CORONERS ACT, 2003

SOUTH *AUSTRALIA*

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 11th, 12th and 13th days of May 2016 and the 25th day of November 2016, by the Coroner's Court of the said State, constituted of Mark Frederick Johns, State Coroner, into the death of Bailey Trent Richard Milera-Ashford.

The said Court finds that Bailey Trent Richard Milera-Ashford aged 20 months, late of 44 Brunswick Street, Kilburn, South Australia died at the Women's and Children's Hospital, 72 King William Road, North Adelaide, South Australia on the 12th day of July 2013 as a result of myocarditis. The said Court finds that the circumstances of his death were as follows:

1. Introduction and cause of death

1.1. Bailey Trent Richard Milera-Ashford was 20 months old at the time of his death on 12 July 2013. An autopsy was performed by Professor Roger Byard of Forensic Science South Australia and he prepared a report[1] in which he gave the cause of death as myocarditis.

2. Background

2.1. Bailey's mother took him to the Prospect Medical Centre for his 18 month immunisations on 1 July 2013. He was seen by Dr Williams, a general practitioner, and his immunisations were given that day as planned. At the time of the consultation Dr Williams noted that Bailey had a mild cold with symptoms that were not significant enough to deter the process of immunisation[2]. Dr Williams could not have known that

[1] Exhibit C2a
[2] Transcript, page 101

the virus that was causing Bailey's cold, and which continued to develop in the following 12 days, would bring about the myocarditis which ultimately caused Bailey's death. However, in my opinion the viral symptoms that were evident on that day were the early stages of the virus that developed into myocarditis, and I so find.

2.2. In the days following Bailey's immunisation his symptoms became worse and his mother brought him back to see Dr Williams on 7 July 2013.

2.3. Bailey's mother said that she was concerned because Bailey did not seem to be getting any better, that he was clingy and that he had what she described as a 'pigeon chest'[3]. She explained that she thought that Bailey's chest was 'pushed out'[4] and hence her use of the expression 'pigeon chested'. She was also concerned because Bailey had not been eating solids[5]. Bailey remained in his mother's arms for the consultation, including Dr Williams' examination of Bailey. His mother described Dr Williams' use of the stethoscope and his examination of Bailey's throat and ears[6]. She said that her understanding of Dr Williams' assessment of Bailey was that he had tonsillitis and a viral infection and was to have antibiotics and to maintain his fluids, but that he gave her no other advice. In particular, Bailey's mother said that Dr Williams did not tell her to take Bailey to the Women's and Children's Hospital if he got any worse[7].

2.4. Bailey's mother said that she administered the antibiotics to Bailey as directed in the ensuing days, but he did not appear to get any better and so she took him back to Dr Williams on 10 July 2013[8]. She said that during that three days Bailey's clinginess had become worse, he was not eating, he was flat, did not walk and did not want to play[9]. She thought he was worse. Bailey's mother said that as a mother she knew that there was 'just something wrong'[10]. She said that she had also noticed that both of Bailey's feet were swollen and she mentioned this to the doctor at the consultation on 10 July 2013[11].

2.5. Bailey's mother described the consultation on 10 July 2013. She said that Bailey would not get out of her arms, even for the consultation with Dr Williams and by that stage

[3] Transcript, page 16
[4] Transcript, page 15
[5] Transcript, page 17
[6] Transcript, page 19
[7] Transcript, page 20
[8] Transcript, page 21
[9] Transcript, page 22
[10] Transcript, page 24
[11] Transcript, page 25

she was exhausted because she had three other children to take care as well and she was never getting any rest[12]. She informed Dr Williams of these things[13]. Bailey's mother also told Dr Williams that she did not think the antibiotics were working and she commented again about Bailey's 'pigeony' chest[14]. She said that Dr Williams when examining Bailey with the stethoscope asked her if he had been born with a heart murmur and she responded no. She told Dr Williams that Bailey had been having steam showers to assist with his breathing over the last several days[15]. Bailey's mother said that she was aware that Dr Williams was going to be away on holidays from that day and that he gave her the contact details of another doctor at the clinic[16].

2.6. Dr Williams' progress notes for the consultations on 7 July 2013 and 10 July 2013 were as follows.

'**7 July 2013 - Consultation notes**
Had 18/12 vaccination on 1/7/13
Been unwell generally for last 1/52 +
→ brought in today as appears to be worsening (increase in inspiratory effort)
Oral fluids down
O/E: Alert but quiet
Pale +
Hydration down
Ears – dull erthema of both drums/ full ++
Nose – n
Throat – n
Chest – reduced aE to bases with bibasal coarse creps ++
Noted tachypnoeic ++ using accessory muscle of chest ++
DDx: LRTI
P: Start Rx for bact – EES 240mg bd
Increase oral fluids ++
To watch closely any deteriorating → If so attend Emerg WCH
R/v otherwise in 3/7'

[12] Transcript, page 27
[13] Transcript, page 28
[14] Transcript, page 29
[15] Transcript, page 29
[16] Transcript, page 32

The consultation notes for 10 July 2013 were as follows:

'**10 July 2013 - Consultation notes**

Been on EES last 3/7

- somewhat better in self

Some vomiting bouts. Still quite active and drinking milk but not other solids.

Examination Notes

Vital signs

Weight = 10.3kg

Alert still but quiet

Hydration – still OK

HS dual – noted ejection systolic murmur?? New – to lx further when better

Chest – good ae today, clear!

Assessment Notes

Increase oral fluids ++ rest +/- panadol

Cont with EES for now

RTI / bronchitis – resolving Onset date: 10/07/2013'

2.7. Dr Williams was asked about where he obtained the impression on the consultation on 10 July 2013 that Bailey was somewhat better and he said that was a history he ascertained from Bailey's mother[17]. This is at odds with the version given by Bailey's mother of this consultation. It is notable that Dr Williams observed that Bailey's air entry was 'clear'. He said that the absence of crepitations that day was a little bit of a surprise to him, hence the exclamation mark, but that he regarded this as a good sign and that the lower respiratory tract was now responding[18]. It is possible that this symptom was the reason for Dr Williams' conclusion that Bailey was somewhat better as distinct from anything said by Bailey's mother. Certainly her evidence was inconsistent with the idea that she would have said anything to that effect.

2.8. Dr Williams was asked about his notation about an ejection systolic murmur. He said this could indicate a number of things, some of which were not necessarily sinister. He said he had not heard it before in Bailey and therefore made a point of mentioning it to Bailey's mother and his intention was to investigate it further when Bailey was better[19].

[17] Transcript, page 56
[18] Transcript, page 60
[19] Transcript, page 58

2.9. Dr Williams affirmed that he would not have noted that he told Bailey's mother to take Bailey to emergency at Women's and Children's Hospital if there is any deterioration unless he had actually said that to her[20].

2.10. Dr Williams said that he did not note signs in Bailey that he would regard as being consistent with pigeon chestedness[21].

2.11. Dr Williams said that he examined Bailey's ankles for signs of swelling and did not think that they were swollen[22].

3. Expert opinion

3.1. Dr Joyner

Dr Peter Joyner provided an expert report in this matter. He also gave evidence at the Inquest. It was Dr Joyner's opinion that on 7 July 2013 Dr Williams should have sent Bailey to the Women's and Children's Hospital for a proper assessment of his condition. He said that in his opinion the respiratory distress being exhibited by Bailey on that occasion was in the moderate to severe category as evidenced by Dr Williams' examination notes. It is that factor which in Dr Joyner's opinion required that Bailey should be sent to the Women's and Children's Hospital. He said that if the respiratory distress had only been mild he would have accepted the appropriateness of merely prescribing antibiotics[23].

3.2. Dr Joyner said that in his opinion it was not adequate for Dr Williams to have left the decision to attend the Women's and Children's Hospital if Bailey's condition worsened to his mother. Dr Joyner noted that it was obvious from the material he had seen that Bailey's mother was very capable and that was certainly the assessment of Dr Williams too. However, Dr Joyner regarded it as inappropriate to leave this decision to Bailey's mother. He pointed out that it was really a matter of communication and that the general instruction to attend the Women's and Children's Hospital if he deteriorated or became worse begs the question of 'worse in what respect?'. Dr Joyner was of the view that highly specific directions would need to be given with objective criteria. He gave as an example that one might say to a parent that the child's respiration rate is now 40 per minute and that if they go to 50 per minute or more, the child should be taken to hospital.

[20] Transcript, page 70
[21] Transcript, page 73
[22] Transcript, page 77
[23] Transcript, page 109

This would also require that the parent be shown how properly to count the child's respiration rate. Dr Joyner noted that it is common for doctors to give the advice to take a child to hospital if they deteriorate, but that this is sometimes a throw away comment based on an assumption by doctors that parents will pick up on the same symptoms that the doctors themselves would[24]. Dr Joyner said that if the child was so vulnerable that any slight deterioration would mandate going to hospital, then the case would be that the child ought to go immediately at the instigation of the doctor[25]. Dr Joyner also said that the important thing is what Bailey's mother understood she was being told. While there was a dispute between Bailey's mother and Dr Williams as to whether Dr Williams said anything at all about the referral to the Women's and Children's Hospital, what is plain is that as a matter of fact Bailey's mother did not get that message. It also follows that she did not get any message about the signs and symptoms or objective criteria to look for in making a decision about whether Bailey should be taken to the Women's and Children's Hospital. In other words, the communication was not successful on any view. It is significant that in general the recollections of mother and doctor as to what was conveyed by way of history corresponded. Therefore, it is not as though there were other notable areas in which mother and doctor were unable to communicate. This is the principal area in which a failure occurred. Essentially it was Dr Joyner's opinion that Dr Williams himself should have sent Bailey to the Women's and Children's Hospital from the consultation on 7 July 2013. He said that had this occurred Bailey would almost certainly have been given an X-ray which would very likely have revealed that he had an enlarged heart. This would have led to treatment for his myocarditis.

3.3. Dr Joyner was asked about Dr Williams' finding of an ejection systolic murmur when he saw Bailey on 10 July 2013. Dr Joyner was of the view that this symptom of itself required a referral to the Women's and Children's Hospital for assessment where an echocardiogram would almost certainly have been performed in a short space of time. Dr Joyner readily conceded that he did not think that Dr Williams should have deduced that the symptom represented a case of myocarditis with heart failure, but he was of the view that it did mandate a referral to the Women's and Children's Hospital immediately for investigation given the fact that Bailey had been unwell for some time[26]. Dr Joyner

[24] Transcript, page 111
[25] Transcript, page 111
[26] Transcript, page 116

was of the view that Dr Williams, who discounted Bailey's mother's reports of his symptoms of swollen feet, should in fact have placed more weight on her opinion[27].

3.4. Dr Pearson

Dr Christopher Pearson also gave evidence at the Inquest. He is a specialist paediatrician who works at the Women's and Children's Hospital. Dr Pearson gave evidence that if Bailey had been referred by Dr Williams to the Women's and Children's Hospital on 7 July 2013 he would initially have been seen by one of the registrars in the Emergency Department. Dr Pearson said that with increased respiratory effort and crackles in the chest the most common diagnosis would be chest infection, usually viral[28]. He also noted that there are other causes for the crackles in the chest, including heart failure[29]. He said that Bailey would almost certainly have been referred for a chest X-ray and said that if it had not already been clinically identified that the heart was enlarged, it would have been obvious on the X-ray[30]. It was his view that had an X-ray taken place at that time it would have shown the enlarged heart based on the findings at autopsy[31]. He said this finding on X-ray would have then triggered a referral to one of the hospital's cardiologists who would almost certainly have organised an echocardiogram and that would have diagnosed the condition of myocarditis[32]. He noted that the treatment for that condition would have been commenced, including diuretics and drugs to increase the efficiency of the pumping action of the heart and to reduce the resistance of the flow of blood within the body. He said the prognosis for viral myocarditis in children Bailey's age is that over 80% or probably even 90% are likely to survive. He said that Bailey's prognosis on 7 or 8 July 2013 would have been excellent[33].

3.5. In relation to the consultation by Dr Williams on 10 July 2013, Dr Pearson said that the new symptom noted by Dr Williams of an ejection systolic murmur together with Bailey's mother's concerns about swollen feet would, amongst the clinicians at the Women's and Children's Hospital, have raised the immediate suspicion that there was a cardiac cause for these symptoms[34]. He said that the result would have been

[27] Transcript, page 120
[28] Transcript, page 145
[29] Transcript, page 146
[30] Transcript, page 146
[31] Transcript, page 147
[32] Transcript, page 147
[33] Transcript, page 148
[34] Transcript, page 149

examination by a cardiologist and that the diagnosis of myocarditis would have been made. It was Dr Pearson's opinion that almost certainly intervention to treat the myocarditis on 10 July 2013 would have produced a successful outcome for Bailey[35].

4. The dispute on the evidence as to Dr Williams's advice that Bailey should be referred to the Women's and Children's Hospital if he deteriorated

4.1. The fact is that Dr Williams' note of 7 July 2013 contained a record of advice 'to watch closely any deterioration – if so to attend Emerg WCH'. This clearly must be, and can only be, a record of advice that he gave to the only other adult present in the room, namely Bailey's mother. I do not for a moment believe that Dr Williams fabricated this note. Dr Williams presented as an honest witness who made appropriate concessions that he should have referred Bailey to the Women's and Children's Hospital on both occasions as opined by Dr Joyner. Furthermore, there would have been no reason for Dr Williams to have fabricated that advice on 7 July 2013 when he at that point could not have appreciated, and clearly did not appreciate, the seriousness of Bailey's condition and the prospect of Bailey's death only five days later. From this it follows that Dr Williams must have done that which he noted, namely to say words to that effect with the intention that Bailey's mother would absorb the message as it was intended to be conveyed. However Bailey's mother did not absorb that message and it is possible that she may not even have properly heard it given the presence of a sick child who she had been describing as 'clingy' and who had been occupying her attention for some days because of his sickness. In short, Bailey's mother may not have been as alert to whatever Dr Williams was saying as Dr Williams might have thought she was. However, Dr Williams most certainly should have been alive to that possibility. The failure of communication in my opinion is a failure that must rest with Dr Williams and not with Bailey's mother. It is incumbent upon a doctor if placing responsibility of this kind upon a parent to ensure that the message is clearly conveyed and duly received. It will be recalled that it was Dr Joyner's opinion that even if it had been clearly conveyed and duly received it would have been inappropriate bearing in mind the fact that the person charged with responsibility, namely the parent, has other responsibilities to other children and has to look after themselves and gain some rest and sleep at some point.

[35] Transcript, page 150

It is therefore unrealistic to expect that they will be able to watch the child as closely as was needed in this case.

5. Conclusions

5.1. I conclude that Dr Williams should have sent Bailey to the Women's and Children's Hospital for specialist review on 7 July 2013. Even if he had clearly conveyed to Bailey's mother and she had understood the message that she was to take Bailey to the Women's and Children's Hospital in the event of deterioration, this was an inappropriate direction. This type of advice is fraught with risk, particularly in a mother who has other children to look after. Furthermore, it would have been more helpful if Dr Williams' observations of Bailey had been duly recorded in the notes rather than the more general records that he in fact made.

5.2. I find that Bailey's mother brought Bailey back to see Dr Williams on 10 July 2013 and she was concerned about his swollen feet and she drew this to the attention of Dr Williams. Unfortunately this history was not recorded in Dr Williams' consultation note and it should have been. Dr Williams seems to have discounted the significance of this symptom and that is particularly unfortunate. Dr Williams did not place sufficient weight on the fact that the child's mother was reporting that observation even if he himself did not regard Bailey's feet as being particularly swollen. That observation together with Dr Williams' own finding of a heart murmur which he had not heard on any of the previous six occasions when he had listened to Bailey's chest over the past 20 months of Bailey's life, taken together with the fact that Bailey had recently been unwell, should have prompted him to think that there may have been something in what Bailey's mother was saying as regards his swollen feet. This should have been the tipping point for urgent specialist referral.

5.3. I accept the evidence of Dr Pearson that had Bailey been referred to the Women's and Children's Hospital at any point between 7 and 10 July 2013 his condition would most likely have been diagnosed, firstly through a simple chest X-ray and then more definitely through an echocardiogram. His prognosis would have been very good. His death would certainly have been preventable at any time in that period.

5.4. Dr Williams accepted the criticism made by Dr Joyner and acknowledged that he should have referred Bailey to the Women's and Children's Hospital on both 7 July and 10 July 2013. That said, it must be acknowledged that myocarditis in a child Bailey's

age is a rare presentation for a general practitioner and at least a third of presentations to general practitioners in Bailey's age group will be for a chest infection. It is therefore understandable that Dr Williams would be 'detuned'.

6. Recommendations

6.1. Pursuant to Section 25(2) of the Coroners Act 2003 I am empowered to make recommendations that in the opinion of the Court might prevent, or reduce the likelihood of, a recurrence of an event similar to the event that was the subject of the Inquest.

6.2. I recommend that the Royal Australian College of General Practitioners and the Australian College of Rural and Remote Medicine should issue a reminder that in paediatric consultations for children suffering respiratory complaints the general practitioner should make a note of vital signs particularly and, importantly, respiratory and heart rates and temperature. General practitioners should have a low threshold for emergency referral or urgent X-ray.

Key Words: Myocarditis; Misdiagnosis

In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 25th day of November, 2016.

State Coroner