



MAGISTRATES COURT of TASMANIA



CORONIAL DIVISION

Record of Investigation into Death (Without Inquest)

*Coroners Act 1995
Coroners Rules 2006
Rule 11*

I, Olivia McTaggart, Coroner, having investigated the death of Shayne Edward Porteous

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

- a) The identity of the deceased is Shayne Edward Porteous;
- b) Mr Porteous died in the circumstances set out in the finding;
- c) The cause of death was mixed drug toxicity (tramadol and sertraline); and
- d) Mr Porteous died on 25 September 2016 at Railton in Tasmania.

In making the above findings I have had regard to the evidence gained in the comprehensive investigation into Mr Porteous' death. The evidence comprises an opinion of the pathologist who conducted the autopsy; an opinion of the coronial medical consultant; relevant police and witness affidavits; medical records and reports; and forensic evidence.

Mr Porteous was born in Rockhampton, Queensland on 24 November 1956 and was aged 59 years. He was living in a long-term defacto relationship with Ms Anita Beveridge and they had no children together. At the time of his death, Mr Porteous was unemployed.

Mr Porteous had suffered chronic back pain for 17 years. In 1999 he was diagnosed with degeneration of the thoracic spine. His medical history also included ischaemic heart disease, myocardial infarction requiring coronary artery stents, hypercholesterolaemia, hypertension and depression. At the time of his death, he was primarily being treated by his general practitioner, Dr Chris Loubser, for his back pain and depression.

Mr Porteous had been prescribed a large number of medications over a prolonged period of time for his severe back pain. These included Endone (oxycodone), tramadol, baclofen, and celebrex. He was also prescribed sertraline for his depressive condition.

On 13 July 2016 Dr Loubser prescribed a reduced dose of tramadol to Mr Porteous being 1x150mg slow release tablet in the morning, and 1x100mg slow release tablet in the evening.

On 7 September 2016 Dr Loubser increased Mr Porteous' daily dose of sertraline from 100mg daily to 150mg daily. This decision was made due to Mr Porteous suffering greater emotional instability.

Ms Beveridge would assist Mr Porteous with his medication regime by putting Mr Porteous' tablets into weekly medication containers to ensure that he took the correct medication and doses. In her affidavit for the investigation, Ms Beveridge states that Mr Porteous always double-checked what he was taking and was well aware of what he was supposed to take and when. It does not appear that Ms Beveridge was responsible for ensuring that Mr Porteous actually ingested his correct doses of medication. The evidence indicates that Mr Porteous was diligent with his medication regime and that Ms Beveridge rightly had confidence that Mr Porteous would take only his prescribed doses.

On 24 September 2016 Mr Porteous stayed up late making model boats with Ms Beveridge. At around 2.30am in the morning, 25 September 2016, Mr Porteous complained of lower leg pain and said his leg was stiff. Mr Porteous went to the bathroom and when he returned to the lounge room he fell on the floor. Ms Beveridge believed that he was having a seizure and phoned an ambulance.

When paramedics arrived Mr Porteous was sitting in a chair in the lounge room and was able to describe his pain to them. He described a 'spasm' in his leg. Mr Porteous was anxious, agitated and disoriented. He had high blood pressure, sweating skin and was in moderate respiratory distress. Oxygen therapy was commenced. Over the following five minutes Mr Porteous' heart rate slowed and he became unconscious. His pulse then disappeared. Resuscitation was commenced but there was no return of circulation after a period of 48 minutes. Subsequently, at 4.00am the paramedics determined that he was deceased.

A post mortem was performed by pathologist, Dr Rosanne Devadas. Dr Devadas found no anatomical cause of death for Mr Porteous. Blood samples taken at autopsy were forensically examined by scientists at Forensic Science Service Tasmania which showed that tramadol was present in a concentration reported to result in symptoms of toxicity or fatality.

Sertraline was also identified at an elevated level. In the toxicology report, it is observed that both drugs are serotonergic agents, and their combined use, at elevated concentrations, may result in symptoms of serotonin toxicity, also known as 'serotonin syndrome'. This is a potentially life-threatening condition associated with increased serotonergic activity in the central nervous system. It is caused by therapeutic medication use, inadvertent interactions between drugs and intentional self-poisoning. The diagnosis of serotonin syndrome is made solely on clinical grounds by obtaining a detailed history in conjunction with a thorough physical and neurologic examination.

Based upon her lack of findings at autopsy and the results of the toxicological testing, Dr Devadas formed the view that the cause of Mr Porteous' death was drug toxicity caused by ingestion of tramadol and sertraline.

After reviewing the initial police investigation, I sought further information regarding the amounts of medication ingested by Mr Porteous prior to his death. I also sought a review by the coronial medical consultant, Dr A J Bell, regarding medical issues surrounding the circumstances and cause of death.

Dr Bell initially noted that the tramadol prescribed by Dr Loubser for the chronic pain suffered by Mr Porteous was not excessive with regard to Australian guidelines. The maximum recommended daily dose of tramadol under the guidelines is 400mg.

It is apparent from the medical records that on 13 July 2016, two months before Mr Porteous' death, the tramadol prescription was changed and reduced by Dr Loubser so that Mr Porteous was to take 150mg of tramadol (being one tablet) in the morning and 100mg (being one tablet from a separate prescription) in the evening. However, Ms Beveridge, in her affidavit, clearly stated that Mr Porteous took two tramadol tablets in the morning and two tramadol tablets at night. She did not recall the dosages of the tablets. Nevertheless, her evidence demonstrates that Mr Porteous was taking double the prescribed dose of tramadol, equating to ingesting a quantity of 500mg per day. This amount is higher, by 100mg, than that recommended as the maximum safe daily dose.

Additionally, on 7 September 2016, Dr Loubser increased Mr Porteous' daily dose of antidepressant, Zoloft (sertraline), from 100mg daily to 150mg daily due to Mr Porteous suffering greater emotional instability. Dr Bell noted that the increase in the sertraline prescription, together with the large quantity of tramadol ingested, would have predisposed Mr Porteous to serotonin syndrome. The symptoms of serotonin syndrome include both mental and physical changes, some of which have slow onset. Mr Porteous complained of emotional instability and increased irritability at the consultation on 7 September 2016. It appears that Dr Loubser considered that this was a symptom of Mr Porteous' pre-existing testosterone deficiency and treated him with a testosterone injection. However, in hindsight, it would appear that this was commencement of likely symptoms of serotonin toxicity.

I find that the cause of Mr Porteous' death was drug toxicity, most likely the onset of serotonin syndrome as a result of the combined ingestion of high doses of tramadol and sertraline. Dr Bell stated in his report that the clinical presentation of Mr Porteous to attending paramedics was consistent with serotonin syndrome, which also accords with the findings of Dr Devadas.

I am further satisfied that the death of Mr Porteous was unintentional and that he did not intend to take his own life. Nothing on the evidence suggests that Mr Porteous considered that he was in danger of suffering severe drug toxicity. I cannot determine why Mr Porteous was taking double his prescribed dose of tramadol when indications are that he was careful with his medications and not prone to abuse. It seems that he and Ms Beveridge were mistaken as to the new prescribing instructions. It is also possible, but less likely, that he was taking higher doses to attempt to relieve his pain. Unfortunately, this issue cannot be resolved on the evidence available.

Regardless of the reason why Mr Porteous was consuming excessive doses of his prescribed tramadol, this case raises the issue of the requirement for skill and vigilance by the pharmacist dispensing prescription opioids such as tramadol as well as the possibility of drug interactions that may cause serotonin syndrome.

Upon the evidence contained in the pharmacy dispensing records, the pharmacist at the Railton pharmacy dispensed tramadol (either 150 mg and 100 mg tablets) to Mr Porteous on seven occasions between 22 July 2016 (the first date after his tramadol prescription was changed) and his death thus dispensing a total of 280 tablets (of either strength). These numbers are consistent with Ms Beveridge's observation that Mr Porteous took two tablets (instead of one tablet) morning and night, this being double his prescribed dose.

The records of Dr Loubser and the pharmacy dispensing records indicate that Mr Porteous likely presented an older prescription for 150mg tablets with different dosing directions on the 22 July 2016 although his tramadol dose had been changed (lowered) by Dr Loubser. It was on this day that Mr Porteus also presented his new prescription for tramadol 100mg tablets. This may have caused confusion as to the correct dosing in Mr Porteous and Ms Beveridge.

I have had regard to the prescribing and dispensing history from both the doctor and pharmacy and a subsequent report from the pharmacist. I am not able to make a reliable finding as to exactly what advice, at the time of dispensing 150mg tablets on 22 July 2016, or at subsequent dispensing events (particularly on 10 August 2016 when the new prescription for 150mg tablets with a change in the dosage directions was presented to the pharmacist), was given by the pharmacist to Mr Porteous. In his report, the dispensing pharmacist stated that he does not recall the substance of specific conversations with Mr Porteous or Ms Beveridge relating to dosing instructions. He stated:

'The usual practice of myself and the other pharmacist employed at the Railton pharmacy was to always confirm the dosing instructions whenever a new prescription was filled or there was a change to the prescription (not the pharmacist). This was also my practice when someone other than the patient attended to the pharmacy to collect a prescription. I have no reason to doubt that the usual practice was not followed in this case.'

There is no evidence that Dr Loubser, nor the dispensing pharmacist, were told by Mr Porteous of the rate at which he was consuming his prescribed tramadol. However, due to the pharmacist dispensing the prescription repeats to Mr Porteous at a rate more consistent with him taking greatly in excess of that prescribed, Mr Porteous was able to continue his pattern of unsafe consumption. There is no evidence that the pharmacy kept clinical notes of any consultations with Mr Porteous at the time of dispensing regarding dosage directions, or questioned why he was seeking to have his prescriptions filled at much earlier dates than if he was taking them as prescribed. There is also no evidence that the dispensing pharmacist turned his mind to the possibility of serotonin syndrome when the dose of sertraline was increased.

The Pharmacy Board of Australia has published the *Guidelines for the Dispensing of Medicines* in September 2015. These Guidelines include comprehensive advice on 'The dispensing process' (Guideline 1) and 'Dispensing precaution – safety of prescriptions' (Guideline 2). Both Guideline 1 and 2 are particularly pertinent in this case. Amongst other things, they advise the pharmacist to determine the prescriber's intentions as to the patient's medicine, including the dosing instructions; review the medication history and other relevant patient information to ensure that the medicine is safe and proper for the patient to use, and; counsel the patient or the patient's agent sufficiently to allow a proper understanding of all the information required by the patient to use the medicine safely.

Further, the Pharmaceutical Society of Australia produces the *Professional Practice Standards* (PPS) Version 5 2017. The PPS articulate the values of the pharmacy profession and expected standards of professional behaviour of pharmacists towards individuals, the community and society. The PPS underpins the professional practice of all pharmacists in Australia. Standards 3 and 8 are especially relevant in this case. Like the Guidelines previously referred to, these include the requirements for thorough history-taking, documentation, counselling and collaboration with other relevant health professionals to ensure safe patient outcomes in dispensing medication.

The pharmacist in this case stated that he did not consider that the regularity with which Mr Porteous presented for his tramadol indicated that he was taking double the prescribed dose. He did not apparently query with Mr Porteous the reason for him presenting so regularly. He stated that often patients will have a repeat filled some days earlier than when it falls due for convenience and to ensure continuous supply. These reasons do not appear applicable in the case of Mr Porteous' presentations to the pharmacy. The pharmacist should have been more vigilant in restricting the rate of dispensing and monitoring of his apparent intake rate. I do accept the pharmacist's statement that he would have followed his practice of advising of the dosing instructions. They may have been misinterpreted by Mr Porteous or Ms Beveridge, particularly in the transfer to the medication container. However, as discussed, the pharmacist involved in dispensing Mr Porteous' complex and changing doses and medications was required to exercise a high degree of care at the time of dispensing. This was a matter where the pharmacist should have been alert to Mr Porteous' inappropriately early presentations, discussed the medication regimen and detailed patient history with the general practitioner and provided appropriate counselling to Mr Porteous. This was particularly the case when the tramadol dosage was changed and the sertraline dosage increased such that there was a risk of serotonin toxicity.

I cannot find that had ideal dispensing practices been followed by the pharmacist, Mr Porteous' death would have been prevented. As discussed, I cannot determine the reasoning for him taking excessive quantities of his prescribed tramadol. Nevertheless, I have examined the dispensing practices as a relevant factor in the circumstances surrounding his death and appropriate for comment.

Comments and Recommendations

It is appropriate, in light of the issues raised in respect to the death of Mr Porteous, to highlight that the concurrent use of tramadol and selective serotonin reuptake inhibitors (SSRIs) may produce serotonin syndrome and should be used in combination with extreme caution. Patients should be monitored for signs of drug toxicity which may eventuate.

Importantly, pharmacists dispensing such combinations should be alert to the possibility of toxicity and be vigilant in protecting patients from the harms associated with these medicines in accordance with their professional guidelines. That is a primary practice consideration of a competent, registered pharmacist in Australia.

This death serves as a reminder to medical practitioners and pharmacists responsible for supplying and dispensing prescription medicines to ensure clear communication, documentation and counselling particularly in the context of medication regimen changes.

I extend my appreciation to investigating officer Constable Loretta Lincolne for her investigation and report.

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

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

Dated: 24 April 2019 at Hobart Coroners Court in the State of Tasmania.

**Olivia McTaggart
Coroner**