



Report to the Minister of Justice Public Fatality Inquiry

Fatality Inquiries Act

WHEREAS a Public Inquiry was held at the _____ Law Courts

in the _____ City _____ of _____ Edmonton _____, in the Province of Alberta,
(City, Town or Village) (Name of City, Town, Village)

on the _____ 7th _____ day of _____ April _____, _____ 2022 _____, (and by adjournment
year

on the _____ day of _____, _____),
year

before _____ Justice D. DePoe _____, a Justice of the Alberta Court of Justice

into the death of _____ Eliana Rice _____ 11 days _____
(Name in Full) (Age)

of _____ Edmonton _____ and the following findings were made:
(Residence)

Date and Time of Death: _____ March 29, 2017, prior to 8:45am _____

Place: _____ Pronounced dead at Stollery Children's Hospital _____

Medical Cause of Death:

("cause of death" means the medical cause of death according to the International Statistical Classification of Diseases, Injuries and Causes of Death as last revised by the International Conference assembled for that purpose and published by the World Health Organization – *Fatality Inquiries Act*, Section 1(d)).

Methamphetamine toxicity.

Manner of Death:

("manner of death" means the mode or method of death whether natural, homicidal, suicidal, accidental, unclassifiable or undeterminable – *Fatality Inquiries Act*, Section 1(h)).

Undeterminable, but likely accidental admission/ingestion of methamphetamine. Only a miniscule quantity of this drug is sufficient to cause death in an infant. Possible contributing factor: unsafe co-sleeping arrangement.

Circumstances under which Death occurred:

The Court makes the following findings:

1. Eliana Rice was born March 18, 2017, at the Stollery Hospital in Edmonton. Both the child, and her mother Michelle Rice were physically normal and healthy, and the baby was discharged home on March 19, 2017.
2. On the morning of March 29, 2017, mother awoke to find the baby not breathing. Emergency medical services were called and despite attempts to that resuscitation she was pronounced deceased.
3. The mother of the child had been suffering from flu and had been breast-feeding her baby. The child appeared to be in good health.
4. The normal sleeping habit of the child was to co-bed with the mother, mother's boyfriend [not the father of the child] and older toddler brother in a queen-sized bed. The mother of the child had breast-fed the baby and fallen asleep with the child still on her breast. When she awoke the child was unresponsive lying next to her on its right side.
5. An autopsy which included external and internal examination revealed no evidence of any trauma, natural disease, developmental or anatomical abnormalities to account for the child's death.
6. Toxicological analysis revealed a fatal level of methamphetamine in postmortem blood, gastric and tissue samples, which was incongruent with in utero exposure prior to birth, or passive maternal breastmilk transfer following drug consumption (dosing) characterized as "strong". It is possible but unlikely that the methamphetamine level could be explained by a combination of breastmilk in addition to oral consumption from a source other than breastmilk.
7. It is also possible that the methamphetamine level could be explained solely by breast-feeding if maternal dosing of methamphetamine was much higher than typically reported for oral, smoked, or intranasal use, or from maternal intravenous abuse of methamphetamine in a binging pattern.
8. There was no evidence that the mother had ingested any methamphetamine herself, and she in fact denied any use of the drug during the relevant time.
9. The autopsy report completed by Dr. Elizabeth Brooks-Lim concluded that considering the history, circumstances, and autopsy findings as a whole death is attributed to methamphetamine toxicity. Direct oral ingestion of the drug or rectal administration are the likely potential roots of admission of this drug into the body of this 11-day old child.
10. Dr. Brooks-Lim also concluded that the child was sleeping in a particularly unsafe environment [co-bedding with two adults and another child] which may have contributed to her death, however, the level of methamphetamine is considered to be the cause of death as it clearly should not be in her system and was sufficient to cause death.
11. Dr. Graham R Jones, Chief Toxicologist, Office of the Chief Medical Examiner, offered a lengthy informational and opinion letter for the benefit of the court.

12. Toxicology testing revealed that methamphetamine was detected in postmortem central blood (0.20mg/l and liver (0.41mg/l) as well as amphetamine (0.06 mg/l) and liver ('detected"-approximately 0.13 mg/kg). No other drugs or ethanol were detected. Additional testing revealed high levels of methamphetamine and amphetamine in the baby's gastric fluid.
13. Methamphetamine is a potent central nervous system stimulant, classed as a sympathomimetic amine, and more specifically as an "amphetamine". It is a controlled drug under Schedule I of the Controlled Drugs and Substances Act.
14. Methamphetamine is a commonly used illicit street drug, almost always encountered as white or off-white crystals, in the form of the sulphate or hydrochloride salt. The salt forms are freely soluble in water.
15. The half-life of methamphetamine in blood for adults is estimated to be 6 to 15 hours and at least partly dependent on the pH of the urine. Therefore, the duration of action will be at least 12 to 24 hours depending on the rate of renal excretion.
16. The postmortem blood and liver concentrations of methamphetamine in this baby are too high to have resulted only from in utero exposure, even allowing for the fact that the drug metabolizing ability of an 11-day old infant will still be immature. Even if the half-life of methamphetamine in an 11-day old infant is much more than an adult, because the half-life of the drug is still so short the concentration of methamphetamine at birth would have to have been so high as to be incompatible with life. It is safe to conclude that the methamphetamine was absorbed in the day or two prior to the baby's death.
17. Dr. Jones concluded that there is no question that baby Eliana's body contained significant amounts of methamphetamine. The most likely way the baby got the drug would be oral, either by administration by breastmilk, or other oral means, for example inadvertent transfer, such as sucking on a contaminated adult finger, or a combination of these.
18. Dr. Jones concluded that it is improbable that maternal abuse of methamphetamine could account for the high postmortem blood concentration in the baby. All in available scientific evidence indicates that infants exposed to methamphetamine via breastmilk would not usually be ingesting doses higher than 5 mg per day.
19. The court concludes that it is most likely than that the high (and fatal) level of toxic drug found postmortem was administered inadvertently or accidentally, by the child receiving the drug orally.
20. The toxicology results were forwarded to the Edmonton Police Service (EPS) by April 7, 2017. This prompted a homicide investigation.
21. On April 7, 2017, a search warrant was authorized for the family home where Eliana died. Police located 2.7 gm of methamphetamine in a small plastic baggie in the nightstand next to the bed described above.
22. Another very similar baggie was found sitting on an open wastepaper basket, in the master bedroom, with what appeared to be drug residue, as well as several pipes and other paraphernalia commonly used to consume crystal methamphetamine.

23. The EPS charged Eliana's mother with second-degree murder for the death of her daughter. The preliminary inquiry was held June 4-6, 2018. Crown and defence jointly agreed that Eliana's mother should be committed to stand trial on the lesser charge of manslaughter.
24. Dr. Jones testified at the preliminary inquiry that it was possible for Eliana to have ingested methamphetamine through inadvertent exposure, such as a minuscule amount left on a finger sucked by Eliana, ingested during a diaper change, or inhaled if crystal meth was smoked in her vicinity.
25. No explanation or any evidence was ever uncovered as to how the infant ingested the drug. The manner of death was never established beyond what has been stated above.
26. The criminal charge was stayed by the Crown October 4, 2019.
27. One witness gave *viva voce* evidence at the Fatality Inquiry. Denise Milanowich is a Registered Nurse with some 18 years of experience at the time of giving her evidence. She described her position as a Maternal Newborn Consultant, responsible for developing and maintaining program standards in the creation of orientation material for nurses and educational material for parents in respect of newborn babies.
28. In reviewing the medical records in relation to Eliana, she concluded that they disclose nothing abnormal.
29. She went on to discuss advice and materials provided to new mothers with respect to such topics as breast-feeding, and advice given to mothers about what they should eat and drink. New mothers are taught and admonished that illegal drugs can be passed to a baby in some amount through breastmilk.
30. Mothers are told that drug use can cause poor milk letdown in the mother and can cause harm to the baby in various ways. Drugs can also get in the way of a mother's ability to care for her child. There are also extensive materials provided on Sudden Infant Death Syndrome, and how to reduce the risk of it, how to baby-proof the home, proper sleeping arrangements and safe sleep for infants, and so on.
31. In the material reviewed by the court through the witness, it appears that most of the information provided in respect to the use of illicit and other drugs is about parental use, and its impacts on the mother and her ability to parent. Impacts on the newborn are also discussed.
32. Nowhere does there appear to be clear educational material or information that the inadvertent ingestion of even a very small amount of methamphetamine [or other toxic drug] can have serious consequences for a newborn and can even be fatal.

Recommendations for the prevention of similar deaths:

The court would recommend that new mothers be advised not only of the issues raised by the use of toxic substances, including illicit drugs, by them, and the consequent impact on their child and their ability to parent, but also **the dangers of their use and mere presence** in the home of an infant.

The tragic death of Eliana demonstrates that the mere presence of such drugs can lead to the inadvertent transfer to and ingestion of such a drug by an infant. This is something that obviously can and must be prevented, by the removal of such drugs from the home. This needs to be made explicit to parents of newborns.

DATED April 2, 2024
at Edmonton, Alberta.

Original Signed

A Justice of the Alberta Court of Justice

T.D. DePoe
Justice, Alberta Court of Justice