MAGISTRATES COURT TASMANIA

MAGISTRATES COURT *of* TASMANIA

CORONIAL DIVISION

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 IY

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

a) The identity of the deceased is IY;

b) IY died in the circumstances set out below;

c) IY's cause of death was an acute exacerbation of chronic obstructive pulmonary disease due to the inhalation of a volatile hydrocarbon, xylene, while spray painting a motor vehicle; and

d) IY died on 11 February 2022 at Tunnack, Tasmania.

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

- The Police Report of Death for the Coroner;
- Affidavits as to identity;
- Affidavit of the forensic pathologist Dr Andrew Reid;
- Report of the forensic scientist Mr Michael Manthey of Forensic Science Service Tasmania;
- Affidavit of the forensic scientist Mr Neil McLachlan-Troup of Forensic Science Service Tasmania;
- Medical records obtained from the general practitioner Dr Michael Lees;
- Records obtained from Ambulance Tasmania (AT);
- Medical records obtained from the Royal Hobart Hospital (RHH);
- Affidavit of CD; and

- Reports of the coronial medical consultant Dr Anthony Bell MB BS MD FRACP FCICM.

Background

IY was 54 years of age (date of birth 28 May 1967), married to CD and he resided with her at Tunnack in Tasmania at the date of his death.

CD met IY in 1989 at which time he had a daughter. CD and IY married on 7 December 1990 and at that time they were living at Parattah. They had their first child, a son, in 1990 and a daughter in 1993.

At the time CD met IY he was working as a truck driver. They separated in 1995 and CD left with the 2 children and lived with her sister in Launceston for approximately 12 months before she and the 2 children rented a home in Claremont. After about a further 12 months the family returned to Launceston.

During their separation CD kept in contact with IY. She learned during that period he had another child, and he was involved in an accident while working in a logging coupe. CD understands an excavator operator swung the arm of the excavator around while holding onto a log which struck IY in the back. He suffered, amongst other things, spinal injuries and he had since experienced some difficulties with his kidneys. After some time recovering, he returned to work but in his later years he suffered from ongoing pain as a result of the injuries sustained in that accident. IY received a disability support pension because of the injuries sustained in the accident.

After about 5 years of separation CD reunited with IY and she and the children returned to live with him at Parattah. He then purchased his own excavator and worked for himself as a subcontractor for the next 5 to 6 years. He then ran into financial difficulties which resulted in his machinery being sold. The family then sold the property in Parattah and rented for a period prior to purchasing a property at Tunnack which is the property IY remained living in until his death.

CD says although IY was a truck and excavator driver he was interested in panel beating and spray-painting vehicles. He was passionate about restoring old motor vehicles. His interest in spray-painting was only a hobby until the family moved to Tunnack at which time he did more of this type of work.

CD says her husband conducted spray-painting and panel beating work for friends and family. While IY normally performed the work for free he would sometimes receive cash in return. In order to carry out this work IY converted a large shed into a workshop, and he acquired all the necessary equipment. CD says while spray-painting IY did not wear any protective equipment such as masks or goggles apart from his work boots. His son purchased IY a spray painter's suit and mask which he used once but ceased wearing because he did not like it. CD often told IY he needed to use a mask while spray-painting but he would not listen to her.

Health

The records of IY's general practitioner at Oatlands cover the period 22 December 2002 until he last saw a general practitioner on 25 January 2022. For about the first 6 years he saw Dr Gray, then for the next 3 years he essentially saw Dr Simpson of the same practice. Then in March 2012 IY commenced to see Dr Lees however from that point on he saw both Dr Simpson and Dr Lees until October 2017 when he also began seeing Dr McGushin at the same practice. IY last saw Dr Simpson on 29 January 2020 and from September 2020 IY also saw Dr Greenhill in addition to Dr McGushin and Dr Lees. He last saw Dr Greenhill on 11 December 2020 and Dr McGushin on 27 August 2021. From that date until January 2022 IY only saw Dr Lees. These records indicate IY had chronic back pain, had undergone a carpal tunnel release, had right shoulder pain and in 2017 a sub arachnoid bleed. He also had difficulties with depression due to his poor health. For many years IYs' general practitioner was authorised by the Chief Pharmacist of the Pharmaceutical Services Branch of the Department of Health to prescribe the narcotic oxycodone at the rate of 90 tablets per month because of IYs' shoulder pain and severe headaches. The general practitioner was last authorised to prescribe that medication for a period of 2 years from 16 September 2021. The Chief Pharmacist is responsible for administering the *Poisons Act* 1971. The authorisation to prescribe narcotics is granted by the chief pharmacist under s59E of that Act; and in order to protect public health the Chief Pharmacist needs to be satisfied the prescription of such medication is appropriate.

The records of the RHH indicate IY has had operative treatment for aneurysms in 2017 and follow-up neurosurgery reviews later in 2017 and in 2019 and 2021. Following the procedures he suffered from tremors of the hands, headaches and his gait was ataxic. He has also been treated in the orthopaedic outpatient's department in 2021 and in the physiotherapy outpatient clinic for L4 – 5-disc derangement in 2014 and 2021. In addition, IY was treated for many years for chest pain which commenced in about 2011. He was seeing the cardiologist Dr Black in 2014, 2019 and 2020 for chest pain. A CT coronary angiogram

showed that in July 2019 he had coronary atherosclerosis but no significant narrowing of the coronary arteries.

Records from last century confirm the work accident, when IY was hit by the log, occurred on 30 April 1999 and on 3 November 1997 and 1 July 1998 IY suffered from head and neck trauma when he fell off a roof and fell a number of metres to the ground.

More recent admissions to the RHH occurred between 28 April and 8 May 2017 with respect to the bilateral middle cerebral artery aneurysm clipping; that procedure taking place on 3 May 2017 and a follow-up admission on 25 May 2017 because of ongoing difficulties relating to that surgery. Then between 11 and 12 November 2020 and between 27 and 29 November 2020 IY was admitted for migraines on the left side and facial numbness which commenced after the 2017 surgical procedure. As at November 2020 it was common for him to experience headaches approximately twice per week which resolved once he took endone. His final admission took place between 15 and 16 April 2021 at which time he underwent a right shoulder acromioplasty[1], rotator cuff repair and biceps tenotomy[2].

A cardiologist's report of 16 April 2019 notes IY's multiple cerebral aneurysms some of which had been clipped and a family history of aneurysm. The report also noted his long-standing severe back pain which spanned at least 2 decades. In addition, for some years he experienced episodes at rest of breathing distress as if he was suffocating, he was aware his heartbeat was fast and there may be localised pain in the centre of the chest which was worse with breathing and a sensation of dizziness. The report indicates these episodes occurred for many years, they settled spontaneously, and they were never effort related.

Circumstances Leading to Death

On 11 February 2022 CD and IY were at home. IY was in the shed working on a motor vehicle that required panel beating and re-spraying. CD says he had already done the preparatory work in relation to the vehicle and the next job he had to do was spray paint the rear quarter panel. While performing this work CD walked into the shed to obtain some photographs of the vehicle. She says the shed has a large roller door which was fully opened. There is a door next to the roller door which was also open. IY was sitting on his stool next to the rear left quarter panel and was spray-painting. He was not wearing any protective gear.

[1] This is a surgical procedure that involves shaving away part of the shoulder bone called the acromion. The procedure is carried out to relieve the impingement of the rotator cuff tendon that supports and strengthens the shoulder joint.

[2] A tenotomy is a surgical procedure which involves the division of a tendon. It and related procedures are also referred to as tendon release, tendon lengthening, and heel-cord release.

When IY finished spray-painting, and after CD had taken the necessary photographs, IY asked her to make him a cup of tea. She went back inside their home to make the tea. Five minutes later IY came to the front door of their home and opened it. He called CD's name and walked through the house and into the bedroom. He appeared normal apart from the fact she noticed a slight colour change in his face. He then sat down on his side of the bed and asked CD to give him her CPAP machine[3] after which he placed the mask on his face. CD turned the machine on. It was set to her normal setting. IY then fell back on the bed and while lying there he has again put the mask to his face. He then threw the mask across the bed and sat upright. He clutched his chest and swore before laying back down. CD ran to get her phone and she called 000. She followed the operator's instructions which included moving IY to the floor and performing CPR. She says a short time later ambulance personnel arrived and took over treatment. She was then advised IY had passed away.

Investigation

The records of AT indicate the call was received to attend IY's residence at 1:51 PM. The ambulance arrived 25 minutes later. It was noted because of the layout of the room and because IY was found lying against the wall and bed the CPR which had been provided was not adequate. On examination no pulse could be found, IY was not breathing, and his pupils were dilated and fixed. No heart sounds were heard. An ECG[4] found the heart to be in asystole[5]. IY could not be revived, and he was declared deceased.

Dr Reid conducted a post-mortem examination on 15 February 2022. He noted, amongst other things, IY weighed 133.9 kg. Photographs he accessed through the forensic register depicted the vehicle in the shed with wet paint on the rear passenger quarter panel with drop sheets and paper on the surfaces around this. In addition, a strong smell of paint and chemicals was experienced by the forensics officer who was present. Nearby there were several metal tins containing solvents and similar substances and there was a tin of purple paint. All the tins had warnings on them indicating the substances should not be inhaled. In addition, there was mixed paint in a jug on a yellow step near to where the panel was being sprayed and there was a spray gun connected to an air hose nearby hooked onto a box. The hose led to a large air compressor which was located inside the shed. Dr Reid also noted IY had remnants of purple paint in his nostrils and on his hands and clothes.

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[3] A CPAP machine is a general term to describe machines that treat sleep apnoea. The machine delivers air through tubing and into a mask to keep a person's airway open while he or she sleeps. This process, known as sleep therapy, is designed to assist that person to obtain a restful night's sleep.
[4] An electrocardiogram (ECG) is a simple, non-invasive test that records the electrical activity of the heart. An ECG can help diagnose certain heart conditions, including abnormal heart rhythms and coronary heart disease (heart attack and angina).
[5] Asystole is when the heart's electrical system fails, causing the heart to stop pumping.

Dr Reid's internal examination showed IY had coronary atherosclerosis[6], mild chronic bronchitis and emphysema changes and an implanted cardiac device[7] together with gliosis[8] at the site of previous neurovascular surgery. He noted the results of toxicology, and the microbiology results confirmed the SARS coronavirus 2 was not detected[9]. Chemical testing showed trace levels of xylene in the lungs of IY.

As a result of Dr Reid's examination and consideration of the test results he determined there had been an acute exacerbation of IY's chronic obstructive pulmonary disease which was caused by the inhalation of xylene, a volatile hydrocarbon, which occurred while IY was spray-painting. Dr Reid says in addition to the chronic obstructive pulmonary disease, serotonin syndrome which is associated with mixed drug toxicity, were significant contributory conditions. There was blue green, yellow material in his airway consistent with the inhalation/aspiration of paint pigment.

IY's cardiac device was interrogated at the post-mortem. It showed dysrhythmias/arrhythmias[10] which corresponded with IY's cardio respiratory arrest which proceeded his terminal asystolic sudden death. Dr Reid says the nature and degree of the slow dysrhythmia was more consistent with hypoxaemia[11] associated with respiratory failure, rather than a primary, ischaemic cardiac related event. I accept Dr Reid's opinion.

I arranged for the coronial medical consultant Dr Anthony Bell to review the medical treatment and prescription of medication provided to IY. Apart from the significant history in relation to the treatment of the cerebral aneurysms Dr Bell noted a significant history of chronic obstructive pulmonary disease (COPD)[12]. He noted in this case IY suffered hypoxaemia after using a volatile hydrocarbon while spray-painting. He agreed with Dr Reid, IY's death appeared to be hypoxic rather than cardiac in nature. He noted the results of the cardiac loop monitor which showed on 11 February 2022 at 12:50 PM IY's heart rate was 120 bpm declining to 30 to 40 bpm for 1 minute and 16 seconds. At 12:52 PM there was a

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[6] Coronary artery disease is caused by plaque build-up in the wall of the arteries that supply blood to the heart (called coronary arteries). Plaque is made up of cholesterol deposits. Plaque build-up causes the inside of the arteries to narrow over time. This process is called atherosclerosis.

[7] The cardiac monitor was inserted in the subcutaneous tissue of the left chest. It is patient activated and automatically records subcutaneous ECG. It is indicated in patients with acute coronary syndrome or where a patient is at increased risk of cardiac arrhythmias.

[8] Gliosis is a nonspecific reactive change of glial cells in response to damage to the central nervous system.

[9] That is IY did not have the COVID virus.

[10] A cardiac dysrhythmia (arrhythmia) is an abnormal or irregular heartbeat. If a person has a dysrhythmia, their heart might beat too fast or too slowly.

[11] A low level of oxygen in the blood. It starts in the arteries.

[12] COPD is a progressive lung disease characterized by long-term respiratory symptoms and airflow limitation. The main symptoms of COPD include shortness of breath and a cough, which may or may not produce mucus

further episode of bradycardia[13] as well as a widening QRS duration[14] and decreasing QRS amplitude. At 12:57 PM signs of death are seen on the monitoring. After considering all the evidence in this matter Dr Bell advised there were no medical issues with respect to IY's treatment. I accept Dr Bell's opinion.

As to prescribing Dr Bell noted the following past significant prescribing history:

- 5 March 2018: Severe depression prescribed mirtazapine
- 25 March 2018: lower back pain, little on MRI scan of the lumber spine, prescribed tramadol, on top of usual oxycodone (approved Pharmaceutical Services Branch)
- 11 December 2020: mirtazapine weaned and amitriptyline started and to titrate upward
- 7 January 2021: commenced on fluoxetine (as per RHH clinic)
- 2 February 2021: commenced on Topiramate (as per neurologist)
- 18 March 2021: commenced on galcanezumab (stop the activity of calcitonin gene-related peptide to prevent migraine) (as per neurologist)
- 30 April 2021: weaning Topiramate as galcanezumab effective 70% reduction in migraine
- 25 January 2022: Last GP visit no specific issues

The results of toxicology showed IY was consuming:

- Tramadol: a narcotic pain killer;
- Amitriptyline: a tricyclic antidepressant; and
- Fluoxetine: a selective serotonin reuptake inhibitor.

Dr Bell says serotonin syndrome is a potentially lethal condition caused by overstimulation of central and peripheral serotonin receptors. It typically results from an interaction between multiple medications that increase serotonergic neurotransmission. However, the syndrome can occur after initiating or increasing a single serotonergic drug. Clinical features include anxiety, agitation, delirium, diaphoresis, tachycardia, hypertension, hyperthermia, gastrointestinal distress, tremor, muscle rigidity, myoclonus, and hyperreflexia.

Drugs that interact with fluoxetine include tramadol.

[13] A slower than normal heart rate.
[14] This is indicative of heart failure.

After considering the prescriptions provided to IY over a period of in excess of **1**4 years Dr Bell says the prescribing appears to him to be sound. There was no clinical evidence of serotonin syndrome, which is a clinical diagnosis. The drugs had been used for several years without issue and dose changes. He therefore concluded there were no prescribing issues. I accept Dr Bell's opinion.

Comments and Recommendations

Unfortunately, IY passed away when he inhaled xylene while spray-painting a motor vehicle which brought on an acute exacerbation of his chronic obstructive pulmonary disease. This occurred in circumstances where he was spray-painting in a shed which was not properly ventilated[15] and/or when he was not wearing personal protective equipment. It is clear from the advice IY received from CD and the warnings on the paint tins not to inhale the fumes that he ought to have been using personal protective equipment.

In a professional setting where a person is working as a spray painter by trade one would expect his or her employer to provide and enforce the use of personal protective equipment and provide adequate ventilation so that the toxic fumes of the substances used are not inhaled by the employee. The employer has of course a statutory obligation to do so[16]. If a person conducts panel beating and spray-painting work as either a hobby or second job where he or she works by him or herself then I strongly **recommend** that person seeks and follows professional advice as to what ventilation is required and what personal protective equipment should be used.

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

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

Dated: 25 October 2023 at Hobart in the State of Tasmania.

Robert Webster
Coroner

[15] This is the opinion of Dr Reid; see page 81 of the RHH records.
[16] See s19 of the *Work Health and Safety Act* 2012.