Opinion 20HDC02358
15 May 2025

HEALTH & DISABILITY COMMISSIONER
TE TOIHAU HAUORA, HAUĀTANGA

Patient left on ward without cardiac monitoring following cardiac event

1. HDC received a complaint from Mr A, who raised concerns about the inadequate assessment and monitoring of his symptoms at a public hospital.

Background

2. Mr A was scheduled for sternal rewiring[1] and an epigastric incisional hernia[2] repair following infection from coronary artery bypass surgery in 2019. This elective surgery was undertaken on 9 December 2020 at a private hospital. During the surgery, Mr A had an episode of ST segment elevation.[3] The surgery was stopped momentarily whilst surgeons discussed potential alternative options, but ultimately, they proceeded and completed the operation, as Mr A had stabilised.

3. The surgeon told HDC that during postoperative monitoring of Mr A, he noticed a significant and 'out of keeping' rise in troponin[4] and transferred Mr A to the public hospital on the morning of 10 December 2020 for further management under a cardiologist. The surgeon told HDC that the on-call cardiologist told him that Mr A would undergo a coronary angiogram during 'normal business hours' as there was no ongoing ischaemia[5] or acute ST segment elevation.

4. On arrival at the public hospital at 8.30am, Mr A was admitted to a cardiac ward. The hospital told HDC that it has a coronary care unit and two other cardiac wards. Mr A was admitted to one of the two cardiac wards. Mr A said that he was left alone and unmonitored for a 'considerable time'.

5. Health NZ|Te Whatu Ora (Health NZ) told HDC that when Mr A was transferred to the public hospital, ward acuity was high, and the nurse allocated to care for Mr A was attending a medical emergency, leading to a 'small delay' in Mr A being reviewed.

6. Clinical notes record that at 8.50am Mr A was assessed by a nurse, who noted that the ST elevation had resolved. Health NZ told HDC that this meant that although Mr A may have had chest pain from the sternal wound, he was not having a heart attack at the time of the assessment. Health NZ also told HDC that pain relief was provided to Mr A at 11.40am.

[1] Sternal wires are used to hold two halves of the sternum (the bone that forms the centre front of the chest wall) together after surgery.
[2] An incisional hernia is a protrusion of tissue formed at the site of a healing surgical scar, in this case on the upper middle area of the stomach (epigastric region).
[3] An ST segment elevation is a finding on an electrocardiogram that may indicate a blockage of a coronary artery, which can lead to a heart attack.
[4] A protein found in the muscles and the heart, which is released when the heart is injured or damaged.
[5] Inadequate blood supply to an organ or part of the body.

7. Regarding telemetry monitoring, Health NZ told HDC that the nurse who assessed Mr A at 8.50am was aware that a telemetry monitor[6] was required for Mr A, but there were no monitors available at the time, and the nurse escalated the matter to a coordinator.

8. Clinical notes show that at 9.40am Mr A was reviewed by a cardiology house officer, who requested admission to a cardiology ward, further registrar review, and telemetry monitoring. At 12.20pm Mr A was reviewed by a cardiology registrar, who noted that further investigations would be required. At 1.46pm an ECG was commenced and showed no definite ST elevation. An angiogram performed at 3.18pm confirmed that Mr A had a coronary occlusion,[7] which was treated by coronary stenting. Mr A was discharged on 13 December 2020.

9. Health NZ told HDC that as of March 2023, the coronary care unit has eight beds reserved for 'acutely unwell' patients, all of which have built-in telemetry monitoring. Health NZ told HDC that the public hospital had a further 32 portable telemetry monitoring units for remote patient monitoring of cardiology patients for the two remaining cardiac wards.

Opinion — breach

10. Independent advice was obtained from cardiologist Dr Ian Crozier (Appendix A). Dr Crozier advised that the delay in a medical officer reviewing Mr A after being admitted to the cardiac ward was considered a mild departure from the accepted standard of care, noting the competing demands faced by medical staff. This was on the basis that Mr A was not reviewed by a medical officer prior to his review by a cardiology registrar at 12.20pm. However, as Health NZ has now provided evidence that Mr A was reviewed by a cardiology house officer at 9.40am, I am satisfied that there was no delay in this respect.

11. Dr Crozier advised that the failure to provide telemetry to Mr A was considered a severe departure from the accepted standard of care. Dr Crozier said that a patient with an acute or recent ST elevation myocardial infarction, such as Mr A, should have been monitored closely by telemetry, whether in a dedicated coronary care unit or a cardiac ward, and it is Health NZ's responsibility to ensure that telemetry monitors are available. I accept Dr Crozier's advice.

12. Accordingly, I consider that Health NZ failed to provide Mr A with telemetry monitoring in a timely manner, as Mr A should have had access to this on admission to the cardiac ward. As such, I find Health NZ in breach of Right 4(1)[8] of the Code of Health and Disability Services Consumers' Rights (the Code) in this regard.

13. Health NZ told HDC that following this event it began implementing additional telemetry monitoring capacity to alert nursing staff of any arrythmia, and recruitment is underway for

[6] A device that continuously monitors patient ECG, respiratory rate, and/or oxygen saturations while automatically transmitting information to a central monitor.
[7] Partial or complete blockage of coronary arteries, which can lead to a heart attack.
[8] Every consumer has the right to have services provided with reasonable care and skill.

an additional registrar and SMO staff. Health NZ also told HDC that SMO staff manage the on-call phone, so that registrars can support patients in a timelier way.

Recommendations and follow-up actions

14. In addition to the above changes, I recommend that Health NZ:

a) Provide a written apology to Mr A for the failings identified in this report. The apology is to be provided to HDC, for forwarding to Mr A, within three weeks of the date of this report.

b) Confirm the implementation of additional telemetry monitoring capacity in the public hospital's cardiac wards and conduct an audit of service outcome measures, providing evidence of implementation and the outcomes of this audit and any corrective actions, within six months of the date of this report.

15. An anonymised copy of this decision (naming Health NZ and the independent advisor) will be sent to Health NZ|Te Whatu Ora and placed on the HDC website (www.hdc.org.nz) for educational purposes.

Dr Vanessa Caldwell
Deputy Health and Disability Commissioner

Appendix A: Independent clinical advice to Commissioner

The following advice was obtained from Dr Ian Crozier. I note that aspects of his advice not relevant to the care provided by Health NZ have been redacted.

'My name is Ian George Crozier.

I am a registered medical practitioner (10770) and cardiologist.

I have been requested to provide an opinion regarding [Mr A] and the care provided by [Health NZ] to him in December 2020.

I am professionally acquainted with Dr …

Documents provided:

- Letter of complaint from [Mr A].
- Response from [Health NZ].
- Clinical notes from [Health NZ].
- Clinical Notes from [the private hospital]

Case summary: Extracted from HDC file augmented with my own observations. Quotations from correspondence are shown in italics.

Background:

July 2019: Coronary artery bypass grafting, complicated by sternal infection and non-union and epigastric incisional hernia.

Hypertension

Hypercholesterolaemia

Chronic Back pain

Left sided weakness, chronic small vessel changes, 2018

Hepatitis B 2009

Timeline:

8 December 2020:

Admitted to [a private hospital] for elective for sternal rewiring/plating and mesh repair of epigastric hernia.

9 December 2020:

8:00–13:00 Operation: Elective sternal rewiring/plating and mesh repair of epigastric hernia. Surgeon [Mr B]

11:00: Anaesthetic record: (difficult to read) *ST elevation 4.4mm in ? leads with chest retraction, surgeon notified to stop, BP stable, metoprolol, chest closed 12:00h ST 3mm*

13:00–15:00 PACU nursing record: Initial comment *ST elevation on 3 lead ECG. 12 Lead ECG done 14:10, GTN spray 14:20, mild shoulder pain 15:00, for 18:00 hrs troponin + repeat 24:00hrs*

14:18: Troponin T 349 (elevated, normal 0–20)

14:20: ECG, 2mm inferolateral ST elevation

17:50: Troponin T 785 (elevated, normal 0–14)

18:23: ECG, ST changes resolved.

20:20: nursing notes: *At around 1650hrs. pt got anxious, agitated at times, also tried to climb out of bed, … found him end of bed Haloperidol 2mg given IV @1850 … seen by [Mr B] … around 1800hrs. Also notified Dr … pt EWS 4 …*

10 December:

0:34: ECG ST elevation resolved. *Faxed to [Mr B] …*

00:35: *troponin 2093*

5:00: [Mr B] note*: D/W Dr … cardiologist on call.*

Adv Tr to [Health NZ]. Will most likely need cor Angio. Informed [Mr A]

6:00: Interhospital transfer checklist completed

Transfer note from [Mr B].

ST elevation during sternal retraction intra-op resolved spontaneously

Postop ECG ST elevation inferior leads resolved on repeat ECG

Trop Ths 1750 785+ 12.35 2093+

Stable haemodynamics

No arrhythmia noted on telemetry

No chest pain

Discussed with Dr … cardiologist on call. Accepted transfer to [Health NZ].

Most likely will coronary angio.

Thank for agreeing to take over care.

8:30: Admitted to [public hospital] CCU

8:50: Assessed by nurse, ECG, no definite ST elevation.

Admitting doctor notified.

[Health NZ] transfer of care form. (Difficult to read in places)

ST elevation VT during Trop T rise 2039

Drain in cavity agitation confusion ??? haloperidol

Recommendation: Angiogram/cath telemetry — treat as NSTEMI

Noctcs safety pardon???

09:15: First recorded observations.

Pain score reported as 0 (however in the response from [Health NZ] it is reported that the nurse identified he had pain, the medical staff was notified and pain relief given at 11:40)

12:20 Admission note by cardiology registrar (…)

R/V of patient with ongoing CP

Pain 5–6/10

Central + L side chest

Associated SOB

Pain is constant

Inferior ST elevation with ST depression in V1–V3

Rest of history as per admission note

D/W … SMO on call for Cath lab.

Imp: Inferior STEMI with ongoing CP

Plan: T/F to cath lab for PCI +/- proceed

8:30–13:00. Response from [Health NZ] regarding telemetry

When [Mr A] was assessed, [the nurse] was aware that a telemetry monitor was required. However, monitors were not available at the time and so this was escalated to the coordinator who then assessed the patients on cardiac monitoring with the relevant medical staff to find a monitor. A monitor was sourced and the nursing documentation indicates that prior to going to the Cath lab at 1300hrs on the 10th December [Mr A] was on telemetry monitoring.

13:46: ECG Cath Lab No definite ST elevation

15:20–16:30

Coronary angiogram.

Worksheet notes

Ventricular tachycardia during mesh repair

Angioplasty and stenting to circumflex artery.

Circumflex artery occluded and OM graft occluded.

11 December 2020:

08:04: ECG, persisting but less marked inferolateral ST elevation

13 December 2020:

Discharged from [Health NZ]

Comments:

The clinical notes provided were difficult to analyse. Much of the handwriting was poor, and illegible in places. There were contradictory statements especially on the 10th of December when the registrar reported ongoing pain, the [Health NZ] response indicated he had pain, but the observation sheet suggests none, and ST elevation, but the ECGs that can be accurately timed do not show persisting elevation. Furthermore there is mention of ventricular tachycardia in the cath lab worksheet, but this was not reported by [Mr B] or his anaesthetist. However these limitations are unlikely to substantially alter my opinion.

Overall my clinical summary was that [Mr A] sustained a perioperative ST elevation myocardial infarction on the 9th of December. He was transferred to [the public hospital] on the 10th of December. By this stage the ST elevation had resolved, but he had ongoing pain, and underwent angiography later that day that confirmed he had a coronary occlusion that was treated by coronary stenting.

Specific advice required:

1. The delay between [Mr A's] arrival at the CCU and the initiation of telemetry.

For a patient with an acute or recent ST elevation myocardial infarction, close monitoring including ECG telemetry is the standard of care. In almost all CCUs in New Zealand each bed has a dedicated bedside monitor and all patients admitted to CCUs are automatically put on telemetry. It is the responsibility of [Health NZ] that telemetry is available for all CCU admissions.

The failure to provide telemetry for [Mr A], and the apparent lack of dedicated bedside monitors for each CCU bed is a severe departure from the accepted standard of care, which would be viewed with concern by my colleagues.

2. The delay between [Mr A's] arrival at the CCU and the assessment being undertaken by a medical officer.

Ideally [Mr A] would have been seen promptly by a medical officer to assess his clinical status and direct optimal and timely therapy.

I would regard this as a mild departure from the accepted standard of care. Unfortunately medical staff often have competing demands that result in delays in patient assessment.

…

IG Crozier

Ian Crozier
Cardiologist'

Further addendum dated 24 April 2025

'Advice regarding question 1 amended to:

For a patient with an acute or recent ST elevation myocardial infarction, close monitoring including ECG telemetry is the standard of care, whether in a dedicated coronary care unit, or a cardiac ward.

The failure to provide telemetry for [Mr A] is a severe departure from the accepted standard of care, which would be viewed with concern by my colleagues.

Overall my concerns remain despite the clarifications.'