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IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2021 003110

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

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

*Amended pursuant to section 76 of the **Coroners Act 2008***[1]

Findings of:	AUDREY JAMIESON, Coroner
Deceased:	Errol Leslie Solly
Date of birth:	26 March 1954
Date of death:	15 June 2021
Cause of death:	1(a) Ischaemic heart disease 1(b) Coronary artery atherosclerosis (stented) 2 Chronic obstructive pulmonary disease
Place of death:	8 Blackwood Court, Portland, Victoria, 3305

[1] This Finding was amended on 10 January 2025 following advice received from Barwon Health and Portland District Health.

INTRODUCTION

1. Errol Solly was 67 years old at the time of his death and lived independently in Portland. He is survived by his three adult children and grandchildren.

2. Mr Solly passed away at his home on the night of 15 June 2021 after suffering a cardiac arrest. Earlier that morning, he was sent home from the Portland District Hospital (**PDH**) Emergency Department (**ED**).

THE CORONIAL INVESTIGATION

3. Mr Solly'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.

4. 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.

5. 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.

6. As part of my investigation, Mr Solly's medical treatment and care were reviewed by the Health and Medical Investigation Team[2] (**HMIT**) within the Coroners Prevention Unit[3](**CPU**).

[2] The Health and Medical Investigation Team (**HMIT**) is a specialist service that sit within the CPU, comprising of highly skilled and experience health care clinicians, independent of the health practitioners or institutions involved in the clinical management and care provided to the deceased. The HMIT provides advice to Coroners and assists them with their investigations.

[3] The Coroners Prevention Unit (**CPU**) assist the coroner with research in matters related to public health and safety in relation to the formulation of prevention recommendations, as well as assisting in monitoring and evaluating the effectiveness of the recommendations. The CPU is staffed by healthcare professionals, including practising physicians and nurses, who are not associated with the health professionals under consideration and are therefore able to give independent advice to the coroners.

7. This finding draws on the totality of the coronial investigation into the death of Errol Leslie Solly, 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]

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

Circumstances in which death occurred

Background circumstances

8. Mr Solly had an extensive medical history that included smoking, chronic obstructive lung disease, peripheral vascular disease, ischaemic heart disease, myocardial infarction, hypertension, hyperlipidaemia, and impaired glucose tolerance. He had two coronary stents inserted and was prescribed medication which included aspirin, esomeprazole,[5] glyceryl trinitrate (**GTN**) (spray), metoprolol,[6] ramipril,[7] and tiotropium inhaler.[8]

9. Mr Solly previously had complications with his heart. The two coronary stent insertion was a result of a heart attack he suffered in 2014. It does not appear from the available evidence that Mr Solly experienced any cardiac-related events after the stent insertion.

10. Mr Solly normally attended his General Practitioner at Active Health Portland (**AHP**). He last attended his GP on 26 May 2021 to set goals to manage his smoking and co-morbidities.

Immediate surrounding circumstances

11. On 14 June 2021 at approximately 9:25pm, Mr Solly called '000' complaining of chest pain. Ambulance Victoria (**AV**) paramedics arrived and attended Mr Solly. He informed the paramedics that he had experienced some chest pain earlier that day, but it was relieved by GTN spray. However, on this occasion, the spray did not work.

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[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] Protein pump inhibitor used for gastroesophageal reflux.

[6] Beta blocker and antianginal agent.

[7] Antihypertensive.

[8] Asthma puffer.

12. Paramedics treated Mr Solly with sublingual arginine and intravenous morphine and conveyed him to PDH.

13. Upon being attended by ED staff, Mr Solly informed staff that he experienced multiple episodes of exertional chest pains that reminded him of his previous heart attack. An electrocardiogram (**ECG**) test (at 10:04pm) and a troponin test (at 10:15pm) were performed, and the results were within the normal range.

14. On 15 June 2021, a further troponin test was performed at 2:10am, and an ECG was performed at 2:38am. The results were within the normal range.

15. At 4:36am, Mr Solly was noted to be experiencing recurrent chest pain, and Enrolled Nurse (**EN**) Tania Adams administered a GTN 300mcg[9] (tablet).

16. At 5:10am, Mr Solly was admitted to the Short Stay Unit (**SSU**), during which he was assessed via PDH's chest pain pathway. At 5:21am, EN Adams reviewed Mr Solly and noted *"pt [Mr Solly] painfree post GTN 300mcg vital signs satisfactory"* and his ECG result was within the normal range.

17. At 8:00am, Mr Solly experienced severe chest pain[10] and was treated with GTN spray and oxycodone. The pain was resolved within ten minutes.

18. At 8:45am, Mr Solly's chest pain returned, and the pain rating this time was 5 out of 10. The pain was resolved through intravenous morphine. The ECG performed at the time did not show evidence of acute coronary syndrome.

19. At 10:00am, Mr Solly was reviewed by Locum Physician Dr Gregory Gaughran. Dr Gaughran noted that Mr Solly was chest pain-free, and his most recent ECG showed normal sinus rhythm.

20. At 10:04am, PDH Emergency Department Medical Officer Dr Chris Slinger contacted the University Hospital Geelong[11] (**UHG**) Cardiology Department via a telephone call. PDH Junior Medical Officer, Dr Amna Jabbar, attended the call. Clinical notes recorded that Dr

[9] Anginine and Lycinate.
[10] Mr Solly's pain scale was noted to be 10 out 10.
[11] University Hospital Geelong is a member of Barwon Health.

Slinger *"explained [Mr Solly]'s clinical history, current condition, vitals, ecg findings, troponins, medications"*.

21. Mr Solly indicated he wanted to be discharged and go home. After the call, Dr Slinger was then advised to commence oral antianginal medication and isosorbide dinitrate and perform an outpatient myocardial perfusion scan before referring him to a cardiology outpatient review.

22. Mr Solly was discharged at approximately 12:00pm, and his stepdaughter, Riana Miles, picked him up and drove him home. She noted that he seemed very pale and not himself.

23. At approximately 8:54pm, Mr Solly called '000' complaining of chest pain. AV attended shortly after and performed an ECG, which determined that he was having an inferior heart attack[12]. The ECG was sent to an AV cardiologist, who then advised thrombolysis therapy.[13] Sadly, Mr Solly arrested before the therapy was commenced. He was unable to be resuscitated and declared deceased.

Identity of the deceased

24. On 15 June 2021, Errol Leslie Solly, born 26 March 1954, was visually identified by his neighbour, Alanah Carr.

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

Medical cause of death

26. On 18 June 2021, Forensic Pathologist Dr Victoria Christabel Mary Francis from the Victorian Institute of Forensic Medicine (**VIFM**) conducted an autopsy on the body of Errol Leslie Solly.

27. Dr Francis reviewed the Victoria Police Report of Death (Form 83), post-mortem computed tomography (**CT**) scan, AV report and medical records from AHP and PDH. Dr Francis provided a written report of her findings dated 18 August 2021.

[12] An ST Elevation Myocardial Infarction (**STEMI**) is identifiable from a set of patterns on an electrocardiogram indicating that a coronary artery is blocked, and that emergent repercussion therapy is indicated in either thrombolysis or stent placement.

[13] Thrombolysis uses medication or a minimally invasive procedure to break up blood clots.

28. The post-mortem examination revealed moderate to severe coronary artery atherosclerosis of the left anterior descending coronary along with a coronary artery stent. There was myocardial fibrosis. No acute ischaemic changes were identified.

29. Dr Francis explained that coronary artery atherosclerosis occurs when cholesterol and other material build up in the blood vessels supplying oxygen and other nutrients to the heart. The accumulation of material narrows the vessels, compromising the amount of oxygen supplied to the heart and limiting the heart's ability to supply the body with oxygenated blood.

30. Additionally, when the vessel is significantly narrowed, the area of the heart muscle may die, which causes a myocardial infarction or arrhythmia.[14] Dr Francis commented that these clinical scenarios can lead to a sudden death. However, if the period between the onset of the arrhythmia and death is short, then the ischaemic changes may not be identifiable by an autopsy.

31. Dr Francis commented on the risk factors for coronary atherosclerosis. They include increasing age, smoking, hypertension, family history, diabetes mellitus, obesity, male sex and hyperlipidaemia (high cholesterol).

32. During the autopsy, Dr Francis noted the lungs were emphysematous. Dr Francis explained that chronic obstructive pulmonary disease is characterised by emphysema (permanent enlargement of small airspace) and chronic bronchitis (minor airway inflammation), with cigarette smoking having the highest risk factor for developing this disease, but the inhalation of other air pollutants may contributory. The disease causes individuals to have shortness of breath, pulmonary hypertension and cardiac failure, as well as recurrent infections and respiratory failure.

33. Dr Francis also noted there were anterior rib fractures and a sternal body fracture with intercostal muscle haemorrhage and alveolar haemorrhage that is consistent with cardiopulmonary resuscitation. There was an incidental papillary thyroid carcinoma.[15] Dr Francis commented that some malignancies may have a hereditary component.

34. Toxicological analysis of post-mortem samples identified the presence of free morphine (0.1 mg/L), metoprolol (0.08 mg/L), and ondansetron (0.02 mg/L).

[14] Occurs where the electrical signals to the heart failing causing an irregular heartbeat.
[15] Common type of thyroid cancer.

35. Dr Francis concluded that Mr Solly's death was due to natural causes and ascribed the medical cause of death to:

    1 (a) ischaemic heart disease;

    1 (b) coronary artery atherosclerosis (stented), with contributing factors of 2 (a) chronic obstructive pulmonary disease.

FURTHER INVESTIGATION

Family Concerns

36. In a letter to the court, Ms Miles raised concerns that Mr Solly was discharged with ongoing pain and was not transferred to the UHG for further medical investigations.

CPU Review

37. In light of the concerns raised by Ms Miles, I requested the HMIT to review the medical treatment and care provided to Mr Solly to determine whether Mr Solly's condition had been appropriately managed and escalated by treating clinicians at PDH.

38. As part of its review, the HMIT considered the Court File, Mr Solly's patient records from PDH, statements from Kat Stewart (PDH Quality Manager), Simon Woods (Barwon Health Chief Medical Officer), Dr Gaughran and Dr Jabbar.

39. The HMIT noted that during Mr Solly's admission at PDH, he experienced recurrent chest pain following a series of ECG and troponin tests. His condition was appropriately escalated to the UHG cardiology department as a high-risk patient. However, the treatment and management plan Mr Solly received following the call appeared to be indicated for low-risk patients as he did not undergo additional troponin testings and was instead referred to undergo an outpatient myocardial perfusion scan and cardiology review.

<u>Dr Gaughran's response</u>

40. Dr Gaughran provided additional information to clarify the sequence of events leading to the decision to discharge Mr Solly following the call to the UHG Cardiology Team.

41. Dr Gaughran noted that Mr Solly was chest pain-free at the time of review at 10:00a.m. on 15 January 2021 and had remained chest pain-free for approximately four hours upon being discharged.

42. When asked about the clinical rationale for not referring Mr Solly for further inpatient medical investigations (such as troponin testings) and seeking further advice from the UHG cardiology team himself, Dr Gaughran stated that:
"ECGs were performed with the chest pain [Mr Solly] had presented with, and troponins were done during a time with chest pain and a character of pain that remained similar during the admission, which were both negative. Heart rate, saturations, blood pressure parameters, and respiratory rate were all within acceptable ranges throughout the admission. He had no initial high-risk features as per the PDH guidelines…."

43. Dr Gaughran concluded that, given the above observations, he did not at the time consider it necessary to repeat troponin testing and speak with the UHG cardiology team directly.

44. Dr Gaughran also commented on further troponin testings and stated that:
"A third troponin for a ten-minute, self-resolving bout of chest pain would not have become positive at that later stage. When Mr Solly had his inferior STEMI at 9pm, it is at this point that his troponin would have been positive".

45. The HMIT distinguished the differences between classical troponin testing and high-sensitivity troponin testing, which can detect troponins at a much lower concentration. Furthermore, it is not possible for any physicians to deduce whether Mr Solly's troponin level would have been positive just because he had inferior STEMI at 9:00pm without further troponin testing.

Were further troponin tests warranted in Mr Solly's circumstances?

46. The HMIT noted that numerous risk stratification tools have been published, as well as detailed guidelines for assessment and risk stratification of acute coronary syndromes. Relevant guidelines include the National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand, published the *Australian Clinical Guidelines for the Management of Acute Coronary Syndromes 2016*[16] ('the Guidelines'). The Guidelines detail

[16] Chew, D.P. et al, *National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand: Australian clinical guidelines for the management of acute coronary syndromes 2016*, Medical Journal of Australia (2016).

the risk stratification process where suspected ACS can be stratified into low-risk or high-risk with evidence-based clinical pathways such as the *Assessment Protocol for suspected ACS using a highly sensitive lab-based assay* ('the Assessment Protocol'). The Assessment Protocol uses point of care assays from the Guidelines.

47. The Assessment Protocol provides that a patient would be considered as low risk for acute myocardial infarction (**AMI**) if chest pain has ceased and ECG and high sensitivity troponin test results are taken at presentation and at a minimum of three hours after chest pain has ceased. The Assessment Protocol recommends that patients who experience ongoing pain undergo additional troponin testing.

48. The HMIT noted that the PDH adopts the Assessment Protocol in its SSU chest pain pathway.

Barwon Health Response

49. After Dr Woods discussed the Cardiology Registrar's situation with him, it is now confirmed that the Registrar is unable to recall any details of the conversation and his/her account of the advice provided to Dr Slinger. The HMIT considered this reasonable in the circumstances, as no notes were recorded since Mr Solly was not a patient.

50. The HMIT advised that it is not possible to comment on the clinical communication between Dr Slinger and the UHG Cardiology Team without a clear account of exactly what was conveyed to the UHG Cardiology Team and what advice Dr Slinger received from the UHG Cardiology Team.

PDH Response

Whether Mr Solly's death was reportable to Safer Care Victoria?

51. Ms Stewart advised that Mr Solly's death was not investigated internally or discussed with Safer Care Victoria[17]'s (**SCV**) incident investigation team to ascertain if his death met the sentinel event[18] criteria[19] as he did not pass away in the hospital.

52. According to the relevant *Victorian Sentinel Event Guide*[20] (version 1) at the time of Mr Solly's death, his death would be categorised under *category 11 – All other adverse patient safety events resulting in serious harm or death*[21], subcategory 1, where "*any diagnosis or assessment not performed where indicated or that was incomplete or inadequate, resulting in serious or death of a patient*[22]".

53. The HMIT advised that any misdiagnosis that leads to serious patient harm or death is a potential sentinel event, regardless of where the patient may die or have died as *"the health service that provided the final care should be responsible for notifying the event*[23]*"*.

54. As Mr Solly died as a result of acute coronary syndrome, and PDH as the relevant health service which its clinical staff provided care and treatment proximate to his death, should be discussed with the SCV's incident investigation team to determine whether there may have been a potential misdiagnosis.

Expected standard of a consultation telephone call

55. Ms Stewart was also asked about whether Dr Slinger communicated Mr Solly's subsequent troponin results to the UGH Cardiology Team. Ms Stewart advised that Mr Solly's clinical presentation, as conveyed by Dr Slinger via the consultation telephone call, contained the expected standard of detail provided in a referral call.

56. Ms Stewart provided the reasons that:

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[17] Victoria's peak authority for leading quality and safety in healthcare.
[18] A sentinel event is when something goes wrong with a patient's care that causes them serious harm or death that could have been prevented. Serious harm means that, because their care went wrong, the patient: needed life-saving surgical or medical care that they would not have needed if their care had gone well; won't live as long as they would have if their care had gone well; has experienced harm or lost the ability to do things, and that these problems will be long-term.

[19] See Safer Care Victoria's website for further information about the criteria – *What is a sentinel event?*
[20] Safer Care Victoria, *Victorian Sentinel Event Guide - Essential information for health services about managing sentinel events in Victoria* (June 2019).
[21] n19, page 6.
[22] n,19 page 8.
[23] n 19, page 5.

"*[Mr Solly] was certainly risk stratified as high cardiac risk. It is to be noted that [his] presentation matched closely with angina / unstable angina where recurrent troponins are not indicated. Furthermore, there is an expected time interval between myocardial infarction (causing the chest pain) and the presence of detectable troponin in the blood sample. So it is not customary practice in emergency departments to run troponin tests after every episode of chest pain."*

57. In relation to the documentation of telephone calls, PDH have advised that telephone consultations between healthcare practitioners (including between different health services) are a daily occurrence, and documentation of these consultations is variable; in some cases there may be no documentation and in others, the consultation may only be documented by one party (as in Mr Solly's case).

Preventative issues

58. As evident by the above discussions, PDH clinicians did not appear to have instinctively performed further troponin testings on patients with recurrent ischaemic-sounding chest pain. The HMIT considered that this appears to be either a result of relevant PDH chest pain protocols not clearly stipulating the requirement of additional troponin testing for patients with recurrent ischaemic-sounding chest pain or clinicians not receiving formal training in the Assessment Protocol before Mr Solly's death.

59. Regardless of the above, the HMIT considered that the Assessment Protocol was not appropriately followed.

Was Mr Solly's death preventable?

60. The HMIT advised that it could not comment on whether Mr Solly's death was preventable without the further troponin results performed after the telephone consultation call to understand his troponin levels before he was discharged. However, the HMIT did consider that further troponin tests would alter Mr Solly's clinical course and outcome.

COMMENTS

Pursuant to section 67(3) of the Act, I make the following comments connected with the death.

The Guidelines

61. While I acknowledge that management protocols such as the Assessment Protocol are a guide and should not be used to replace clinical judgment, the evidence before me revealed a poor understanding of the importance of further troponin tests on patients with recurring ischaemic-sounding chest pain. While I note that Dr Gaughran and Dr Slinger are experienced physicians, I cannot, however assume, based on their experience, whether they had or had not encountered a patient such as Mr Solly. Clearly, the assessment protocol aims to guide clinicians in different points of care, no matter their clinical experience.

62. Mr Solly's case highlighted the importance of proper clinical use of the assessment protocol by the Guidelines, especially at health services that do not have coronary specialists available.

63. As discussed, the exact reason(s) why PDH did not perform further troponin testing in the context of a patient with recurring ischaemic-sounding chest pain cannot be determined. Notwithstanding the unclear reasons, this represents a missed opportunity to afford Mr Solly a better clinical course and outcome.

Underreporting of sentinel events

64. My investigation further highlights another concerning issue – the underreporting of sentinel events to SCV due to various factors, such as misinterpretation of the reporting criteria[24] and incomprehensive understanding of *what is required of health services*[25].

65. To date, the Court has identified three deaths that involved underreporting. However, it is unclear at this stage what barriers exist to reporting Victorian sentinel events. Absent any empirical evidence, I will not comment on what constitutes the barrier in this case.

66. I note that SCV recently in February 2024 published a revised version of *Victorian Sentinel Event Guide (Version 2)*[26] which contains additional essential information for health services about reporting and managing sentinel events in Victoria. I commend SCV's efforts to improve the reporting requirements. The Version 2 Guide now clarifies how clinicians and health services can report a sentinel event through its online reporting portal.[27] This includes

[24] This is a list of criteria that differentiate how an event of serious harm or death can be categorised into different categories or subcategories of sentinel events.
[25] This is a list of what health services are required to do when reporting sentinel events to Safer Care Victoria.
[26] Safer Care Victoria, *Victorian sentinel event guide Version 2 - Essential information for health services about managing sentinel events in Victoria* (February 2019).
[27] n26, page 13.

providing online training materials to clinicians using the portal and individual training via the relevant program.[28] These instructions were not previously available in the Version 1 Guide. I hope these measures will enhance the process of reporting sentinel events and mitigate further underreporting issues.

67. Given the above, I decided not to make recommendations to SCV. I distribute this Finding to SCV for their consideration with a view to better understand what are the common barries to reporting sentinel events.

FINDINGS AND CONCLUSION

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

    a) the identity of the deceased was Errol Leslie Solly, born 26 March 1954;

    b) the death occurred on 15 June 2021 at 8 Blackwood Court, Portland, Victoria, 3305;

    c) I accept and adopt the medical cause of death ascribed by Dr Victoria Francis and I find that Errol Leslie Solly, a man with a history of chronic obstructive pulmonary disease, died from ischaemic heart disease and coronary artery atherosclerosis (stented). The manner of death was natural causes.

69. AND, while I am not able to find whether Mr Solly's death was preventable, I find that the failure to perform further troponin testings in the context of a patient with recurring ischaemic-sounding chest pain is a missed opportunity to afford Mr Solly a better clinical course and outcome.

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

Pursuant to section 73(1A) 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:

Tiara Solly

Lorraine Judd, Barwon Health

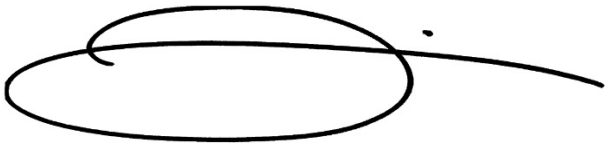
[28] n26, page 14.

Kat Stewart, Portland District Health

Avant Law Pty Ltd, Lawyers for Dr Gregory Gaughran

Safer Care Victoria

Signature:



AUDREY JAMIESON

CORONER

Date: 6 May 2024

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.