



# MAGISTRATES COURT of TASMANIA

## CORONIAL DIVISION

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### **Record of Investigation into Death (Without Inquest)**

*Coroners Act 1995  
Coroners Rules 2006  
Rule 11*

**(These findings have been de-identified in relation to the name of the deceased, family, friends, and others by direction of the Coroner pursuant to s57(1)(c) of the Coroners Act 1995)**

I, Robert Webster, Coroner, having investigated the death of Infant F

**Find, pursuant to Section 28(1) of the Coroners Act 1995, that**

- a) The identity of the deceased is Infant F
- b) Infant F died in the circumstances set out below;
- c) Infant F's cause of death is an unexplained sudden death; and
- d) Infant F died on 21 February 2021 at Launceston, Tasmania.

#### **Introduction**

In making the above findings, I have had regard to the evidence gained in the comprehensive investigation into Infant F's death. The evidence includes:

- Police Report of Death for the Coroner;
- Affidavits establishing identity and life extinct;
- Affidavit of Dr Christopher Lawrence, Forensic Pathologist;
- Affidavit of the forensic scientist Mr Neil McLachlan-Troup of Forensic Science Service Tasmania;
- Electronic patient care record with respect to Infant F together with 000 call and reports obtained from Ambulance Tasmania (AT);
- Affidavit of Ms C, Infant F's mother;
- Affidavit of Mr D, Infant F's father;

- Affidavit of Ms B, a family friend;
- Affidavit of Sergeant David Gammon;
- Affidavit of Detective Sergeant Matthew Stewart;
- Affidavit of Senior Constable Tracy Lincoln;
- Affidavit of Constable Madeleine Haywood
- Medical records obtained from Child Health and Parenting Services (North) (CHAPS) with respect to Infant F;
- Medical records obtained from Infant F's general practitioner Newstead Medical;
- Medical records obtained from the Launceston General Hospital (LGH);
- Report of the coronial medical consultant Dr Anthony Bell MD FRACP FCICM; and
- Photographs and forensic evidence.

## **Background**

Infant F was born on 26 December 2020 at the LGH. He was born at 37 ½ weeks, which Ms C was told is considered full term. Ms C commenced experiencing contractions at about 2.00 PM on Christmas Day and she went to the LGH at about 5.00 PM. At about 7.00 PM she returned home and her labour continued until she returned to hospital with her husband at about 1:30 AM on 26 December 2020.

Infant F was born naturally and the only assistance Ms C received was the use of gas. Infant F was the first child for both Ms C and Mr D. When Infant F was born Ms C was told there were no issues with him. He was alert and healthy. When he was born he was placed on her so they could have some skin to skin contact and it was during this time he breastfed for the first time. After he was born Infant F and Ms C remained in hospital for about 5 hours until they were discharged. A midwife came to the house every day for almost the first week to check on them both and thereafter they were seen every second or third day. During these visits no health issues were identified with either of them.

While Ms C was pregnant with Infant F she was a public patient. She attended regular appointments at the Midwifery Group Practice at the Kings Meadows community centre.

During her pregnancy both Ms C and Infant F were healthy. The 10 week, 12 week and 20 week scans were normal. When Ms C found out she was pregnant she had an initial phone consultation with a doctor from Newstead Medical to arrange initial blood tests and there was a subsequent phone consultation so that a referral to the Midwifery Group Practice could be obtained.

The family's house was smoke-free and at the time both Ms C and Mr D were non-smokers. The house was adequately heated. Since his birth Infant F slept in the main bedroom with his parents. He had his own cot and never co-slept with them. When he woke Ms C would usually feed Infant F while sitting in their bed before putting him back down. When he was in his cot he was put on his back. He would always wear his swaddle suit which enclosed his arms and legs. He didn't have any blankets or pillows, toys or other items in the cot with him.

On the night he passed away a window was open a small amount so some fresh air could enter the room and a pedestal fan was turned on but it was pointing away from Infant F's cot. Ms C and Mr D had 2 cats who lived in side their home. About a month before Infant F's birth they started closing their bedroom door at night so the cats were not able to enter that room. After Infant F was born, whenever he was asleep in the cot the bedroom door was closed so the cats could not access the bedroom and a baby monitor was used. Mr D says the cats never seemed interested in going near Infant F.

### **Infant F's Health**

Since Infant F was born he was breastfed by Ms C. Being her first child it is not surprising it took them both a few days to "get the hang of feeding." She received advice from the midwives who conducted the home visits. Ms C says she usually fed him every 2 hours or so during the day and every 3 hours or so during the night. It seems from the statements of both Ms C and Mr D they managed to establish a routine with Infant F's sleeping and feeding during the night. Not unexpectedly, given his age, Infant F spent more time during the day asleep than he was awake although during the last week or so Ms C noticed his periods of being awake were lengthening.

On the 11 January 2021, Infant F was discharged from the Midwifery Group Practice to CHAPS. Prior to discharge the Midwifery Group Practice had seen Infant F on 27, 28, 29 and 31 December 2020 and 2, 5 and 11 January 2021. The discharge note from the Midwifery Group Practice to CHAPS is "NVB, uncomplicated birth and PN period." By the time of discharge Infant F had put on 470 g in weight. He attended appointments with CHAPS on 14 and 28 January 2021. No abnormal observations were made during either of those appointments. During both appointments the risk factors for sudden infant death syndrome

(SIDS) and preventative measures were discussed. He gained another 810 g in weight between 11 and 28 January 2021. As at 28 January 2021 it is recorded that “*mother states safe sleeping guidelines are being followed.*” A subsequent appointment was made.

The general practitioner’s records indicate a normal six-week examination at a review on 8 February 2021. Immunisations were discussed and some were administered that day.

There is no suggestion in any of the medical records I have examined that Infant F was anything other than a healthy young baby boy.

### **Circumstances Leading to Infant F’s Death**

It was Mr D’s birthday on 11 February 2021. For his birthday, Ms C had organised a visit from their friend Ms B who resides in Queensland. Ms B is employed as a registered nurse. Ms B arrived on Friday 19 February 2021 and planned to return home on 21 February 2021. She stayed with Ms C and Mr D at their home at Newstead.

Because of Ms B’s visit Ms C planned to consume some alcohol on Saturday, 20 February 2021 and in order to do so she also planned to express milk in the days prior so that Infant F could be bottle-fed. In preparation for this approximately 2 weeks before Ms B’s arrival Ms C expressed milk and fed Infant F several times using a Philips Avent bottle with an age-appropriate teat. Infant F was fed expressed breastmilk from a bottle about 4 to 5 times during that 2 week period. Each feed went well.

On Saturday, 20 February 2021 Ms C, Mr D, Infant F and Ms B travelled to the conservatory at Parramatta Creek for lunch. During lunch Ms C did not consume any alcohol. Following lunch they travelled to Devonport where they went to the beach for approximately 30 minutes. Thereafter, they went to Express Craft Beer in Devonport and remained there for a couple of hours. Mr D and Ms B consumed alcohol however Ms C did not. They left that establishment and returned home arriving at approximately 6.00 PM.

On arriving home, Ms C breastfed and changed Infant F. She described him as being “*fussy*” at that time. Both Ms C and Ms B unsuccessfully tried to settle Infant F. Mr D then took him for a walk in the garden and when they returned he was placed on a play mat in the lounge room where Ms C, Mr D and Ms B were socialising. Shortly before 8.00 PM, Ms C had her first alcoholic drink which was a mid-strength IPA beer. Thereafter, she removed some expressed breastmilk from the freezer, warmed it up and fed it to Infant F using a bottle. She then tried to put him to sleep in his cot a bit earlier than usual however he was not ready. He was brought back to the lounge room where Mr D nursed him. He was returned to his cot at approximately 9:30 PM and he went to sleep. Ms C, Mr D and Ms B continued to

socialise in the lounge room with Mr D retiring to bed at 10.00 PM and Ms C going to bed at approximately 11:30 PM. As she did so she checked on Infant F who was still sleeping. She did not notice anything abnormal at that time.

At about 2.00 AM on Sunday, 21 February 2021 Infant F woke for a feed. Ms C retrieved defrosted breastmilk from the fridge, warmed it and fed it to Infant F from a bottle. Part way through the feed she changed him and then finished the feed at approximately 2:30 AM. She held him up right on her shoulder for about 15 minutes after the feed to burp him and to make sure he was okay. She then put him down to sleep in his cot. He was placed inside a swaddle bag which enclosed his arms and legs. He was not covered by any blankets or head coverings. Ms C remained awake for another 30 minutes to express milk which she intended to dispose of. While she was awake she did not hear anything abnormal from Infant F as he slept.

Mr D woke at about 5:20 AM to the sound of Infant F crying. He described the cry as a usual cry for Infant F but then it changed to a *“bit of a muffled sound... like the sound a cat makes when it has a fur ball caught in its throat.”* Mr D got up and found Infant F still lying on his back. He picked him up and held Infant F so his head was resting on Mr D’s shoulder. Because of the noise Infant F made Mr D patted Infant F gently on the back in case he needed to burp. He carried Infant F back to the main bed and sat down on it at which time Ms C woke. Infant F was then observed to have his mouth partially open and bubbly spittle or saliva pooled in his mouth. Infant F’s eyes were observed to roll back and Mr D ran, carrying Infant F, into Ms B’s room where she was woken. Ms B then assessed Infant F. Ms C called 000 at 5:33 AM and the emergency operator directed Ms B to commence CPR. This continued until paramedics arrived. Paramedics continued resuscitation, which was unsuccessful, and which ceased at 6:12 AM.

## **Investigation**

### **(i) AT**

The records obtained from AT confirm the emergency call was received at 5:33 AM and the ambulance arrived 6 minutes later. Treatment commenced at 5:39 AM and continued until 6:12 AM. At no stage during that period was Infant F’s Glasgow Coma Score above 3. He remained unconscious the entire time and was in asystole.

## **(ii) Police**

On 21 February 2021 at approximately 5:55 AM police were notified by AT of this matter. When Police attended paramedics confirmed Infant F was deceased. In addition to the attending officers, Sergeant Gammon and Constable Newell, Detective Sergeant Matthew Stewart from the Criminal Investigation Branch, Constable Anderson from the Coroner's office and Constables Lincoln and Haywood from Northern forensic services attended. Detective Sergeant Stewart conducted an examination of the scene and concluded there were no suspicious circumstances. Constables Lincoln and Haywood examined the scene, made notes of relevant observations and photographs were taken. Consistent with the evidence of the parents Infant F was observed in a cot in his parents' bedroom and there were no items in the cot. In addition, the residence did not smell of cigarettes and there was no sign of cigarettes or smoking implements. The residence was quite warm but this was consistent with the weather conditions at the time.

## **(iii) Post-mortem**

Dr Lawrence conducted a post-mortem examination on 22 February 2021. As a result of his examination, and after considering the histology, microbiological and toxicological results together with a post-mortem CT scan, Dr Lawrence concluded Infant F died of unexplained sudden death with both intrinsic and possible extrinsic factors being identified. The autopsy revealed aspiration of gastric contents and mottled looking lungs. Histology revealed aspiration and focal early aspiration pneumonia. The intrinsic factors identified by Dr Lawrence included rhinovirus. A respiratory viral PCR revealed rhinovirus consistent with an upper respiratory tract infection. While this is not sufficient to cause death it may cause some respiratory compromise. The second intrinsic factor was aspiration because of early aspiration pneumonia. The extrinsic factor identified by Dr Lawrence was that the metabolite of fluoxetine, an antidepressant, was found on toxicology. There was no finding of any alcohol in Infant F's blood sample. Dr Lawrence notes Ms C was using fluoxetine and says this metabolite was probably transferred via breastfeeding. Importantly Dr Lawrence says the following:

*“While I think this is unlikely to have directly contributed to the death, the exposure to fluoxetine which has a very long half-life could possibly represent an extrinsic factor. The product label for fluoxetine recommends people who are breastfeeding not use this medication, but there is **no** strong evidence that it is a risk factor, so we really don't know if this is a risk factor for sudden unexplained death in an infant.” (my emphasis).*

Dr Lawrence concludes by saying “[o]n the face of it this could represent what we previously described as a SIDS case.”

Sudden infant death syndrome (SIDS) is the unexplained death, usually during sleep, of a seemingly healthy baby less than 12 months old. Although the cause is unknown, some researchers have suggested SIDS might be associated with defects in that part of an infant's brain that controls breathing and arousal from sleep.

#### **(iv) Consideration by Dr Bell**

Given the identification of fluoxetine as an extrinsic factor by Dr Lawrence, I arranged for Dr Bell to examine the medical literature around the use of this drug in breastfeeding mothers and the effects on an infant. Dr Bell says information about the safety of the use of such medications during breastfeeding is based upon acute exposure in small observational studies and laboratory studies that typically last less than one year. He says no randomised studies have been conducted.

Dr Bell also says studies that have been conducted vary in multiple ways which include the severity of the mothers psychopathology, the drug dose, onset and duration of infant exposure, whether infants were exposed to multiple concurrent medications, whether infants were exclusively breastfed and the assessment of adverse effects and exposure. Adverse effects such as irritability, poor feeding or sleep disorders observed in babies who are exposed to antidepressants through breastmilk are often non-specific and may be due to other causes such as viral infections.

Studies that analyse infant serum concentrations provide a more direct assessment of infant exposure than studies of maternal serum and breastmilk concentrations. However it has not been established that a drug is safe if infant serum levels are undetectable, nor is it clear that measurable drug levels in infants are problematic.

Dr Bell notes potential risks to a baby from exposure to medications through breastmilk include drug toxicity and undetermined long-term effects on neurobehavioural development. It seems the amount of medication secreted into breastmilk is also highly variable across different patients.

Dr Bell says patients who are successfully treated with drugs during pregnancy should generally not change medications for the purpose of breastfeeding because foetal exposure to medications is substantially greater than it is for the breastfeeding infant. Dr Bell goes on to say that fluoxetine is one of the most widely studied drugs in lactation and appears to be compatible with breastfeeding. Most studies suggest that an exposure to fluoxetine through breastmilk does not cause acute problems. A review identified 20 studies that assessed

adverse effects in neonates exposed to fluoxetine through breastmilk. There were 11 cases out of 217 with adverse events which included decreased postnatal growth, sleep disorders, colic, irritability, fever, emesis, watery stool and possible seizure<sup>1</sup>.

Fluoxetine has a long half – life of 4 to 6 days during chronic use and it is often detectable in the serum of breastfeeding babies whose mothers are taking the drug. One review concluded that fluoxetine is more likely to accumulate in nursing infants compared with other antidepressants, and infants exposed to fluoxetine may be at a higher risk of experiencing elevated serum concentrations. A second review found fluoxetine is often detected in the serum of infants exposed to the drug through breastmilk. In addition, norfluoxetine, the active metabolite of fluoxetine, has a long half-life of about 9 days that may result in accumulation in an infant. A prospective study where 8 nursing infants whose mothers were taking fluoxetine found that norfluoxetine was detected in the serum of 6 infants.

In conclusion Dr Bell says “[a] factor to consider is the mental health of the mother. Ceasing or changing an antidepressant/anti-anxiety drug may cause a relapse with significant consequences for the mother and thus the infant. If the mother has been stable on the drug the plan is to continue the drug. In the postpartum period depression is relatively common. The evidence supports continued use of fluoxetine during pregnancy and lactation. In particular if the treatment had been successful.”

I accept the opinions of Detective Sergeant Stewart, Dr Lawrence and Dr Bell.

### **Comments and Recommendations**

Infant F's cause of death has been determined by Dr Lawrence as an unexplained sudden death. Possible contributors include rhinovirus, aspiration and the use of fluoxetine. However, both Dr Lawrence and Dr Bell conclude there is no strong evidence to suggest the use of fluoxetine is a risk factor. Dr Bell says the evidence supports continued use of fluoxetine during pregnancy and lactation.

It is clear from all of the evidence that Ms C and Mr D maintained a very high level of care for their son and in my opinion they properly cared for him. In addition, they took all of the appropriate precautions they had been advised about with respect to the risk of SIDS. They could have done no more than they did.

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<sup>1</sup> Orsolini L., Bellantuono C., Serotonin Reuptake Inhibitors and Breastfeeding: A Systematic Review. Hum Psychopharmacology. 2015 Jan; 30 (1): 4-20.

The circumstances of Infant F's death are not such as to require me to make any comments or recommendations pursuant to Section 28 of the *Coroners Act 1995*.

I convey my sincere condolences to Infant F's family and loved ones.

**Dated:** 20 September 2022 at Hobart in the State of Tasmania.

Robert Webster  
**Coroner**