CORONERS ACT, 2003

SOUTH  *AUSTRALIA*

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 11th, 12th, 13th, 14th, 15th and 18th days of February 2008 and the 17th day of July 2008, by the Coroner's Court of the said State, constituted of Mark Frederick Johns, State Coroner, into the death of Marek Tomasz Tarnowski.

The said Court finds that Marek Tomasz Tarnowski aged 33 years, late of 140 Philip Highway, Elizabeth South, South Australia died at Woodleigh House, Modbury Hospital, Smart Road, Modbury, South Australia on the 16th day of May 2004 as a result of Respiratory failure due to mixed drug toxicity (amitriptyline, oxycodone, morphine, diazepam and gabapentin), morbid obesity and probable aspiration of gastric contents. The said Court finds that the circumstances of his death were as follows:

1. Introduction and reason for Inquest

1.1. Mr Marek Tarnowski was 33 years of age when he died at Woodleigh House on 16 May 2004. At the time of his death Mr Tarnowski was detained at Woodleigh House pursuant to the Mental Health Act 1993. His detention had been reviewed earlier on the same day by Dr Rafalowicz. Dr Rafalowicz determined not to extend the period of detention for Mr Tarnowski beyond that day, namely 16 May 2004. The result of this was that the detention order then in force would expire at midnight that day. Because Mr Tarnowski died in the late afternoon of that day, the detention order was still in force at the time of his death. Accordingly, his was a death in custody within the meaning of the Coroners Act 2003 and this Inquest was held as required by Section 21 of that Act.

2. Background

2.1. On 11 November 1997 Mr Tarnowski was employed at General Motors Holden at Elizabeth. On that day he sustained a lower back injury. Before this he had been a relatively healthy man but, as a result of his injury, he underwent several back operations, none of which was successful.

2.2. Mr Tarnowski was unable to continue in his employment because of his injury. He received Workcover benefits as a result of this.

2.3. Mr Tarnowski continued to suffer chronic back pain and during 2001 began to show signs of a depressive illness which was undoubtedly a result of the continuous pain he suffered. Between the date of the injury and 2001, Mr Tarnowski had gained a significant amount of weight – between 30 and 40 kilograms. He had also developed difficulty with sleeping. By that stage he was taking a variety of medications for high blood pressure, cholesterol and pain management. He was also placed on an antidepressant medication and referred to Psychologist, Enza Belperio. In mid 2002 Mr Tarnowski underwent a further back operation. In the course of his recovery from the anaesthetic he was observed by medical staff to have some difficulty with his breathing and as a result of this he was assessed for sleep apnoea. He was found to suffer from sleep apnoea and accordingly, on the advice of medical practitioners, he commenced to use a CPAP (Continuous Positive Airway Pressure) machine for sleeping.

2.4. Mr Tarnowski was a gun owner and a member of a gun club. Following his injury shooting continued to be one activity in which he could participate. However, one evening in early 2004 he found himself playing a game of Russian roulette with one bullet loaded in the pistol. He would spin the barrel, point the gun at his head and pull the trigger. He reported this episode to his General Practitioner and then voluntarily admitted himself to the Lyell McEwin Health Service and agreed to receive psychiatric treatment at Woodleigh House. Mr Tarnowski stayed at Woodleigh House for three weeks on that occasion. During that period his medications were monitored and adjusted in an effort to ameliorate his pain. He was discharged on 1 May 2004.

3. Events surrounding the death of Mr Tarnowski

3.1. On 13 May 2004 Mr Tarnowski left his house and shortly thereafter was discovered in the SAFCOL carpark across the road from General Motors Holden at Elizabeth, slumped over the wheel of his car, in a state of exhaustion. Ambulance officers attended and Mr Tarnowski reportedly told them that he had tried to overdose on morphine and diazepam. He was taken to the Lyell McEwin Health Service and detained under the Mental Health Act 1993. He was admitted to Woodleigh House on 14 May 2004 under a detention order for psychiatric treatment. A psychiatric resident medical officer, Dr Rebecca Kao, assessed him and transcribed his regular medications into the hospital charts which were then administered to him during his brief stay.

3.2. On the afternoon of 16 May 2004 Mr Tarnowski was quite drowsy. He fell asleep on a mattress on the floor within the music and drama room at Woodleigh House. He was not using his CPAP machine. He was checked from time to time by nursing staff but was allowed to remain asleep. Late that afternoon a fellow patient noted that he was unrousable and alerted staff. Staff found that Mr Tarnowski was not breathing and resuscitative efforts were commenced however they were not successful. Life was pronounced extinct at 5:25pm on 16 May 2004.

3.3. A post-mortem examination was carried out by Dr John Gilbert on 18 May 2004. Dr Gilbert noted Mr Tarnowski's weight to be 137 kilograms and his height 185 centimetres and commented that he was on the borderline of morbid obesity. Dr Gilbert noted the clinical history of a back injury in 1997 and multiple surgical procedures to Mr Tarnowski's lower back which had failed to resolve his persistent, severe back pain. Dr Gilbert noted the history of hypertension as well as sleep apnoea requiring the use of CPAP apparatus at night. He also noted the more recent history of depression and recent suicidal ideation. Dr Gilbert noted that Mr Tarnowski's casenotes recorded that he had been in considerable pain on the morning of 16 May 2004 and had received oxycodone at 8am and midday, that he was described as being very drowsy after lunch and was found unresponsive by another patient at 5pm. Dr Gilbert said that no anatomical cause for Mr Tarnowski's death was identified at

autopsy. There was relatively minor soiling of the airways by gastric contents and no pre-existing pulmonary or cerebral pathology was identified.

3.4. Dr Gilbert noted that toxicological reports showed a higher than therapeutic, but not toxic, level of amitriptyline, a marginally higher than therapeutic level of oxycodone, a high therapeutic level of diazepam and therapeutic levels of morphine, gabapentin, atenolol and perindopril. Dr Gilbert noted that amitriptyline, oxycodone, morphine, diazepam and gabapentin are central nervous system depressants and their depressant effects would be approximately additive. He said amitriptyline and certain other tricyclic antidepressants may cause an increase in plasma levels of both morphine and oxycodone resulting in a potentiation of their analgesic and central nervous system depressant effects. Dr Gilbert stated in his post-mortem examination report that:

> 'In the absence of overt drug toxicity or an anatomical cause of death it is distinctly possible that the deceased succumbed to sleep apnoea and/or airway obstruction while sleeping in face down position. The soiling of the airway appeared to have been a complication of CPR rather than a primary event as there was no evidence of vomiting prior to the resuscitation attempt.' [1]

Dr Gilbert continued:

> 'On this basis, death has been attributed to probable sleep apnoea with the combined toxicity of CNS depressant drugs being a likely contributing factor. Airway obstruction resulting from a face down sleeping position was a possible additional contributing factor.' [2]

Dr Gilbert qualified his report by stating:

> 'Further clinical opinion regarding the likelihood of sleep apnoea as the cause of death and the contribution of mixed drug toxicity is recommended.' [3]

4. Issues arising at the Inquest

4.1. Mr Tarnowski's brother, Arek Tarnowski, gave evidence at the Inquest. He was particularly concerned about the fact that Mr Tarnowski was not using his CPAP machine while asleep on the floor in the music room on the afternoon of Sunday, 16 May 2004. He gave evidence that he informed staff at Woodleigh House that it was necessary for Mr Tarnowski to use the CPAP machine at all times when asleep. Mr

[1] Exhibit C3a, page 5
[2] Exhibit C3a, page 6
[3] Exhibit C3a, page 6

Arek Tarnowski gave evidence that for a considerable period he had lived with his brother and had assisted his brother with his daily living requirements. During that period Mr Arek Tarnowski had always been highly conscientious in ensuring that his brother had his CPAP machine whenever sleeping whether during the day or night. It was Mr Arek Tarnowski's understanding that this was required at all times. Mr Arek Tarnowski was clearly concerned that Mr Tarnowski may have succumbed because he was not required, by staff at Woodleigh House, to use the CPAP machine whilst sleeping during the day, and in particular, on the day of his death.

4.2. Dr Peter Robinson gave evidence at the Inquest. He is a specialist physician in the field of respiratory and sleep medicine. He said that he first saw Mr Tarnowski on 27 June 2002 at St Andrew's Hospital. Mr Tarnowski was in the Intensive Care Unit of that hospital during a post-operative recovery for back surgery. Dr Robinson was asked to see Mr Tarnowski because intensive care staff had noted that he was having difficulty with his breathing and they were concerned that he might have sleep apnoea[4]. Dr Robinson organised for Mr Tarnowski to have the CPAP apparatus following this consultation[5]. Dr Robinson did not recall whether any specific instruction was given as to the time at which Mr Tarnowski was to use the CPAP machine (that is during the daytime as well as for the main night time sleep)[6]. However he did say that in the vast majority of patients CPAP treatment is only used during the night time sleep[7]. He described sleep apnoea as follows:

> '… a repeated obstruction to the upper airway, back of the throat if you like, which occurs during sleep and as a consequence of that it interferes with peoples sleep pattern. So they have a disturbed sleep during the night and therefore their sleep quality is not so good and as a consequence they feel tired during the day and the other consequence is that there is a reduction in the oxygen level during those periods of obstruction and if that's severe enough that puts strain on the rest of the body, the cardiovascular system in particular. So the main consequences are not immediate problems during the night but are more long-term problems with daytime lethargy and cardiovascular complications again long- term.' [8]

[4] Transcript, page 112
[5] Transcript, page 116
[6] Transcript, page 117
[7] Transcript, page 117
[8] Transcript, page 118

4.3. Dr Robinson said that he did not believe sleep apnoea causes death due to obstruction during sleep, whether during the daytime or the night time[9]. He was asked to comment upon Dr Gilbert's post-mortem examination report[10] and said that it certainly seemed to him that the cause of death was airway obstruction but that he would not call that sleep apnoea. He said:

> 'Sleep apnoea is a, as I said before, a long term syndrome that occurs over many months or years, not something that occurs suddenly. Sure he had upper airway obstruction, there were a number of things that contributed to that and that was the immediate cause of death.' [11]

4.4. Dr Robinson was asked to comment upon whether Mr Tarnowski might still have died even if he had been wearing his CPAP machine. He replied in the affirmative but added that it may have been 'less likely because CPAP does protect the upper airway to some extent from obstruction'[12] but added that other factors such as heavy sedation and/or vomiting may have been overwhelming nevertheless. He pointed out that if Mr Tarnowski had vomited while wearing a CPAP mask that may even have made matters worse[13].

4.5. Finally, Dr Robinson noted the various medications that Mr Tarnowski had been administered. He pointed out all of those drugs can affect breathing, that some of the levels in Mr Tarnowski's blood were quite high and that perhaps the drugs were the main cause of Mr Tarnowski's respiratory depression leading to death. He was at pains to add however that a number of other factors were at play including Mr Tarnowski's obesity[14].

4.6. As I have already noted, Mr Tarnowski apparently told the ambulance staff who found him in the SAFCOL carpark that he had taken an overdose of drugs. According to a statement provided by Dr Brendan Carson he was on duty at the Lyell McEwin Health Service in the Emergency Department as an Emergency Registrar and he attended to Mr Tarnowski upon his arrival by ambulance at that hospital on 13 May

[9] Transcript, page 120
[10] Exhibit C3a
[11] Transcript, page 125
[12] Transcript, page 125
[13] Transcript, page 126
[14] Transcript, page 128

2004[15]. He said that the collateral history from the ambulance staff suggested that Mr Tarnowski had been found in a collapsed state having taken what was believed to be 24 tablets of 20mg morphine sulphate and 30 tablets of 5mg diazepam in what was thought to have been a suicide attempt. Mr Tarnowski was placed on high flow oxygen and given intravenous naloxone, an opiate antagonist, which relieved his snoring and improved his conscious state and reversed his pupillary contraction[16].

4.7. Subsequently the evidence shows that Mr Tarnowski denied having taken an overdose of valium and morphine quite vehemently to a number of different medical staff. To a number of people he said that there had been a mistake and that he had not tried to take an overdose but that he had been changing a tyre on his car and had collapsed with exhaustion while trying to do that. Mr Arek Tarnowski, his brother, had said that after Mr Tarnowski was taken away by ambulance that day he had collected Mr Tarnowski's vehicle from the SAFCOL carpark and noted that it did in fact have a flat tyre.

4.8. In the result, I am unable to make a conclusive finding as to whether Mr Tarnowski did take an overdose of morphine and diazepam on 13 May 2004. Despite his denials, he may well have taken one or other of those drugs in excess. He was already receiving significant doses of those and other drugs and it is just not possible to be definitive.

4.9. Dr Shakib, Clinical Pharmacologist and Director of Clinical Pharmacology at the Royal Adelaide Hospital, gave evidence at the Inquest. His conclusion in relation to this aspect of the matter was that the levels of diazepam found at post-mortem were consistent with Mr Tarnowski having consumed more than he should have on 13 May 2004, but that the morphine levels were not suggestive of an overdose.

4.10. Before dealing with the evidence of Dr Shakib, I note the following material from a statement of Shane Dinham, the first nurse on the scene after Mr Tarnowski's collapse on the afternoon of 16 May 2004:

> 'I went back to Marek and got him firmly on his back. Anne came in and we tried to rouse Marek again. Anne got a pillowslip, opened his mouth, and turned his head, to try

[15] Exhibit C21a
[16] His pupils had been noted to be contracted at 2mm

> to open up an airway. A large amount of vomit came out of Marek's mouth and nose. Anne continued trying to clear the airway, while I commenced CPR.' [17]

From this I conclude that Mr Tarnowski did in fact vomit prior to his death and that the stomach contents which were noted were not solely attributable to resuscitative efforts. This casts a new light on Dr Gilbert's impression that the soiling of the airway may have been a complication of CPR rather than a primary event. He had assumed that there was no evidence of vomiting prior to the resuscitation attempts. Indeed, this matter was raised with Dr Gilbert. He was informed of the effect of Mr Dinham's statement, and provided with a copy of the full transcript of Dr Robinson's evidence. In the light of that, Dr Gilbert stated that he deferred to Dr Robinson's opinion that death should not be attributed to sleep apnoea in this case. He said that he believed that mixed drug toxicity was a significant factor in the death and that Mr Tarnowski's borderline morbid obesity was also a factor. Dr Gilbert concluded:

> 'Given that the nursing staff assert that the deceased had vomit in his mouth and nose before cardiac compressions were commenced, I accept that he may well have vomited or regurgitated gastric contents terminally, potentially further compromising his airway.'[18]

Having taken all of this information into consideration, Dr Gilbert altered his opinion as to cause of death to the following:

> 'Respiratory failure due to mixed drug toxicity (amitriptyline, oxycodone, morphine, diazepam and gabapentin), morbid obesity and probable aspiration of gastric contents.'[19]

And I so find.

4.11. Dr Gilbert prepared a supplementary statement dated 15 February 2008 which was admitted as Exhibit C3d in these proceedings.

4.12. I return to the evidence of Dr Shakib. He is a physician with specific qualifications in the discipline of clinical pharmacology and is the Director of Clinical Pharmacology at the Royal Adelaide Hospital. He provided a report on behalf of the Court which was admitted as Exhibit C55 in these proceedings. For the purposes of that report he examined the hospital notes, the post-mortem examination report and statements of

[17] Exhibit C9a, page 4
[18] Exhibit C3d, page 3
[19] Exhibit C3d, page 3

witnesses. He noted Mr Tarnowski's main complaints to be depression and pain. He commented that the pain relief medications which had been prescribed to Mr Tarnowski were gradually increased over time. He noted that the medications did not interact with each other but had a cumulative sedative effect. Dr Shakib noted that during Mr Tarnowski's first stay in Woodleigh House he was very carefully observed and there was a gradual, step wise, incremental increase in his medications to address his severe pain[20]. Mr Tarnowski was reviewed by his pain specialist while in hospital and the nursing staff made good notes about the medicines that Mr Tarnowski was administered as well as their side effects. Dr Shakib considered that all of the process in place during this admission were quite appropriate[21]. He said that it is not uncommon to find patients with chronic pain suffering depression as a result. The two conditions can exacerbate each other and it is difficult to break that cycle. He said that the medications that are given for these conditions all cause sedation and that in a person such as Mr Tarnowski with underlying issues of weight and sleep apnoea, it was not a good combination[22].

4.13. Dr Shakib said that the appropriate dosages of drugs for different individuals varies very widely across the population. The appropriate dosage for an individual depends on body size, age and particularly how well the liver metabolises the drugs. He said it is enormously variable but that patients who are younger, such as Mr Tarnowski, and who are larger, such as Mr Tarnowski, do tend to require larger doses. But this is not an absolute rule[23].

4.14. Dr Shakib noted that Mr Tarnowski was discharged home on 1 May 2004. Mr Tarnowski went from the hospital environment in which his medications were very carefully supervised and may have found it difficult to manage all the different medications he was on at this time[24]. He was mildly critical of the fact that a discharge letter from Woodleigh House was not written until 12 May 2004 and so would not have been of assistance to Mr Tarnowski's General Practitioner, Dr Orsillo, who saw him earlier than that after his discharge.

[20] Transcript, pages 270-271
[21] Transcript, page 271
[22] Transcript, page 272
[23] Transcript, page 275
[24] Transcript, page 280

4.15. Dr Shakib commented upon the circumstance in which Mr Tarnowski was readmitted to hospital and noted that when people go from hospital to the community and back again into hospital, there is no easy way of transmitting information along with the patient in cases where the drug treatments are very complex[25]. Dr Shakib noted evidence that some of the drugs found at Mr Tarnowski's home were not the same medications with which he was discharged from hospital. Difficulties confronted the doctor who admitted Mr Tarnowski to Woodleigh House on the second occasion (13 May 2004) in transcribing the medications. They were transcribed as being the same medications with which he was discharged 14 days earlier. Dr Shakib was not overly critical of this situation. He merely noted that the methodology that was employed was attended with some risk which, fortunately, did not have any adverse consequence in this case. He summarised the situation by remarking that given the information with which the admitting doctor was presented she did as well as she could and in the time available to her it would not have been feasible for her to have delayed the admission by raising further questions at that point.

4.16. In what was an extremely comprehensive examination of Mr Tarnowski's treatment with particular reference to medications, Dr Shakib summarised the position by saying that it was difficult to point to a single thing that was done incorrectly and identify it as the reason why Mr Tarnowski died[26].

4.17. Dr Shakib said that he had a lot of confidence in the way that medications were gradually 'up-titrated' and he commented that the nursing staff were in fact observing Mr Tarnowski very carefully[27].

5. Conclusions

5.1. The totality of the evidence in this case showed that there was no single factor which contributed significantly to Mr Tarnowski's tragic death. In particular, I do not think it reasonable to expect that the staff of Woodleigh House should have insisted upon Mr Tarnowski using his CPAP machine on every occasion when he slept. In view of the fact that there was evidence that he vomited prior to death, the wearing of a CPAP

[25] Transcript, page 281
[26] Transcript, page 299
[27] Transcript, page 310

mask may well have caused its own problems, and there is certainly no guarantee that it would have prevented his death. Mr Tarnowski was, tragically, a long-term sufferer of chronic severe back pain and as a result he suffered depression. The combination of these two conditions meant that he had to be heavily medicated. In addition he was, through chronic pain and debilitation, unable to move freely and exercise regularly. As a result he gained excessive weight and bordered on morbid obesity at the time of his death. This predisposed him to sleep apnoea. His chronic pain required an ever increasing level of medications for its amelioration and, unfortunately, such medications all involve some central nervous system depressant effect. It was this combination of circumstance that led to Mr Tarnowski's death at quite a young age.

6. Recommendations

6.1. In the circumstances I do not propose to make any recommendations in this matter.

Key Words: Death in Custody; Psychiatric/Mental Illness; Sleep Apnoea

In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 17th day of July, 2008.

State Coroner