MAGISTRATES COURT of TASMANIA

CORONIAL DIVISION

Record of Investigation into Death (Without Inquest)

Coroners Act 1995
Coroners Rules 2006
Rule 11

I, Rod Chandler, Coroner, having investigated the death of Maxwell John Free

Find that:

(a) The identity of the deceased is Maxwell John Free.

(b) Mr Free was born in Hobart on 3 September 1950 and was aged 64 years.

(c) Mr Free died on 26 September 2014 at the Royal Hobart Hospital (RHH) in Hobart.

(d) Mr Free died as a result of multiple organ failure due to paracetamol toxicity.

Background

Mr Free was a retired manual worker. He was married to Janet Fay Free. In his latter years he had poor health. His medical disorders included hypertension, chronic obstructive pulmonary disease, gastro-oesophageal reflux disease, diverticulitis, irritable bowel syndrome and benign prosthetic hypertrophy. In 2013 Mr Free was diagnosed with dementia. The following year he was diagnosed with psychogenic polydipsia although there is evidence that suggests this diagnosis to be incorrect. His wife was made his carer. She received some assistance with her husband's hygiene needs from a private care provider.

Circumstances Surrounding the Death

On 4 September 2014 Mr Free was admitted to Presbyterian Care Tasmania (PCT) in Hobart for respite care. To this point his medical care had been managed by general practitioner Dr Mark Ostberg, Ms Jane Davis, a nurse practitioner in aged care and geriatrician, Dr Frank Nicklason. At this time Ms Davis, in a facsimile transmission to Dr Ostberg summarised Mr Free's status, in part, in these terms:

> *"His main current problem is his dementia and poor insight into his needs. He is reluctant to get out of bed, generally eating less, becoming less tolerant of busy social situations. While he can still talk well and is generally continent, Dr Nicklason and I believe he is declining and will require more comfort care. Dr Frank Nicklason*

agrees that any burdensome investigations would not enhance Max's health and that the gradual decline with his dementia is inevitable……..."

On 5 September 2014 Mr Free collapsed at PCT and some seizure activity was noted by nursing staff. He regained consciousness after about five minutes. Dr Ostberg was contacted and it was decided to continue nursing him at the home. However, at about 5.00pm Mr Free was witnessed to have a full body seizure. He was then transported by ambulance to the RHH arriving at 6.29pm. Medical notes at the RHH indicate that Mr Free's goals of care were for comfort care/'not for resuscitation'. It was diagnosed that his seizure was likely secondary to low levels of electrolytes. He had electrolytes replacement and was monitored overnight. He was discharged back to PCT the following day and its notes suggest that he was happy and settled for the following few days.

Staff notes at PCT suggest a gradual decline in Mr Free's state of health from about 10 September. They suggest an increasing desire on Mr Free's part to remain in bed. They also record an incident on 18 September when Mr Free slid to the ground from a chair. On 26 September it is recorded that Mr Free was *"very sleepy this morning. He will rouse, his speech is a bit slurred. He was repeating 'I am very tired'. Family visiting and they are concerned about him."* An ambulance was called in response to a family request. It transported Mr Free to the RHH. It arrived at the RHH's Emergency Department at about 1.00pm. It was recorded in the medical notes that Mr Free was critically unwell with a fluctuating conscious state. He was tachypnoeic, had an increased work of breathing, was pale, cold and peripherally shut down. His mucous membranes were dry, he was hypotensive with absent peripheral pulses. He occasionally complained of a headache and groaned when his abdomen was palpated. The notes record, *"patient medically determined as palliative/terminal for comfort care."* The notes also record that Mr Free's family expressed concern that he had not been medically reviewed for three weeks. They reported multiple falls occurring in that time. Mr Free continued to deteriorate and he was pronounced deceased at 2.46pm.

Post-Mortem Examination

This was carried out by forensic pathologist, Dr Donald Ritchey. In his opinion the cause of Mr Free's death was multiple organ failure due to paracetamol toxicity. (Toxicology testing showed the level of paracetamol to be 43mg/L and in the reported toxic range.) In his report Dr Ritchey includes these helpful comments:

"Toxicology testing of blood obtained at autopsy revealed numerous prescription medications in addition to a markedly elevated concentration of paracetamol. Detailed evaluation of a single paracetamol concentration is almost impossible without specific knowledge of the interval between ingestion and measurement of the drug. Also paracetamol is subject to post-mortem redistribution, an effect that further complicates interpreting this single (post-mortem) blood concentration.

"Although these findings are complex and subject to the limitations described above,

it is my interpretation of this data to suggest that the multiple organ failure that caused Mr Free's death was likely the result of paracetamol toxicity.

"Paracetamol is widely available in many over-the-counter and prescription medications where is (sic) used as an analgesic to treat pain and antipyretic to treat fever. Overdose of paracetamol often causes toxic injury to the liver where fulminant hepatic failure and secondary multiple organ failure result in death."

Investigation

This has included consideration of:

- Affidavits provided by Mrs Free and by Mrs Margaret Bailey, eldest sister of Mr Free.
- A précis of Mr Free's records at PCT and at RHH made by research nurse, Ms L K Newman.
- Mr Free's Patient Health Summary provided by Dr Ostberg.
- Reports provided by Ms Davis, Dr Ostberg and Dr Nicklason.
- A report compiled by Dr A J Bell in his capacity as medical adviser to the coroner following his review of Mr Free's medical care.

Dr Ostberg advises that he became Mr Free's general practitioner in 2001. He first prescribed paracetamol for Mr Free on 15 May 2002. The dose was 500mg four times daily if required and was intended to help Mr Free manage his low back and abdominal pain. This dosage was ongoing although a change was made to the longer acting formulation of Panadol Osteo on 11 June 2014. During 2014 Mr Free had regular kidney and liver function tests arranged by Dr Ostberg, the last being on 15 July 2014. After his admission to PCT Mr Free continued to be administered paracetamol at the dose prescribed by Dr Ostberg.

In his report Dr Bell makes these observations:

1. Results from blood tests carried out by RHH on 5 September 2014 showed that Mr Free suffered from hyponatraemia consistent with his family history along with hyperphosphataemia and a normocytic anaemia, both evidencing renal failure.

2. Diagnosis of chronic paracetamol intoxication is often difficult and requires the combination of an astute history and recognition of typical clinical and laboratory abnormalities. Signs and symptoms are insidious in onset, often nonspecific, and easily confused with alternative diagnoses.

3. That when Mr Free presented at the RHH on 26 September he was suffering from severe renal failure, severe liver failure and an elevated white cell count. His condition was irrecoverable.

4. There is suggestive, but not definitive evidence that chronic, especially daily paracetamol use is nephrotoxic, i.e. has a destructive effect upon cells of the kidney. Older age, fasting and dehydration are associated with increased toxicity.

5. That Mr Free's acute renal failure and liver failure were most probably related to chronic paracetamol toxicity.

6. That continual long term usage of paracetamol should be avoided if possible. When long term use is indicated then the known factors for chronic paracetamol toxicity must be considered. These include increasing age, nutritional status, chronic alcohol usage and medications.

Findings, Comments and Recommendations

I accept that Mr Free died as a result of multiple organ failure due to paracetamol toxicity as opined by Dr Ritchey and endorsed by Dr Bell.

The evidence shows that Mr Free had been taking a regular daily dosage of paracetamol for in excess of twelve years prior to his death. Its apparent purpose was to provide pain relief. Mr Free's unfortunate death is a clear demonstration of the risks associated with this treatment strategy and should serve as a reminder to all medical practitioners of the need to be alert to those factors identified by Dr Bell which, I accept, heightens that risk.

I accept the opinion of Dr Bell that chronic paracetamol intoxication is a difficult diagnosis to make. In Mr Free's case I am not satisfied that the signs and symptoms of his condition were sufficiently obvious to have enabled the diagnosis to have been made at an earlier time when remedial treatment may have been an option. I therefore make no criticism of his treaters in this respect.

I have decided not to hold a public inquest into this death because my investigation has sufficiently disclosed the identity of the deceased, the date, place, cause of death, relevant circumstances concerning how his death occurred and the particulars needed to register his death under the *Births, Deaths and Marriages Registration Act 1999*. I do not consider that the holding of a public inquest would elicit any significant information further to that disclosed by the investigation conducted by me.

I convey my sincere condolences to the family and loved ones of Mr Free.

Dated: 22 February 2017 at Hobart in the State of Tasmania.

Rod Chandler
Coroner