QUEENSLAND COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INVESTIGATION

CITATION:	**Non-inquest findings into the death of Alexander David Joseph Thomas**
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Brisbane
DATE:	14 October 2015
FILE NO(s):	2014/3305
FINDINGS OF:	Christine Clements, Brisbane Coroner
CATCHWORDS:	CORONERS: Investigation, ingestion of various substances obtained over the internet, Beta-phenylethylamine

Introduction

Alexander David Joseph Thomas was born on 30 April 1991. At the time of his death he was living at Willandra Street, Enoggera in Queensland. He was a Private in the Australian Army. He died at his home between 7 and 8 of September 2014. Alexander was 23 years of age.

Background

On 8 September 2014, Queensland Police were requested by Staff Sergeant Stuart McGregor to perform a welfare check for Alexander Thomas. He lived independently away from the Enoggera Army Base and had failed to report for duty that morning.

Alexander shared a house in Enoggera with another young soldier, Private Emily Varley.

Police arrived at the Willandra Street property. Two army personnel also attended, Sergeant McGregor and Sergeant Dempsey. The army personnel explained to police that there was some concern for Private Thomas. This was for two reasons – a recent drug test had been positive for methamphetamine. (See subsequent toxicology test results which identified beta-phenylethylamine, not methamphetamine.) Also, it was known Alexander was seeing a doctor at Newmarket Clinic and he had undisclosed health issues.

His housemate, Private Emily Varley told police the last time she had seen Alexander was at 7:30am on Sunday 7 September 2014.

When police and army personnel attended, Alexander's bedroom door was locked. There was no response. The lock was broken open and police entered. They discovered Alexander lying fully clothed on his bed. He was deceased. Apart from a bandage on his left hand, which was expected due to a known recent work injury, police did not observe any injury. Ambulance officers attended at the premises and confirmed Alexander was deceased.

Army officers confirmed Alexander's listed next of kin were his parents who lived separately in New South Wales. The army undertook to inform them.

Examination of scene

Police officer Sergeant Fletcher located a bag of white crystal powder in a brown clip-sealed bag under a stack of pillows on the floor. It was labelled 'Beta-Phenylethylamine HCL'. Two post-packets were located under the bed addressed to Alexander. The packaging showed the address of the person/company who sent the package. The name on the packaging was Nutritional Health Supplements Australia.

Autopsy

As the cause of death was unknown, an autopsy was ordered and was performed on 11 September 2014 by the forensic pathologist, Dr Samarasinghe.

It was noted Alexander was 163cm in height and weighed 58kg. His body mass index was 22.

The right upper limb showed a 6 x 1cm old healing wound on the right index finger and

a similar old wound on the little finger. There was a 1.5 x 2cm healing wound on the anterior section of the right index finger.

There was a 1 x .5cm old wound on the posterior aspect of the left thumb of the left upper limb.

CT imaging showed no significant findings. There was no evidence of skeletal injury.

Post-mortem examination showed aspirated material in the airways as well as pulmonary oedema and congestion.

There were no external or internal injuries to the body.

The most significant findings at autopsy were revealed in toxicology testing of femoral blood and stomach contents. Beta-phenylethylamine was detected. No drugs were detected in urine including amphetamines.

The blood level of 30mg/kg and stomach level of 5080mg/kg being approximately equal to 750mg in the sample collected indicated excessive ingestion of this substance.

No other drugs were detected.

The pathologist explained that Beta-phenylethylamine is a naturally occurring alkaline in humans that functions as a neuromodulator or neurotransmitter. It has potential benefits as a stimulant, and as a way to elevate mood and to promote feelings of wellbeing. It is always present in the brain and the common benefits of it would include elevation of mood, inducement of relaxation, improvement in concentration and increased energy. A potential downside of the drug is that it is rapidly metabolized once consumed. Only a very small amount of the substance actually reaches the brain. However, when it is used in conjunction with other drugs that block its destruction it has been found to be highly effective in mood elevation.

Dr Samarasinghe concluded death was due to Beta-phenylethylamine toxicity. Adverse effects of the substance include rapid heartbeat, cardiac arrhythmia, high blood pressure and fatal central nervous system adverse effects.

Other background information

Police obtained a statement from Alexander's housemate Emily Varley. She was also aged 23 and was similarly employed in the army as a medic. She was an endorsed enrolled nurse and was studying her bachelor in paramedical science.

She knew Alexander, whom she called Alex. They had known each other since 2012 at work. She described him as quiet. She was already renting premises off the barracks and when her former boyfriend moved out she told Alex there was a room available. A third person, Bradley Devlin also moved in at about the same time during February 2014.

He was overseas at the time of Alex's death.

Emily Varley told police that on 24 April 2014 Alex passed out during a training exercise at Enoggera. He was sent to the hospital by the medic. Alex subsequently told her that drug testing was performed. On that same day she was also warned by another person to watch out for Alex as it was believed he abused prescription medication.

The army superior officers asked Emily later that day if she was aware of where Alex had put the S8 and S4D drugs that were in his possession as part of his work. They were referring to methoxyfluraine, morphine and midazolam. Emily was not certain but said that she would look. She was told that Alex had not returned the drugs from the previous field exercise. This field exercise had happened about one month earlier. Emily explained to police that the process for a medic to obtain medication required for field exercise would be to attend on the pharmacist a few days prior to the event and sign out for the medication. The medication was then given into the possession of the medic who would either take them home or put them in the safe in the orderly room until required. They could be in your possession if you were going to be deployed very soon.

After this conversation Emily went home and searched Alexander's room. She found nothing.

Subsequently Alex was discharged from hospital about two days later. He told her he had returned the drugs.

Emily was away from the barracks at Enoggera from 26 April for one month. She kept in contact with Alex via text. He told her he had been admitted to hospital due to a vitamin D deficiency.

She described Alex as spending a lot of time in his room alone, but they also spent time together as friends. She thought he had improved in his overall demeanour since the episode in mid-April. He was in good spirits. She recalled a Friday in late June 2014 when he came home from work and said he had been vomiting all afternoon. He said he had taken something called 'travel calm'. She noticed his pupils were dilated. She was then away for a couple of days and upon her return she checked up on him. He was still complaining of vomiting.

A few days after this Alex reported to her that Bradley Devlin had hacked into his computer and other devices.

It was during June that Alex put a lock on his bedroom door.

She was aware he was admitted to the Enoggera Health Clinic on 9 July 2014 and subsequently to the Royal Brisbane Hospital mental health ward. After his discharge he was sent home to live with his mother for a period of time. His mother told Emily it was due to stress, whilst Alex said it was due to the vitamin D deficiency.

In Emily's experience Alex did not use alcohol, which he said did not agree with him.

An incident occurred in early July 2014 when Emily had friends around for a cocktail party. Alex did not participate as he did not like alcohol. However, police attended in

the course of the evening wanting to search the premises. They said they had been contacted by Alex who was in fear of his life. Emily let them in and showed them his room, which was closed and locked. Alex responded and opened the door. She recalled he looked absolutely petrified. He thought he had heard somebody outside his window and they were planning to break into his room and hurt him. Emily had the feeling that Alex was not rational. Alex had some insight into his unusual behaviour but did not know what was happening.

Subsequently he went to see the doctor on base. Emily observed he was becoming increasingly paranoid. He feared his own phone had been interfered with. In mid-July there was another incident when Alex was paranoid and not rational. Emily was aware he was referred to see Dr Peter Clem and subsequently he was admitted to the New Farm Private Clinic. He discharged himself from that facility.

On 4 August, Emily received a call from Alex's mum, Cherene Thomas. She was concerned for her son's welfare and was checking up on him. As Emily was not at home, she asked Bradley Devlin to check on Alex for his mother. He was asleep in bed in a cold room with the air conditioner set at 16 degrees. There was concern for him and Emily and Bradley searched Alex's room.

They found six bottles of Robatussum, three empty packets of Mylanta and one full packet of Pseudoephed PE. There was half a packet of Buscopan and 10g of Pheuyhyiriccium. As well, there was a packet of 10g Hordenine and two packets of 25g of Phenibut. These last mentioned products were labelled 'Nutritional Health Supplements Australia'.

Alex became angry when he became aware Emily had searched his room at the request of his mother. He rang and spoke with her angrily over the phone. He also told them he had 1 kilo of a substance he had purchased overseas and that they would not be able to find this.

There was more bizarre behaviour on the evening of 4 August and personnel on the base were also concerned for Alex. They directed questions to Emily and indicated she should ring the ambulance at any time if she was concerned or alternatively, the police and the Duty Officer.

She also approached Alex with Sergeant Ryan Hodgerson to discuss issues directly with him. He promised them he would not take drugs anymore.

In the two weeks prior to Alex's death Emily said he would spend a lot of time in his room. He would not respond if she knocked on the door. He seemed distant but still happy.

She last saw Alex at about 7:30am on Sunday 7 September. He was not usually up at this time of the day. She saw he looked very pale and gaunt. He was heating up a pizza. It was the next day when police and army personnel arrived and Alex was discovered deceased in his bedroom.

Subsequently she was present when army officers came back to the home and removed all of Alex's belongings back onto base, where these items were examined.

She was later required to be at her home when the property was returned.

Despite Alex telling Emily that alcohol did not agree with him, she was aware that he sometimes drank it. He became very quickly affected by alcohol even if he only drank a tiny amount. The other observation of Emily was that Alex was frequently fatigued. He would go to sleep immediately after completion of work. She said he rarely ate a nutritious meal. His weight would fluctuate and he often ate food from McDonalds. He seemed to be getting weaker and weaker. She also noted that he kept Naloxone and Adrenaline on his bedside table at all times.

He was lacking in self-confidence and feared that his peers saw him in a negative light. He felt that he was being bullied.

Review of medical information

Medical records from the army were obtained, as well as from the New Farm Clinic and the Royal Brisbane Hospital.

Some of the pertinent material is referred to as follows. Alex was referred by the army and treated at the Mater Private Hospital between 15 May 2014 and 22 May 2014 for a particular medical condition. He had reported a two month history of fatigue, somnolence, weight loss and difficulty with meeting the physical training requirements of his work as a medic in the army.

He had previously been diagnosed with depression in 2012. He stated a community general practitioner who treated him suggested Selegiline. This is a selective irreversible MAO-B inhibitor. It has uses in the treatment of early stage Parkinson's disease, depression and dementia. It belongs to a class of drugs called Phenylethylamines.

Alex denied major depression but acknowledged ongoing low mood when assessed at the Mater Private Hospital. He was seen by an infectious diseases physician, Dr Andrew Reid. He told the physician he used Phenylethylamine supplements which he had purchased online. This was for the intended purpose of improving his concentration and to gain weight. However he reported to Dr Reid he had lost his appetite and weight. He could not sleep at night but was sleepy during the day. He had also been subject to recent investigation at St Andrew's Hospital for tachycardia and had been diagnosed with sinus tachycardia. It was noted that adverse effects of Phenylethylamines can cause tachycardia.

Dr Reid noted Alex was thin and had a faint rash over his trunk. The only other abnormality detected at this assessment was B12 deficiency, which was treated.

He was diagnosed with secondary syphilis and treated. Fortunately, this had not developed to neurosyphilis.

Dr Reid considered his symptoms could have been due to substance ingestion or mood disorder.

Alex was then reviewed by mental health specialists. He denied suicidal thoughts

although acknowledged he had a low mood over two months as well as anxiety. He admitted he bought the medication online to improve his mood and reduce his anxiety. He was not experiencing hallucinations at the time of his interview. He also denied online use of drugs for improvement of his physical appearance.

It was therefore concluded that he had self-medicated with Selegiline and Phenylalanine to improve his energy level. On 6 July 2014 he told the psychiatric registrar, Dr Flows that he had discontinued the use of these supplements.

The assessment by the psychiatric registrar was for the purpose of admission to New Farm Clinic if required. A telephone assessment by the psychiatrist, Dr Chalk was also performed. Dr Chalk considered he was at low risk at the time when he was discharged into his mother's care with support upon his return from New South Wales where it was intended he would reside with his mother for the time being.

The underlying concern was that Alex might be developing a mental illness which required evaluation and supervision and possible further treatment.

He was consistently counselled and advised not to continue access and use of non-prescribed supplements and medication. He gave an undertaking on a number of occasions both to treating medical practitioners and to the army that he would cease this practice.

A subsequent review on 10 July was more positive when Alex presented in an interactive and open mood.

After return from leave with family in Sydney he was again reviewed by Dr Chalk on 21 July. He was then admitted to the New Farm Private Psychiatric Hospital between 31 July and 2 August for assessment.

It was noted that the supplements he had been taking had caused the positive result for amphetamines detected by the army in their screening.

The final report from Dr Malcolm Foxcroft, psychiatrist, dated 6 August noted that there had been a history of some paranoia and possible hallucinations but he had since steadfastly denied this. He was very guarded at his most recent presentation but no abnormality had been detected. Ongoing monitoring was recommended.

He was repeatedly advised to cease taking supplements or non-prescribed medications.

Conclusion

Autopsy examination indicates that sadly, Alex Thomas died due to toxicity caused by Beta-phenylethylamine. The substance had been obtained by him on a number of occasions in an effort to address symptoms that he found troubling including low mood, lack of energy, inability to sleep at night and somnolence during the day and reduced appetite.

It would appear from review of the record that he was taking much more than might have been prescribed by any treating medical practitioner and this had led to adverse

impacts including tachycardia, mood disturbance and loss of weight. Hallucinations might also have been caused by the substance.

However, the other possibility was that Alex was indeed developing a mental illness, and treating practitioners as well as the army were mindful of this possibility. He was being monitored and reviewed, which was entirely appropriate in the circumstances.

He had been repeatedly advised and cautioned against self-medication and accessing supplements online. Despite giving undertakings that he would cease this behaviour, sadly he did not do so.

His mother was most concerned that he could so easily access these supplements which had led to his death.

This issue was considered as part of the coronial review and investigation. The National Coronial Information System was searched for information of any nutritional/sport/supplement related deaths throughout Australia between 2009 and 2015. The search included – nutritional, health, and sports supplements, Nutritional Health Supplements Australia, phenylethylamine and DMAA.

Four deaths were revealed, none of which were exactly similar.

The first was a 34 year old man who died unintentionally due to mixed drug toxicity. Toxicology was positive for cocaine, prescription opioids and benzodiazepines. The deceased was known to have used a body building supplement called DNP for weight reduction, but this was not detected in autopsy results.

The second was a 41 year old man who died due to intracerebral haemorrhage following DMAA ingestion (Dimethylamylamine). That substance was legally available at the time but was subsequently prohibited. The coroner noted DMAA had been obtained via the internet and therefore there could be no reliance placed on any claim about the quality or purity of the substance.

It was not the role of the Therapeutic Goods Administration to review recreational use of a wide range of drugs never created for that purpose.

The third case was a 53 year old man who died unintentionally due to caffeine toxicity. He had purchased the caffeine online to help reduce weight. He had taken a massively large amount of the substance which had caused his death.

The fourth case was a 30 year old man with a history of drug dependency who died unintentionally due to intracerebral haemorrhage. This had been caused by ingestion of DMAA (Dimethylamylamine) which was prohibited at the time and obtained over the internet. It was marketed as a pre-workout supplement.

Further advice was obtained from the Clinical Forensic Medicine Unit. Essentially, products such a Beta-phenylethylamine are not medications or medicine and therefore are not subject to the Therapeutic Goods monitoring regime.

There is the alternative mechanism of a product, or substance being prohibited after it

has been identified as dangerous. It can be added to the prohibited list under the Drugs Misuse Act. Unfortunately, the number and variability of invention and production of new substances is very large and it is impossible for the legislature to keep up. Nor is it possible to close access to the internet to source whatever a person seeks to find.

The search of the National Coronial Information System between 2009 and 2015 revealed four examples, but none related to the same substance that was fatally toxic in this case.

I am satisfied the army identified that not only did Alexander have some physical health problems, but also possibly mental health and possible dependency problems. I am satisfied the army provided support, medical services including specialist treatment, and counselling to warn Alex against the risks of self-medication. Sadly this was not sufficient to safeguard Alex against the risks.

In all of the circumstances I am not satisfied there is sufficient public interest to require an inquest.

The necessary investigation and review has established the facts required to be concluded in coronial findings. I do not consider an inquest could make any useful comment to help prevent similar deaths occurring in the future.

A copy of the findings will be sent to the army authority requesting their consideration for publication and distribution within their organisation.

As well, the findings will be published on the coronial site accessible on the internet.

In conclusion, it does not appear that Alexander intended to cause his own death by ingestion of the various substances he had obtained over the internet. It was more consistent with self-medication and experimentation with substances. This was in the context of a young man facing some challenges in his work environment as a member of the armed forces working as a medic.

Christine Clements
Brisbane Coroner
Brisbane
14 October 2015