FORM 37

Rule 60(1)

FINDING INTO DEATH WITH INQUEST

Section 67 of the ***Coroners Act 2008***

Court reference: 2220/08

In the Coroners Court of Victoria at Melbourne
I, IAIN TRELOAR WEST, Deputy State Coroner

having investigated the death of:

Details of deceased:

Surname: KOC
First name: ELANUR
Address: 46 Statesman Drive, Roxburgh Park, Victoria 3064

AND having held an inquest in relation to this death on 8th April, 2011
at Melbourne
find that the identity of the deceased was ELANUR KOC
and death occurred on or about the 24th May, 2008

at 46 Statesman Drive, Roxburgh Park, Victoria 3064

from
1a. PNEUMONIA IN A TODDLER WITH ENLARGED TONSILS AND PRESENCE OF CODEINE IN BLOOD

in the following circumstances:

1. Elanur Koc, aged 2 years, resided with her parents, Servet and Sibel Koc, at 46 Statesman Drive, Roxburgh Park. She had a past history of throat complications that led to enlarged and inflamed tonsils and the need for antibiotic treatment. The frequent re occurrence of this condition resulted in specialist referral and the decision being made to have her tonsils removed, with the procedure scheduled for a date in July 2008 at the Royal Children's Hospital.

2. On the evening of 23rd May 2008, Elanur had a runny nose and slight fever, resulting in her mother giving her either 5ml of Panamax, or Dimetapp cough syrup. After they went out to do some shopping, they retired for the night with the Elanur joining her mother in her bed. Elanur was heard to be snoring for about an hour before her mother got to sleep, however, when her mother woke the following morning, Elanur was cold and lifeless. Despite being immediately driven to the Northern Hospital by her parents and resuscitation protocols being implemented over a period of half an hour, Elanur was unable to be revived.

3. On the 27th May 2008, an autopsy examination was performed by Forensic Pathologist, Dr Michael Burke. Dr Burke concluded that a reasonable cause of death was "pneumonia in a toddler with enlarged tonsils and the presence of codeine in the blood." This finding followed toxicological analysis of post mortem body fluid and the presence of codeine

being detected in the blood. Codeine was also present in the urine, the liver, and the stomach contents, with these findings being said to be indicative of recent administration. Morphine was also detected at concentrations consistent with the metabolism of codeine, however, morphine administration in its own right could not be ruled out. In addition, hair analysis detected the presence of codeine in all segments of the hair, together with one segment also including morphine.

4. Elanur's mother and father gave evidence at the inquest, as did her General Practitioner, Dr Selim Kurnaz. Mrs Koc stated that she treated Elanur with Panamax and 'over the counter' Dimetapp, administering the latter between every second day and once a week. She further stated that Elanur was never regularly looked after by anyone other than herself or her husband and that apart from the specialist, Dr Kurnaz was her only treating doctor. Mrs Koc stated that she wouldn't give her daughter medication that she was not sure of, and that she did not give her medication she stored for her sons.

5. Dr Kurnaz told the inquest that he never prescribed medication for Elanur that contained codeine, as there was no indication for it and in any event, it is contra indicated for children under 10 years of age. He stated that he last saw Elanur 3 months prior to her death and that given her cause of death, he would have expected symptoms from her pneumonia, but that they could have been masked by the codeine. Further, an enquiry made of the treating specialist found that he had not prescribed medication containing codeine.

6. Dr Dimitri Gerostamoulos, a toxicologist and pharmacologist at the Victorian Institute of Forensic Medicine, told the inquest that Panamax syrup does not contain codeine, it being an analgesic which contains paracetamol. He further stated that whilst codeine is a cough suppressent, it is not recommended in children, as their immature metabolic capacity makes them more sensitive to the effects of the drug. In some children, who are extensive metabolizers, the amount of morphine produced can lead to respiratory depression and death. It is not known whether Elanur fell into this group. Following his evidence, Dr Gerostamoulos made enquiries with the product distributor of Dimetapp, Pfizer Australia, and was told that no product marketed in Australia under that name has ever contained codeine as an ingredient.

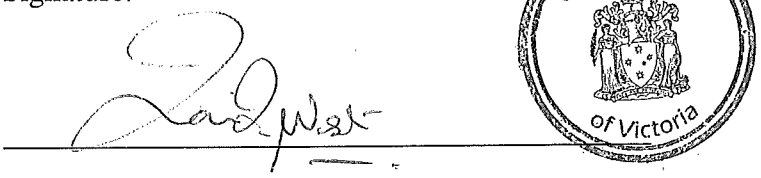
7. The unaccountable amount of codeine detected in Elanur's system and what role, if any, it played in her death, is a concerning issue. The inescapable conclusion is that it was administered by a parent, no doubt in an attempt to relieve Elanur's symptoms caused by her upper respiratory tract infection. Dr Gerostamoulos stated that it is difficult to quantify the exact concentration of codeine present at the time of death, due to post mortem redistribution. He explained that sampling taken from the chest cavity can give an increased reading that is different from sampling removed from the limbs. In this case, the sampling had to be chest cavity, as peripheral sampling from a leg or arm of a young child, is difficult due to their small blood vessel cavities. However, Dr Gerostamoulos stated that the amount of codeine detected in Elanur was significant, even allowing for post mortem redistribution. As to the findings of codeine in all the hair samples, Dr Gerostamoulas stated that it is possible that this was a post mortem artifact, as washing doesn't always remove post mortem contamination that can arise during the autopsy procedure. On the other hand, the finding could be indicative of codeine having been consistently administered over a long period of time, given it's presence in every hair segment cut from lengths of up to 8 cm.

8. The evidence before me does not permit a finding as to what role the codeine played in the death. The pathologist's finding is that Elanur died of pneumonia with the presence of codeine in her blood. This is not a finding that she die from codeine toxicity. Whilst morphine as a metabolite of the codeine has the potential to cause respiratory depression, there is no cogent

evidence that this occurred. In these circumstances it can only be speculative, and therefore unhelpful, to try and conclude what contribution the codeine and or the morphine played in the tragic outcome.

9. Whilst the parents blame the death on the hospital waiting list delaying the tonsillectomy, I am satisfied, that this was a background circumstance that was not causally related to the death.

Signature:



15th April 2011

DISTRIBUTION

- Family of deceased
- Dr. Selim Kurnaz
- Department of Human Services