IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2016 001020

**FINDING INTO DEATH WITHOUT INQUEST**

*Form 38 Rule 60(2)*

*Section 67 of the Coroners Act 2008*

Amended pursuant to section 76 of the Act on 28 November 2017[1]

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| Findings of: | Peter Charles White, Coroner |
| Deceased: | Alexander James McCulloch |
| Date of birth: | 27 September 1980 |
| Date of death: | 5 March 2016 |
| Cause of death: | Complications of morbid obesity in a man with cardiomegaly and schizophrenia |
| Place of death: | Narre Warren South |

[1] The mental health service providing care to Mr McCulloch was incorrectly identified in the original finding.

I, PETER CHARLES WHITE, Coroner,

having investigated the death of ALEXANDER JAMES McCULLOCH

without holding an inquest:

find that the identity of the deceased was ALEXANDER JAMES McCULLOCH

born on 27 September 1980

and that the death occurred on 5 March 2016

at 72 Amberley Park Drive, Narre Warren South, Victoria 3805

**from:**

I (a) COMPLICATIONS OF MORBID OBESITY IN A MAN WITH CARDIOMEGALY AND SCHIZOPHRENIA

Pursuant to section 67(1) of the **Coroners Act 2008**, I make findings with respect to **the following circumstances**:

1. Mr McCulloch was a 35-year old disability support pensioner who lived with his father in Narre Warren South. He had a medical history that included an acquired brain injury, periods of substance abuse, heavy tobacco smoking and obesity.

2. Mr McCulloch was diagnosed with schizophrenia in 2007, had regular psychiatric admissions and, at the time of his death, was subject to a compulsory treatment order under the *Mental Health Act* (Vic) 2014 [MHA] with his care managed by Monash Health's Casey Continuing Care Team [CCCT]. A number of antipsychotic medications had been trialled to manage his psychiatric symptoms including irritability, auditory hallucinations, paranoia and disorganised behaviours, with limited success. A brief trial of clozapine was ceased when it led to myocarditis[2] and so, after March 2015, Mr McCulloch was prescribed antipsychotics fluphenthixol deaconate 400mgs administered in fortnightly depot injections and oral olanzapine 20mg at night.

3. Just before midnight on 4 March 2016, Mr McCulloch went to bed.

4. Around 2.30pm on 5 March 2016, Mr McCulloch's father entered his son's room to let him know he was going out. Mr McCulloch senior found his son unresponsive and apparently deceased in bed. He called for an ambulance and the attending paramedics confirmed that Mr McCulloch was dead.

5. Forensic pathologist, Dr Sarah Parsons of the Victorian Institute of Forensic Medicine, reviewed the circumstances of the death as reported by police to the coroner, post-mortem computer assisted tomography [PMCT] scans of the whole body and performed an autopsy.

[2] Also known as inflammatory cardiomyopathy, myocarditis is inflammation of the heart muscle with symptoms including shortness of breath, chest pain, decreased ability to exercise and an irregular heartbeat.

Among Dr Parson's anatomical findings were morbid obesity (BMI[3] 45), cardiomegaly, pulmonary oedema and hepatic steatosis with increased fibrosis.

6. Post-mortem toxicology detected zuclopenthixol and olanzapine at levels consistent with therapeutic use.

7. Dr Parsons observed that Mr McCulloch's heart was enlarged and that this condition is known to increase the risk of sudden death, presumably due to a cardiac arrhythmia. Although hypertension is the most common cause of cardiomegaly in the community, Mr McCulloch had no history of hypertension and none of his other organs demonstrated changes indicative of the condition. Obesity is a risk factor for cardiomegaly.

8. The pathologist commented that morbid obesity increases the risk of sudden death and many mechanisms have been postulated. Morbidly obese individuals are more likely to have sleep apnoea which can lead to right heart failure and increased risk of cardiac arrhythmia. Other suggested mechanisms include metabolic disorders and complications of a fatty liver.

9. Noting Mr McCulloch's history of schizophrenia, Dr Parsons observed that people with schizophrenia are also at increased risk of sudden death. While the exact mechanism is unclear, a number of antipsychotic medications can cause changes to the heart such as prolonged QT interval which can lead to sudden death.

10. Dr Parsons attributed the cause of Mr McCulloch's death to complications of morbid obesity in a man with cardiomegaly and schizophrenia.

11. At my request, the Court's Coroners Prevention Unit [CPU][4] obtained further statements from Monash Health and Pound Medical Centre, Mr McCulloch's general medical practice, and provided advice about management of Mr McCulloch's physical health proximate to his death. The CPU advised:

    a. Mr McCulloch's BMI was 37.3 in December 2013, 37.1 in September 2015 and at the time of his death was 45. He smoked, drank a lot of Coca-Cola, had a poor diet and did not exercise bit it is not known whether he had other biochemical risk factors

[3] BMI is an abbreviation of body mass index, a value derived from the mass and height of an individual. BMI is an attempt to quantify the amount of tissue mass in an individual and then categorise that person as underweight, normal weight, overweight, obese or morbidly obese.

[4] The Coroners Prevention Unit [CPU] was established in 2008 to strengthen the prevention role of the Coroner. CPU assists the Coroner to formulate prevention recommendations and comments, and monitors and evaluates their effectiveness once published. There are two clinical branches of CPU, the Health and Medical Investigation Team [HMIT] and Mental Health Investigators [MHI] are staffed by practising physicians and nurses who are independent of the health professionals or institutions involved in a coronial investigation. They assist the Coroner's investigation of deaths occurring in a healthcare setting by evaluating the clinical management and care provided and identifying areas of improvement so that similar deaths may be avoided in the future.

such as high cholesterol or diabetes. It is also not clear whether or to what extent his acquired brain injury impacted Mr McCulloch's functional ability.

b. Mr McCulloch's CCCT psychiatrist and case manager provided statements confirming their attempts to encourage him to see his general practitioner about his physical health and Mr McCulloch's reluctance to do so. Mr McCulloch was clinically reviewed by his case manager, medical officers and psychiatrist and the issue of his increasing weight and physical health concerns were documented in medical records. He was educated about changes to his diet, increasing exercise and reducing smoking. The outcome of each of these reviews was for Mr McCulloch or his father to arrange for him to see his GP. However these is no evidence that CCCT made contact with the Pound Medical Centre after March 2015.

c. In a statement, GP Dr Telge Peiris reported that Mr McCulloch's last consultations occurred in April and August 2015 and had included attempts by him to educate his patient about healthy eating, exercise and smoking reduction. Mr McCulloch's refusal of recommended biochemical screening was documented in the records. The GP notes limited communication from psychiatric services involved in Mr McCulloch's care, the last contact being a discharge summary from Monash Health in March 2015 following an inpatient admission. However, there is no evidence Pound Medical Centre attempted to contact Monash Health psychiatric services or that Mr McCulloch consulted another GP.

d. It is recognised that the occurrence of sudden death in people with schizophrenia is 2.5 times higher than the general population and life expectancy is reduced by up to 18 years. Factors contributing to the mortality rate of schizophrenics are complex and, although people with schizophrenia have high rates of suicide compared to the general population, most of the excess of mortality is due to natural causes, particularly involving circulatory and respiratory diseases.

e. The underlying reasons for premature natural death in this population are not known with certainty, however, people with schizophrenia have elevations in six modifiable risk factors for mortality: smoking, hypertension, raised blood levels of glucose, physical inactivity, obesity and high cholesterol. In addition, mortality in schizophrenia may be increased by drug and alcohol abuse, found to be disproportionately high in this population, as well as by suboptimal medical treatment and the overall social disadvantages experienced by many with the

disorder. Adverse effects of antipsychotic medications have also been identified as a cause of excess mortality in some studies.

f. There is no doubt that staff at Monash Health and the Pound Medical Centre were aware of Mr McCulloch's increased risks given his lifestyle and morbid obesity and both gave advice and encouragement about addressing these issues. Nonetheless, Mr McCulloch was a patient of the public mental health system and subject to compulsory treatment in the community under the MHA because he did not want to take medications if he had a choice. While normalising care pathways for people with a mental illness involves referring them to a GP for physical health matters, this is only an appropriate course if confirmed to be effective in mitigating the identified risks to health or when other avenues have been considered or trialled by the mental health service in consultation with the patient's GP.

g. Mr McCulloch last saw his GP six months before his death and there were no documented attempts by either the GP or CCCT to liaise about his care in the interim or attempt by the GP to contact Mr McCulloch. Effective communication between services that aim to be collaborative and client-centred may not have prevented Mr McCulloch's death but at the very least would have provided each service/practitioner information about the effectiveness of leaving responsibility for Mr McCulloch's physical health with him and his father. Further, it would have informed the progress of the CCCT's goal in the April 2015 Treatment and Recovery Plan of improving his physical health and helped to identify alternative approaches to mitigating risk factors when the current approach was found not to be working.

12. I find that Mr McCulloch, late of 72 Amberley Park Drive, Narre Warren South, died there on 5 March 2016 and that the cause of his death was complications of morbid obesity in a man with cardiomegaly and schizophrenia.

## COMMENTS

Pursuant to section 67(3) of the *Coroners Act* 2008, I make the following comment connected with the death:

1. Mental health services and general practitioners recognise that people with a diagnosis of schizophrenia have a greater likelihood of experiencing modifiable risk factors that are

known to contribute to an increased risk of death from natural causes.[4] It is increasingly incumbent upon mental health services with the support of primary care services to take a proactive and collaborative approach to mitigating the risks, especially in circumstances where restrictive provisions of legislation such as the *Mental Health Act* 2014 (Vic) is applicable.[5]

I direct that a copy of this finding be provided to the following:

Mr Alexander McCulloch

Monash Health

Pound Medical Centre

Office of the Chief Psychiatrist

Mental Health Tribunal

Signature:

**PETER CHARLES WHITE**
CORONER
Date: 17/11/2017.

Coroners Court of Victoria

[4] Lambert, T & Newcomer, J, 2009. Pathways to schizophrenia: are the cardiometabolic complications of schizophrenia still neglected? Barriers to care. Medical Journal of Australia, 190:4.
[5] Australian Government, Ministerial Advisory Committee on Mental Health: Improving the physical health of people with severe mental illness: No mental health without physical health Report, www2.health.vic.gov.au/.../%7B59D51CD-E855-455C-9BEA-37B8E7E2ED.