IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2023 007233

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

*Section 67 of the **Coroners Act 2008***

Findings of:	Coroner Ingrid Giles
Deceased:	Wayne Ronald Watson
Date of birth:	28 August 1962
Date of death:	30 December 2023
Cause of death:	1(a) Intracranial haemorrhage and myocardial infarct
Place of death:	Austin Hospital 145 Studley Road Heidelberg Victoria 3084

INTRODUCTION

1. On 30 December 2023, Wayne Ronald Watson (**Wayne**)[1] was 61 years old when he died at the Austin Hospital. At the time of his death, Wayne lived at Bundoora, Victoria, with one of his sons.

2. Wayne's medical history included ischaemic heart disease (**IHD**), ST elevation myocardial infarction (**STEMI**), cardiac arrest (in 2014) treated with a stent, ischaemic cardiomyopathy, peripheral vascular disease (**PVD**) with extensive complicated arterial disease in the lower limbs requiring bypass grafting, multiple revisions and interventions for graft occlusions, lifelong anticoagulation, smoker (25 cigarettes per day), and chronic obstructive pulmonary disease (**COPD**).

3. According to an admission to Eastern Health in February 2021, Wayne's medication regime included apixaban,[2] atenolol,[3] atorvastatin,[4] bisoprolol,[5] nicorandil,[6] salbutamol[7] and tiotropium bromide.[8] Wayne was reportedly non-compliant with his medications and reportedly had ceased all medication at the time of his final admission to Austin Hospital.

THE CORONIAL INVESTIGATION

4. Wayne'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.

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

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[1] Referred to as Wayne unless more formality is required.
[2] Anticoagulant.
[3] To treat high blood pressure.
[4] To lower cholesterol and treat atherosclerosis.
[5] To treat heart failure.
[6] Dilates blood vessels and improves blood supply.
[7] To treat asthma/COPD.
[8] To treat asthma/COPD.

comments or recommendations in appropriate cases about any matter connected to the death under investigation.

7. This finding draws on the totality of the coronial investigation into the death of Wayne Ronald Watson. 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.[9]

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

Circumstances in which the death occurred

8. On 27 December 2023, Wayne was at a supermarket in Bundoora when he collapsed and fell, hitting his head on the floor. He lost consciousness for less than 10 seconds. Bystanders called Triple Zero and requested paramedic attendance.

9. When paramedics assessed Wayne, he reported that he felt "*dizzy*" and had left arm pain prior to his collapse. He explained that he had experienced intermittent left arm pain, shortness of breath and sweating for the prior 18 hours.

10. Paramedics performed an electrocardiogram (**ECG**) which demonstrated a STEMI, so they requested Mobile Intensive Care Ambulance (**MICA**) attendance. MICA paramedics intended to withhold the administration of heparin (which is part of their ordinary STEMI protocol) due to Wayne's head strike. However, "*Cardiology at ED*" recommended that they administer 5000 units of intravenous heparin. It is understood that the paramedics contacted the Austin Hospital, where they were intending to transport Wayne, and received that advice prior to their arrival. Paramedics also documented a "*small haematoma*" to the occiput.

11. Paramedics transported Wayne to the Austin Hospital Emergency Department (**ED**), and he was promptly transferred to the Cardiac Catheter Laboratory (**CCL**). The Austin Health records do not reflect that Wayne was reviewed or examined in the ED. The ED consultant recorded "*patient taken directly from AV to Cath Lab for STEMI*" at 9.41am. There were no notes from the ED clinician regarding a handover from the paramedics. The Cardiology Registrar documented Wayne's presentation as follows:

[9] 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.

Intermittent chest and left arm pain since yesterday…conscious collapse today, knocking head during fall – no headache, neurology post…Discussed with interventionist (Dr Fernando) – transfer directly to cath lab, doesn't require CT brain first given no evidence of injury, no headache, normal neurology

12. The Cardiology Registrar did not document a physical examination of Wayne's head (looking for signs of injury) or a neurological examination. There were no records of CCL staff performing a physical examination.

13. The admission notes to the CCL recorded:

61yo STEMI (History of LAD PCI in ~2015 at Box Hill. Patient reports possible LV thrombus post (notes not available at time of transfer to cath lab). Non-compliant with all medical therapy (including aspirin) at time of presentation, due to epistaxis. Burning chest pain since yesterday, intermittent, radiation down left arm. Collapse today, without significant injury (head knock, no bruising, etc…) Initial ECG marked anterolateral ST elevation, however, improved by arrival in ED, with resolution of pain. History of bilateral peripheral vascular intervention following traumatic workplace injury.

14. Wayne underwent a coronary angiogram which demonstrated severe triple vessel disease with the likely 'culprit' artery being a mid-left anterior descending artery "*severe in-stent stenosis*". The plan was for Wayne to undergo "*semi-urgent inpatient surgery*" and to keep him stable with heparin, glyceryl trinitrate, infusions and aspirin while awaiting surgery.

15. After the coronary angiogram, Wayne was admitted to the cardiology ward. At 1.50pm, he was found to have a reduced conscious state with a "*fixed right pupil and left hemiplegia*". Staff initiated a 'stroke call' and performed endotracheal intubation on the ward.

16. Wayne subsequently underwent a CT brain which demonstrated:

Large right frontal and right temporal lobar acute haemorrhage, with small volume subdural, subarachnoid and intraventricular blood product. Mass effect as described above with subfalcine herniation, right uncal herniation and hydrocephalus.

17. The CT brain also demonstrated an "*undisplaced left fronto-parietal skull fracture*".

18. Wayne was reviewed by the neurosurgical team who determined that this was an unsurvivable injury. Following consultation with Wayne's family, Wayne was palliated and passed away on the morning of 30 December 2023.

Identity of the deceased

19. On 30 December 2023, Wayne Ronald Watson, born 28 August 1962, was visually identified by his son.

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

Medical cause of death

21. Forensic Pathologist Dr Joanna Glengarry from the Victorian Institute of Forensic Medicine (**VIFM**) conducted an examination on 1 January 2024 and provided a written report of her findings dated 3 January 2024.

22. The post-mortem examination revealed findings consistent with the clinical history.

23. Examination of the post-mortem computed tomography (**CT**) scan was performed with radiologist review. There was a linear skull fracture of the left frontotemporal region with a stellate and depressed area in the left parietal area with overlying soft tissue haemorrhage. There were right frontal and temporal lobe parenchymal haemorrhages in keeping with contusions with surrounding oedema and overlying subdural haemorrhage. There was mass effect including midline shift and subfalcine herniation. Imaging of the torso showed coronary artery calcification and a basal increase in lung markings.

24. Dr Glengarry opined that the appearances of the intracranial haemorrhage on the CT scan appeared to be primarily *traumatic*, likely having occurred at the time of head strike during the period of collapse. This is likely to have been exacerbated by anticoagulant treatment but is not a consequence of the anticoagulant treatment. She opined that the head injury was capable of causing death.

25. Dr Glengarry noted the intensivist's opinion that the deceased would have likely had a poor outcome due to his cardiac disease and opined that the balance of risks and benefits of anticoagulation in this case were complicated. If the intracranial haemorrhage was recognised at the time of admission to hospital, it may not inevitably altered neurosurgical management, however suggested that further expert opinion could be sought.

26. Toxicological analysis of post-mortem samples was not indicated and was therefore not performed.

27. Dr Glengarry provided an opinion that the medical cause of death was *1(a) Intracranial haemorrhage and myocardial infarct*.

28. I accept Dr Glengarry's opinion.

FURTHER INVESTIGATIONS AND CPU REVIEW

29. As part of my investigation, I directed the Coroners Prevention Unit (**CPU**)[10] review the treatment Wayne received at the Austin Hospital and to determine if there were any prevention opportunities. The Court requested a statement from Austin Health (the operator of the Austin Hospital) with respect to the treatment provided to Wayne. Director of Cardiology, Professor Omar Farouque (**Prof Farouque**) provided a statement in response.

Process for STEMI patients

30. Prof Farouque advised that after notification of a STEMI patient presenting to hospital, if there are no complicating factors, a 10–15-minute assessment is performed by the Cardiology Registrar in the ED, then the patient is transferred to the CCL. If the presentation is after hours or if further assessment and/or medical stabilisation is required, the patient will remain in the ED for a longer period of time. The CPU noted that this is consistent with current best practice in large hospitals with in-house cardiac diagnostic services and minimises delays between arrival and transfer to the CCL.

Handover from paramedics

31. Prof Farouque explained that a handover from paramedics is provided to ED staff upon arrival. He did not comment or explain what was included in the handover provided in this case, nor if staff were specifically aware of paramedics' concern for a head injury.

32. The CPU opined that it was likely that staff *were* aware of the head injury, given that paramedics documented that "*Cardiology at ED*" directed paramedics to administer heparin.

[10] The CPU was established in 2008 to strengthen the prevention role of the coroner. The CPU assists the coroner with research in matters related to public health and safety and in relation to the formulation of prevention recommendations. CPU staff include health professionals with training in a range of areas including medicine, nursing, and mental health; as well as staff who support coroners through research, data and policy analysis.

I note that paramedics considered withholding heparin due to concerns about the head strike and administered it at the direction of Austin Health staff.

Physical examination

33. In his statement to the Court, Prof Farouque indicated that Wayne "*had a normal conscious state (GCS 15) and according to the interventional cardiologist there was no obvious evidence of external injury by inspection and palpation*". The CPU noted that there was no clinical record of a physical examination of Wayne's head or nervous system. The CPU further noted that paramedics observed a haematoma on the back of Wayne's head, however there was no note of same in the Austin Health records.

Decision not to perform CT scan

34. Prof Farouque explained that the decision not to perform a CT scan of the brain was made by the Cardiology Registrar and Interventional Cardiologist. He agreed that the undisplaced left temporo-parietal skull fracture seen on subsequent imaging represented an acute injury.

35. Austin Health reviewed Wayne's death at a cardiology morbidity and mortality meeting, which concluded:

    a) The decision to proceed directly to urgent cardiac catheterisation was reasonable under the circumstances.

    b) The decision to treat him with "*intensive antithrombotic therapies*" was based upon clinical judgment to prevent further "*jeopardy to cardiac function*".

    c) "*The treating team made the judgment that a severe head injury was unlikely based upon clinical assessment and therefore a preprocedural CT brain scan was not required. These clinical factors included the absence of a headache, a normal GCS and absence of neurological signs such as localising limb weakness*".

    d) The overall outcome of the review was that the approach taken was "*not outside the bounds of appropriate care*".

36. Prof Farouque commented:

    Hence the nature of the pre-procedural assessment is targeted and brief. In this case, the patient had a brief loss of consciousness and fell to the ground. The likely reason

was a hypotensive collapse perhaps related to an arrhythmia in the setting of acute myocardial infarction. While a head strike occurred, Mr Watson did not complain of a post fall headache and had a normal conscious state without confusion or obvious localising signs of neurologic injury.

37. The CPU noted that Prof Farouque's acknowledgment that Wayne had a fall, loss of consciousness and a head strike contrasts with the Cardiology Registrar's assessment of "*conscious collapse today*" and the e-medical deposition which stated "*intermittent chest pain and conscious collapse with head strike. Nil neurology or headache post-fall, therefore CT Brain not performed*".

Analysis of treatment

38. The CPU noted that without a coronary artery intervention (which occurred), Wayne's prognosis was very poor. Any coronary intervention, whether angioplasty, stent placement or coronary artery bypass graft surgery, requires the administration of an anticoagulant and/or anti-platelet medication. Undertaking coronary artery intervention and not administering anti-thrombotic medications gives a very high likelihood of failure due to blood clot formation in the coronary artery being treated, making the procedure futile. The performance of coronary bypass graft surgery (planned for Wayne) entails cardiopulmonary bypass which requires full anticoagulation during the bypass, followed by treatment with anti-thrombotic drugs.

39. The CPU further noted that even if the haemorrhage had been seen on a CT brain scan prior to transfer to the CCL, administration of medication to reduce blood clotting was high risk for causing more bleeding. The nature of the bleeding in Wayne's brain was largely into the substance of the brain tissue (i.e., intracerebral) and is generally untreatable. Bleeding outside the brain (extradural or subdural) is more amenable to surgical treatment.

40. The CPU concluded that Wayne's presentation with an acute STEMI in the setting of a fall/collapse with a potential head injury presented significant diagnostic and management dilemmas to ED and cardiology staff. The CPU recognised that if a thorough assessment for head injury were undertaken, and brain injury/bleeding was detected, this would have most likely resulted in the same outcome, albeit without the performance of a coronary angiogram or administration of anticoagulant medication.

41. The STEMI clearly required urgent cardiology intervention in this case and would have involved administration of one or more drugs to reduce blood clot formation. This has the

unavoidable consequence of reducing blood clotting and/or promoting bleeding everywhere in the body, including at the site of recent injury.

42. Performing a CT brain would have potentially delayed Wayne's transfer to the CCL. Although the actual delay (in minutes) is not known, the CPU suggested that it could be in the order of 30 to 45 minutes, or more. If a CT brain *did* occur and it demonstrated a brain injury, the CPU opined that the coronary angiogram and administration of anti-thrombotic medications would have been aborted. Prof Farouque stated that:

> *[P]re-procedural neuro-imaging was considered but the additional time to obtain a brain scan was thought likely to result in significant delay to emergency cardiac treatment in a situation where the treating team felt the likelihood of significant head injury was not high based on the clinical assessment.*

43. Considering the circumstances of Wayne's witnessed collapse with head strike and loss of consciousness, the CPU opined that serious consideration of the possibility of head trauma was required, particularly considering the paramedics' history of collapse with head strike, loss of consciousness and their examination findings. Upon a review of the medical records, the CPU opined that serious consideration of the possibility of head trauma did *not* occur. The CPU noted:

a) Paramedics were concerned about the possibility of a head injury and withheld heparin, until directed to do so by "*cardiology in the ED*" who gave this advice despite not having an opportunity to make any medical assessment of Wayne. The CPU noted that the location of Wayne's collapse was about 15 minutes from the Austin Hospital.

b) There was no recorded assessment of Wayne by an ED clinician or any other experienced clinician that would be expected in the assessment of patients with potential head trauma. There was no documented decision-making regarding the decision to perform/not perform the CT.

c) The CPU opined that a Cardiology Registrar or Interventional Cardiologist would not be sufficiently experienced to undertake this assessment. Prof Faroque stated:

> *[T]he treating team made the judgment that a severe head injury was unlikely based upon clinical assessment and therefore a preprocedural CT brain scan was not required. These clinical factors included the absence of a headache, a*

normal GCS and absence of neurological signs such as localising limb weakness".

The CPU noted that this comment appears to ignore the potential for a fall with head strike and loss of consciousness to only cause relatively minor bleeding or an injury to the brain, where the patient maintains normal neurological signs, i.e., *not* a severe head injury. The CPU opined that this would be the scenario with the majority of patients presenting with a head injury to the ED and where decisions about performing a CT scan would be required.

d) The CPU explained that a less severe head injury may cause relatively minor bleeding in or around the brain and this may become major bleeding with time and/or with the administration of medications reducing blood clotting and exacerbating pre-existing minor bleeding.

e) The presence of neurological signs or "*obvious neurological signs such as limb weakness*" represents a significant injury, bleeding or pressure on the brain and would be a relatively late sign. A severe head injury would have been relatively straightforward to detect and if present at the time, would have been a contraindication to treatment with anticoagulants.

f) The CPU noted difficulty reconciling the presence of a temporo-parietal skull fracture and the alleged absence of tenderness on head examination, particularly in the absence of any *documented* examination of the head by an Austin Health clinician, and the finding of a haematoma on his head by paramedics.

g) The CPU agreed with the "*impression*" from an intensive care consultant which was documented in the e-medical deposition, namely, "*if a CT Brain had been done and showed small petechial bleed, holding off on angiography and blood thinning medications would have led to poor outcome*". The CPU noted that Wayne had a severe coronary artery blockage and not treating it would have likely resulted in his death or limited survival with severe heart failure. There was no way of treating the blockage without the administration of anticoagulants.

44. The CPU concluded that while Wayne's death might not have been preventable, it suggested some refinements to the way a patient in a similar situation is assessed in the ED might avoid a recurrence of the same situation. The CPU recognised that while this might prevent the

'unnecessary' performance of a cardiac procedure involving administration of anticoagulants, it may not affect the overall outcome with patients either dying from 'untreatable' coronary artery disease or dying from intracranial bleeding promoted by the medication used to treat the coronary artery disease.

a) CPU proposed an amended procedure which includes a formal, documented assessment of the risk for head injury by an appropriate clinician such as an emergency physician or senior emergency registrar using all available information. This would include taking a history, performing a physical examination and considering other factors such as the paramedics' history (if applicable) and the findings from the physical examination.

b) The amended procedure could include a 'head CT rule' such as the Canadian CT Head Injury Rule[11] to assist with determination of risk. The CPU noted that while this rule can safely exclude *major* intracranial injuries that require neurosurgical intervention, it does not rule out *minor* intracranial bleeding that might subsequently develop into major bleeding with administration of anticoagulants in patients that are scored as 'not requiring CT scan'. The CPU opined that reliance on this 'rule' to detect minor bleeding therefore has limitations.

c) The CPU noted difficulty determining Wayne's 'score' (if the Canadian CT rule were adopted) as there is no complete history or examination that covers the scoring criteria. Therefore, depending upon an individual clinician's interpretation of the Canadian CT rule and the examination results, Wayne may not have qualified for a CT based on the Canadian CT rule alone.

d) The CPU opined that the loss of consciousness sustained by Wayne and a dangerous mechanism of injury (fall from standing and striking head on ground) qualified Wayne for a CT scan. While Prof Farouque opined that Wayne's collapse was caused by low blood pressure, possibly related to an arrythmia in the setting of acute myocardial ischaemia, the ambulance/witness description of a fall with head strike and loss of consciousness, injury to the back of the head and initial reluctance of paramedics to administer heparin supports the CPU's view that the potential for a head and

[11] https://www.mdcalc.com/calc/608/canadian-ct-head-injury-trauma-rule

intracranial injury required careful assessment by an appropriately experienced clinician.

Procedural fairness response

45. As a matter of procedural fairness, the Court wrote to Austin Health and provided them with an opportunity to respond to the CPU's opinion and analysis. In response, Austin Health noted that it has developed a comprehensive guideline entitled "*Suspected Head Injury in Adults: Management in the Emergency Department*". This guideline encompasses initial assessment and examination, appropriate investigations and the management of head injuries.

46. Furthermore, Austin Health also recently developed a "*Trauma CT Imaging Guideline for the Emergency Department*". The intent of this guideline is to provide clinical support to ensure that appropriate clinical examinations are completed prior to imaging. Austin Health explained that this approach is intended to strengthen clinical decision-making and improve outcomes. This guideline also includes scenario-based recommendations, particularly for elderly patients experiencing low-energy trauma, such as falls from standing height.

47. Austin Health submitted that the two attached guidelines now align with and meet the CPU's recommendations.

48. I directed the CPU to review Austin Health's response. The CPU noted that the two guidelines were comprehensive guidelines for management of a patient with a suspected head injury, and for the utilisation of CT scanning in a trauma patient. The CPU noted that these documents did not address their original concern, namely, that the decisions made to undertake the urgent cardiac investigations and administer medications that impaired normal blood clotting were made by a cardiology registrar. The cardiology registrar was likely unfamiliar with trauma guidelines, would not be experienced in the assessment of potential head trauma and their assessment was based upon an undocumented history, physical examination and risk assessment.

49. The CPU noted that if one were to use the 'Indications for CTB' at page 3 of the 'Suspected Head Injury in Adults' guideline, Wayne's fulfilled several criteria to undergo CT scanning. The CPU opined that these criteria were not new and were likely established for some time.

50. The CPU emphasised the need for head injury assessments to be performed by medical staff who are trained and experienced in the assessment of the whole spectrum of head trauma, particularly in complex or high-risk cases such as the present case.

51. The Court contacted Austin Health to convey the CPU's opinion. In response, Austin Health explained that its Acting Medical Director of the ED, Dr Simon Bolch, advised that all doctors working within the ED are appropriately trained to assess head injuries. This training forms part of the standard clinical care education and ongoing professional development undertaken by ED physicians.

52. In cases where presentation is complex or where there are heightened risk factors, there are established processes in place to escalate concerns to the ED Consultant and/or request a formal trauma team review.

53. Notwithstanding the above, Austin Health acknowledged the potential for '*spectrum bias*' in the assessment undertaken by the cardiology registrar and the absence of involvement of ED-trained staff in Wayne's assessment.

54. Following receipt of the CPU's advice and Austin Health's response, I intend to make a recommendation that all trauma head injury assessments, whether in an ED or an inpatient setting be undertaken and documented by staff from a 'trauma specialty', or who are otherwise trained in and familiar with Austin Health's ED Guideline on Suspected Head Injury in Adults.

FINDINGS AND CONCLUSION

55. Pursuant to section 67(1) of the *Coroners Act 2008* I make the following findings:

    a) the identity of the deceased was Wayne Ronald Watson, born 28 August 1962;

    b) the death occurred on 30 December 2023 at Austin Hospital, 145 Studley Road, Heidelberg, Victoria 3084, from intracranial haemorrhage and myocardial infarct; and

    c) the death occurred in the circumstances described above.

RECOMMENDATIONS

Pursuant to section 72(2) of the Act, I make the following recommendations:

(i) That Austin Health update its guidelines to include that all trauma head injuries, whether in the Emergency Department or an inpatient setting, be undertaken and documented by staff from a 'trauma specialty' (such as General Surgery, Neurosurgery, Emergency Medicine or the Intensive Care Unit) or who are otherwise trained in and familiar with Austin Health's Emergency Department Guideline on Suspected Head Injury in Adults.

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

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

Senior Next of Kin

Austin Health

SaferCare Victoria

Constable Ayden McDonald, Coronial Investigator

Signature:

CORONER INGRID GILES
Date: 13 March 2026

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.