FORM 37

Rule 60(1)

FINDING INTO DEATH WITH INQUEST

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

Court reference: 441/06

Inquest into the Death of KARA LENNAH COMPTON

Delivered On:	
Delivered At:	Level 1, 436 Lonsdale Street, Melbourne
Hearing Dates:	30th and 31st August, 2010 1st and 2nd September, 2010
Findings of:	JOHN OLLE
Representation:	Mr D Wallis for the Compton family Mr N Murdoch for Ambulance Victoria Mr J Snowden for Southern Health and staff
Place of death:	Dandenong & District Hospital David Street, Dandenong, Victoria 3175
PCAU	Leading Senior Constable King Taylor

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FINDING INTO DEATH WITH INQUEST

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Court reference: 441/06

In the Coroners Court of Victoria at Melbourne

I, JOHN OLLE, Coroner

having investigated the death of:

Details of deceased:

Surname: COMPTON
First name: KARA
Address: 330 Sanders Road, Bunyip North, Victoria 3815

AND having held an inquest in relation to this death on 30th and 31st August and 1st and 2nd September, 2010 at Melbourne Magistrates Court find that the identity of the deceased was KARA LENNAH COMPTON

and death occurred on 2nd February, 2006

at Dandenong & District Hospital, David Street, Dandenong Victoria 3175

from
1a. ACUTE ON CHRONIC RESPIRATORY FAILURE
With contributing Factors
1b. BLOOD LOSS FROM DOG BITES, DOWN'S SYNDROME

in the following circumstances:

1. Kara Compton was aged 22 months at the time of her death. Kara lived with her parents and siblings at 330 Sanders Road, Tonimbuk.

Background

"..... At birth, she was noted to have Down's syndrome. Following her birth, she encountered multiple medical problems including hypothyroidism, problems with feeding and weight gain requiring fundoplication and insertion of a PEG (10/05). She had ongoing respiratory problems with chronic lung disease of prematurity and recurrent respiratory tract infections. She was treated with supplemental oxygen and was still receiving home oxygen treatment when she died." [1]

Chronology of Events

2. On the 1st February, 2006, the dog was put in his enclosure at the usual time.[2]

2nd February, 2006

3. Kara was fed at approximately 2.30am.

4. Between 2.30am and 4.00am, the dog entered the house and attacked Kara as she slept in her bed.

5. At approximately 4.00am, Kara was found on the floor of her bedroom. Her father immediately attended. Kara was lying face down on the bedroom floor close to her bed. She appeared asleep. The oxygen nasal tubes remained attached. Once the extent of Kara's injuries were realised, an ambulance was called.

6. At approximately 4.00am the ambulance was dispatched, arriving at the home at 4.26am. Appropriate measures were implemented by ambulance staff.

7. At 4.41am, accompanied by her father, Kara was conveyed via ambulance[3] to the Dandenong Hospital Emergency Department (ED).

Protocols complied with

8. The existing protocols were complied with. The emergency paramedic notified the MAS Ambulance Victoria clinician situated the call taking centre. The clinician called the Dandenong Hospital.

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[1] Report by Dr Shelley Robertson, Victorian Institute of Forensic Medicine.
[2] Statement Sonia Murray Inquest Brief.
[3] Signal 1.

9. The above calls occurred prior to 5.00am whilst the ambulance was en route.

10. At approximately 5.20am, the ambulance arrived at the ED. Kara was conveyed swiftly into the resuscitation bay. She was promptly assessed by ED medical and nursing staff.

On admission at ED

"Kara's vital signs on arrival to Dandenong Hospital were HR 140, RR50, temperature 35.5; Oxygen saturations 88%..... Initial observations in the resuscitation bay indicated that Kara opened her eyes to voice, that she had increased work of breathing, and "deep shallow breathing". Her skin was described as "cool centrally/peripherally, pale. Cyanosed."

Blood pressure measurement was attempted via a monitor and then, when this was unsuccessful, a manual attempt was also unsuccessful..... Features on inspection and examination at that stage included:

- *Pallor (clarification of this was sought from father who indicated "this was normal")*
- *"weak movement"*
- *"not crying but opening her eyes to voice"*
- *"oxygen was being provided via nasal prongs".*

Monitoring revealed a heart rate of 150, with an oximetry tracing "either poor or non-traceable". The typed chronology indicated that Dr Sanjeeva Seneratna could not identify a femoral pulse. A subsequent entry including an assessment by Dr Jonathon Lee stated "Breathing without difficulty but pulses were not convincingly palpated and blood pressure not able to be obtained". Multiple wounds were observed without overt bleeding.

Between 05:35 and 0600 multiple attempts at intravenous access were occurring while a chest x-ray was taken and anaesthetic staff were contacted. RN Julie Thomas suggested that intraosseous access could be utilised and prepared for the procedure. An intraosseous line was successfully sited at 0600.

According to the chronology bradycardia occurred at 0600. The nursing scribe notes suggested that this occurred at 0605. CPR is documented as commencing at 0605 in both the chronology and in the nursing scribe notes. The first of many doses of adrenaline was give at 0608 (100mcg)."[4]

[4] Statement, Dr Krieser.

Overview

11. In all the circumstances, it is it is unlikely Kara's life could have been saved. The post mortem conducted by Dr Shelley Robertson identified the parlous state of Kara's health:

> *"....probable that some degree of blood loss in this child would have contributed to lethal hypoxia, given the severe underlying respiratory condition including pulmony hypertension and a probable concurrent acute viral infection."*[5]

12. In evidence, Dr Robertson explained the unlikelihood any medical intervention could have saved Kara's life.

Systemic Lessons

13. The investigation has identified potential for systemic improvement. I am heartened to note that improvements have already been initiated.

14. The parlous state of Kara's health, prior to the dog attack, would likely negate any medical intervention saving her life.

15. However, absent Kara'a underlying health issues, the lessons learnt in this investigation could save children's lives.

Fully committed to saving Kara's life

16. It must be clearly acknowledged, every individual involved in Kara's care provided unstinting dedicated professional care and attention.

17. Medical members of the ED treating team were relatively inexperienced. Kara's admission presented circumstances few experienced ED clinicians have ever encountered.

18. The emotional scars borne by all medical and nursing members of the ED, remain raw. ED personnel are deserving of unqualified support in the aftermath tragic, adverse events.

19. Although lessons have been learnt, no individual should carry any sense of responsibility for the tragic circumstances of Kara's death.

[5] Autopsy report, Dr Robertson.

Systemic issues and lessons learnt

Ambulance Victoria (AV)

20. Unlike their MICA colleagues, paramedics are not trained in paediatric Intravascular (IV) insertion. AV could consider instituting a program to train paramedics in paediatric IV insertion.

21. In Kara's case, it must be noted that ED medical staff were unable to achieve IV access.

Information Transfer

22. The potential risk to information transfer was highlighted in Kara' case. It is crucial that ED medical staff speak directly to AV personnel at the scene.

23. I am informed the policy now reflects the above. No longer is a third party utilised to convey important clinical information to ED personnel. The benefits are clear. First and foremost, ED is directly appraised of the clinical picture. It follows the ED can make full and complete preparation in readiness for admission.

Scenario Based Training

24. Intraosseous (IO) access in a timely manner will save lives. Because the procedure is rarely undertaken, it is hardly surprising that ED staff require scenario based training. The procedure needs demystifying.

25. A training program in respect to IO access would encompass:

a) the innate capacity of a child to compensate, thus disguise the gravity of the clinical picture;
b) Blood is not more beneficial than marrow for undertaking tests.

26. Dr Krieser explained:

"I have also spent too many minutes in similar settings, attempting to gain venous access. This is because it is a familiar procedure and because in many cases, we are successful. A review of the notes now, does not provide an understanding of the situation at the time, however, it would have been reasonable to attempt an intraosseous if vascular access had not been obtained in 90 to 180 seconds in Kara's case.

Why do I say this? Drs Lee and Seneratna indicated that ".... pulses were not convincingly palpated", although she was spontaneously moving and breathing. This suggests that Kara

was nearly in an arrest rhythm called pulseless electrical activity. Pulseless electrical activity is most commonly due to hypovolemia. Blood loss is one such cause of hypovolemia. Weak or absent pulses must increase the urgency of obtaining of obtaining vascular access."[6]

27. Dr Conway, Consultant Paediatrician, endorsed the above analysis.

Root Cause Analysis

28. A root cause analysis must be undertaken in all cases of adverse outcomes. It would be a rare and sorry day were lessons not learnt following an adverse outcome.

ED staff must be Supported

29. The depth of emotional distress suffered by members of the ED was starkly evident at Inquest. In my view, the ED staff were inadequately supported following Kara's tragic death.

30. Further, full and frank dialogue with families of deceased, following an adverse event is obligatory. It is patently the correct and compassionate approach. I am advised that every endeavour is currently made to fully and frankly discuss adverse outcomes with families as soon as possible.

Post Mortem Examination

31. On the 3rd February, 2006, Dr Shelley Robertson, Forensic Pathologist, at the Victorian Institute of Forensic Medicine, performed an autopsy. Dr Robertson found the cause of death to be acute on chronic respiratory failure with contributing factors of blood loss from dog bites, Down's syndrome.

Finding

I find Kara Lennah Compton's cause of death to be acute on chronic respiratory failure with contributing factors of blood loss from dog bites, Down's syndrome.

RECOMMENDATIONS:

[6] Page 8, Statement of Dr Krieser.

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

1. Separate dogs from infants.

   i) That the DPI, DHS and DEAT work together to ensure that parents and guardians of infants are provided with a copy of the DPI booklet, "we are family".

   Potential points of distribution would likely include hospitals with obstetric departments, maternal and child health services, primary schools, pre-school/kindergarten/creche and local councils (at the time of dog registration renewal notices), pet shops;

   ii) Victorian primary schools consider the implementation of the "Responsible Pet Ownership Education Program" developed by the Bureau of Animal Welfare.[7]

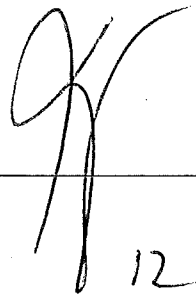
2. Emergency Department medical and nursing staff, should attend a scenario based paediatric course along the lines conducted by Dr Krieser. The next course will address:

   i) the necessity for major trauma calls be made when criteria is met (as in the case of Kara Compton);
   ii) IO procedures will be demysterfied;
   iii) the inate ability of children to compensate and disguise the true gravity of the clinical picture.

3. Ambulance Victoria consider training non-MICA paramedics in paediatric IV insertion.

I offer my condolences to Kara's family.
I thank Counsel for their assistance.

Signature:



John Olle
Coroner
Date: 12/11/2010

[7] Finding delivered 20th May 2009 A. Parrant