IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: 1567/11

FINDING INTO DEATH WITH INQUEST

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

Inquest into the Death of BELLE BROMLEY

Delivered On: 20 February 2012

Delivered At: Coroner's Court of Victoria
Level 11, 222 Exhibition Street
Melbourne Victoria 3000

Hearing Dates: 20 February 2012

Findings of: PETER MELLAS, CORONER

Police Coronial Support Unit Leading Senior Constable Greig McFarlane

I, PETER MELLAS, Coroner having investigated the death of BELLE BROMLEY

AND having held an inquest in relation to this death on 20 February 2012
at Melbourne

find that the identity of the deceased was BELLE BROMLEY

born on 17 March 2010 and aged 13 months

and the death occurred on 16 April 2011

at Royal Children's Hospital, Flemington Road, Parkville, Victoria 3052

from:

1a. COMPLEX CONGENITAL HEART DISEASE (OPERATED)
2. SEPSIS

in the following circumstances:

Belle's Personal Circumstances

1. Belle was the 5th child of Kelly Bromley. She was born at the Royal Woman's Hospital on 17 March 2010. There was no known family history of genetic disorders however, because of findings on an ultrasound conducted during her mother's pregnancy; follow-up tests confirmed that Belle had a genetic disorder[1] that was known to cause a range of health problems. At birth, she required surgery and was transported immediately to the Royal Children's Hospital (RCH).

2. At the time she was born, all of Belle's siblings were subject to child protection orders with the Department of Human Services involved in their care. On the 3 May 2010, the Department of Human Services applied for, and was granted, an Interim Accommodation Order in the Melbourne Children's Court that placed Belle in out of home care. From this time, Belle remained the subject of child protection orders and ultimately a 'Custody to Secretary' Order was made in the Children's Court at Melbourne on 8 March 2011. I am therefore satisfied that Belle was *in care*[2] when she passed away on 16 April 2011.

3. Belle's health needs were profound. From the time that she was born, she was going to need significant medical care and intervention. This was provided by the RCH in a multidisciplinary way in consultation with Belle's mother and her carers. I am satisfied that the Department of Human Services, her carers and (to the extent that she was able to) her mother, did all they could to properly care for Belle and ensure she received medical treatment as and when required.

[1] Specifically, 22q11 deletion - a condition where the deletion of a small portion of chromosome 22 causes complex cardiac abnormalities amongst other physical and intellectual impacts.
[2] See s. 3 *Coroners Act 2008*

The Course of Belle's Medical Treatment

4. I have already noted that Belle required emergency surgery soon after she was born. After this surgery, she was an inpatient at the RCH for 14 days during which time she was diagnosed with Di George syndrome[3], received a central cardio shunt and a naso-gastric tube.

5. On 24 May Belle was admitted to the RCH with bronchitis. An X-ray confirmed that her heart remained enlarged. Further admissions relating to bronchitis occurred on 28 June (2 days) and 18 July (3 days).

6. On 29 August Belle was admitted for the insertion of a PEG feeding tube as a result of difficulties she had experienced with the naso gastric tube. During this admission Belle underwent an MRI which showed hypoplastic central pulmonary arteries with dilated distal branches and large collaterals. She was also found to have non-SVT tachycardia and eczema. Belle was in hospital on this occasion for 6 weeks until her condition stabilised.

7. On 4 and 5 January 2011, Belle was admitted to RCH for diagnostic cardiac catheterisation to assess her aortic pulmonary collateral blood supply. It became apparent that unless surgery to connect multiple pulmonary arteries and affect an overall repair by use of a conduit[4] was successfully performed, Belle would be at an unacceptable risk of dying. I am satisfied that appropriate consultation occurred prior to the surgery being approved and undertaken. I am satisfied that the decision to undertake the surgery was an appropriate one.

Circumstances of Belle's Death

8. Belle was admitted for cardiac surgery on the 11 February 2011. Unfortunately, a pulmonary vein laceration and extensive bleeding complicated the surgery. Cardiac bypass time was 6 hours. After surgery Belle was transferred to Paediatric Intensive Care (PICU). While in PICU, Belle suffered further complications including, ongoing cardiac problems, seizures, infection, chronic lung disease, multiple blood clots and was unable to breathe without the help of a ventilator.

9. On the 14 and 15 April 2011, Belle deteriorated with infection caused by the complications. On the 16 April, at a meeting held between Belle's family (including her mother), foster carers, social workers and medical staff, a decision was made to stop further treatment. Sadly, Belle passed away at 6.45pm on that day.

[3] A condition that results in complex cardiac abnormalities included pulmonary atresia, ventricular septal defect. Most significantly, Belle had Pulmonary Atresia with Ventricular Septal Defect and Major Aorta-Pulmonary Collateral Arteries (MAPCAs). This defect is a form of Tetralogy of Fallot in which there is complete obstruction of the Pulmonary Artery resulting in total diversion of blood from the right ventricle into the aorta. Belle suffered from mild renal pelivectasis and talipes.

[4] A lay explanation of the nature of Belle's heart condition (including diagrams) and the surgical treatment involved can be found at: http://www.rch.org.au/cardiology/health-info.cfm?doc_id=3542

Medical Investigation

10. I have already noted that Belle was *in care* at the time of her death. Unfortunately, her death was not reported to the Coroner's Court until some time after notification had been given to the Registrar of Births Deaths and Marriages. In those circumstances, an autopsy was unable to be done, but the Court did obtain the RCH records relating to Belle's treatment. This covered all treatment from Belle's first admission immediately after she was born until she passed away.

11. The records were referred to the Court's Health and Medical Investigation Team (HMIT)[5]. I accept the conclusions of the HMIT and am satisfied that at all times, Belle received timely and appropriate treatment. I am satisfied that all decisions made about her treatment were made with Belle's best interests in mind. There is no evidence before me or any suggestion that Belle's death was caused or contributed to by a lack of care or neglect by any person or organisation.

Conclusion

I am satisfied that Belle Bromley died from natural causes, namely, the unavoidable complications arising from the physical impact of the genetic defect she was born with.

Comments

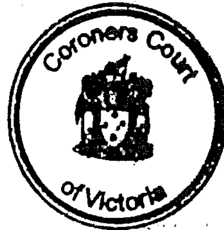
Pursuant to section 67(3) of the **Coroners Act 2008**, I make the following comment(s) connected with the death:

1. In reviewing the medical records, I have noted that consideration has been given by staff at the RCH as to the origin of Belle's genetic abnormality. Staff expressed the view that it is quite possible that Belle's mother, Kelly, and Kelly's mother may have the same abnormality and that it has been passed down through the maternal side of the family. My understanding is that this has been brought to their attention so that they can undergo testing. I urge them to do so given the implications this may have for their on-going health and the health of their children. If the abnormality is present, I note that its physical and intellectual impacts can vary widely from person to person. In my view, a full understanding of the way in which it does affect someone would be essential to persons and organisations providing assistance and advice to affected individuals in relation to medical and social issues.

[5] The role of the Health and Medical Investigation Team (HMIT) is to assist the Coroner's investigation into the nature and extent of deaths, which occurred during the provision of healthcare and identify potential system factors in healthcare related deaths. HMIT personnel comprise of practising Physicians and Clinical Research Nurses who draw on their medical, nursing and research experiences, skills and knowledge, to independently evaluate clinical evidence for the investigation of reportable healthcare deaths and to assist in identifying remediable factors that may assist in prevention and risk management in health services settings.

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

Kelly Bromley,
Department of Human Services,
Royal Children's Hospital,
Child Services Commissioner.



Signature:

PETER MELLAS
CORONER

20 February 2012