IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2018 3596

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* on 9 December 2020[1]

Findings of:	Simon McGregor, Coroner
Deceased:	**Alma Lynette Honeychurch**
Date of birth:	13 March 1942
Date of death:	23 July 2018
Cause of death:	Ludwig's angina
Place of death:	Sunshine Hospital Furlong Road, St Albans VIC 3021

[1] The finding dated 16 November 2020 contained accidental errors which were later identified by court staff.

INTRODUCTION

1. Alma Lynette Honeychurch was a 76-year-old woman who lived alone at 26 Wirth Street, Flora Hill, Victoria at the time of her death. She had two daughters who described her as a proud and independent woman who loved to look after her grandchildren.[2]

2. On 21 July 2018, Mrs Honeychurch presented to the Castlemaine Urgent Care Centre with pain and swelling on the right side of her face. She was diagnosed with Ludwig's angina, which is a severe, rapidly progressive infection of the floor of the mouth, and ambulance transfer to the Austin Hospital was arranged.

3. During transfer, Mrs Honeychurch suffered acute airway distress which led to cardiac arrest. She was taken to the closest hospital, Sunshine Hospital, where she was diagnosed with a hypoxic brain injury and admitted to the Intensive Care Unit (**ICU**). Her condition deteriorated and she was declared deceased on 23 July 2018.[3]

THE CORONIAL INVESTIGATION

4. Mrs Honeychurch death was reported to the Coroner. It appeared to be unexpected, unnatural or to have resulted, directly or indirectly, from an accident or injury and so fell within the definition of a reportable death in the *Coroners Act 2008.*

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.

7. In the course of my investigation, Mrs Honeychurch's family wrote to the Court providing details about her medical care and treatment leading up to her death. Given the circumstances of Mrs Honeychurch's death and the concerns of her family, I referred this

[2] Medical records of Western Health.
[3] In the finding dated 16 November 2020, this date was accidentally written as '*23 January 2018*'.

matter to the Coroners Prevention Unit (**CPU**)[4] to review Mrs Honeychurch's medical care and management and obtained medical records and statements on behalf of health services involved in her care..

8. After considering all the material obtained during the coronial investigation, I determined that I had sufficient information to complete my task as coroner and that further investigation was not required. 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.

9. I have based this finding on the evidence contained in the coronial brief. In the coronial jurisdiction facts must be established on the balance of probabilities.[5]

10. In considering the issues associated with this finding, I have been mindful of Mrs Honeychurch'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.

CIRCUMSTANCES IN WHICH THE DEATH OCCURRED

11. Mrs Honeychurch was a retired woman who lived with several medical conditions, including ischemic cardiac disease with cardiac stents, non-insulin dependent diabetes, asthma, osteopenia, gout and polymyalgia.

12. In the months before her death, Mrs Honeychurch experienced ongoing discomfort from a partially erupted lower right wisdom tooth and a lower right molar tooth. She visited the Bendigo Community Dental Services (**BCDS**) on several occasions and various treatment options were considered including tooth extraction.

13. At a pain review appointment at BCDS on 4 May 2018, Mrs Honeychurch's tooth pain had resolved.[6]

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[4] 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.

[5] This is 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.

[6] Medical records of Bendigo Community Dental Services.

14. On 22 May 2018, Mrs Honeychurch visited her GP at the Bendigo Community Health Services and was advised to stop taking bisphosphonates[7] in light of a proposed dental extraction and to resume use on dental advice.

15. Mrs Honeychurch saw her GP a further four times before her death with concerns of pain and 'noise' in her head. Her concerns were investigated with a brain computed tomography (**CT**) scan and MRI which were normal. At her final GP appointment on 16 July 2018, Mrs Honeychurch was referred to an Ear, Nose and Throat specialist for review.

16. On the morning of Saturday 21 July 2018, Mrs Honeychurch called her friend, Glenys Decranwell, and asked to be taken to the nearby Bendigo Health Emergency Department (**BHED**). On meeting Mrs Honeychurch, Mrs Decranwell noticed that her voice was hardly audible and her neck and throat were swollen.[8]

17. Mrs Honeychurch arrived at the BHED at about 9:00am and was triaged.[9] Mrs Honeychurch told Ms Decranwell there would be a five hour wait to be seen.[10] Her friend and her daughter, Lisa Honeychurch, rang various local medical services to secure an earlier appointment, without success.

18. At about 9:45am, Mrs Honeychurch left the BHED without medical review. Lisa Honeychurch, drove her mother to the Castlemaine Hospital Urgent Care Centre (**UCC**). Mrs Honeychurch vomited twice during the drive from Bendigo to Castlemaine.

Presentation to Castlemaine Urgent Care Department

19. Mrs Honeychurch arrived at the Castlemaine UCC at about 10:50am and was met there by her second daughter, Rachel Honeychurch. She was triaged at 10:55am.[11]

20. At approximately 12pm, Mrs Honeychurch was reviewed by Dr Gavin Rowland and diagnosed with Ludwig's angina associated with a possible right dental issue. She had a fever[12] and an increased heart rate, but it was documented in the medical notes that there was no airway compromise.[13] Dr Growland consulted with the Ear Nose and Throat Registrar at Austin Health who accepted her for admission at the Austin Hospital.

[7] Medication which can increase the risk of developing bone death of the jaw.
[8] Statement of Glenys Decranwell dated 26 July 2018.
[9] Statement of Dr Richard Smith dated 19 November 2019.
[10] Statement of Glenys Decranwell dated 26 July 2018.
[11] Statement of Dr Peter Sloan dated 5 December 2019.
[12] With a temperature of 38.9 degrees.
[13] Medical records of Castlemaine Health.

21. At 12:19pm, Ambulance Victoria (**AV**) was called and a transfer to Austin Hospital requested.

22. While awaiting the arrival of AV, Mrs Honeychurch was observed in the UCC and treated with analgesia, intravenous antibiotics, steroids and intravenous fluid. At 2:05pm, it was documented in the medical notes:

> ...patients breathing appeared noisier (not quite stridor[14]) and daughters have noted swelling seems worse. AV was telephoned and updated on patients change in condition.[15]

23. At about 2:50pm, nursing staff attempted to give Mrs Honeychurch liquid paracetamol, but her daughter observed that she had difficulty swallowing.[16]

Ambulance Victoria Transfer

24. An Ambulance arrived at 2:52pm. AV crew observed that Mrs Honeychurch had mild respiratory distress with snore present, and she remained febrile with an increased heart rate.[17]

25. According to Rachel Honeychurch, her mother's mouth was not checked on handover.[18]

26. At 4:20pm, while in the ambulance en route to the Austin Hospital, Mrs Honeychurch developed acute airway distress and had a cardiorespiratory arrest. Paramedics immediately administered cardiopulmonary resuscitation (**CPR**) and requested assistance from Mobile Intensive Care Ambulance (**MICA**).[19] A laryngeal mask[20] was inserted, but this was difficult due to facial swelling.

[14] A high pitched wheezing sound indicating airflow disruption, usually due to obstruction in the larynx (voice box) or trachea (wind pipe).
[15] Medical records of Castlemaine Health.
[16] Statement of Rachel Honeychurch dated 12 August 2018; Medical records of Castlemaine Health.
[17] Ambulance Victoria records.
[18] Statement of Rachel Honeychurch dated 12 August 2018.
[19] MICA is an ambulance with specialised equipment staffed by highly trained paramedics to respond to emergency situations where patients require a higher level of care than a regular ambulance can provide.
[20] An airway tube which can be inserted blind and sits just above the larynx (supraglottic). It is accepted as both a rescue ventilation and primary airway management device in both the prehospital and hospital setting. The main drawback is that there is no tube in the trachea, so particularly win patients with a difficult airway it may not be possible to obtain a seal and ventilate.

27. MICA arrived at 4:38pm and noted excellent CPR was in progress. An endotracheal tube[21] was successfully placed and Mrs Honeychurch returned to spontaneous circulation shortly afterwards.

28. The ambulance was diverted to the nearest hospital which was Sunshine Hospital.

Sunshine Hospital

29. Mrs Honeychurch was assessed in the Emergency Department where a CT scan of her brain, face, neck and chest showed evidence of brain damage due to lack of oxygen[22] and extensive soft tissue swelling in the oral pharynx consistent with Ludwig's angina.

30. She was admitted to the ICU with a plan for incision and drainage surgery with tooth removal the following day. However, over the course of the evening, Mrs Honeychurch became increasingly unstable.

31. On the morning of 22 July 2018, Mrs Honeychurch was assessed as being brain dead. In discussion with her family, comfort care was provided. Mrs Honeychurch was declared deceased at 4:15pm on 23 July 2018.

IDENTITY AND CAUSE OF DEATH

32. On 23 July 2018, Mrs Honeychurch's daughter, Lisa Honeychurch, visually identified her body. Identity is not in dispute and requires no further investigation.

33. On 26 July 2018, Dr Paul Bedford, a Forensic Pathologist practising at the Victorian Institute of Forensic Medicine (**VIFM**), conducted an autopsy upon Mrs Honeychurch's body. Dr Bedford requested an opinion regarding the dental aspects of the post mortem investigation from Dr Hanlie Engelbrecht, Visiting Oral Surgeon at the VIFM, and Dr Jeremy Graham, Consultant Forensic Odontologist at the VIFM, both of whom attended the autopsy.

34. All Doctors reviewed a post mortem CT scan, the Police Report of Death for the Coroner, an e-medical deposition from the Sunshine Hospital, and Mrs Honeychurch's ante mortem medical records from Sunshine Hospital.

[21] A tube in the trachea (windpipe) which allows ventilation and protects the airway from aspiration of stomach contents.
[22] Hypoxic ischaemic encephalopathy.

35. Dr Bedford provided a written report, dated 2 October 2018, in which he formulated the cause of death as '*I(a) Ludwig's angina'*. Dr Bedford considered the death was due to natural causes.

36. Toxicological analysis of post mortem samples taken from Mrs Honeychurch identified the presence of several hospital administered drugs.[23] Mrs Honeychurch's level of C reactive protein was markedly raised, consistent with a severe bacterial infection.

37. The post mortem examination confirmed extensive acute inflammation associated with infection arising from wisdom tooth infection spreading into adjacent tissues. Dr Bedford commented that this leads to difficulties in maintaining the airways, and he also found generalised infection or septicaemia.

38. In a report dated 23 August 2018, Dr Engelbrecht explained**:**

> Ludwig's angina is an acute airway emergency brought on by rapidly spreading infection in the form of oedema and cellulitis (commonly from Streptococcus species). The airway compromise is caused by the involvement of five fascial spaces (potential spaces in health that open up when infected), including the bilateral submandibular, bilateral sublingual and submental space. This may lead to a raised tongue that obstructs the oral cavity and blocks airflow anteriorly in the airway. As such the pharynx may appear patent. Patients with Ludwig's angina do not typically present with stridor, the usual earmark of a compromised airway, rather they present with dysphagia, dysphonia in the form of altered or "hot-potato" speech, inability to swallow secretions (dribbling or hypersalivation) and discomfort/distress on lying flat. The mainstay of treatment in a patient with Ludwig's angina is urgent administration of broadspectrum antibiotics, corticosteroids and securing the airway of the patient, as infection is known to spread rapidly. Once the above has been done, source control of the infection with removal of the cause, as well as incision and drainage of the involved spaces, is usually achieved, in the setting of ICU/high-care admission to a hospital.

39. According to Dr Engelbrecht, Mrs Honeychurch lost her airway due to a raised floor of mouth and tongue, as well as swelling in her neck. The distress likely resulted in the arrest and hypoxic brain death.

40. I accept the medical opinion as to cause of death.

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[23] Morphine, midazolam, amlodipine, metoclopramide, paracetamol,

REVIEW OF CARE

41. I asked the CPU to review communications from Mrs Honeychurch's family and provide advice on the medical care proximate to her death. The CPU obtained statements from relevant parties and analysed relevant medical records and clinical notes.

42. The CPU concluded that the care provided by the BCDS, GP and the BHED was appropriate, as was the initial assessment, diagnosis and management of Mrs Honeychurch at Castlemaine UCC.

43. However, the CPU identified two main areas of concern in the medical care provided to Mrs Honeychurch. The first relates to the monitoring and communication between clinicians at the Castlemaine UCC, and second to the transfer of Mrs Honeychurch from Castlemaine UCC. Castlemaine Health and Ambulance Victoria were provided an opportunity to respond to my proposed findings and recommendations on these issues. Castlemaine Health did not provide a response.

Appropriate care by Bendigo Community Dental Services

44. Mrs Honeychurch's daughters advised that in the weeks before their mother's death she had attempted several times to get an appointment to have an affected tooth removed. The CPU reviewed the medical records of the BCDS and considered whether any difficulty in obtaining a dental appointment may have contributed to Mrs Honeychurch's death.

45. Mrs Honeychurch visited the BCDS several times in the months before she died. In March 2018, she had five separate appointments at the service, in three of which she reported ongoing pain to a lower right-hand molar and a partially erupted wisdom tooth.

46. Over the course of care, BCDS provided various treatment options to Mrs Honeychurch including waiting for the wisdom tooth to erupt, extraction of the wisdom tooth which would need to occur at the Royal Dental Hospital in Melbourne, and Root Canal Therapy. Clinical records of Mrs Honeychurch's final appointment at the service on 4 May 2018 document that her tooth pain had resolved.

47. The CPU considered, and I agree, that the care provided by the BCDS was appropriate.

Appropriate care by GP

48. Mrs Honeychurch's family identified that her GP had not prescribed antibiotics or pain relief in respect of Mrs Honeychurch's infected tooth. However, GP records indicate that although Mrs Honeychurch frequented the GP in the two months prior to her death she did not make any specific complaints about tooth or jaw pain.

49. The main complaint made by Mrs Honeychurch related to head pain, which was being investigated at the time of her death. I consider the management of Mrs Honeychurch by her GP was appropriate.

Appropriate triage at the Bendigo Hospital Emergency Department

50. According to Ms Decranwell, Mrs Honeychurch was taken to the BHED just before 8:38am on 21 July 2018 and was told there would be a five hour wait to be seen, despite her having marked facial swelling at this time. This resulted in her leaving the hospital to seek alternative medical care.

51. Dr Richard Smith, Deputy Director of Bendigo Emergency Department, detailed that a triage assessment was performed on Mrs Honeychurch alone at 9:01am on 21 July 2018. Her presenting complaint was documented as 'viral illness 7/7, now complaining of sore throat, swollen glands and painful right ear since last night'. There was no record of Mrs Honeychurch being told there was a five hour wait for treatment.

52. Review of Closed-Circuit Television footage showed that Mrs Honeychurch and her support person left the BHED at 9:46am. Neither Mrs Honeychurch nor her support person approached the staff at BHED at any stage after triage and before leaving. The department identified that Mrs Honeychurch had left at 11:12am when she was called by a doctor for transfer to an ED cubicle.

53. Dr Smith detailed the policies at BHED regarding patients who 'did not wait'. These are in line with those detailed by the Australasian College of Emergency Medicine. There is clear signage in the waiting room asking patients to notify triage staff if they are considering leaving.

54. A review of Mrs Honeychurch's death conducted within the BHED did not identify any issues.

55. I consider that Mrs Honeychurch was appropriately triaged at the BHED and left within a short period of time.

Concerns with communication and monitoring at the Castlemaine UCC

56. Dr Peter Sloan, Executive Director Medical Services, Castlemaine Health, detailed the assessment of Mrs Honeychurch at the Castlemaine UCC. Dr Sloan indicated that Mrs Honeychurch was observed while awaiting transfer to the Austin Hospital, during which time two intravenous lines were inserted, one at 12:25pm and the second at 2:25pm. Observations were performed every 30 minutes after 1pm.

57. Following Ms Honeychurch's death, Castlemaine Health performed an in-depth case review of her care, the report of which was provided by Dr Sloan. A flowchart of the case review identified several issues including that the doctor was not informed when Mrs Honeychurch's triage category was changed from Category 4 to Category 3, it was unclear what was communicated to AV, and that nursing staff were not familiar with Mrs Honeychurch's diagnosis and unable to access information. The flowchart also contained an unclear comment that 'no decision made to transfer care to a second RN'.

58. The CPU found that although it appears Mrs Honeychurch's deterioration was recognised by staff, there was a failure to escalate appropriately and **t**he potential for Mrs Honeychurch to develop an acute airway obstruction was not recognised. The CPU acknowledged, however, that Ludwig's angina is a rare condition which may have been unfamiliar to many of the staff at the UCC and so they may not have been aware of the potential for rapid airway compromise.

59. The only recommendations arising from the Castlemaine Health review were that that staff carry phones, conduct a full ISBAR[24] handover and use a journey board for communication. It is unclear whether the remaining issues have been addressed.

60. I am not confident that Castlemaine Health has put in place adequate measures to ensure that deteriorating patients are recognised promptly and escalated appropriately.

Inter-hospital transfer

Castlemaine Health

61. Dr Sloan provided Castlemaine Health procedures for 'Hospital Transfer' and the 'Deteriorating Patient'. He indicated that these guidelines were followed in Mrs

[24] A clinical handover communication tool.

Honeychurch's care and it was deemed that she required urgent ambulance transfer. At the time of the ambulance request, AV instructed the hospital to provide clinical details and AV determined the mode of transfer.

62. Dr Sloane further indicated that following internal review and a meeting with AV, the hospital felt that the urgency of Mrs Honeychurch's transfer may have been underestimated by AV and the risk of airway obstruction not fully realised. It has since been implemented that the referring hospital is to express their opinion regarding the appropriate platform for transfer.

63. According to Dr Sloane, incidents of delay in transfer or transfer on a platform that is not the one preferred by country hospitals is not uncommon. He stated that the hospital is not in a position to second guess AV and the reasonable presumption is that AV is allocating resources as best they can to meet the workload at the time. Meetings are held between the hospital and AV to resolve issues should they occur.

64. The Hospital Transfer Procedure is not clear as to when a clinician should call ARV rather than AV to arrange patient transfer. It provides that the need and mode for patient transfer is determined by the Medical Practitioner and/or the Nurse in Charge. The procedure details in 'Stage 1' that for time critical and urgent ambulance transport, AV should be contacted on '000'. However, in 'Stage 2', the procedure states: 'if emergency care is required call ARV… to arrange transfer and emergency advice/care'[25].

65. In Mrs Honeychurch's case, ARV should have been called to assist with transportation.

Ambulance Victoria

66. Dr Stephen Bernard, Medical Advisor for AV, provided a statement in which he detailed AV's comprehensive Internal Clinical Review process. A Root Cause Analysis of Mrs Honeychurch's care identified two learnings, one of which was that 'staff needed to be familiar with the roles and responsibilities involved in the co-ordination of inter hospital transfers and the role of ARV'.

67. Dr Bernard detailed the education which will be provided to paramedics regarding co-ordination of inter-hospital transfers and the roles and responsibility of ARV to address this learning.

[25] ARV is a department of Ambulance Victoria providing clinical coordination, retrieval and critical care services.

68. I proposed that AV consider expanding its education program to clinicians at peripheral centres. AV indicated this would be difficult to coordinate and noted educational programs already in train, including a program managed by Safer Care Victoria which is working towards educating staff at Urgent Care Centres about inter-hospital transfers including the role of ARV and AV. I consider that Safer Care Victoria, as the peak statutory authority for quality and safety improvement in healthcare, is well placed to provide this education.

69. AV also provided its new Inter-Facility Transfer Work Instruction[26] which outlines the process for involving ARV in all complex, high risk and time critical inter-health service transfers.

Airway assessment by AV

70. The CPU found that the potential for Mrs Honeychurch to develop an acute airway obstruction was also not recognised by paramedics.

71. In the second learning of its Root Cause Analysis, AV recognised the need to develop a clinical practice guideline for adult upper airway obstruction. This has been developed and published by AV and I consider this learning has been addressed satisfactorily.

CONCLUSION

72. Ludwig's angina is rare dental-related emergency. People with the condition may decline rapidly and are at risk of airway compromise.

73. Individuals with Ludwig's angina are often best cared for at tertiary care facilities which have the resources to manage difficult airways, and where intensive care management and a multidisciplinary team of specialist anaesthetists, Ear Nose and Throat surgeons and Emergency physicians are available. These resources are not often available in the rural hospital setting.

74. Inter-hospital transfers are an important way to ensure that patients receive the care they need where an initial hospital cannot manage them. Many inter hospital transfers happen from regional or rural hospitals to metropolitan hospitals where there is greater access to specialty services and critical care support.

75. The decision to transfer Mrs Honeychurch from the Castlemaine UCC to the Austin Hospital following consultation with an ENT Registrar was timely and appropriate. However, my

[26] Created on 31 July 2020.

investigation has highlighted concerns with the monitoring of Mrs Honeychurch following that decision and the safe and effective coordination of her care.

RECOMMENDATIONS PURSUANT TO SECTION 72(2) OF THE ACT

76. Pursuant to section 72(2) of the Act I recommend:

    (a) That Castlemaine Health review and clarify its Hospital Transfer Procedure's referral pathways to ARV and AV, so as to ensure critically unwell patients are transported as safely as possible.

    (b) That Safer Care Victoria, in consultation with AV and ARV, provide education to rural and remote Emergency Departments and Urgent Care Centres on the role and responsibilities of ARV.

    (c) That Castlemaine Hospital revisit its case review report in this matter, so as to reassess issues regarding staff communication and education on upper airway obstruction.

FINDINGS

77. Having investigated the death, without holding an inquest, I make the following findings pursuant to section 67(1) of the *Coroners Act 2008*:

    (a) The identity of the deceased was Alma Lynette Honeychurch, born 13 March 1942;

    (b) The death occurred on 23 July 2018 at Sunshine Hospital from Ludwig's angina; and

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

78. I express my sincere condolences to Mrs Honeychurch's family for their loss.

79. Pursuant to section 73(1B) of the Act, I direct that this finding be published on the Internet.

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

    (a) Lisa Honeychurch, senior next of kin;

    (b) Ms Bridie Walsh, Slater and Gordon;

    (c) Castlemaine Health;

(d) Bendigo Health;

(e) Ms Amie Herdman, Ambulance Victoria;

(f) Dr Narelle Watson, Western Health;

(g) Professor Peter Cameron, Safer Care Victoria; and

(h) Senior Constable Euan Thoms, Coroner's Investigator.

Signature:

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SIMON McGREGOR

CORONER

Date: 9 December 2020