IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2018 5655

FINDING INTO DEATH WITHOUT INQUEST

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

Findings of:	**AUDREY JAMIESON, CORONER**
Deceased:	**IRENE FLORENCE CURRAN**
Date of birth:	**1 December 1938**
Date of death:	**9 November 2018**
Cause of death:	**Ischaemic bowel in the setting of cardiomegaly, pneumonia and chronic renal failure**
Place of death:	**Hepburn Health- Trentham Aged Care, 22 Victoria Street, Trentham Victoria 3458**

Pursuant to section 67(1) of the **Coroners Act 2008**, I make findings with respect to **the following circumstances**:

1. Irene Florence Curran was a 79-year old woman who lived at the aged care residence, Hepburn Health - Trentham Aged Care (TAC), located at 22 Victoria Street, Trentham Victoria 3458 at the time of her death.

2. On 9 November 2018 at approximately 6.45am, Mrs Curran was found deceased in her bed at TAC.

3. Mrs Curran's death was reportable pursuant to section 4 of the *Coroners Act 2008* (Vic) ('the Act'), because it occurred in Victoria and was considered unexpected.

INVESTIGATIONS

Forensic pathology investigation

4. Dr Matthew Lynch, Forensic Pathologist at the Victorian Institute of Forensic Medicine (VIFM), performed an autopsy upon the body of Mrs Curran, reviewed a post mortem computed tomography (CT) scan, information in the VIFM contact log, histology report from Dorevitch Pathology, medical records from Ballarat Health Service, an email detailing family concerns and referred to the Victoria Police Report of Death, Form 83.

5. Post mortem samples taken from Mrs Curran detected the presence of oxycodone[1], hydroxyrisperidone[2], sertraline[3], ondansetron[4] and paracetamol[5].

6. Dr Lynch commented that there were a number of natural disease processes identified at autopsy. The heart was markedly enlarged due to left ventricular hypertrophy and microscopic examination showed patchy fibrosis (scarring of the heart muscle). The cause for the cardiac enlargement was not apparent, although the most common cause in this community would be a history of high blood pressure. Whilst there was no mention

[1] Oxycodone is a semi-synthetic opiate narcotic analgesic related to morphine and is clinically used to treat moderate to severe pain.

[2] Hydroxyrisperidone is the metabolite of risperidone. Risperidone is prescribed for schizophrenia and some behavioural disorders (delusions, aggression).

[3] Sertraline is an antidepressant drug for use in cases of major depression.

[4] Ondansetron is clinically used to control nausea and vomiting in post-operative patients and in those receiving cytotoxic chemotherapy and radiotherapy.

[5] Paracetamol is an analgesic drug.

of high blood pressure in Mrs Curran's medical records, she was being treated with the drug perindopril, which is often used for the treatment of hypertension. Mrs Curran was also being managed with frusemide (a diuretic often used to manage heart failure or peripheral oedema).

7. Loops of small and large bowel appeared slightly dilated and had a slightly dusky appearance, features suggestive of early ischaemic change. Dr Lynch noted that, in this instance, the latter was most likely related to hypo perfusion in the setting of the pre-existing cardiac disease, and might explain a non-specific symptom as abdominal pain, of which Mrs Curran complained in the days preceding her death.

8. There was also a small amount of focal inflammation on the bowel mesentery in the region of the recent surgical site[6]. There was no evidence of residual or metastatic endometrial carcinoma. Patchy pneumonic change was noted within both lungs.

9. Dr Lynch further detailed that post mortem biochemistry revealed a markedly elevated C-reactive protein. This is suggestive of a degree of sepsis/ inflammation and was likely, in this instance, related to the early ischaemic changes within the bowel. Renal function was also impaired. This was in keeping with known history of renal impairment.

10. Dr Lynch concluded that the precise cause of death in Mrs Curran was not apparent after the post mortem examination. He determined that it was not unreasonable to invoke a narrative cause of death and subsequently, ascribed the cause of death as ischaemic bowel in the setting of cardiomegaly, pneumonia and chronic renal failure.

[6] On 30 October 2018, Mrs Curran underwent a laparotomy, total abdominal hysterectomy and bilateral alpingo-oophorectomy.

Coronial investigation

11. Upon attending TAC after Mrs Curran's death, Victoria Police investigating officers were informed that Mrs Curran had undergone a hysterectomy on 30 October 2018 at Ballarat Health Services- Ballarat Base Hospital (BBH). She returned back to TAC on 5 November 2018.

12. On 9 November 2018 at approximately 6.45am, staff conducted a check on Mrs Curran in room 26 and found her deceased in bed. There were no attempts to resuscitate, in the belief that this was consistent with Mrs Curran's management plan.

13. I referred Mrs Curran's case to the Coroners Prevention Unit (CPU)[7]. The CPU considered medical records and statements from treating clinicians in evaluating the adequacy of medical care afforded to Mrs Curran in the period proximate to her death.

14. The CPU noted that Mrs Curran had a medical history of hypertension, anxiety, depression, vascular dementia, osteoarthritis, lymphoedema, previous chronic leg ulcers, renal impairment and urinary incontinence. She lived at TAC due to her poor mobility with osteoarthritis of her hip, although was noted as being a reasonably independent resident. Mrs Curran had a body mass index of 39 kg/m2[8].

15. Mrs Curran had been a resident of TAC since 22 July 2015. An "end-of-life choices" document was completed on 3 August 2015. This document detailed,

> In the event of sudden or significant deterioration in my health I request to be transferred to hospital for assessment and possible treatment

16. It was reviewed with amendments on 27 March 2017,

> Discussions and 'end of life choices' updated, now not for CPR, but treatment as required.

[7] The role of the CPU is to assist coroners investigating deaths, particularly deaths which occur in a healthcare setting. The CPU is staffed by healthcare professionals, including practising physicians and nurses, who are independent of the health professionals and institutions under consideration. The CPU professionals draw on their medical, nursing and research experience to evaluate the clinical management and care provided in particular cases by reviewing the medical records, the autopsy report and any particular concerns which have been raised.

[8] Obesity is classed using the Body Mass Index (BMI), which is an index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. 35- 39.99 kg/m2 is considered Grad II obesity.

17. The document was reviewed again with no changes on 29 October 2018.

18. On 26 September 2018, Mrs Curran was diagnosed with poorly differentiated adenocarcinoma[9] of the endometrium[10].

19. On 9 October 2018, A planned staging laparotomy was discussed with consent signed by Mrs Curran in the presence of her daughter, Leeanne Curran. A pre-operative antibiotic was prescribed, which was to be taken the evening prior to surgery.

20. On 30 October 2018, it was identified that TAC staff had failed to administer Mrs Curran's pre-operative antibiotic. Ms Curran contacted BBH nurse, Lauren Bobrowski to inform BBH of the error. Ms Bobrowski advised not to take the antibiotic and that extra antibiotics would be administered at the time of surgery.

21. On the same day, Mrs Curran underwent a laparotomy, total abdominal hysterectomy and bilateral salpingo-oophorectomy[11]. The procedure was performed by consultant, Professor Thomas Jobling at BBH. After the procedure, Mrs Curran was returned to the ward.

22. On 31 October 2018 at approximately 6.25pm, a discussion was held between Ms Curran and the obstetrics and gynaecological registrar, Dr Emma Clifton. The discussion involved Mrs Curran's "goals of care" (GoC)[12]. The medical record details the discussion as follows,

> Prev had disc @ nursing home that NFR … doesn't feel this is appropriate currently
>
> I agree given that pt deemed suitable to major procedure/ laparotomy that has active management.

23. Subsequently, a GoC summary form was signed and dated for "Goal of Care A: for CPR".

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[9] Nearly all types of differentiated cells may become cancer cells. Unlike healthy cells, cancer cells do not die but transform for an indefinite period of time.

[10] Innermost glandular layer and functions as a lining for the uterus, preventing adhesions between the opposed walls of the myometrium, thereby maintaining the patency of the uterine cavity.

[11] The surgical removal of an ovary or ovaries.

[12] GoC inform medical decision-making and limitations of medical treatment (resuscitation plan). Medical management aligns with the patient's values and preferences from the point of admission.

24. On 1 November 2018, Mrs Curran's haemoglobin was 68g/L, a drop from 83g/L. Ms Curran was contacted at the request of Mrs Curran and a blood transfusion was provided. Mrs Curran's post-operative pathway included pain relief, mobilisation with a four-wheeled walker and discharge back to TAC on 5 November 2018.

25. After Mrs Curran's arrival back at TAC[13], Ms Curran had a discussion regarding the NFR on her mother's care plan. Specifically, that it was to be removed.

26. On 6 and 7 November 2018, Mrs Curran complained of abdominal pain. Analgesics were administered. Mrs Curran requested that staff stay with her, to which they did so. TAC notes detail, "anxiety may be decreasing her pain tolerance. When sitting and chatting with Irene her pain decreases".

27. On 7 November 2018, Mrs Curran was reviewed by general practitioner (GP), Dr Jonathan Barrell. The distal area of Mrs Curran's wound was noted to have dry greenish discharge. A wound swab was obtained, which identified a moderate growth of methicillin resistant staph aureus (MRSA)[14].

28. On 8 November 2018, Mrs Curran was again seen by Dr Barrell. Blood samples were obtained, which showed Mrs Curran's C-reactive protein was 487mg/L[15], creatinine was 258umol/L[16], haemoglobin was 91g/L[17].

29. At 10.30pm, Mrs Curran was banging on the cot sides and calling out to staff. She was repositioned, displayed signs of anxiety, was grabbing at staff and looked frightened. One gram of paracetamol was administered. Mrs Curran fell asleep around midnight.

30. On 9 November 2018 at approximately 3.00am, Mrs Curran called out to staff. She experienced a small vomit and requested that the staff not leave. The staff remained with her and offered reassurance. She was administered the anti-emetic ondansetron for nausea. Mrs Curran resettled and returned to sleep at approximately 3.45am.

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[13] The exact day and time cannot be recalled by Ms Curran.

[14] A bacterium responsible for several difficult-to-treat infections in humans.

[15] Non-specific indicator of inflammation/ infection. Reference range was <3.

[16] Elevated value indicates renal impairment. Reference range was 45-90 umol/L.

[17] Reference range: 115-165g/L.

31. At 4.35am, Mrs Curran attempted to climb out of bed unattended. She had an episode of incontinence of a large amount of unformed offensive faeces and complained of "terrible pain in her stomach and pointed to her incision line". Mrs Curran was administered 10 milligrams of Endone[18], personal hygiene was attended to and sips of lemonade tolerated. Staff remained with Mrs Curran until she felt comfortable and returned to sleep.

32. At 6.50am, staff entered Mrs Curran's room and found her deceased. Nursing notes detail, "her respirations had ceased and no heart sounds could be heard on auscultation". No resuscitation efforts were made.

Family concerns

33. By way of email to the Court, Ms Curran raised several concerns regarding the care afforded to her mother at TAC. Specifically, she raised concerns around,

    a. TAC nursing staff's failure to administer required antibiotics the night prior to Mrs Curran's scheduled hysterectomy.

    b. The discussion Ms Curran had with TAC staff about removing the "not for resuscitation" order (NFR) from her mother's file following her surgery. Namely, that Ms Curran made the request to a registered nurse (RN), who advised the NFR would be removed and that Ms Curran did not need to follow-up with any paperwork.

34. Ms Curran also raised several questions that she wanted answered through the coronial investigation,

    a. What medication and doses of medication were administered to her mother the night prior to her death through to the morning of her death?

    b. Why was Ambulance Victoria not called upon the discovery of her body?

    c. Was cardiopulmonary resuscitation performed?

[18] A narcotic analgesic which acts to relieve moderate to severe pain.

35. For ease of reading, I have addressed Ms Curran's concerns in the comment section below.

COMMENTS

Pursuant to section 67(3) of the *Coroners Act 2008* (Vic), I make the following comments connected with the death:

Pre-operative antibiotic

1. On 16 October 2018, Mrs Curran attended the BHS pre-admission clinic, where she was provided an internal prescription for Tinidazole 2 grams. The medication was also dispensed by BHS.

2. Upon Mrs Curran's return to TAC, this medication was provided to a staff member, who in turn had the GP write up an order to administer this medication.

3. During this period, TAC was transitioning to an electronic records management system, known as iCare®[19]. Under this system, "visiting doctors can no longer access the nursing notes at the bedside and observation graphs no longer exist".

4. The Manager Quality and Clinical Safety at Hepburn Health, Michelle Oliver, detailed information relating to the prescribing, dispensing and administration of medications at TAC,

    1. Medication is prescribed by doctor who writes the order on paper-based medication chart (NIMC).

    2. NIMC is scanned to Trentham pharmacy.

    3. Pharmacist enters the order onto the iCare® system, and dispenses the medication to TAC.

    4. Medication is received by TAC. Order for medication comes 'live' in iCare® on the date/time as per prescription.

5. Ms Oliver details that on 18 October 2018, the attending GP wrote an order on the "once only" section of the NIMC. This order was **not** sent to the Trentham pharmacy and not entered into iCare®.

[19] iCare health or iCare falls under Telstra Health. "Australian-based provider of software for healthcare providers […]".

6. The reason for not scanning the order to the pharmacy is not clear in the various TAC statements. I consider it reasonable to assume however, that the order was not scanned and sent because BBH had already provided Mrs Curran with the medication and therefore, it did not require dispensing. Ms Oliver further details that staff "may not have considered the consequences of the medication therefore not showing in iCare®." Specifically, that the medication did not appear in iCare® for administration on 29 October 2018, as per comment 4(4).

7. She did detail that a "prompt to staff to administer the medication was written in the facility's communication diary however, there is no acknowledgment that the prompt was read by the RN on duty on that shift".

8. An order had been written by the attending GP for the administration of the Tinidazole the night prior to Mrs Curran's surgery, indicating that the failure to administer the medication was a systemic failure relating to communication systems.

9. I consider that the missed Tinidazole was not directly related to Mrs Curran's death. However, I consider the miscommunication to be a failure in TAC's iCare® system that could pose additional threats to health and safety of residents in the future.

Mrs Curran's NFR status

10. Prior to Mrs Curran's admission to BBH for surgery, she had a clearly identified and recently reviewed end-of-life care plan at TAC that stipulated she was not for resuscitation.

11. In a subsequent statement obtained by the Court, Dr Clifton detailed a summary of Mrs Curran's history and conversations she held with Mrs Curran and Ms Curran while Mrs Curran was admitted to BHS. Specifically, Dr Clifton details the conversation she had with Ms Curran regarding her mother's GoC paperwork,

> The intended duration of alteration of the goals of care was for the period of hospital admission; this is standard practice when completing this documentation. These altered goals of care are voided when the patient is discharged from hospital. […] I encouraged Ms Leanne Curran to discuss her desires for ongoing care alteration with her mother's GP on discharge from hospital.

12. Statements obtained from TAC detail that there is no documented evidence of the conversation Ms Curran had with staff regarding a change to her mother's NFR status. While I do not consider this to be conclusive, given Mrs Curran's prospects of successful resuscitation (as detailed below at comments 22-23), I do not consider the absence of CPR to have been the determining factor in Mrs Curran's death.

13. As noted at paragraph 32, nursing notes detail, "her respirations had ceased and no heart sounds could be heard on auscultation".

Mrs Curran's return to TAC, including medication and doses

14. The documentation from TAC details that on 7 November 2018, Ms Curran raised concerns about her mother's shortness of breath.

15. In the subsequent statement obtained from Dr Barrell, he provided a comprehensive narrative on the action taken to address Ms Curran's concerns. Specifically, Dr Barrell reviewed and assessed Mrs Curran on 7 November 2018 at some time prior to 1.37pm. At the time, he noted Mrs Curran to be,

> […] mildly pale consistent with the recent surgery and post-operative anaemia that she must have had to warrant the 2 unit transfusion, but her pain was controlled and her level of progress was not unexpected for someone with her comorbidities in the post-operative setting. Her observations were adequate, her blood pressure was stable for her age, obesity and comorbidities.

16. Ms Oliver provided copies of Mrs Curran's vital signs. The CPU reviewed this documentation and opined that they appeared reasonable and within the acceptable range.

17. Ms Curran was provided with reassurance that pathology would be obtained on 8 November 2018, which did occur. Regular medications frusemide[20] and perindopril[21] were withheld as Mrs Curran's blood pressure was lower but remained within normal range.

[20] Diuretic medication.

[21] Anti-hypertensive medication.

18. The notes and medication chart indicate that Mrs Curran received one gram of paracetamol on 8 November 2018, ondansetron on 9 November 2018 at 3.00am, and endone 10 milligrams at 4.35am.

19. I am satisfied that the care afforded to Mrs Curran upon her return to TAC was appropriate and timely, given her presentation.

Cardiopulmonary resuscitation (CPR) not commenced and Ambulance Victoria not called

20. Dr Barrell detailed that he had no recollection of "[…] conversations with Ms Leanne Curran on altering the 'do not resuscitate order'".

21. Given Dr Barrell was not aware of a change to Mrs Curran's NFR status, I consider the decision not to commence resuscitation efforts and call Ambulance Victoria to have been in line with Mrs Curran's end-of-life choices as documented at the time of her death.

22. I note that out of hospital cardiac arrest continues to have poor outcomes. Even with return of spontaneous circulation, neurological recovery is variable. Several clinical factors have been identified that predict a greater likelihood of survival including,

    a. Witnessed arrest

    b. Ventricular tachycardia or ventricular fibrillation as initial rhythm

    c. Pulse regained during first ten minutes of CPR

    d. Arrest during "on hours" (Monday to Friday, 7.00am – 11.00pm)

    e. Identification of early warning signs

    f. The presence of a dedicated resuscitation team with diverse team composition.

23. I note that even if Mrs Curran's cardiac arrest had occurred during "on-hours" with staff identifying and attending the episode earlier, her prognosis would have still been very poor and unlikely to have changed the outcome.

Timing of Mrs Curran's discharge and accompanying paperwork

24. Mrs Curran was discharged from BBH on Monday, 5 November 2018 and died on 9 November 2018. On planning Mrs Curran's discharge from BBH, the TAC Nurse, Unit Manager received a telephone call from BBH ward staff and a summary of Mrs Curran's hospitalisation.

25. On return from BBH, TAC received an unsigned and unknown designation of author, "inter-hospital patient transfer form". The form consisted of basic post-operative treatment information.

26. From the evidence provided throughout the coronial investigation, it appears that TAC never received a discharge summary from BBH. I note that Springs Medical[22] received a discharge summary at 5.58pm on 12 November 2018, three days after Mrs Curran's death.

27. By way of their own admission, BBH stated that Mrs Curran's discharge was not completed until 12 November 2018, some three days after her death and a week after her discharge. They further detailed that,

> A completed discharge summary would usually be sent electronically to the general practitioner's rooms (if they used the Argus system) or faxed to the general practitioner's rooms.
>
> A Patient transfer form was completed by nursing staff on 5/11/18. This form would usually accompany the patient on discharge.

28. Mrs Curran's death was discussed at an internal BBH gynaecology meeting. When given the opportunity to comment on any improvements arising from this meeting to eliminate the risk of reoccurrence, BBH stated that the resulting recommendation was, "All doctors on orientation to the unit are told about the importance of completing discharge summaries in a timely manner".

29. I would expect such information to be relayed to all treating clinicians operating in a hospital setting and consider that such a recommendation be extended hospital wide.

[22] The medical centre Dr Jonathan Barrell practices at on Wednesdays and Thursdays.

30. I further note that TAC had requested that Mrs Curran not be transferred back over a long weekend. Despite this request, Mrs Curran was transferred back at 3.30pm, arriving back at TAC at 4.00pm on 5 November 2018. Tuesday, 6 November 2018 was the Melbourne Cup public holiday. In addition, she was transferred back by her daughter, not by way of ambulance transport, thus there was no opportunity for a handover.

31. In his statement, Dr Barrell detailed,

> Melbourne Cup fell on Tuesday, 6 November 2018 and so no doctors from Springs Medical were on site that day. There has been a longstanding shared understanding between Springs Medical and Hepburn Health Services to not accept transfers on the eve of a public holiday.

32. I acknowledge the size of Ballarat Health Services catchment area and the potential difficulties in knowing the capabilities of facilities within such a large area. However, the TAC statement included a request form asking that Mrs Curran not be transferred back from BBH over the public holiday. Despite this request, she arrived back at TAC in the late afternoon pre-public holiday.

33. There was no concerns identified in the statement response from BBH with transferring Mrs Curran back to TAC on the evening of a public holiday. I consider it likely that BBH did not consider the capabilities of TAC in caring for a post-operative surgical patient on a long weekend.

34. I note that TAC is,

> […] a 25 bed residential aged care facility staffed by registered nurses, enrolled nurses and personal care attendants whose skills and knowledge are relevant to the care of the elderly in a **non-acute** environment. There is an expectation and indeed training and support for staff to maintain their skills and competence within this context.

35. I further note that Mrs Curran's observations on return to TAC were infrequent and scant but remained within reasonable levels.

36. I acknowledge that TAC performed an in-depth review of Mrs Curran's death. At the time of their most recent statement, there was an "in-progress" recommendation underway to develop a high risk pathway for residents transferred directly from an acute hospital back to residential aged care. This would include a requirement from the GP to

be notified of pending transfer and a clinical handover between hospital, GP and senior staff at TAC.

37. I consider the additional recommendation made by TAC to utilise Hepburn Health Acute Services at the Daylesford Campus at act as a "step-down" for residents returning from acute hospitalisation, to be in the interests of greater public health and safety.

38. A further recommendation was for staff to utilise information available via electronic record (BOSSnet) and to develop "ISBAR"[23] to GPs' guide for staff.

39. I am satisfied that TAC has reviewed the circumstances surrounding Mrs Curran's death and is in the progress of systems improvement, thus ensuring appropriateness of patients being transferred from an acute hospital encounter.

RECOMENDATIONS

Pursuant to section 72(2) of the *Coroners Act 2008* (Vic), I make the following recommendations:

1. With the aim of promoting public health and safety, I recommend Ballarat Health Services reassess their system for ensuring discharge summaries are drafted and sent out to relevant recipients in a timely manner, which I consider to be within the 24 hour period post discharge.

2. With the aim of promoting public health and safety, I recommend Ballarat Health Services extend the importance of completing discharge summaries within a timely manner hospital wide, rather than those solely on orientation.

3. With the aim of promoting public health and safety and preventing like circumstances, I recommend Hepburn Health - Trentham Aged Care discuss concerns relating to patient transfer on public holidays with Ballarat Health Services. Namely, that a memorandum of understanding is agreed upon to ensure the health and safety of future patients.

4. With the aim of promoting public health and safety, I recommend Hepburn Health - Trentham Aged Care reassess the workings of their iCare® medication management

[23] A standard process for the safe transfer of patient information at clinical handover. Identify, Situation, Background, Assessment and Recommendation (ISBAR).

system to ensure there is capability to enter medication prompts in the event that dispensation through a pharmacy is not required.

FINDINGS

1. I find that Irene Florence Curran, born 1 December 1938, died on 9 November 2018 at Hepburn Health - Trentham Aged Care, located at 22 Victoria Street, Trentham Victoria 3458.

2. I find that the investigation into the death of Irene Florence Curran identified shortcomings in her medical management, particularly in relation to effective cross institutional communication regarding patient transfer and end of life choices however, I am unbale to find on the balance of probabilities that they were causal in her death.

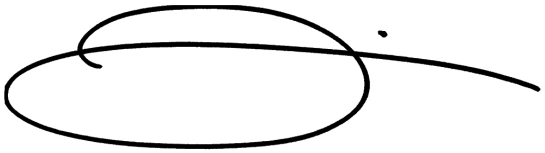
3. I accept and adopt the cause of death ascribed by Dr Matthew Lynch and I find that the cause of Irene Florence Curran's death was ischaemic bowel in the setting of cardiomegaly, pneumonia and chronic renal failure.

Pursuant to section 73(1A) of the *Coroners Act 2008* (Vic), I order that this Finding be published on the internet.

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

Leeanne Curran
Michelle Oliver, Hepburn Health Services
Dr Jonathan Barrell, Springs Medical Centre
Dr Linda Danvers, Ballarat Health Services
Dr Emma Clifton, Ballarat Health Services
Chief Executive Officer, Safer Care Victoria,

Signature:



AUDREY JAMIESON
CORONER
Date**: 6 July 2020**