IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2007 5025

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)
*Section 67 of the **Coroners Act 2008***

Inquest into the Death of: ROLDEN ABLIS

Delivered On:	15 March 2013
Delivered At:	Level 11, 222 Exhibition Street Melbourne 3000
Hearing Dates:	4, 5, 6 and 7 March 2013
Findings of:	IAIN TRELOAR WEST, DEPUTY STATE CORONER
Representation:	Mr Paul Halley for Peninsula Health
Police Coronial Support Unit	Snr Sgt David Dimsey

I, IAIN TRELOAR WEST, Deputy State Coroner having investigated the death of ROLDEN ABLIS

AND having held an inquest in relation to this death on 4, 5, 6 and 7 March 2013
at the Coroners Court, Melbourne
find that the identity of the deceased was ROLDEN ABLIS
born on 4 September, 2002
and the death occurred on the 11 December 2007
at Frankston Hospital, 2 Hastings Road Frankston 3199
from:

1 (a) BRAINSTEM ENCEPHALITIS (VIRAL)

in the following circumstances:

1. Rolden, aged 5 years, lived with his parents and his 6 year old brother and 4 month old sister at 43 Lord Rodney Drive, Paterson Lakes. He had no past medical history of note and was on no medications. In addition, Rolden had no allergies and his immunizations were up to date.

2. In the days prior to his admission to Frankston Hospital on Monday 10 December 2007, Rolden had attended a child's birthday party on the Friday and the following morning he was unwell, with a fever of 38-39 degrees and two episodes of vomiting, but no diarrhoea. His condition remained unchanged on the Sunday, with vomiting after feeds, reduced oral intake and complaints of abdominal pain. Rolden's condition further deteriorated on the Monday, with significantly reduced oral intake, including only a few sips of water. He complained of being excessively thirsty and feeling dizzy and his father took him to hospital for review.

3. Rolden and his father attended the Emergency Department at 2.08 pm and he was triaged as a category 3 (urgent). His triage assessment was of vomiting, no diarrhoea, fever of 38.6 degrees, decreased oral intake and heart rate of 160. Rolden was prescribed paracetamol, which he refused to take, and he was given a Gastrolyte icy pole. At 4.00pm, he was assessed by a nurse who noted his temperature to be 38.9 degrees, his heart rate to be 168, his Glasgow Coma Score to be 15 and to have 100% oxygen saturation.

4. Between 4.30 and 5.00pm, Rolden was examined by a paediatric resident, Dr Shriti Singh, who found that he was shaking a lot and was unable to sit upright for his examination, as he felt very dizzy and preferred to lie down. Prior to examination a history was taken, similar to

what is outlined above. Despite complaining of feeling hot and nauseous, Rolden had moist mucus membranes and his peripheries were cold. His temperature was 39 degrees despite having been given panadol at home, and his heart rate, respiratory rate and oxygen saturations were not recorded. On the suggestion from a nurse that Rolden smelt of ketone, blood sugar and ketone levels were checked and recorded as 8.8mmol/l and 4.1 respectively. His Glasgow Coma Score was 15, his chest was clear, pupils equal and reactive, and he had no rash, photophobia, or neck stiffness.

5. A provisional diagnosis of dehydration secondary to gastroenteritis with fever was made, with a differential diagnosis of diabetic ketoacidosis. Dr Singh ordered Full Blood examination, Urea and Electrolytes, CRP and a venous blood gas, as well as a mid stream urine test for infection. She was concerned that Rolden had a fever for which she could not identify the cause and that it had not responded to earlier paracetamol. Dr Singh decided that Rolden needed admission for further assessment and investigations and to receive a bolus of normal saline once venous access was obtained. She conveyed her clinical assessment details to her paediatric registrar, Dr Andrew Law, at 5.15 pm and handed over Rolden's care to another medical officer, Dr Michael Gu, to do the blood tests, which were drawn at 6.00 pm. The saline bolus was commenced at 6.15 and a paracetamol suppository was given at 6.45 pm.

6. Rolden was admitted to the Child and Adolescent Unit at 6.55 pm and arrangements were made for his parents to share his room with him. At this time, the Charge Nurse was Registered Nurse (RN) Div.1 Kathleen Heezen, with her staff being RN Div1, Kerry Spense, Div 2 nurse, Rebecca Gillies and two 3rd year Div 1 student nurses, one of whom was Katie Manners. The nurse allocated to care for Rolden was Division 2 Nurse, Rebecca Gillies. As she was on a meal break when Rolden arrived on the Unit, she did not complete his admission forms, with this being done by RN Kerrie Spence and student nurse, Katie Manners. Dr Law remained the Registrar covering the Unit and Dr Hugh Kelso was the hospital's on-call paediatrician.

7. Observations were taken shortly after admission with these being, temperature 40.3%, heart rate 160, blood pressure 132/76 and respiratory rate of 42. At 7.45pm the ordered test results were available, including full bloods and electrolytes. Intravenous fluids and the IV site were checked hourly and documented by RN Heezen at 8.15pm, and then by student nurse Manners at 9.00pm. At this time, Nurse Manners reported to RN Heezen that Rolden was complaining of nausea, that he seemed to be very anxious, not settled and getting out of bed several times.

RN Heezen paged Dr Law to come and review Rolden, which he did immediately, and he requested RN Heezon to continue fluids. Shortly thereafter, Dr Law ordered a single dose of ondansetron, to address the nausea.

8. At 9.15pm, the night nursing staff came on duty, with RNDiv 1, Jennifer Withers, the Nurse Unit Manager. Registered Nurse Div 1, Lisa O'Connor was assigned to care for Rolden, she noting that he appeared very anxious and that he had a respiratory rate of 40-50. At 10.00pm, the night medical staff came on duty, including the night duty paediatric medical officer, Dr Jaglul Pasha. At 10.30 pm, Rolden vomited a small amount of brownish fluid and was refusing oral fluids, but had IV fluids running. At 11.00pm, he had pink frothy vomiting that was recorded as brownish material with red flecks and he developed increasing respiratory distress, resulting in a request from RN Withers, for review by Dr Pasha. On review at 11.10pm, Rolden appeared to become more distressed and was hyperventilating. His temperature had dropped to 37.5; his respiratory rate was 30, heart rate 160 and blood pressure, 100/60 and oxygen saturation 80-90% in 8 litres of oxygen. Oxygen was commenced and his hands had to be bandaged as he was constantly trying to remove his mask and oxygen probe.

9. Dr Pasha contacted Dr Law who ordered a portable chest X-ray and to give a further bolus of saline and some Ventolin. At midnight Rolden's temperature was 37.5 and pulse 211 and two puffs of Ventolin were given at 12.30am. He was described as distressed and disorientated, coughing bloody vomit and mucus and with a blood glucose reading of 10.5 and saturations 89-90%. He was given a 140 ml normal saline fluid bolus. At this time, Dr Pasha contacted Dr Law to say that Rolden had not improved despite the fluids and medications. His X-rays indicated quite extensive consolidations within the left lower lobe, and Dr Law was asked to review him. The review took place at 1.30am, with Dr Law finding Rolden hypoxic and in severe respiratory distress, having had episodes of vomiting and coughing. His temperature was 37.5 degrees, with cold peripheries, his heart rate 200 and a respiratory rate of 40-50. Dr Law felt that the chest X-ray showed left sided aspiration that was causing his hypoxia. RN Withers suggested to Dr Law that the Anaesthetic Department should be called to consider intubating Rolden, however, Dr Law rejected this as unnecessary, as there were enough people already involved. Dr Law ordered further antibiotics and contacted Dr Hugh Kelso, the on-call paediatrician. After giving the history, Dr Law indicated that he believed transfer by

the Paediatric Emergency Transport Service (PETS) to the Royal Children's Hospital was appropriate, with Dr Kelso agreeing.

10. At 1.25 am, PETS was contacted and they advised increasing oxygen and further normal saline bolus. Dr Law remained in the unit pending PETS arrival. Rolden received ceftriaxone, metronidazole and flucloxacillin at 1.30 am and two doses of nebulised salbutamol at 2.10 and 2.15am. At 2.20am, he appeared a little more settled, and was counting with his parents and discussing kindergarten, although still coughing up bloody mucus. Rolden's heart rate at this time was 200, his respiratory rate 49 and oxygen saturation was 84%. Ten minutes later his heart rate was 209, with respiratory rate of 48 and oxygen saturation of 94%.

11. The PETS team arrived at 3.05am and on examination, Rolden had very cool peripheries and mottled skin and there was a question as to whether or not his pupils were dilated. He was very agitated and confused, with the clinicians believing he may have been suffering aspiration pneumonitis, or possible viral or atypical pneumonia. His heart rate was still high at 197bpm, his blood pressure was low at 65/43, his respiratory rate was fast at 60 and his oxygen saturations were low at 86%. Rolden was orally intubated at 3.45am and at this time, fresh blood was seen in the trachea. Following intubation he became bradycardic, lost cardiac output and was unable to be resuscitated.

12. On the 13 December 2007, Dr Paul Bedford, a pathologist with the Victorian Institute of Forensic Medicine, undertook an autopsy examination. Dr Bedford performed an external and internal examination of Rolden at the mortuary, reviewed the circumstances of his death, the medical deposition and clinical notes, the post mortem CT scan and provided a written report of his findings. Dr Bedford found that the primary disease process was in the brain, where the base of the brain was inflamed consistent with encephalitis. A neuropathology examination was undertaken by A.Prof. P. McKelvie, with findings of brainstem encephalitis that was considered most likely to be viral in origin.

COMMENTS

Pursuant to section 67(3) of the **Coroners Act 2008**, I make the following comments connected with the death:

1. The court had the benefit of an expert opinion regarding Rolden's care and management at Frankston Hospital. The opinion was provided by A.Prof. Monique Ryan, a consultant paediatric neurologist at the Royal Children's Hospital. A.Prof. Ryan states:

   "On admission and subsequently, Rolden had no signs or symptoms suggestive of meningitis or encephalitis. Specifically, in terms of meningitic illnesses of childhood, he did not complain of headache and he had no rash, photophobia or neck stiffness. Common signs and symptoms of encephalitis such as altered mental status, seizures and focal neurological deficits were also absent."

   "I don't believe the diagnosis was delayed in this case. Rolden unfortunately had a very rare, severe neurologic condition that presented in an atypical and extremely fulminant fashion. He deteriorated very quickly after presentation. There was insufficient evidence at the time of, and subsequent to, his presentation, to suggest or confirm the diagnosis of viral encephalitis".

   "Given the clinical presentation and findings, and the results of the initial investigations, I do not feel that the hospital failed to act in accordance with reasonable medical practice in failing to make the diagnosis of viral encephalitis".

2. It is clear in this case, that the diagnosis of brainstem encephalitis was made based on the post-mortem examination and hence, I accept the clinicians should not be criticised for failing to diagnose it. However, on the evidence before me I am satisfied, that throughout Rolden's stay at Frankston Hospital, both when in the Emergency Department and in the Paediatric Unit, medical officers failed to recognise the seriousness of his condition. Too much emphasis was placed on Dr Singh's presumptive diagnosis of dehydration, secondary to gastroenteritis, with more needing to be done than giving fluids and antibiotics. The issue of what was the cause of Rolden's fever was not addressed in the unit, and his failure to respond to therapy was not recognised as an indicator of serious illness.

3. During the inquest it was appropriately conceded by Peninsula Health that there was a failure to identify the degree to which Rolden was unwell upon presentation and subsequently and that at least from 11.00pm to PETS arrival, more should have been done for him, including intubation and providing ventilatory support.

4. Issues of concern addressed during the course of the inquest included:

- Rolden was not cared for by an experienced paediatric nurse in the Emergency Department
- He was not reviewed by the Emergency Department Registrar before transfer to the Paediatric Unit, as he was not identified as seriously ill
- A diagnosis of gastro-enteritis was made in the absence of diarrhoea
- Rolden was allocated into the care of junior and inexperienced nursing staff in the Paediatric Unit
- There were periods of inadequate oxygenation
- A failure to intubate and provide ventilatory support from 11.00pm onwards
- Failure to do more frequent observations in the setting of elevated temperature, pulse and blood pressure
- A failure to communicate abnormal observations
- HMO misconception of PETS role; believing it was a treatment or resuscitation service, rather than it being primarily a retrieval service. In the belief that 'experts' were coming, there was a reluctance to escalate treatment in case a 'mistake' was made

5. The Peninsula Health Director of Emergency Medicine, Dr Leong Goh, told the inquest that a number of changes have been made since Rolden's tragic death. These include creating a dedicated paediatric area in the Emergency Department, with rotation of nursing staff from the Paediatric Unit. Paediatric patients are now reviewed by an appropriately experienced Registrar before transfer to the Unit. In addition, the Peninsular Health simulation centre is used on a fortnightly basis for specific training regarding Paediatric emergencies. Medical and nursing staff rotate through three topics; Paediatrics, Paediatric Emergency Skills and Neonatal Emergency Skills.

RECOMMENDATIONS

Pursuant to section 72(2) of the **Coroners Act 2008**, I make the following recommendation connected with the death:

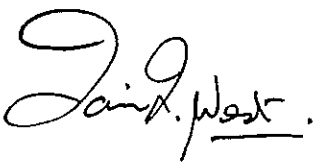
1. That Peninsula Health give consideration to providing dedicated paediatric care (medical and nursing staff), to all infants, children and adolescents presenting to their Emergency Department.

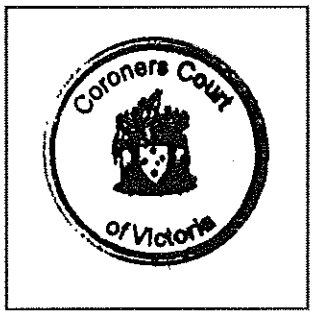
I direct that a copy of this finding be provided to the following:

Family of Rolden Ablis

Medical Director, Peninsula Health

Signature:





IAIN WEST
DEPUTY STATE CORONER
Date: 15 March 2013