IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: **COR 2017 2931**

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)
*Section 67 of the **Coroners Act 2008***

Findings of:	Sarah Gebert, Coroner
Deceased:	AH
Date of birth:	6 February 1980
Date of death:	26 June 2017
Cause of death:	*Mixed Drug Toxicity (Oxycodone, Quetiapine, Pregabalin and Clonazepam).*
Place of death:	La Trobe Regional Hospital, 10 Village Avenue, Traralgon, Victoria
Other matters:	*Death from opiate overdose taken whilst in Emergency Department*

INTRODUCTION

1. AH, born on 6 February 1980, was 37 years old at the time of his death. He had been with his partner DT since 2014.

2. AH was also survived by his two children, MH and EH from his marriage to PD. They were married on 16 June 2000, separated in 2011 and were divorced on 23 June 2013.

3. AH was involved in a motor vehicle accident in 2015 where it was reported that he *had run off the road and gone over a cliff.* He sustained injuries as a result of the accident which required ongoing medical treatment.

4. AH was involved in a further motor vehicle accident on 16 June 2017 in Berwick which was not reported to police at the time.

5. On 21 June 2017, AH passed away at La Trobe Regional Hospital (**LRH**) having presented earlier that day with a range of symptoms including headache, right sided neck pain, chest pain and tenderness, severe lumbar back pain and left lower leg weakness.

THE CORONIAL INVESTIGATION

6. AH's death was reported to the coroner as it fell within the definition of a reportable death in the *Coroners Act 2008* (**the Act**). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury.

7. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death, and surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

8. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.

9. Victoria Police assigned Senior Constable Peter Straughair (**SC Straughair**) to be the Coroner's Investigator. SC Straughair conducted inquiries on my behalf[1], including taking statements from witnesses and submitting a coronial brief of evidence. The coronial brief comprises statements from AH's partner, treating practitioners Dr My Huong San[2], Dr Haider Al Ubaidi[3] and Dr Bashir Gondal[4], LRH nurses who cared for him, the pathologist who examined him and the Coroner's Investigator as well as other relevant documentation.

10. As part of the investigation, this case was also referred to the Coroners Prevention Unit (**CPU**).[5] The CPU were asked to review AH's admission and care at LRH on 21 June 2017.

11. The Court also obtained AH's Medicare and Pharmaceutical Benefits Scheme (**PBS**) claims history for the period 21 June 2016 to 21 June 2017 and copies of his medical records from LRH and his general practitioner (**GP**).

12. This finding draws on the totality of the coronial investigation into AH's death, including evidence contained in the coronial brief and information provided by the CPU. Whilst I have reviewed all the material, I will only refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[6]

Background

13. AH was known to have a history of chronic pain which was variably recorded as jaw, clavicle, back and neck pain. He was also recorded as having PTSD and lowered mood.

---

1 The carriage of the investigation was transferred from Deputy State Coroner English.
2 Dated 10 November 2017, employed as junior doctor in ED.
3 Dated 22 October 2017.
4 Dated 10 November 2017.
5 The Coroners Prevention Unit (CPU) was established in 2008 to strengthen the prevention role of the coroner. The unit assists the Coroner with research in matters related to public health and safety and in relation to the formulation of prevention recommendations. The CPU also reviews medical care and treatment in cases referred by the coroner. The CPU is comprised of health professionals with training in a range of areas including medicine, nursing, public health and mental health.
6 Subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

14. AH's GP Dr Hui-Wen (Tina) Teng stated that he had been a patient since 2008 and regularly attended for management of his pain. He had also seen several specialists, including pain specialists, psychologists and physical therapists for his pain.

15. AH's GP summary indicates that he was taking the following prescription medications: pregabalin[7] (Lyrica) 150mg 2x per day; esomeprazole[8] (Nexium) 20mg daily; propranolol[9] 40mg 2 tablets 2x per day; naproxen[10] SR (naprosyn) 1000mg daily; mirtazapine[11] (Remeron) 45 mg 1x in the evening; zolpidem[12] (Stilnox) 10mg at night; oxycodone/Naloxone[13] (Targin)[14] 10/5mg 2x per day; oxycodone/Naloxone (Targin) 20/10mg 2x per day; sildafenil[15] (Viagra) 100mg prn and Sandomigran[16].

16. The Emergency Department (**ED**) doctor who first attended to AH on 21 June 2017 recorded his current medications, contained in a bag with him as: Targin 20/10mg daily, Targin 10/5mg daily, esomeprazole 20mg daily, naproxen SR 1000mg daily, ibuprofen[17] 200mg, zolpidem 10mg at night, quetiapine[18] 100mg, indomethacin 25mg, clonazepam 2mg prn, mirtazapine 45mg, sildafenil 100mg, pregabalin 150mg 2x per day and metoclopramide 10mg.

MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

---

[7] Pregabalin, marketed under the brand name Lyrica, is a medication used to treat epilepsy, neuropathic pain, fibromyalgia, and generalized anxiety disorder. Its use for epilepsy is as an add-on therapy for partial seizures in adults.

[8] Esomeprazole is an antacid medication in the class of 'proton-pump inhibitors' (PPI).

[9] Propranolol is a beta-blocking medication used to treat high blood pressure, atrial fibrillation, tremor, and other conditions.

[10] Naproxen is a non-steroidal anti-inflammatory medication (NSAID) used to treat pain and inflammation. SR denotes a sustained release formulation

[11] Mirtazapine, sold under the brand name 'Remeron', is an atypical antidepressant which is used primarily in the treatment of depression.

[12] Zolpidem, sold under the brand name 'Stilnox', among others, is a medication primarily used for the short term treatment of sleeping problems.

[13] Naloxone is a drug used as an opiate antagonist. In the acute setting it is used to reverse the depressant effects of opiate medications, particularly respiratory depression. The actions of naloxone last for a shorter period than all but the most short acting opioids. Naloxone is also incorporated with oral opiate drugs with the aim of reducing the side effects (constipation) of the opiate. Oral naloxone has no effect on the respiratory depression caused by opiates.

[14] Targin is a combination of oxycodone and naloxone. It is an analgesic drug available as modified-release tablets under the trade name Targin. See notes on Targin in Attachment B.

[15] Sildafenil is a drug used in the treatment of erectile dysfunction.

[16] Sandomigran or pizotifen is a drug used primarily as a preventative to reduce the frequency of recurrent migraine headaches.

[17] Ibuprofen is a 'NSAID' used for the treatment of pain and inflammation

[18] Quetiapine, marketed as Seroquel, is an 'atypical' antipsychotic medication used for the treatment of schizophrenia, bipolar disorder, and major depressive disorder. It is also sometimes used as a sleep aid due to its sedating effects.

Circumstances in which the death occurred

17. AH presented to the ED of LRH at 5.20am on 21 June 2017, stating that four days previously he had been a driver involved in a motor vehicle when his car had been 'T-boned' from the left side by a truck. He gave a description of his vehicle doing 100 km/hr and being pushed across three lanes of traffic by the impact. He did not seek medical attention at this time and no ambulance attended the accident.

18. At the time of his presentation to the ED AH was complaining of a right frontal headache, right neck pain, left chest pain and chest wall tenderness, severe lower back flank and lower abdominal pain, leg weakness, passing blood in his urine and urinary incontinence. He reported numbness in his limbs when they were touched.

19. AH had walked into the ED unaided. Nursing notes record an impression of AH being *"under the influence of a substance"* when he arrived. He was placed in a cubicle to await assessment, but at 8.00am asked to go outside to get a bag from his car. Despite being discouraged from doing this by nursing staff, AH left the ED and returned at 8.30am complaining of 10/10 pain to his left leg and being numb all over. Observations remained normal at this time.

20. At 9.50am AH was seen by nursing staff to take an unknown quantity of his own medication that he subsequently identified to staff as 'Targin'. The medical records document,

    Pt witnessed taking unknown medication by staff. Pt states it was Targin. Pt appears drowsy post taking medication.

21. At 10.10am AH was placed in a cervical collar to continue waiting for assessment.

22. An examination by a doctor at approximately 10.15am revealed the following: normal observations, pain score of 10/10, tenderness of the whole spine from the neck to the sacrum, but particularly in the lumbar area, tenderness of the left chest wall, tenderness of the lower abdomen and left flank and a normal neurological examination except for some mild weakness when moving the hips. The examination recorded normal sensation.

23. Hospital Medical Officer (**HMO**) Dr My Huong San spoke with the consultant in charge Dr Al Ubaidi and stated,

While I was speaking to Dr Al-Ubaidi, at approximately 1010 hours, a nurse came to us and advised that the patient had been seen taking unknown quantities of medication from his bag. I went to see the patient with Dr Al-Ubaidi and we observed him to be very drowsy, but was able to respond to voice. The nursing notes indicated that the patient had said he had taken Targin. We formed the view that the Glasgow coma scale had reduced to 13.

24. The management plan was to perform a computed tomography (**CT**) scan of the head, neck, chest, abdomen and pelvis. Blood tests were also taken.

25. Consultant in charge Dr Bashir Gondal (from 12.00pm) said that the 'HMO' caring for AH contacted the Victorian Poisons Information Centre and was advised that 'supportive care' was the appropriate management.

26. At 10.55am AH was administered 400mg of naloxone intravenously. His respiratory rate and oxygen saturations are recorded as normal at 10.51am, but his conscious state had deteriorated from a Glasgow Coma Scale (**GCS**)[19] of 15 to 11 at 10.59am.

27. Dr San stated that oxygen saturations were 85% at this time, but this is not recorded on the observation chart.

28. It appears that AH was transferred to a 'resus' cubicle at around this time and according to statements from senior nursing staff, he was placed on continuous monitoring of pulse, blood pressure, respiratory rate and oxygen saturations.

29. AH was taken for a CT scan and returned at 11.41am. At 11.49am he was administered a further dose of 400mg of naloxone. At this time his conscious state had dropped to 10, and his respiratory rate had fallen to 12, but with normal oxygen saturations.

[19] The Glasgow Coma Scale (GCS) is the most commonly used scoring system to describe someone's consciousness. Clinicians use this scale to rate the best eye opening response, the best verbal response, and the best motor response an individual makes. Best response is 15/15 and worst is 3/15.

30. At 12.45pm AH was observed to be "snoring ++", although he was rousable to touch, i.e. he opened his eyes, but did not talk. At this time his oxygen saturations had dropped to 89% and oxygen via a mask was commenced.

31. At 1.00pm the last notes made whilst AH was still alive indicate that he was awaiting his CT scan results so that he could be *"reviewed by the ED consultant as soon as possible to sit patient up and allow him to wake up etc."* Observations at this time record a normal respiratory rate and oxygen saturation and a GCS of 12.

32. At 1.45pm another set of observations revealed a respiratory rate of 12, with normal (95%) oxygen saturations and a GCS of 9. This was apparently reported to a senior nurse at the time, but there are no further medical or nursing notes made until a 'Code Blue' was called.

33. Dr San indicated that she reviewed AH at 1.50pm and recalled that his GCS was 10-11 (which was about the same as when she last checked) with a respiratory rate of 12 and normal oxygen saturations. She also commented that the cervical collar was still in place, which concerned her as it *"might be an airway risk given his ongoing sedation, intermittent desaturations and poor responsiveness to Naloxone".* The medical deposition recorded that at 1.50pm, Dr San *reassessed him and noted pt was responsive to name and tactile & painful stimuli, noted spontaneous eye opening to name but immediately lapsed into sleep – GCS appear unchanged.*

34. At 2.22pm a 'Code Blue' was called by a nurse, Andrew Simmons who appears to have entered AH's cubicle in search of some equipment. He noted that AH was pale/greyish in colour and did not respond to him.

35. AH's initial cardiac rhythm was found to be 'asystole', that is there was no pulse and no cardiac electrical activity on the monitor which potentially indicates that cardiac arrest had occurred a reasonably long time previously. Cardiac 'arrests' from opiate toxicity generally commence with a respiratory arrest and this progresses the loss of oxygen supply to the heart, causes loss of heart pumping and ultimately cessation of electrical activity.

36. Attempts to resuscitate AH were characterised by difficulty in establishing a definitive airway by intubation of the trachea. The chart records two unsuccessful attempts at

intubation by senior ED and Intensive Care Unit (**ICU**) doctors and a third successful attempt by an anaesthetist at 2.56pm, 36 minutes after the 'code blue' was called.

37. Unfortunately, AH was unable to be resuscitated and was declared deceased at 3.04pm.

Identity of the deceased

38. On 21 June 2017, DT visually identified her *boyfriend/defacto*, AH*,* born 6 February 1980.

39. Identity is not in dispute and requires no further investigation.

Medical cause of death

40. Forensic Pathologist Registrar (as she then was) Dr Melanie Archer[20] from the Victorian Institute of Forensic Medicine (**VIFM**) conducted a post mortem examination on 26 June 2017 and provided a written report of her findings dated 22 November 2017.

41. Toxicological analysis of antemortem blood specimens detected oxycodone[21] (~ 0.6 mg/l), quetiapine (~ 0.6 mg/l), naloxone (~ 2ng/ml), naproxen (~ 23 mg/l) and pregabalin (~ 4.6 mg/l). There was also detection of 7-aminoclonazepam in post-mortem blood (~ 0.03 mg/l); this is a metabolite of clonazepam[22]. Toxicological analysis of blood showed no detection of ethanol. There was also no detection of common drugs or poisons in the stomach contents.

42. According to the VIFM toxicology report, the level of oxycodone detected is consistent with excessive use. This semi-synthetic opioid analgesic can cause central nervous system depression with the potential for respiratory inhibition when used at supratherapeutic levels. The levels of this drug detected in this case were in the range recorded in cases of fatal overdose. There was also use of additional central nervous system depressant drugs (quetiapine, pregabalin and clonazepam), which can further depress central nervous system function in an additive and synergistic manner.

---

[20] Under the supervision of Specialist Forensic Pathologist Dr Matthew Lynch.
[21] Oxycodone is a semi-synthetic opiate narcotic analgesic related to morphine used clinically to treat moderate to severe pain.
[22] Clonazepam is a benzodiazepine related to diazepam possessing sedative and anticonvulsant properties.

43. Examination of the cervical spine disclosed diffuse extradural haemorrhage between the 7th cervical and 2nd thoracic vertebrae. There was no associated fracture, and no impingement upon the spinal cord. Radiologist review of the post mortem CT scan confirmed that there was no spinal fracture. The size of the haemorrhage was insufficient to have caused or contributed to death. The location of this haemorrhage is also too high to explain lower limb weakness and urinary incontinence. However, it is possibly associated with the deceased's neck pain and headaches. It is also possible that this injury was sustained in the reported motor vehicle accident in the days preceding death via a "whiplash" type mechanism.

44. The transverse sternal fracture is favoured to result from cardiopulmonary resuscitation, and is a commonly seen injury in this setting. Overlying soft tissues showed no inflammation.

45. Dr Archer provided an opinion that the medical cause of death was *Mixed Drug Toxicity (Oxycodone, Quetiapine, Pregabalin and Clonazepam).*

46. I accept Dr Archer's opinion.

CPU REVIEW

47. The CPU conducted a review of the available evidence including AH's medical records and statements from clinicians who had cared for him.

48. The CPU considered that AH's death was readily preventable.

49. It was noted that AH was a patient recognised as having taken an overdose of opiate medication within the ED of the hospital, and whilst fully monitored in a resuscitation cubicle died as the result of this overdose. The CPU observed that whilst opiate medication, perhaps in combination with other medication, causes lethal respiratory depression this is relatively easily treated with appropriate observation, monitoring, simple treatment and simple interventions.

50. The CPU considered that to be unexpectedly found deceased alone in an ED cubicle potentially reflects the failure of a reasonable standard of care, or of monitoring and other systems in operation at the time.

51. The CPU identified a number of potential contributing factors which are set out below.

Inadequate staff knowledge of the pharmacology of Targin

52. The CPU considered that an ED consultant level knowledge of the pharmacology of Targin would be expected to include its prolonged duration of action, its potential interaction with other medications and the initiation of appropriate monitoring and treatment with naloxone by infusion; in addition, an appreciation of the short duration of action of naloxone, and its use in overdoses involving long-acting opiates.

53. In these circumstances the inadequate use of naloxone and the inadequate monitoring and observation of AH suggests that staff were not aware of the pharmacology of Targin and naloxone.

Lack of advice from the Victorian Poisons Information Centre (**VPIC**)

54. At least one member of the medical staff indicated that the VPIC was consulted regarding AH's ingestion, and the advice was 'supportive care'.

55. The VPIC has no record of a call regarding AH, and it is not clear who may have called the centre. ED Consultant, Dr Gondal indicates that the HMO did this, but there is no indication in the medical or nursing notes, or Dr San's statement that this was the case. Dr Al Ubaidi was not aware of a phone call and the HMO subsequently reported to the Chief Medical Officer, Dr Phillipa Hawkings that she could not recall.

56. The CPU considered it likely that if the VPIC had been consulted regarding the ingestion of a quantity of Targin, the advice given would have been more specific than "supportive care" and that staff seeking advice would have been advised of the pharmacology and expected duration of action of Targin, and the appropriate measures to monitor and treat the effects of Targin.

Handover and communication between staff

57. The CPU commented that it is possible that there was inadequate communication between medical staff and/or nursing staff regarding the nature of AH's ingestion.

Both Dr San and nursing staff indicated that AH had ingested Targin, whilst the ED consultant, Dr Al Ubaidi indicated that the overdose was 'unknown'.

Inadequate observation by staff

58. The last entry in the nursing notes was at 1.00pm and the last observations were at 1.45pm. These recorded "*RR 12 GCS 9, snoring, rouseable* (sic)*, straight back to sleep*". He was reviewed by the HMO just after this time who noted that he *"lapsed back to sleep immediately"* and was *"snoring"*.

59. The CPU noted that there did not appear to have been any increase in observations or consideration of administration of additional naloxone in response to this, and it is clear from the circumstances in which AH was found in cardiac arrest that he was not being closely or continuously observed.

Failure of Monitoring

60. AH was placed in a resuscitation (i.e. high acuity) cubicle at approximately 11.00am. According to the statement of Nurse Unit Manager, Anne Galletti, AH was fully monitored, i.e. pulse, continuous oxygen saturation and blood pressure and all monitor alarms were set and correctly functioning. Respiratory rate was taken and recorded by direct observation, but this was only being recorded every thirty minutes or so around this time.

61. It is therefore notable that AH was found in cardiac arrest only when a member of nursing staff entered the cubicle to look for equipment and there are no reports of alarms sounding. It is also notable that the reporting doctor, Dr San recorded: *"1422 Code Blue called. Nursing staff Andrew noted leads has been displaced and found patient unresponsive*". This is the only mention of monitor leads being displaced in the entire medical record and statements available to the Court.

62. The CPU considered that if AH had been correctly attached to functioning monitoring equipment with functioning alarms, it is difficult to appreciate how he could have been found in cardiac arrest without any alarms sounding.

63. Alarms would sound when the alarm parameters were breached i.e. when AH's oxygen saturation fell, when his pulse slowed or stopped, when his blood pressure fell

or when monitor leads became detached. In this case there appears to have been complete failure of the alarm system that was monitoring at least three separate parameters.

CPU Conclusion

64. The CPU considered that AH's death was readily preventable with the application of basic knowledge of pharmacology and an appropriate level of monitoring and observation.

Prevention Opportunities

65. In response to questions raised by the Court regarding any change in systems or practices in the ED as the result of a review of AH's death, a co-director of the ED, Dr Tony Chan and Anne Galletti, indicated the following changes occurred:

- The ED has been relocated to a larger, improved facility, co-located with the ED short-stay unit.
- The new department has enabled a significant reduction in noise.
- Monitoring equipment has been replaced with new 'Philips' monitors that provide optimum auditory and visual alarms, both in the cubicle and central nurses station.
- Improved staff/consultant overlap for handover.
- Bedside handover between senior staff for high acuity patients.
- Formal allocation of dedicated staff for each resuscitation/high acuity cubicle.
- A requirement for increased nursing observation of patients with drug ingestion or for significantly reduced coma score.
- A requirement for HMO consultation with the doctor in charge for patients with a falling or low coma score.
- Testing of patient monitors to ensure visible and audible alarms are functioning and adjusted.
- Improved observation charts requiring 1:1 nursing and consultant notification for patients with low coma score.

- Relevant inclusions in the ED orientation manual, including *Drug and Alcohol overdose (suspected).*

66. The CPU considered that LRH had undertaken a comprehensive and critical review of AH's death and that the changes to practice, equipment and facilities would be expected to assist in the prevention of such an occurrence in the future.

Opportunity to respond to potentially adverse conclusions

67. By correspondence dated 21 January 2020, LRH and Dr San were invited to comment on the conclusions reached by the CPU, in particular that AH's death was readily preventable and the potential contributing factors to his death.

68. I note that Dr San[23] was a junior doctor at this time of the incident and all junior HMOs work under the supervision of a consultant/registrar and do not act independently. She confirmed that she did not contact VPIC and did not record this in the notes. Dr San escalated concerns regarding AH's airway to the ED consultant in charge on a number of occasions and said that she could not add further information regarding being told by nurse Andrew Simmons that monitor leads had been displaced.

69. Dr Craighead responded on behalf of LRH to each of the issues raised by the Court.[24]

70. With respect to staff knowledge of the pharmacology of Targin and Naloxone, he agreed that this would be knowledge expected of an ED consultant. He did however suggest that the issue was not lack of knowledge of naloxone pharmacology, but rather it was poor handover.

71. With respect to the lack of advice from the VPIC, Dr Craighead confirmed that there was no phone call made to the VPIC from a hospital phone that day and suggested requesting Dr San to check her phone records. Dr San is clear that she did not call the VPIC.

72. With respect to handover and communication, Dr Craighead indicated that there is a discrepancy in the recorded notes regarding the substance ingested, with nursing staff

[23] Additional statement dated 26 June 2020.
[24] Letter dated 3 March 2020 and subsequently letter dated 22 April 2021.

indicating it was Targin whereas the consultant writing "unknown" and that other substances may have been ingested.

73. With respect to inadequate observation by staff, reference was made to the changes in the organisation and staffing of the new ED, education of staff in neurological observations and the requirement for nursing staff to be aware of the need to closely observe a patient and obtain an immediate consult from an ED consultant where GCS has dropped by more than two.

74. The CPU did comment that the need to closely observe such a patient was self-evident and that utilising or relying upon GCS[25] alone to monitor toxicology patients may miss important indicators of impending problems.

75. Finally, with respect to the failure of monitoring equipment, Dr Craighead indicated that there was no verifiable explanation for the failure of the monitoring equipment to alert staff and that Dr San's comment that a nurse told her that the monitor leads had been displaced, is not recorded in the notes or in her statement. Dr Craighead also considers that noise or alarm fatigue amongst staff may have been a factor.

76. The CPU considered that for any of these factors to have contributed there must have been either a significantly loud noise for a prolonged period of time to drown out all the alarms or an outbreak of alarm fatigue amongst multiple staff on the floor at that time.

77. Mr Craighead added that the VPIC is a valued source of information and staff are aware of its role and are often in contact.

Conclusion

78. AH was a patient recognised to have taken an unknown quantity of opiate medication within the ED of the hospital. He identified the medication as Targin, nursing staff recorded the medication taken as Targin and this was also known to the attending HMO.

[25] The GCS was originally developed to monitor patients with head trauma. It does not utilise any physiological parameter such as respiratory rate, oxygen saturation or pupil size and reactions and whilst now commonly utilised to monitor the conscious state of patients with a variety of conditions, it may remain relatively normal early when there are other indicators of drug toxicity.

79. AH subsequently behaved as would be expected of an individual who had taken a large dose of an opiate medication in that he became drowsy and transiently responded to doses of naloxone.

80. The available evidence suggests that no call was made to the VPIC to seek advice regarding AH's ingestion of Targin.

81. Whilst an ED consultant recorded the drug as 'unknown' rather than Targin, regardless of whether the specifics of the ingested drug was known or unknown, the principles of medical care would have been the same, namely close observation of physiological parameters, protection of the airway if required, administration of supportive treatments such as IV fluids and the administration of specific antidotes or treatments for specific overdoses if required.

82. The VIFM toxicology report indicates that the level of oxycodone in AH's blood was consistent with excessive use and within the range recorded in cases of fatal overdose. Quetiapine, pregabalin and clonazepam metabolites were detected in ante-mortem blood at levels within range of their respective therapeutic levels. At these levels, these medications would not be expected to cause significant toxicity, but could potentiate the effects of ingested opiates or other depressant medications.

83. AH was also found to have evidence of neck and back injury with minor haemorrhage detected in the spinal canal from the 7th cervical to the 2nd thoracic vertebrae. This was not significant enough to have caused death or neurological deficit but may have been responsible for the presenting symptoms of neck pain and headaches.

84. The mode of death in this case would have been depression and then cessation of respiration, leading to cardiac arrest and death. From a medical and toxicological point of view the management of respiratory depression, protecting the airway and the provision of other support and antidotes would have been relatively straightforward and patient survival would have been anticipated.

85. Instead, AH died whilst fully monitored in a resuscitation cubicle as the result of an overdose.

86. I note that LRH did not dispute the conclusion that AH's death was relatively easy to treat with appropriate observation, monitoring, simple treatment and simple interventions or that his death was *readily preventable.*

87. Based on the evidence available in this case, I consider that that the system of care provided by LRH did not facilitate an appropriate level of monitoring, observation and pharmacological treatment in response to AH's presentation on 26 June 2017 and his death was readily preventable.

88. I note that review of AH's death by LRH has identified and implemented a number of practice, equipment, facility and system improvements that would be expected to prevent a recurrence of such an incident.

RECOMMENDATIONS

89. Pursuant to section 72(2) of the Act, and in addition to the substantial changes already made at LRH, I make the following recommendation:

LRH continue to conduct ongoing education for all levels of staff regarding the management of opiate toxicity, particularly as it applies to long acting formulations.

FINDINGS AND CONCLUSION

90. Pursuant to section 67(1) of the Act I make the following findings:

(a) the identity of the Deceased was AH, born 6 February 1980;

(b) the death occurred on 26 June 2017 at the La Trobe Regional Hospital, 10 Village Avenue, Traralgon, Victoria, from *Mixed Drug Toxicity (Oxycodone, Quetiapine, Pregabalin and Clonazepam)*, and

(c) the death occurred in the circumstances described above.

91. I convey my sincere condolences to AH's family for their loss and the tragic circumstances in which his death occurred.

92. Pursuant to section 73(1B) of the Act, I order that this finding (in a redacted format) be published on the Coroners Court of Victoria website in accordance with the rules.

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

DT, Senior Next of Kin

PD, former wife of the Deceased

CH, mother of the Deceased

DH, sister of the Deceased

La Trobe Regional Hospital

Dr My Huong San

Austin Health

Transport Accident Commission

Safer Care Victoria

Leading Senior Constable Emma Rainey, Victoria Police, Coroner's Investigator

Signature:

SARAH GEBERT

Date: 21 September 2021

NOTE: Under section 83 of the ***Coroners Act 2008*** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.