

IN THE CORONERS COURT OF VICTORIA AT MELBOURNE

COR 2019 004452

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

Section 67 of the Coroners Act 2008

Findings of:	Coroner Simon McGregor
Deceased:	Armin Andrew Schaefer
Date of birth:	10 June 1956
Date of death:	22 August 2019
Cause of death:	1(a) Hypoxic ischaemic brain injury and pneumonia complicating cardiac arrest in a man with coronary artery atherosclerosis, cardiomegaly and emphysema.
Place of death:	Northern Health, The Northern Hospital, 185 Cooper Street, Epping, Victoria, 3076
Keywords:	Northern Hospital, NorthWestern Mental Health, Northern Psychiatric Unit, Safer Care Victoria, Community Treatment Order, Temporary Treatment Order, schizophrenia, hypoxic brain injury.

INTRODUCTION

- 1. On 22 August 2019, Armin Andrew Schaefer was 63 years old when he died at the Northern Hospital, Epping. At the time of his death, Armin lived at 4 Trentham Court, Thomastown.
- 2. Armin's medical history included schizophrenia, insomnia, bipolar affective disorder, depression, obesity, a cerebral infarction, hypercholesteraemia, and hypertension. He struggled with alcohol and drug use throughout his life which led to social isolation and estrangement from his family. ²
- 3. On 2 August 2019, Armin received his regular paliperidone injection at Highlands Medical Clinic. His general practitioner, Dr Lit Ho, noted that Armin appeared to be well and agreed to return in a month for his next injection.³

THE CORONIAL INVESTIGATION

- 4. Armin'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. The death of a person in care or custody is a mandatory report to the Coroner, even if the death appears to have been from natural causes.
- 5. 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.
- 6. 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.

¹ Coronial brief, Health Summary Sheet dated 9 July 2020, page 51.

² Coronial brief, statement of Barbara Pirpinias dated 22 June 2020, pages 12-13.

³ Coronial brief, statement of Dr Lit Y Ho dated 9 July 2020, page 10.

- 7. Victoria Police assigned an officer to be the Coroner's Investigator for the investigation of Armin's death. The Coroner's Investigator conducted inquiries on my behalf, including taking statements from witnesses such as family, the forensic pathologist, treating clinicians and investigating officers and submitted a coronial brief of evidence.
- 8. This finding draws on the totality of the coronial investigation into the death of Armin Andrew Schaefer including evidence contained in the coronial brief. 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.⁴
- 9. In considering the issues associated with this finding, I have been mindful of Armin's basic human rights to dignity and wellbeing, as espoused in the *Charter of Human Rights and Responsibilities Act 2006*, in particular sections 8, 9 and 10.

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

Circumstances in which the death occurred

Emergency department presentation

- 10. On 15 August 2019, Armin was transported to the Emergency Department (**ED**) at the Northern Hospital after his Community Treatment Order (**CTO**) was varied to an inpatient Temporary Treatment Order (**TTO**) by the community mental health team. This was due to an acute relapse of his schizoaffective disorder likely secondary to substance abuse and non-compliance with his medications. During his time in the ED, Armin was recorded as displaying challenging and often aggressive behaviours and was intermittently restrained.⁵
- 11. On 16 August 2019, Armin was reviewed by Dr Abhi Mathew who noted that Armin had received diazepam, olanzapine, and droperidol since the preceding night. Dr Mathew recorded that his impression of Armin was one of a schizomanic relapse with severe psychosis and mania, with impaired judgement, insight, and capacity.⁶

⁴ 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.

⁵ Northern Health Medical Records.

⁶ Northern Health Medical Records.

12. Diazepam was prescribed for alcohol withdrawal symptoms, with olanzapine, haloperidol, and promethazine prescribed as anti-psychotics, with a plan for Armin to be admitted to the Northern Psychiatric Unit (**NPU**) as soon as possible.⁷

Admission to the Northern Psychiatric Unit

- 13. At approximately 3.09pm, Armin was moved to the NPU when a bed became available. He continued to display challenging behaviours overnight and into the following day (17 August 2019). Armin later lay on the floor and was observed to be "muttering to himself" and wanting to sleep. Nursing staff requested that he get on his bed however Armin was recorded as being irritable. A mattress was placed on the floor for him, and he was observed at 15-minute intervals during which he was recorded as being "snoring and breathing upon all visuals". Nursing staff also placed Armin on his right side to "ensure that [his] airway was not compromised". 10
- 14. Having reviewed Armin's medical records, I note that staff did not record Armin's other observations, including his blood pressure, pulse rate, respiratory rate, or oxygen saturations, as well as recording some "ambivalence" towards taking more comprehensive observations likely due to his previous aggressive behaviours.¹¹

Armin's cardiac arrest

- 15. At 11.30am, nursing staff attempted to rouse Armin but were unable to elicit a response. A Code Blue medical emergency call was activated, and cardiopulmonary resuscitation commenced. Armin was intubated and commenced on a ventilator, with return of spontaneous circulation (**ROSC**) achieved at approximately 12.00pm.¹²
- 16. Armin was admitted to the Intensive Care Unit (**ICU**) where multiple blood tests and investigations failed to provide an explanation for his cardiac arrest however there was some suspicion that drug effects may have potentiated the incident. There was also a high index of suspicion that he may have suffered a severe hypoxic brain injury.¹³

⁷ Northern Health Medical Records.

⁸ Northern Health Medical Records.

⁹ Dr Sean Ivory, Medical e-Deposition dated 21 August 2019, page 1.

¹⁰ Northern Health Medical Records.

¹¹ Northern Health Medical Records; Dr Sean Ivory, Medical e-Deposition dated 21 August 2019, page 1.

¹² Coronial Brief, statement of Dr Anthony Cross (undated), page 8.

¹³ Coronial Brief, statement of Dr Anthony Cross (undated), page 8.

- 17. Over the following days, Armin's condition failed to improve, and, on 19 August 2019, a magnetic resonance imaging scan of Armin's brain revealed a diffuse anoxic brain injury.¹⁴
- 18. Following discussions with Armin's sister, Linda Macklin, a decision was made for Armin to be extubated and organ donation be commenced. 15
- 19. On 22 August 2019 at 1.19pm, Armin passed away. 16

Identity of the deceased

- 20. On 21 August 2019, Armin Andrew Schaefer, born 10 June 1956, was visually identified by his niece, Barbara Pirpinias.
- 21. Identity is not in dispute and requires no further investigation.

Medical cause of death

- 22. Forensic Pathologist Dr Victoria Francis from the Victorian Institute of Forensic Medicine (VIFM) conducted an autopsy on 27 August 2019 and provided a written report of her findings dated 10 February 2020.
- 23. The post-mortem examination revealed a hypoxic ischaemic brain injury, right lower lobe pneumonia with right lung bronchitis secondary to pulmonary emphysema, severe coronary artery atherosclerosis with narrowed right coronary artery ostium, mild myocardial fibrosis with focal myocardial disarray and mild myocardial fibrosis, cardiomegaly, mild hepatic steatosis, WHO class I obesity, and sequelae of cardiopulmonary resuscitation.
- 24. Toxicological analysis of post-mortem samples identified the presence of chlorpromazine, hydroxyrisperidone, olanzapine, and promethazine. Valproic acid was detected in antemortem samples but not in post-mortem samples.
- 25. Post-mortem biochemistry showed that Armin's C-reactive protein (**CRP**) was elevated. CRP is a molecule that increases in the blood in response to inflammation, particularly infections.

¹⁴ Coronial Brief, statement of Dr Anthony Cross (undated), page 8.

¹⁵ Coronial Brief, statement of Dr Anthony Cross (undated), page 8.

¹⁶ Coronial Brief, statement of Dr Anthony Cross (undated), page 8.

- 26. Dr Francis noted that Armin's severe coronary artery atherosclerosis likely predisposed him to myocardial infarctions (heart attacks) or sudden fatal arrythmias, both of which may result in sudden death. Furthermore, Armin's history of cardiomegaly may be associated with increased myocardial oxygen demand, arrythmias, and sudden death.
- 27. Armin's lungs were emphysematous, an indicator of chronic obstructive pulmonary disease. Progression of this disease is associated with pulmonary hypertension and cardiac failure, as well as recurrent infections and respiratory failure. Dr Francis observed Armin would have had chronically poor gas exchange which, in the setting of a cardiac arrythmia, would have been a further compromising factor on his cardiovascular system.
- 28. Dr Francis provided an opinion that the medical cause of death was from a 1 (a) hypoxic ischaemic brain injury and pneumonia complicating cardiac arrest in a man with coronary artery atherosclerosis, cardiomegaly, and emphysema.
- 29. Dr Francis further opined that on the basis of available information, the death was due to natural causes.
- 30. I accept Dr Francis' opinion.

CPU REVIEW

- 31. To assist with my investigation into the circumstances surrounding Armin's death, I requested that the Coroners Prevention Unit¹⁷ (**CPU**) undertake a review of Armin's care, specifically focussing on the medication that Armin received in the days prior to his cardiac arrest.
- 32. The CPU reviewed evidence including statements received from Dr Anthony Cross, ICU, Northern Health, Belinda Scott, Executive Director of Mental Health, and Peter Kelly, Director of Operations at NorthWestern Mental Health (**NWMH**), Dr Francis' pathology report, and Armin's medical records from Northern Health.

¹⁷ 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.

Medication as a contributing factor

- 33. In constructing their report, the CPU noted the statement of Dr Cross that, whilst the immediate cause of Armin's cardiac arrest was not apparent, there was "some suspicion that drug effects may have been an explanation" 18.
- 34. Armin's ante-mortem toxicology results were reviewed by the CPU however it was noted that these were obtained approximately 53.5 hours <u>after</u> the cardiac arrest, which meant that it was extremely difficult to draw conclusions given that the levels observed would have been significantly higher at the time of Armin's cardiac arrest.
- 35. It was further noted that the medications observed in Armin's results may have a synergistic or additive effect, leading to a depression of the central nervous system (CNS) including his conscious state and respiration, loss of protective airway reflexes, and cardiac toxicity.
- 36. Armin's medical records indicated that he was not overly sedated following his initial treatment at Northern Health (**NH**) however he subsequently had several medications administered (promethazine, chlorpromazine, valproate, and olanzapine) during his time in the NPU Unit.
- 37. The CPU noted that it was possible that these medications caused sufficient sedation for Armin to lose his airway reflexes which ultimately resulted in his cardiac arrest. The CPU further noted that Armin required intubation and an ICU admission in June 2019 related to medication administration.
- 38. Alternatively, it is possible that the combination of medications Armin was administered caused a lethal arrythmia which resulted in his cardiac arrest. Most of the medications he was administered (droperidol, chlorpromazine, olanzapine, promethazine, haloperidol and the long-acting paliperidone) have the potential to prolong an individual's QT-interval¹⁹ which may result in a lethal arrythmia and may occur at normal therapeutic levels. The CPU noted that Armin's first ECG taken following ROSC demonstrated a significantly prolonged QT-interval of 543msec.²⁰

¹⁸ Coronial brief, statement of Dr Anthony Cross (undated), page 8.

¹⁹ The QT interval is part of the ECG complex that represents the time taken for the ventricle of the heart to depolarize and repolarize. If prolonged it predisposes to the occurrence of potentially lethal disturbances of heart rhythm.

²⁰ A normal range is 350 to 450msec for males, and 360 to 460msec for females.

39. Therefore, it is possible that the medication Armin was administered significantly contributed to his cardiac arrest and subsequent death, either through their combined CNS effects (in an individual who had already demonstrated a susceptibility to increased sedation secondary to medication administration) or as a result of the combined cardiac effects of medications that may have resulted in a prolonged QT-interval and subsequent lethal arrythmia.

<u>Investigations and assessments</u>

- 40. Based on the available evidence, it is likely that no investigations (including blood tests or ECGs) were undertaken whilst Armin was in the NH ED. These are essential screen tools to determine whether it was safe to send a high-risk patient such as Armin to the NPU.
- 41. It was noted that whilst specific mention of Armin's risk of susceptibility to the sedative effects of medication (recalling his previous ICU admission in June 2019 which required intubation) were recorded in his medical notes, Ms Scott did not provide elucidation as to whether this risk of oversedation was specifically brought to the attention of staff caring for Armin in the NPU.
- 42. Whilst 15-minute visual observations were commenced on the morning of 17 August 2019, according to Ms Scott's statement this was due to his refusal to sleep on the bed, poor sleep overnight, inability to perform consultant level review on two occasions, and his high-risk admission, rather than due to a concern for signs of oversedation and airway compromise. Furthermore, it is likely that that a lack of awareness of Armin's risks contributed to the lack of proper medical review or escalation of care.
- 43. I note that Armin's care was not escalated to obtain a medical review, further indicating that staff were unaware of Armin's propensity for oversedation in the context of multiple medications. Furthermore, the 15-minute observations simply recorded Armin's position and whether he was breathing. This is insufficient to detect early deterioration in his condition.

Review of care

44. The CPU acknowledged that Armin presented as a very challenging patient to manage and care for, and concluded that the type, dose, and timing of the medications that were prescribed were reasonable and appropriate. Whilst there was no indication that an adverse event occurred in the ED, the omission of comprehensive investigations, including ECGs and blood tests, whilst Armin was in the ED was significant.

- 45. Armin's ED mental health review and management plan was thorough and appropriate, with a particular note being made by Dr Khine New Win regarding his recent adverse oversedation event that required admission to the ICU, however it is likely that this was not communicated to the NPU staff upon his transfer and is not included in the various NPU management plans and charts.
- 46. Following Armin's transfer to the NPU, he was reported as being irritable and yelling. This likely contributed to NPU staff's reluctance to approach him to perform observations and had the potential to reduce appreciate of any deterioration, including the "ambivalence" of staff towards taking observations.
- 47. During the morning of 17 August 2019, Armin was placed in the recovery position by staff and commenced on 15-minutely observations. I note that it remains unclear as exactly why this was done and does not appear to be in response for concerns for his airway or the alert in his notes.
- 48. It is therefore reasonable to conclude that staff caring for Armin were unaware of the alert written in his mental health notes by Dr Win on 16 August 2019.
- 49. It is likely that the cause of Armin's cardiac arrest was likely related to either a combination of his underlying medical problems combined with medication-induced sedation, respiratory depression or obstruction caused by his increased weight²¹ and airway anatomy that had previously been demonstrated as difficult to manage or due to a lethal arrythmia caused by the cumulative cardiac effects of the medication administered, noting that the first ECG taken following ROSC demonstrated a prolonged QT interval.

Summary of contributing factors

- 50. It is apparent that the following factors likely contributed to Mr Schaefer's cardiac arrest in the NPU and subsequent death on 22 August 2019:
 - a) Inadequate medical assessment in ED prior to transfer to NPU;
 - b) A lack of clear communication of Armin's alert regarding previous airway problems experienced whilst sedated to NPU nursing staff;

²¹ BMI of 34.

- c) No indication of risk of airway problems whilst sedated entered into NPU management plans or risk assessments;
- d) An ambivalence of NPU staff to approach Armin to undertake assessments;
- e) A lack of escalation of medical care when Armin was placed in the recovery position and commenced on 15 minutely observations on morning of 17 August 2019;
- f) Observations taken that would not be adequate to detect deterioration in parameters such as pulse rate, and oxygen saturations;
- g) Polypharmacy contributing to sedation and obstruction of airway, leading to hypoxia and cardiac arrest; and
- h) Polypharmacy of drugs known to have the effect of prolonging the QT interval, potentially resulting in lethal cardiac arrhythmia and subsequent cardiac arrest.

Opportunities for prevention

- 51. Following their review, the CPU noted the following opportunities for prevention:
 - a) Introduction of an ED policy/guideline regarding the minimum requirements for the 'medical clearance' of complex psychiatric patients in the ED. This should include, where possible, the performance of an ECG on patients receiving multiple doses of drugs with potential cardiac side effects;
 - b) Introduction of a medical alert section in all psychiatric admission documentation;
 - c) Rationalization of medication charting as already identified by Northern Health;
 - d) Introduction of standard observation and response charts (as used in medical wards) to NPU for patients identified as meeting criteria for increased observation;²²
 - e) Mandatory medical review for NPU patients identified by staff as requiring increased medical observations;

²² Northern Health indicated that they would consideration to the monitoring of patients receiving mental health medications with respect to ECG, oxygen saturations, respiration, pulse, and blood pressure monitoring whilst also noting that this would require careful consideration in the context of aggressive patients.

- f) Mandatory medical review of any NPU patient in whom it is deemed necessary to place them in the recovery position to protect their airway;
- g) Development of a procedure to admit mental health patients deemed to be at high risk of significant medical complications to an appropriate medical setting with nursing and medical care and observation; and
- h) Northern Health review their application of SCV's reporting guidelines, particularly as it applies to the recognition and escalation of care in a deteriorating patient.

Northern Health response

Response dated 7 July 2022

- 52. Belinda Scott, Executive Director Mental Health at NH stated that Armin's death was not subject to an internal review as it was "not deemed to arise out of a clinical or safety event. Rather, Mr Schaefer's death was due to natural and unavoidable causes" I consider this to be questionable given that Armin:
 - a) Spent 19 hours in the NH ED;
 - b) Received multiple doses of sedative medication;
 - c) Had a previous adverse event and ICU admission associated with medication;
 - d) Had two 'warning' notes to this effect made in the clinical record;
 - e) Was placed in the recovery position so that his airway was not compromised; and
 - f) No medical (as opposed to psychiatric) review was obtained when he was placed on increased observations and placed in the recovery position.
- 53. Armin's death was reviewed by NWMH, however. The NWMH review had subsequently made improvements to their practices, including:
 - g) Ensuring that medication charts are not re-written during transfer periods to ensure consistency and less confusion; and

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²³ Statement of Belinda Scott dated 7 July 2022, page 1.

- h) That consideration should be given regarding monitoring of patients receiving mental health medications including ECGs and oxygen saturations, as well as respiration, heart rate, and blood pressure monitoring, whilst also noting that careful consideration should be given when patients present with risks of occupational violence.
- 54. NH and NWMH did not refer Armin's death to Safer Care Victoria (**SCV**) as "it was not deemed to be related to a safety and quality event and thus did not meet the threshold requirements for a report to be made"²⁴. I note that Armin's death could have been reported to SCV under the Victorian Sentinel Events Guide category 11, however.²⁵
- 55. Ms Scott explained that, during his time in the ED, Armin continued to display aggressive behaviour and required mechanical and pharmacological restraint. Ms Scott noted that, like all places of employment, NH is required to ensure a safe workplace for its staff and that performing any further investigations that were not clinically indicated posed a significant risk to those involved.
- 56. Given the significant amounts of sedative medication that Armin received during his time in the ED, it is reasonable to conclude that, at the very least, the performance of a 12-lead ECG to detect any early signs of prolonged-QT intervals or arrythmias was clinically indicated and should have been carried out when safe to do so.
- 57. Ms Scott noted that Armin's observations were increased to 15-minute intervals due to his presentation and clinical trajectory following his transfer to the NPU and that a consultant and registrar attempted to review him however he "appeared snoring and sleeping" and that "rousing [Armin] would have only increased his aggression and created an unsafe environment for him and staff". 26
- 58. I do not agree with Ms Scott's position. Given the significant amounts of sedation received by Armin prior to his arrival in the NPU, and the observation that he was "snoring" which, in and of itself, is a clinical indicator of a degree of airway compromise, it is reasonable that staff should have attempted to rouse Armin. I note that security members could have been called to assist staff to do so if there were viable fears of aggression. This point is made even more poignant given that Armin was found to be in cardiac arrest that evening.

²⁴ Statement of Belinda Scott dated 22 August 2019, page 1.

²⁵ Category 11 of the Victorian Sentinel Events Guide refers to "all other adverse patient safety events resulting in serious harm or death" and includes sub-category 3 – Deteriorating Patients.

²⁶ Statement of Belinda Scott dated 7 July 2022, page 3.

- 59. In her statement, Ms Scott drew attention to changes in the administration of mental health services which will bring all mental health services "in-house", further allowing for better and more comprehensive mental health services to be provided to patients. Ms Scott later elucidated on this point in her statement dated 6 October 2022, noting that the consolidation of health services will greatly improve the delivery of mental health services by Northern Health, both in-house and in the community.
- 60. Whilst this is undoubtably a positive change to the way mental health services will be administered, it does not address the salient points that is, the lack of appropriate medical management in the ED and NPU.

Response dated 9 December 2022

- 61. On 25 October 2022, the court sent the identified opportunities for prevention to Northern Health for their input and response, which was received from Ms Scott on 9 December 2022.
- 62. In her response, Ms Scott referenced the requirement for the performance of an ECG on all patients who require medical clearance, stating that NH accepted this recommendation, and noted that "work is currently in [progress] in order to implement".
- 63. Ms Scott also noted that a review of documentation and use of medical emergency codes will be undertaken by the Physical Health Nurse Practitioner, with recommendations to be monitored via the Quality Review Meeting until implemented fully and evaluated.
- 64. Following Armin's death, Ms Scott confirmed that the medical review was undertaken which recommended the following remedial actions:
 - a) The introduction of a peri-operative Registrar to undertake medical reviews on deteriorating patients who do not meet Pre-MET call criteria;
 - b) A weekly medical mental health ward round to assist with the management of medically complex patients who are admitted primarily for mental health concerns, with an outpatient follow up if required; and
 - c) The commencement of a virtual clinic, allowing physical health nurses in community mental health clinics to consult with the virtual medical team and request assistance with the patient's overall health and wellbeing.

65. I am heartened to see that NH has accepted the need for the performance of ECGs on all patients requiring medical clearances in the ED, however I note that the additional remedial actions do not adequately address the circumstances of Armin's death, namely, the lack of appropriate observations and prompt medical review following his placement on his side in the NPU, especially given the combination of CNS-depressing medication that he received and the evidence of airway compromise. Accordingly, I intend to make a recommendation addressing this issue.

FINDINGS AND CONCLUSION

- of probabilities, with the *Briginshaw* gloss or explications.²⁷ Adverse findings or comments against individuals in their professional capacity, or against institutions, are not to be made with the benefit of hindsight but only on the basis of what was known or should reasonably have been known or done at the time, and only where the evidence supports a finding that they departed materially from the standards of their profession and, in so doing, caused or contributed to the death under investigation.
- 67. Pursuant to section 67(1) of the *Coroners Act 2008* I make the following findings:
 - i) the identity of the deceased was Armin Andrew Schaefer, born 10 June 1956;
 - j) the death occurred on 22 August 2019 at Northern Health, The Northern Hospital, 185 Cooper Street, Epping, Victoria, 3076, from *hypoxic ischaemic brain injury and pneumonia complicating cardiac arrest in a man with coronary artery atherosclerosis, cardiomegaly, and emphysema*; and
 - k) the death occurred in the circumstances described above.
- 68. Having reviewed the available evidence, I am satisfied that the lack of 12-lead ECG, combination of CNS-dressing medications, and inadequate observations performed following Armin's admission to the NPU were significant contributing factors to his subsequent death.

²⁷ Briginshaw v Briginshaw (1938) 60 CLR 336 at 362-363: 'The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding, are considerations which must affect the answer to the question whether the issues had been proved to the reasonable satisfaction of the tribunal. In such matters "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony, or indirect inferences...'.

RECOMMENDATIONS

- 69. Pursuant to section 72(2) of the Act, I make the following recommendations:
 - i) I recommend that Northern Health introduce an Emergency Department procedure whereby complex psychiatric patients receiving sedative medications receive appropriate investigations, including a 12-lead ECG and any other clinically indicated measures, where safe to do so prior to discharge.
 - ii) I recommend that any Northern Health mental health patient requiring airway support, whether positional or otherwise, receive an urgent medical review and ongoing comprehensive monitoring as clinically indicated.

I convey my sincere condolences to Armin's family for their loss.

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

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

Linda Macklin, Senior Next of Kin

Peter Kelly, Melbourne Health

Richard Laufer, Northern Health

Professor Mike Roberts, Safer Care Victoria

First Constable Carl Payne, Victoria Police, Coroner's Investigator

Signature:

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Coroner Simon McGregor

Date: 10 March 2023

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.