FORM 37

Rule 60(1)

FINDING INTO DEATH WITH INQUEST

Section 67 of the ***Coroners Act 2008***

Court Reference: 1534/2010

Inquest into the Death of Rupert Kaine Rafferty

Delivered On:	15 September 2011
Delivered At:	Sale Coroners Court
Hearing Dates:	22 July 2011
Findings of:	H C Alsop
Assisting the Coroner	Senior Constable Alisha Weel

FORM 37

Rule 60(1)

FINDING INTO DEATH WITH INQUEST

Section 67 of the ***Coroners Act 2008***

Court Reference: 1534/2010

In the Coroners Court of Victoria at Sale

I H C Alsop, Coroner having investigated the death of:

Details of deceased:

Surname:	Rafferty
First name:	Rupert Kaine
Address:	846 Boundary Road Briagolong VIC 3860

AND having held an inquest in relation to this death on 22 July 2011

at Sale Coroner's Court

find that the identity of the deceased was Rupert Kaine Rafferty

and death occurred on 23 April 2010

at 846 Boundary Road, Briagolong

from

1a Pneumococcal meningitis

in the following circumstances:

A. Rupert was 5 years old at the time of his death. He lived with his mother, Sarah and his 3 siblings at 846 Boundary Road, Briagalong, His parents were separated but he had regular contact with his father.

B. For some time, Rupert had been a patient of Doctor Arthur Erasmus, Consultant Paediatrician, of Sale. During that time, Doctor Erasmus had treated him for concussion following a fall from a trampoline in March 2008, "behavioural problems at school" in early 2009 and recurrent upper respiratory tract infections in March that year. On this last occasion, he was found to have effusions (moisture) in his middle ear canals. These were appropriately treated by an E.N.T. Surgeon at the time.

C. Rupert had features of Attention Deficit Hyperactivity Disorder but this problem was being monitored by Doctor Erasmus and is not a relevant factor in this inquest.

D. On the 19 April 2010, Doctor Erasmus saw Rupert. Rupert's mother told Doctor Erasmus that Rupert "had had a snotty nose for a week." He was examined by Doctor Erasmus, the notes of that consultation showing:-

(1) Rupert "looked well and was alert and happy."

(2) His blood pressure was 86/58.

(3) Pulse 98 pbm.

(4) He had "good colour and hydration."

(5) His chest was clear.

(6) Heart normal.

(7) Mild nasal congestion.

In the opinion of Doctor Erasmus, "Rupert was happy and alert.....there were no worrying signs of septicaemia or any neurological symptoms at all."

E. The next day, 20 April, Rupert had breakfast and went to school. He was observed by Mrs Davidson, a teacher who had had contact with him over 2 years, to be "a bit stuffy" but she also observed him to be bright and bouncy on this morning and excited about going swimming during the day. Later, he began vomiting and was picked up and taken home by his mother. During some of that day, he seemed to be sensitive to light. He improved during the afternoon, had some food later in the day and went to bed at about 7.30pm. He began vomiting again later that night and "appeared to have a fever."

F. Over the next 2 days, Rupert was still vomiting and displaying sensitivity to light. He spent much of the time sleeping.

G. On the morning of 23 April, Rupert seemed much better. His appetite seemed to be returning, although he was still complaining of aches and "a sore head." He remained at home. The observations that Rupert seemed to be improving are supported by the statement of Alison Young, a neighbour of the Rafferty family, who visited the home at around 4.00pm on 23 April 2010. She noticed he "looked better this day" and "he didn't appear as gaunt but was still pale."

H. At about 7.00 pm that day, Rupert's grandparents, Mr and Mrs Illing, went to "baby sit" Rupert and his sister while their mother attended to some errands. Rupert went to bed at about 8.30. Shortly after this, he went to the toilet and was observed by Mr Illing to be "a bit unsteady" and he had to be helped onto the toilet.

Mr Illing's statement to the informant described what happened next:-

> "Just after going back from the toilet, Rupert seemed quite hot to the touch and appeared to be having trouble breathing. He was wheezing and appeared uncomfortable. His breathing got worse. He seemed to breathe in ok but was

making loud noises when he exhaled. There was saliva around his mouth, I would describe as frothy."

I. Mr Illing placed Rupert in "the recovery position." Shortly afterwards he observed Rupert was having "more difficulty breathing" and he then called 000 for an ambulance.

J. John Bailey (Advanced Life Support) and Josephine O'Doherty (Ambulance Community Officer) stationed at Maffra received the 000 call at 2215 hours and departed their base at 2216, arriving at the scene at 2235 hours. Mr Bailey's preliminary observations were that Rupert was "unconscious, non-breathing, pulseless and pupil fixed and dilated". He immediately moved Rupert to his ambulance where it was established that he was asystolic ie that there was no heartbeat whatsoever. He radioed for assistance including a MICA officer. At 2308 the Sale ambulance crew comprising Dean Schenk (Advanced Life Support Paramedic) and Dave McMahon, arrived on scene.

K. They were followed by Helimed (Helicopter Ambulance) at 2325 and Mark Fischer, MICA Paramedic from Bairnsdale. Despite the efforts of all people concerned in this incident there was no change in Ruperts asystolic condition from the time of the first assessment by Mr Bailey.

Doctor Erasmus gave evidence at the hearing and referred to the comments by the pathologist that the cause of Rupert's death was Pneumococcal Meningitis.

He described the symptoms of Pneumococcal meningitis as follows;-

(i) *A high fever, usually more than 38.5 degrees Celsius.*

(ii) *Altered level of consciousness, in other words drowsiness.*

(iii) *Visual disturbances, either photophobia, (which means sensitivity to light) or inability to see properly out of one eye, or spots in front of the eye.*

(iv) Nausea, vomiting, severe headache, and then weakness.

(v)A dilated pupil.

(vi)Weakness and/or tingling in an arm or a leg.

Doctor Erasmus went on to say, *"There is no single sign of meningitis. It is a conglomeration of signs and symptoms."*

He warned parents to be alert to a child *"that's got a high fever, vomiting, gets drowsy, has a fit." "With this particular virulent fulmanant type of pneumococcus, once it gets to the seizure stage, the prognosis is very poor."*

I put to the doctor, *"are you saying that it would not be uncommon for a child of this age with this particular disease, to show signs of normal health* and *within a very short time, less than a day - to go from displaying normal health aspects of a young boy to dying."* He replied *"Yes, that's exactly correct. It can be a matter of hours. It's very possible that this little boy – up until Friday morning, did not have any pneumococci in his bloodstream."*

"In some circumstances a child may go on from being well, happy, running around, eating, sleeping, no problems – to very ill, within hours to one or two days."

He said that Rupert had a form of Pneumococcal Meningitis known as fulmanant Pneumoccal Meningitis. The strain that was isolated from his ears and from the brain tissue and cerebral spinal fluid was a serotype 29.

He continued, saying that Current pneumococcal vaccines will not provide protection for many of the strains of this illness, type 29 being one of those **un**affected by available vaccines.

He then went on to say that a new level of vaccination is about to come on the market but even that will not provide protection against this strain of the disease, serotype 29.

At this point, I asked the doctor whether we, in this country, have the capacity to carry out the research necessary to provide a vaccine to provide protection against type 29.

He replied, *"We certainly do, yes."*

The next witness called was Mr Mark Cooke, the Regional Manager for Gippsland of Ambulance Victoria. His evidence can be summarised as follows:-

(i) Across the State of Victoria there is a project to increase the number of MICA single response units, predominantly in major regional centres. Those would include centres within Gippsland such as Wonthaggi, Sale, Bairnsdale and Morwell.

(ii) Those at Morwell and Wonthaggi have already been implemented, and the next phase of the implementation within Gippsland is for Sale and Bairnsdale.

(iii) There will be an increase in the number of MICA officers at Sale and Bairnsdale. Whilst this would not create "a 24 hour MICA service", it would provide "what we call a peak period service at Sale and at Bairnsdale. So that when we review the demands of ambulance services, we would identify the peak period of demanded ambulance services and roster those MICA paramedics to those peak hours".

(iv) The plan for implementation at Sale and Bairnsdale is to start in the first quarter of 2013. "We have arrangements in place that we can recall staff to assist in major emergencies

and major incidents, and we also have arrangements locally which occur on a day by day basis, whereby if a community is – for whatever reason – uncovered – for example if a Bairnsdale crew respond to a case in Bairnsdale at night time, we would make a choice to recall an off duty officer or off duty officers to provide backup into that arrangement as well.

(v) He emphasised that Ambulance Victoria continually monitors demanded ambulance services

In view of; (1) the evidence of Dr Erasmus as to the rapidity with which Pneumococcal Meningitis can have fatal effects on a child, and,

(2) Rupert's fluctuating symptoms referred to above,

there can be no criticism of those charged with Rupert's care over the days leading up to his death.

Further, as Rupert was asystolic on examination by the first ambulance officer on the scene, there is no material on which I could reasonably make a finding that any earlier increase in the level of staffing and/or expertise of ambulance personal would have resulted in a different outcome

Recommendations:

A. That the Minister for Health implement an enquiry into:-

(i) the current state of supply of preventative medication available to immunise children against Pneumococcal meningitis.

(ii) the availability of funds to investigate the means of combating all currently known variants of the disease.

(iii) the most appropriate method of applying those funds to the research and development programs aimed at providing appropriate protection/vaccines.

(iv) As to the adequacy of facilities that are in place to

(a) Speedily provide the Minister with advice as to any trends in increasing population of country communities which may require an increase in the provision of emergency services.

(b) Maintain a watch over levels of staffing within the ambulance service which will ensure that those people who choose to live away from big cities or even large rural towns are not disadvantaged in their reasonable access to the expertise of MICA and, similar levels of specialist ambulance training.

B. That the Department of Health conduct a public awareness campaign (directed at all areas of the community but, in particular, those people in regular contact with children) on the signs and indicia of Pneumococcal meningitis and the need to seek urgent medical advice if the presence of those various symptoms is noticed or reasonable suspected.

H.C.H. ALSOP

CORONER

SALE