volprecht. SN McRandall records at 10.00pm that bloods for U + E taken.	Ref: 090-038-134 (Intravenous Fluid Prescription Chart) Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet) Ref: 090-040-140 (Nursing Records)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
22.30	Claire is recorded by SN McRandal as having vomited.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
23.00	24mls IV fluids of 5/N saline are recorded as having been given.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
circa Midnight	Claire is re-assessed by Dr. O'Hare the Paediatric Registrar : *Slightly more responsive - No meningism* *Observe and reassess am* Entry from SHO Dr Volprech showing: *Sodium 132 ↓[below range]…* 56mls IV fluids of 5/N saline are recorded as having been given and Claire is recorded by SN McRandal as having had a small vomit.	Ref: 090-022-052 (Clinical History, Examination and Progress) Ref: 090-022-052 (Clinical History, Examination and Progress) and Ref: 090-031-099 (Laboratory Report – no. 19924) Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
TUESDAY 22ND OCTOBER 1996				
01.00	66mls IV fluids of 5/N saline are recorded as having been given.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
02.00	54mls IV fluids of 5/N saline are recorded as having been given and Claire is recorded by SN McRandal as having had a small vomit.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
03.00	88mls IV fluids of 5/N saline are recorded by SN Maxwell as having been given and Claire is recorded as having passed urine (amount not recorded) and had a small vomit.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownleee
04.00	45mls IV fluids of 5/N saline are recorded as having been given and Claire is recorded by SN Brownlee as having had a small vomit.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
05.00	71mls IV fluids of 5/N saline are recorded by SN Brownlee as having been given.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
06.00	56mls IV fluids of 5/N saline are recorded as having been given and Claire is recorded by SN McRandal as having had a small vomit.	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee
07.00	76mls IV fluids of 5/N saline are recorded as having been given. Claire is recorded by SN McRandal in the Ward Round Notes as	Ref: 090-038-133 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	McRandal Maxwell Brownlee

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	having slept well and being *"much more alert and brighter"* but with *"one further bile-stained vomit"* and observations being *"satisfactory"*	Ref: 090-040-140 (Nursing Records)		
08.00	68mls IV fluids are recorded by SN Field as having been given (SN Field).	Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen O'Hare Volprech	Field Spence Linsky
09.00	42mls IV fluids are recorded by SN Field as having been given.	Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Field Spence Linsky
10.00	69mls IV fluids are recorded by SN Field as having been given and Claire is recorded as having had sips of water.	Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Field Spence Linsky
Circa 11.00	Dr. Sands' ward round and history taken: *Admitted ?viral illness. Usually very active, has not spoken to parents as per normal.* *Wretching. No vomiting. Vagueness/vacant (apparent to parents)* *No seizure activity observed …* *U&E – Na+ 132* *Aprexic on IV fluids*	Ref: 090-022-052 (Clinical History, Examination and Progress) Ref: 090-022-053 (Clinical History, Examination and Progress).	Steen Webb Sands Stevenson Stewart	Field Spence Linsky

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	Pale colour. Little response compared to normal *Pupils sluggish to light … Diag. Non fitting status ["encephalitis/ encephalopathy"]*[2] *Plan. Rectal Diazepam* *Dr. Webb* Dr. Sands also sought Claire's previous hospital notes from Dr. Gaston at the Ulster Hospital.[3] 80mls IV fluids are recorded as having been given and Claire is recorded by SN Spence as having passed a large amount of urine. Mr & Mrs Roberts express concerns to Dr Sands about Claire's lack of response.	 Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet) Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)		
12.00	49mls IV fluids are recorded by SN Field as having been given.	Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Field Spence Linsky
12.15	Rectal diazepam prescribed at ? (time not clear) by Dr Stewart (ordered by Dr Sands) and administered by nursing staff (EN Kate Linsky)[4] at 12.15. Dr Webb noted that Claire appeared to improve after rectal diazepam 5 mg given at 12.30.	Ref: 090-026-075 (Prescription Sheet) Ref: 090-022-053 (Clinical History, Examination and Progress)	Steen Webb Sands Stevenson Stewart	Field Spence Linsky

2 Dr Sands added these diagnoses later after speaking to Dr Webb – Ref: WS-137/1, p.10
3 They were faxed through at 15.15 – see Ref: 090-013-015 to Ref: 090-013-019 (letters dated 30th May 1996 and 2nd August 1996 from Dr. Gaston to Claire's GP Dr. McMillin)
4 Ref: 090-040-141 Nursing Records at 2.00pm refers to 5mgs Diazepam administered.

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
13.00	Hourly neurological observations commenced. Claire's Glasgow Coma Scale is recorded as 9. 42mls IV fluids are recorded by SN Field as having been given. Both sets of grandparents (Mr William Roberts & Mrs Elizabeth Roberts and Mr Alister Magill & Mrs Margaret Magill) arrive around this time and Mr & Mrs Roberts go for lunch.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet) Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)	Steen Webb Sands Stevenson Stewart	Field Spence Linsky
14.00	Hourly CNS (central nervous system) observations commenced. It was also noted by SN Field that Claire was to be seen by Dr. Webb and a CT scan was queried for the morning. Claire is recorded by SN Field as having been seen by Dr. David Webb who prescribed IV Phenytoin. Claire's parents were not in attendance. Examination by Dr. Webb and history taken:[5] *9yr old girl with known learning difficulties – parents not available. Grandmother – vomiting + listless yesterday pm – followed by prolonged period of poor responsiveness … Note appeared to improve following rectal diazepam 5mg at 12.30pm* *O/E Afebrile, no meningism. Pale* *Rousable – eye opening to voice. Non verbal, withdraws from painful stimulous. Reduced movements Rt. Side?…* *Mildly increased tone both arms. Reflexes symmetrically brisk. Clonus –*	Ref: 090-040-141 (Nursing Records) Ref: 090-040-141 (Nursing Records) Ref: 090-022-053 and Ref: 090-022-054 (Clinical History, Examination and Progress)	Steen Webb Sands Stevenson Stewart	Taylor Ellison

[5] Ref: 090-022-053 and Ref: 090-022-054 (Clinical History, Examination and Progress) on the basis that the entry time is incorrect and should be 2.00pm rather than 4.00pm as recorded. See also Dr. Webb's Deposition (Ref: 091-008-043) where he states that he saw Claire at about 14.00.

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	sustained both ankles … Sits up eyes open and looks vacantly *Not obeying commands* *Imp. I don't have a clear picture of episode+ yesterdays episodes. Her motor findings today are probably long standing but this needs to be checked with notes. The picture is of acute encephalopathy most probably restricted in nature. I note n [normal] biochemistry profile. Suggest … (ii) Hrly obs (iii) CT tomorrow if she doesn't wake up* No IV fluids recorded at this time. Grandparents inform Mr Roberts that a Doctor had examined Claire.	Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet) Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)		
14.30	Calculations for a prescription of IV Phenytoin are recorded by Dr R Stevenson (bolus dose and then a 12 hourly dose of 60mg either IV or orally). It is also recorded that Claire's Phenytoin levels should be checked at 9.00pm.	Ref: 090-022-054 (Clinical History, Examination and Progress)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
14.45	Prescribed dose of IV Phenytoin given (635mg) by Dr R Stevenson.	Ref: 090-026-075 (Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
15.00	Claire's Glasgow Coma Scale is recorded as 7. Mr Roberts leaves the hospital to collect 2 sons from school while Mrs Roberts remains with Claire.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)	Steen Webb Sands Stevenson Stewart	Taylor Ellison

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
15.10	Claire is recorded as having had a seizure, "*lasted frequently strong seizer [sic] at 3.25*". Recorded as lasting 5 mins and after which she was sleepy. The entry also bears the time 3.25pm and *"Mum"* in the column for initials.[6] Claire was seen by Dr. Webb and note refers to Claire *"still in status"* (time?) Calculation of Midazolam at 12mg IV stat followed by 2.88 mg/h infusion by Dr. R Stevenson.	Ref: 090-042-144 (Record of Attacks Observed) Ref: 090-022-055 (Clinical History, Examination and Progress) Ref: 090-022-055 (Clinical History, Examination and Progress)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
15.15	Claire's hospital notes and records from Dr. Gaston (Consultant Community Paediatrician) at the Child Development Department at Ulster Hospital are faxed to Dr. Stewart SHO at Allen Ward.[7]	Ref: 090-013-015 to Ref: 090-013-019 (letters dated 30th May 1996 and 2nd August 1996 from Dr. Gaston to Claire's GP Dr. McMillin)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
15.25	Prescribed dose of IV Midazolam[8] is started with continuous infusion running at 2mls/hr to be increased by 0.5mls every 5mins until up to 3mls/hr.[9]	Ref: 090-040-141 (Nursing records)	Steen Webb Sands Stevenson Stewart	Taylor Ellison

6 It is not clear whether Claire had a seizure at 15.10 and then again at 15.25.

7 Dr. Webb refers in his entry in Claire's notes at 2.00pm on 22nd October 1996 (Ref: 090-022-053 and 090-022-054) that: "I don't have a clear picture of episode+ yesterdays episodes. Her motor findings today are probably long standing but this needs to be checked with notes".

8 The dosage is noted as 120mg by Dr R Stevenson but not initialled as 'Given' Ref: 090-026-075 (Prescription Sheet) although the nursing records (Ref: 090-040-141) note stat IV hypnovel at 3.25pm. The correct calculation of (1) 0.5 x 24 = 12mg IV Stat, (2) 2 x 24 = 2.88mg/hr infusion = 69mg /24hrs, is noted at Ref: 090-022-055. Dr Webb states in his witness statement (WS-138/1 p.32) that, "the loading dose should have been given at 0.15mg/kg stat and I do not know how a dose of 0.5mg/kg was charted."

9 Ref: 090-026-073 (Prescription Sheet) on which it is noted that the Midazolam prescription was "re-written 9.30pm".

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15.30	177mls IV fluids are recorded by SN Ellison as having been given.	Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
16.00	Claire's Glasgow Coma Scale is recorded as 6. Claire's eyes do not open, even to pain.[10] 35mls IV fluids are recorded by SN Taylor as having been given.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
16.30	Claire is observed tightening her teeth[11] slightly, which went on for a few seconds after which she fell asleep. IV Midazolam ordered by Dr Stevenson as 69mg in 50mls normal saline at 2 ml/h is started at this time.	Ref: 090-042-144 (Record of Attacks Observed) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Steen Webb Sands Stevenson Stewart	Taylor Ellison
17.00	Dr. Webb noted the results of his examination of Claire: *… She continues to be largely unresponsive. She responds by flexing her … arm to deep sup… pain + does have facial grimace* He prescribed antibiotic Cefotaxime and the anti-viral drug Acyclovir for 48hrs although he did not consider meningeocephalitis to be *"likely"*. He noted that stool, urine, blood and a throat swab should be	Ref: 090-022-055 (Clinical History, Examination and Progress)	Webb Bartholome Hughes	Taylor Ellison

[10] Thereafter the hourly recordings until 2.00am (when the observations cease) all show no eye opening even to pain. Before there could be any observation at 3.00am Claire had gone into respiratory distress and required intubation. She was transferred to PICU at 3.25am

[11] Dr. Gleadhill (Consultant Paediatrician) at the Ulster Hospital stated of Claire in a letter dated 9th February 1988 to her GP: "She tends to grind her teeth" (Ref: 090-015-024).

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	checked for evidence of entrovirus infection. He also prescribed an additional anti-convulsant IV of Sodium Valporate (Epilim) 20mg/kg IV bolus as an initial dose followed by infusion of 10mg/kg over 12hrs. Claire's Glasgow Coma Scale is recorded as 6. 54mls IV fluids are recorded by SN Ellison as having been given and 0.8mls of Midazolam.	 Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)		
17.15	Prescribed dose of 400mgs Sodium Valporate (Epilim) is administered by Dr. Sands as requested by Dr. Webb.[12] Claire is noted as being only responsive to pain. She is also recorded as remaining pale and having the occasional episode of teeth clenching.	Ref: 090-026-075 (Prescription Sheet) Ref: 090-040-141 (Nursing Records)	Webb Bartholome Hughes	Taylor Ellison
17.30	600mg Cefotaxime administered by Dr Hughes.[13]	Ref: 090-026-075 Prescription Sheet) and 090-026-077 (Regular Prescriptions – Drug Recording Sheet)	Webb Bartholome Hughes	Taylor Ellison
18.00	Claire's Glasgow Coma Scale is recorded as 7. 61mls IV fluids are recorded as having been given and 1.9mls of Midazolam (SN Ellison).	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Hughes	Taylor Ellison

[12] The record of Sodium Valproate under 'Regular Prescriptions' struck through and under 'Drugs-Once Only Prescriptions' signed by Dr. Sands.

[13] Cefotaxime is administered by IV (Prescription Sheet 090-026-075) but is not recorded on the Fluid Balance & IV Prescription Sheet (090—038-135) and the volume/nature of diluents is unknown.

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
18.30	Mr Roberts returns to the hospital with 2 sons and informed by Mrs Roberts that Dr Webb had examined Claire at 16.00 and 17.00 with a different type of medication being administered.	Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)	Webb Bartholome Hughes	Taylor Ellison
19.00	Claire's Glasgow Coma Scale is recorded as 7. 92mls IV fluids are recorded by SN Ellison as having been given and 2.8mls of Midazolam. Claire is also recorded as having passed urine.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Hughes	Taylor Ellison
19.15	Claire is observed clenching her teeth and groaning, which went on for a minute after which she fell asleep.	Ref: 090-042-144 (Record of Attacks Observed)	Webb Bartholome Hughes	Taylor Ellison
20.00	Claire's Glasgow Coma Scale is recorded as 8. 37mls IV fluids are recorded by SN Ellison as having been given and 1.2mls of Midazolam.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Hughes	McCann Maxwell
20.25	240mg Paracetamol administered by SN Ellison.	Ref: 090-026-077 (Regular Prescriptions – Drug Recording Sheet)	Webb Bartholome Hughes	McCann Murphy Maxwell
21.00	Claire's Glasgow Coma Scale is recorded as 6. 62mls IV fluids are recorded by SN Lorraine McCann as having been given together with 2mls of Midazolam. Claire is recorded as having passed urine.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet) Ref: 090-042-144 (Record of Attacks	Webb Bartholome Hughes	McCann Murphy Maxwell

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	It is recorded that Claire had a 30 second episode of screaming and drawing up her arms, her pulse rate was elevated (165bpm) and her pupils large but reacting to light. The doctor was called. Phenytoin levels are due at this time.[14]	Observed) Ref: 090-022-054 (Clinical History, Examination and Progress) and Ref: 090-040-141 (Nursing Records)		
21.15	Mr & Mrs Roberts leave the Hospital with reassurance from nursing staff that Claire was comfortable.	Ref: 089-012-035 (Statement of Alan Roberts dated 29th September 2005)	Webb Bartholome Hughes	McCann Murphy Maxwell
21.30	First dose[15] of IV Claforan 600mg is administered by ? First dose of IV Acyclovir 240mg erected by the doctor (Dr Hughes), which is recorded by SN McCann as having been run for over an hour 60 (presumably mls?) with the Midazolam (Hypnoval) being increased. IV Phenytoin 60mg is recorded as administered (signature on the Drug Recording Sheet is illegible).[16]	Ref: 090-040-141 (Nursing Records) Ref: 090-040-138 (Nursing Records), Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet) and Ref: 090-026-077 (Regular Prescriptions – Drug Recording Sheet) Ref: 090-026-073 (Prescription Sheet) and 090-026-077 (Regular Prescriptions – Drug Recording Sheet) Ref: 090-026-073 (Prescription Sheet)	Webb Bartholome Hughes	McCann Murphy Maxwell

[14] Phenytoin levels are recorded as 23.4mg/L at 23.30hrs (Ref: 090-022-056) – this printed lab result is not available.

[15] The Nursing Records say the first dose of Clarofan (Cefotaxime) is done/due? at 9.30pm but this is actually the second dose as the first dose was administered at 17.30hrs. The second dose is not noted on the Regular Prescriptions – Drug Recording Sheet at Ref: 090-026-077 but is noted on the Prescription Sheet at Ref: 090-026-075.

[16] This dosage is not recorded on the Fluid Balance and IV Prescription Sheet (Ref: 090-038-135) nor on the nursing records (Ref: 090-040-138).

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	The Prescription Sheet is re-written with Sodium Valproate deleted from the section for 'Regular Prescriptions'. SN McCann records that bloods were taken for U+E.	Ref: 090-040-138 (Nursing Records)		
22.00	Hourly observations carried out by SN McCann who records Claire's Glasgow Coma Scale as 6. 75mls IV fluids are recorded by SN McCann as having been given together with 2.2 ml of Midazolam and 60 (mls?) Acyclovir.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Stewart	McCann Murphy Maxwell
22.40	Increases in the infusion of Midazolam (Hypnoval) (by 0.5mls every 5mins until running at 3mls/hr) are recorded by SN McCann as having been completed.	Ref: 090-040-138 (Nursing Records)	Webb Bartholome Stewart	McCann Murphy Maxwell
23.00	IV Phenytoin erected by a doctor and to run over an hour with the cardiac monitor in place throughout. SN McCann records that *"Due to U+E results No.18 solution with 20mls KCL (potassium chloride) erected as ordered by the Registrar. To have fluid reduction of 41 mls/hr."*[17] 71mls IV fluids are recorded by SN McCann as having been given to Claire together with 3 mls of Midazolam. Claire is recorded as being *"sluggish"* but no level is recorded for her Glasgow Coma Scale, although SN McCann enters a Glasgow Coma Scale of 6 on the Nursing Records.	Ref: 090-040-138 (Nursing Records) Ref: 090-040-138 (Nursing Records) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet) Ref: 090-039-137 (Neurological Nervous System Observation Chart) and Ref: 090-040-138 (Nursing Records)	Webb Bartholome Stewart	McCann Murphy Maxwell

[17] There is subsequent entry in Claire's notes at 11.30pm by Dr. Stewart (Ref: 090-022-056) that refers to the results being sodium 121mmol/L.

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
23.20	600mg Cefotaxime administered by SN McCann.	Ref: 090-026-077 (Regular Prescriptions – Drug Recording Sheet)	Webb Bartholome Stewart	McCann Murphy Maxwell
23.30	Dr. Stewart (Paediatric Medical SHO) examined Claire and noted the results of her blood sodium as 121mmol/L[18] and a Phenytoin level of 23.4 mg/L (10-20). He also noted: *Hyponatraemia* and queried *fluid overload & low Na fluids* and ? *SAIDH* and: *Imp [impression] ?Need for ↑ Na content in fluids* *-D/w Reg [discussed with Registrar] ↓ to 2/3 of present value – 41mls/hr - send urine for osmolality*	Ref: 090-022-056 (Clinical History, Examination and Progress)	Webb Bartholome Stewart	McCann Murphy Maxwell
Midnight	No level is recorded for Claire's Glasgow Coma Scale nor are any comments made on the chart. 23mls IV fluids are recorded by SN Murphy as having been given together with 2.9 ml of Midazolam. Claire is also recorded as having vomited small mouthfuls (R Murphy). 110 (?mls) Phenytoin recorded in oral fluid column.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Stewart	McCann Murphy Maxwell

[18] Note: They may have been from the blood sample taken at 9.30pm (Ref: 090-040-138).

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
WEDNESDAY 23RD OCTOBER 1996				
01.00	Claire's Glasgow Coma Scale is recorded as 6. No IV fluid increase from levels noted at midnight. 2.5 mls of Midazolam IV and 60 (mls?) Phenytoin is recorded by SN McCann as having been given and Claire is recorded by SN McCann as having vomited small mouthfuls.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Stewart	McCann Murphy Maxwell
02.00	Claire's Glasgow Coma Scale is recorded as 6. 33mls IV fluids are recorded by SN Maxwell as having been given together with 2.2 mls of Midazolam.	Ref: 090-039-137 (Neurological Nervous System Observation Chart) Ref: 090-038-135 (Fluid Balance and IV Prescription Sheet)	Webb Bartholome Stewart	McCann Murphy Maxwell
02.30	SN McCann records a slight tremor of Claire's right hand lasting a few seconds and that her breathing became laboured and grunting with a respiratory rate of 20 per minute, oxygen saturations at 97%. She also records that subsequently Claire stopped breathing, oxygen and suction were given and the Paediatric Registrar Dr. Bartholome was contacted.	Ref: 090-040-138 (Nursing Records) Ref: 090-040-138 to 090-040-139 (Nursing Records)	Webb Bartholome Stewart	McCann Murphy Maxwell
03.00	Registrar Dr. Bartholome called to see Claire and recorded that she had been stable but had suddenly developed respiratory arrest and fixed and dilated pupils. The note records that she was 'cheyne stoking' and required oxygen	Ref: 090-022-056 (Clinical History, Examination and Progress) Ref: 090-022-056 (Clinical History,	Webb Bartholome Stewart Clarke McKaigue	McCann Murphy Maxwell Ross (PICU)

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	via a face mask. It also records that an attempt at intubation was unsuccessful and an *"anaesthetic colleague [Dr. Clarke?[19]] came and intubated her orally with a 6.5 tube"* and that she was transferred to PICU.[20]	Examination and Progress)		
03.25	Claire is transferred to PICU (SN McCann).[21]	Ref: 090-040-139 (Nursing Records)	Webb Bartholome Stewart McKaigue	Ross
03.45	Mr Roberts receives a call from the hospital to say that Claire was having breathing difficulties and that Mr & Mrs Roberts should make their way to the hospital as soon as possible.	Ref: 089-012-035 (Statement of Mr Roberts dated 29th September 2005)	Webb Bartholome Stewart McKaigue	Ross
04.00	Dr. Heather Steen recorded Claire's recent history as: *9½ yr old girl … learning difficulties admitted 32 hours ago ↓ level of consciousness* *[seen by] Dr. Webb … acute encephalopathy, ? aetiology … Na +121 … Fluids restricted to 2/3rd maintenance. Obs otherwise stable*	Ref: 090-022-057 (Clinical History, Examination and Progress)	Steen Webb McKaigue	Ross
04.40	Dr. Webb examined Claire and recorded the following in her medical notes and records:	Ref: 090-022-057 (Clinical History, Examination and Progress)	Steen Webb	Ross

[19] See also Ref: 090-022-057 (Dr. Steen's entry in Claire's medical notes and records) referring to: "Reg asked to see because of resp difficulties. Cheyne-Stoke breathing – intubated + transferred to ICU. At present intubated + ventilated … pupils fixed + dilated. Bilateral papilloedema L > R. Plan – mannitol stat – dopamine infusion – urgent CT scan". Her blood sodium level was also recorded as "Na 121". See also Ref: 090-040-139 (Nursing Records): "Registrar attempted to pass ET tube but unsuccessful – anaesthetist called and ET tube inserted"

[20] The Relative Counselling Record records that Drs. Steen and Webb explained to Claire's parents that she was having trouble breathing and needed to have ventilatory support (Ref: 090-028-088).

[21] Claire's GCS is recorded as 3 on the PICU notes and records but it is not clear when that assessment was made (Ref: 090-027-082).

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	▪ *SIADH – hyponatraemia[22], hypoosmolarity, cerebral oedema + coning following prolonged epileptic seizures* ▪ *Pupils fixed and dilated following normal duresis* ▪ *No eye movements* *→ For CT scan*		McKaigue	
05.30	Claire had her CT brain scan, the results of which were recorded by Dr. Kennedy (radiology) as: *There is severe diffuse hemispheric swelling, with complete effacement of the basal cisterns. No focal abnormality is identified* [23]	Ref: 090-022-058 (Clinical History, Examination and Progress). The actual result is shown at Ref: 090-033-114	Steen Webb McKaigue Kennedy	Ross
06.00	Claire's brain stem death evaluation no.1. The results were recorded by Dr. Webb as: ▪ *Pupils 8-9 unresponsive* *Dolls eye movements* *… No gag response…* ▪ *No response … to deep supraorbital pain* *… CT Cerebral herniation …* *Claire fulfils criteria for Brain stem death* *The evaluation should be repeated in 4-6 hrs* Serum sodium at 133mmol/L (ICU blood gas analyser) as checked by Drs. Webb and Steen. Serum sodium result from laboratory of blood taken at this time is	Ref: 090-022-058 (Clinical History, Examination and Progress) Ref: 090-022-059 (Clinical History, Examination and Progress) Ref: 090-022-060 (Clinical History,	Steen Webb McKaigue	Ross

[22] The Deposition from Professor Young refers to hyponatraemia but in relation to the note made by Dr. Webb at 4.40pm on 23rd October 1996 (Ref: 091-010-063).

[23] The Relative Counselling Record records that Drs. Steen and Webb explained to Claire's parents following the CT scan that "Claire had swelling of the brain and could possibly be brain dead" (Ref: 090-028-088).

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	recorded as 129mmol/L.	Examination and Progress)		
07.10	Dr. Seamus McKaigue examined Claire and recorded a full history in her notes, including: *Suffered a respiratory arrest was initially bagged and intubation performed by Dr. Clarke (SpR Anaes) on the ward … Initially admitted to hospital with decreased level of consciousness with the clinical picture of acute encephalopathy. Status epilepticus subsequently developed …* *Serum Na also noted to be low ↓ 121 presumably on basis of SIADH* *In PICU hyper ventilated and given manitol 0.5g/kg pupils fixed and dilated …* *CT scan shows severe cerebral oedema. I set of brain stem tests performed by Dr. Webb/Dr. Steen. Serum Na also checked at same time (133 – blood gas analyser PICU) …* *Plan: maintain circulatory support as Claire is a potential organ donor ...* *Dr. Webb/Dr. Steen have discussed Claire's clinical condition with her parents. They initially appear to be giving consent for organ donation but Dr. Webb will speak again to both parents at ~10.00 …* *I would be concerned that … this picture [mottling] could be explained by pulmonary aspiration or early neurogenic pulmonary oedema. Any potential transplant centre should be alerted to the possibility of pulmonary aspiration.* *Lab. Sample at time of brain stem tests: Na 129* He also recorded that urine and electrolytes should be checked *"2 hrly"* and her *"maintenance fluids"* should be changed to 0.91 saline.	Ref: 090-022-058 - 060(Clinical History, Examination and Progress)	McKaigue	Ross

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
10.00 (approx)	Dr. Taylor noted in Claire's medical notes and records that: *"Needs DDAVP to limit polyuria. Appears B.S. Dead informally … Na+ 129 (from 121)"*[24] Dr. Robert Taylor (Consultant Paediatric Anaesthetist) noted that Claire had become polyuric and hypotensive with a systolic blood pressure of 70. It is noted that he advised a bolus of HPPF with an infusion of Desmopressin in normal saline the plan being to maintain her blood pressure at >100.	Ref: 090-022-061 (Clinical History, Examination and Progress) Ref: 091-011-074 (Coroners Papers – Deposition of Heather Steen)	Taylor	Wilkin
13.07	Result of CAT scan of Claire's brain: *There is generalised cerebral swelling with effacement of the cortical sulci as well as basal cisterns and the third ventricle. No focal lesion has been identified.* The 'Relative Counselling Record' records that it was explained to the parents that: *"Claire's brain had swollen and that CT scan and brain stem tests showed Claire's brain had died"* and that *"It was explained [the reason for her brain having swollen] it was probably caused by a virus."*	Ref: 090-033-114 (Clinical History, Examination and Progress) Ref: 090-028-088 (Clinical History, Examination and Progress)	Taylor	Wilkin
18.15	Claire's brain stem death evaluation no.2.	Ref: 090-027-085 (PICU Nursing Records)		Wilkin
18.25	Diagnosis of Brain death protocol is recorded as having been completed by Drs. Steen and Webb. Dr. Steen records in Claire's medical notes and records that: *"Discussed … parents – agree that ventilation should be withdrawn. Consent for limited*	Ref: 090-022-061 (Clinical History, Examination and Progress), Ref: 090-045-148 (Diagnosis of Brain Death) Ref: 090-022-061 (Clinical History, Examination and Progress)	Steen Webb	Wilkin

[24] There is a reference to 121mmol/L in Dr. Steen's note at 4.00am on 23rd October 1996 (Ref: 090-022-057). It seems that it was recorded as 121mmol/L at 4.00am and recorded at 7.10am as being 129mmol/L.

TIME	EVENT	REFERENCE	DOCTORS ON DUTY / CALL	NURSES ON DUTY
	pm given" Nurse records that: *"explained to parents that Claire's brain had swollen and that CT scan and brain stem tests showed Claire's brain had died. Only the ventilation was keeping her heart beating"*, that they had asked why her brain was swollen and that it had been explained *"it was probably a virus"*	Ref: 090-028-088 (Relative Counselling Record)		
18.45	Ventilation withdrawn from Claire after discussion with her parents. Dr. Steen records that death certificate issued – *"1 cerebral oedema 2 to status epilepticus"* It is recorded that the *"Death certificate issued. For PM in am. Consent signed"*	Ref: 090-006-008 (ICU Discharge Summary) Ref: 090-022-061 (Clinical History, Examination and Progress) Ref: 090-027-085 (PICU Nursing Records)	Steen Webb	Wilkin
19.00	Mr Roberts states it is at this time (approximately) that Dr Steen stated there would be 'no need' for an inquest.	Ref: 089-012-036 (Statement of Mr Alan Roberts dated 29th September 2005)	Steen Webb	