



IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2019 4031

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 60(2)

Section 67 of the Coroners Act 2008

Findings of:	Coroner Jacqui Hawkins
Deceased:	Armani El-Sayegh
Date of birth:	23 September 2018
Date of death:	18 May 2019
Cause of death:	I(a) Right ventricular failure secondary to pulmonary atresia with ventricular septal defect and major aorto pulmonary collateral arteries
Place of death:	Royal Children's Hospital, 50 Flemington Road, Parkville, Victoria, 3052

BACKGROUND

1. Armani El-Sayegh was seven months old at the time of her death. She was the second twin born to Ms Anita Lai and Mr Mohammed (Sam) El-Sayegh. Her twin sister was Aaliyah El-Sayegh.
2. Baby Armani passed away at the Royal Children's Hospital on 18 May 2019.
3. Baby Armani's death was not reported to the Coroners Court of Victoria (the Court) at first instance, as her death was not deemed reportable under the *Coroners Act 2008* (Vic). Therefore, Baby Armani's body did not come into the care of the Court.
4. Births, Deaths and Marriages Victoria (**BDM**) subsequently reported Baby Armani's death to the Court on 30 July 2019, in circumstances where it became known that Baby Armani was a child placed in emergency care with the Department of Health and Human Services (**DHHS**), pursuant to the *Children, Youth and Families Act 2005* (Vic).
5. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death and with some exceptions, surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The law is clear that coroners establish facts; they do not lay blame or determine criminal or civil liability.¹
6. In writing this Finding, I do not purport to summarise all the evidence but refer to it only in such detail as appears warranted by its forensic significance and the interests of narrative clarity.

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

Identity of the deceased

7. The identity of Baby Armani was not in issue and required no further investigation.

Medical cause of death

8. As Baby Armani's body was not received by the Court, a post mortem examination was not conducted by any forensic pathologist at the Victorian Institute of Forensic Medicine.

¹ In the coronial jurisdiction facts must be established on the balance of probabilities subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

9. Following my review of the medical evidence and the medical certificate of cause of death as recorded by Dr Johnny Millar, I attribute Baby Armani's cause of death to I(a) Right ventricular failure secondary to pulmonary atresia with ventricular septal defect and major aorto pulmonary collateral arteries.

Antenatal Care

10. Baby Armani's mother, Ms Lai attended the Mercy Hospital for Women (MHW) for antenatal care. She had an extensive mental health history and experienced difficulties with polysubstance abuse. Her pregnancy was complicated when a routine ultrasound scan at 20 weeks' gestation detected congenital defects in Baby Armani.
11. From 23 weeks of gestation, Ms Lai was reviewed by Dr Lance Fong, cardiologist, for serial foetal echocardiography to monitor complications due to Baby Armani's congenital heart defect and guide the neonatal management after delivery. Dr Fong diagnosed Baby Armani with Tetralogy of Fallot, which is a cardiac defect comprising of ventricular septal defect, pulmonary stenosis, 'overriding' aorta and right ventricular hypertrophy. Baby Armani was also found to have pulmonary atresia, hypoplastic branch pulmonary arteries and a second ventricular septal defect. Dr Fong advised that "prognosis in this condition is guarded... multiple major cardiac surgical interventions are likely to be necessary".
12. In his final antenatal review, Dr Fong documented a plan for delivery at 34 weeks' gestation on 25 September 2018. Ms Lai received the appropriate antenatal corticosteroids on 18 and 19 September 2018.

Postnatal Care

13. A short time later, Ms Lai presented to the MHW with premature rupture of membranes and threatened pre-term labour. Baby Armani and her twin, Baby Aaliyah, were born via emergency caesarean section at 33 weeks and 5 days' gestation. Baby Armani was born at 10.12am on 23 September 2018. Her birth weight was recorded as 1,536 grams and her APGAR scores were four at one minute and six at five minutes.² Baby Armani required immediate intensive respiratory support and she was commenced on Prostin, which is

² The APGAR score evaluates a baby's physical wellbeing at birth, helping to provide a general understanding of how well each baby makes the physical transition to independent life. The APGAR score ranges from 0 to 10, with a lower score indicating a poorer outcome.

medication to keep blood vessels open to allow blood flow to circulate until definitive surgery is performed. Baby Armani was intubated via an endotracheal tube at 20 minutes of age. Baby Armani was subsequently admitted to the Neonatal Intensive Care Unit (NICU) for ongoing management.

14. In the NICU, Baby Armani continued on respiratory support and was commenced on intravenous fluids and antibiotics. As standard management of her congenital cardiac defects, she was reviewed by the genetics team at MHW and genetic testing was performed. Baby Armani developed liver failure and was managed by clinicians appropriately. She was noted to have unusual skin mottling, which treating clinicians discussed with the dermatology team. On day two of life, Baby Armani was transferred to the Royal Children's Hospital (RCH) for ongoing management of her congenital cardiac defects and liver failure.
15. Baby Armani was admitted to the RCH on 25 September 2018 and remained under the care of the neonatal team. She underwent reviews from multiple teams, including cardiology, gastroenteritis, genetics, dermatology, general paediatrics, infant mental health and various allied health teams. Baby Armani's care was transferred to the cardiology team on 19 November 2018.
16. During her admission at RCH, Baby Armani underwent further cardiac assessments, including echocardiogram, computed tomography (CT) chest scans and cardiac catheter studies. These investigations confirmed the cardiac defects from previous scans. Baby Armani was commenced on diuretics and from a cardiac point of view she was stable and maintained oxygen levels expected in a cyanotic heart defect case. Her case was discussed at a cardiac conference on multiple occasions. Medical clinicians decided that, given her stability, cardiac surgery should be scheduled for a date in the future.
17. Treating clinicians managed Baby Armani's other medical issues throughout her admission at RCH. These included management of respiratory distress, neonatal abstinence syndrome, liver dysfunction, livedo reticularis/cutis marmorata, gastro-oesophageal reflux disease, neurodevelopmental surveillance, growth mentoring and feed establishment. She was seen by the genetics team and underwent assessments to consider a unifying genetic diagnosis given the constellation of her symptoms. Baby Armani underwent a magnetic resonance imaging (MRI) scan of her brain, due to concerns regarding her central muscular tone.
18. Baby Armani was discharged from RCH on 15 January 2019 with Hospital in the Home (HITH) support and plans to follow-up in outpatients' clinics with various medical teams. On discharge, Baby Armani had a nasogastric tube inserted to optimise her nutrition. Baby

Armani received HITH support until 8 February 2019 and was provided a referral for further nursing support at home to commence on 11 February 2019.

Circumstances of Death

19. Baby Armani was taken to RCH on 9 February 2019, presenting as very unwell and was diagnosed by clinicians with sepsis a day after her routine four-month immunisations. She was admitted to the Paediatric Intensive Care Unit (PICU) under the care of the cardiology team.
20. Baby Armani's sepsis was treated with antibiotics and she subsequently made a good recovery. She was discharged from PICU to a standard inpatient ward on 12 February 2019. She was again admitted to PICU on 15 February 2019 after an episode of deterioration on the ward, with low oxygen levels, increased heart and breath rates. She was commenced on respiratory support.
21. Baby Armani underwent cardiac surgery on 19 February 2019 and was intubated and placed on a cardiopulmonary bypass (CPB) for her surgery. She was unable to be taken off the CPB despite clinicians making three attempts to do so and was transferred to PICU.
22. Between 19 February and 18 May 2019, Baby Armani underwent multiple assessments including pathology and radiology tests and was taken off CPB on 25 February 2019. She had a total of 15 cardiac surgeries and procedures between 19 February and 1 May 2019. She developed multiple complications (including infections and seizures) from the high-risk surgical procedures, which were appropriately managed. Despite this, Baby Armani did not respond to treatment and was unable to be extubated.
23. PICU Consultant, Dr Johnny Millar, had multiple discussions with Baby Armani's family regarding her poor prognosis and a collaborative decision to commence palliative care was made. Baby Armani had her care gradually de-escalated from 13 May 2019 and was extubated on 18 May 2019. She subsequently passed away a short time later.

Coroners Prevention Unit Investigation

24. Baby Armani's case was reviewed by the Coroners Prevention Unit (CPU). The role of the CPU is to assist coroners investigating deaths, particularly deaths which occur in a healthcare setting. The CPU is staffed by healthcare professionals, including practising physicians and nurses, who are independent of the health professionals and institutions under consideration. The CPU professionals draw on their medical, nursing and research experience to evaluate the

clinical management and care provided in particular cases by reviewing the medical records, the autopsy report and any particular concerns which have been raised.

25. The CPU thoroughly examined Baby Armani's medical records and reported that she had a life-threatening and complicated congenital heart defect, which required surgical correction of Tetralogy of Fallot, which has a high mortality rate. There are risks of complications associated with each surgery and procedure. Baby Armani underwent cardiac procedures and surgeries to optimise her condition but developed some of the expected complications. Despite intensive treatment she did not respond to the treatment and died. The CPU considered the medical care was appropriately managed from the antenatal period to the time of her death. The CPU did not identify any potential prevention opportunities.
26. Having considered the evidence I am satisfied that no further investigation is required.

FINDINGS

27. Pursuant to section 67(1) of the *Coroners Act 2008*, I make the following findings connected with the death:
- (a) the identity of the deceased was Armani El-Sayegh, born on 23 September 2018;
 - (b) Baby Armani died at the Royal Children's Hospital on 18 May 2019 from 1(a) *Right ventricular failure secondary to pulmonary atresia with ventricular septal defect and major aortopulmonary collateral arteries*; and
 - (c) in the circumstances described above.
28. I wish to express my sincere condolences to Baby Armani's family. I acknowledge the grief and devastation that you have endured as a result of your loss.

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

The family of Baby Armani; and
Information recipients.

Signature:


JACQUI HAWKINS

Coroner

Date: 31 October 2019

