Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

A Decision by the Deputy Health and Disability Commissioner

(Case 20HDC00862)

Introduction

1. This report is the opinion of Rose Wall, Deputy Health and Disability Commissioner, and is made in accordance with the power delegated to her by the Commissioner.

2. The report discusses the care provided to Mrs A by a telehealth service and registered nurse (RN) C in 2020.

3. Mrs A (aged in her seventies at the time of events) had been vomiting for approximately three days, and in the evening of the third day had begun to vomit 'every few minutes'. Mrs A lived alone but had a friend staying with her that evening. Around 2am, the friend called an ambulance because she was concerned about the length of time Mrs A had been unwell, and the frequency of the vomiting. The 111 call handler spoke with Mrs A's friend and determined that Mrs A was not in immediate danger. The call handler triaged the call as a 'grey' response, which meant that an ambulance would not be dispatched at that time, and a nurse or paramedic would call back Mrs A to complete a further assessment. RN C called Mrs A at 2.16am and undertook a further assessment, during which it was determined that it did not appear that Mrs A was having an immediately life-threatening emergency. RN C told Mrs A that they would not dispatch an ambulance and advised her to see her general practitioner (GP) in the morning. When Mrs A saw her GP later that morning, her GP requested an urgent ambulance. The ambulance service recorded the presenting complaint

as haematemesis (vomiting blood) causing hypovolaemia (a decrease in the volume of circulating blood). Sadly, Mrs A died later that day from a bowel obstruction and sepsis.

4. The following issues were identified for investigation:

- *Whether RN C provided Mrs A with an appropriate standard of care in 2020.*
- *Whether the telehealth service provided Mrs A with an appropriate standard of care in 2020.*

5. The parties directly involved in the investigation were:

Mrs B	Complainant
Telehealth service	Group provider
RN C	Individual provider

6. Further information was received from:

The ambulance service	Group provider
Health New Zealand|Te Whatu Ora[1]	Group provider

7. Independent advice was obtained from a clinical nurse specialist (CNS), RN Wendy Sinclair (Appendix A).

Events leading up to complaint

Background

8. Mrs A became ill with vomiting symptoms that continued for several days. Initially the vomiting was 'on and off', but by the evening of the third day[2] it suddenly increased in frequency and became dark in colour with a gritty consistency, and Mrs A began to vomit bile 'every few minutes'.

9. Mrs A lived alone, but a friend came to stay with her on the evening of Day 3. The friend called emergency services (111) around 2am because she was concerned by the length of time Mrs A had been unwell, and the frequency of the vomiting.

Initial 111 call

10. The initial call to 111 was made at 2.01am on Day 4. Mrs A's friend told the 111 call handler that Mrs A had been vomiting for 'quite a few days' and 'all night long every five minutes'. The call handler confirmed that Mrs A was alert, breathing normally, and not vomiting blood or bleeding. The call handler also ascertained that Mrs A was in pain when swallowing.

11. The call handler advised Mrs A's friend that because the information provided suggested that Mrs A was not in immediate danger, a nurse or paramedic would call back and

[1] On 1 July 2022, the Pae Ora (Healthy Futures) Act 2022 came into force, which disestablished all district health boards. Their functions and liabilities were merged into Health New Zealand Te Whatu Ora.
[2] Relevant dates are referred to as Days 3–4 to protect privacy.

undertake a further assessment in the next 10–30 minutes. The call handler also advised that Mrs A's friend should call back if anything changed, and that Mrs A should not have anything to eat or drink as it might make her sick or cause further problems.

Secondary triage

12. At 2.16am on Day 4, RN C[3] called Mrs A to complete the further assessment. RN C confirmed that Mrs A was breathing normally and did not have any bleeding. RN C also ascertained that the chest pain she had when swallowing was because she had been vomiting what Mrs A described as 'very green bile'.

13. RN C ascertained that Mrs A was allergic to penicillin, and that she was taking dabigatran,[4] furosemide,[5] atorvastatin,[6] allopurinol,[7] and metformin.[8] Mrs A told RN C that she had hypertension (high blood pressure), and RN C asked whether she was diabetic (as she was taking metformin). Mrs A stated that she was borderline diabetic. During the call she also stated that she had not been able to take her dabigatran because she had not been able to keep anything down.

14. Mrs A told RN C that she was vomiting 'every two minutes' and had started to vomit about three days earlier. RN C asked whether Mrs A had also been experiencing any diarrhoea, to which she said no. Mrs A said that the vomiting had started 'off and on' but had become worse over time. She told RN C that she had not seen a doctor because a friend she had been in contact with just before getting sick had also been vomiting recently, and that friend had just been told to continue to drink fluids. Mrs A said she had been doing that, but when she drank fluids, she wanted to vomit. RN C asked Mrs A if she was passing urine normally, to which Mrs A said yes, but when RN C asked whether it was dark, her response was unclear. RN C also asked Mrs A if she had a temperature, to which Mrs A said, 'not really'. She said that she was a 'bit sweaty before' but that it was 'up and down like a yo-yo'. RN C asked if she had any neck pain, rash, headache, or sensitivity to light, to which Mrs A said no. RN C asked if she had any swelling in her abdomen. Mrs A said: 'I'm not too sure if there might be a little bit but I haven't been able to go to the toilet because I'm not eating.' RN C asked when her last bowel movement was, and Mrs A said it was 'yesterday' and only a 'wee bit'. When RN C asked if this was loose or normal, Mrs A's response was vague. The call transcript shows that she responded: 'No, it was just … you know …' RN C then asked if she was dizzy, and Mrs A said no. Mrs A then told RN C that she had had a hernia a few years ago, to which RN C said 'okay'.

15. At the end of the assessment, RN C advised Mrs A that she should wait until morning and then see her GP because it did not appear that she was having an immediately life-threatening emergency and her symptoms had been present for three days. RN C also

[3] Employed by the telehealth service.
[4] An anticoagulant, or 'blood thinner'.
[5] A medication used to treat fluid build-up. Commonly used to treat high blood pressure.
[6] Slows the production of cholesterol in the body to decrease the amount of cholesterol build-up on the walls of the arteries.
[7] Reduces the production of uric acid in the body, which may cause gout attacks or kidney stones.
[8] Used to treat high blood sugar.

advised that Mrs A or her friend should call back during the night if Mrs A started to experience chest pains, headaches, or dizziness.

16. This call lasted approximately eight minutes.

Subsequent events

17. Mrs A visited her GP later that morning. Her GP documented that she had been unwell for several days with 'coffee ground vomiting' and abdominal pain. The GP's impression was that Mrs A had an upper gastro-intestinal bleed, and so arranged for an urgent ambulance transfer.

18. The ambulance service recorded that an ambulance was requested by Mrs A's GP at 12.27pm and the presenting complaint was 'haematemesis causing hypovolemia'. The ambulance was dispatched at 12.27pm as a priority 2 — 'potential threat to life'. It arrived at the GP clinic at 12.35pm. The paramedics noted that Mrs A had been vomiting blood, and their primary clinical impression was that she was experiencing hypovolaemic shock.[9]

19. Mrs A arrived at the hospital Emergency Department (ED) at 1.49pm on Day 4, but, sadly, she died later that day. The cause of death was recorded as: 'Sepsis 1 Day: Bowel obstruction 4 Days.' Her medical records also state that the bowel obstruction was secondary to a hernia.

Further information from the ambulance service

Initial 111 call

20. The ambulance service stated that the software tool used for taking 111 calls is used by most ambulance services in the world. The tool requires the call handlers to use a 'structured set of protocols to ask a series of specific questions, with the answer to some of the questions determining what further questions will be asked'. At the end of the process, the software tool selects a 'determinant' that describes what the person's main complaint appears to be, and how unwell they are suspected to be. Each of these determinants has a predefined priority of ambulance dispatch assigned to it.

21. The ambulance service stated that the 111 call for Mrs A was managed using the 'Sick Person/vomiting' protocol, and the triage outcome resulted in a 'grey' priority, meaning:

> '[T]he incident does not appear serious, and an ambulance may not be required. The call is further triaged by a Registered Nurse or Paramedic (both trained in telehealth) to determine if an ambulance is required and to recommend what they determine to be the most appropriate clinical pathway.'

22. The ambulance service audited this incident internally for compliance. It found that the call-taking process by the 111-call handler was applied correctly, and the initial triage was correct, as Mrs A did not appear to have a life-threatening problem.

[9] When hypovolaemia reaches a point where there is not enough blood volume for the heart to pump to the rest of the body, this can lead to multiple organ failure.

Secondary triage

23. The ambulance service stated that Clinical Telephone Assessment (CTA or 'secondary triage') is an essential part of its service delivery to ensure that ambulance resources are allocated to the highest priority incidents, ie, immediately life-threatening. The ambulance service stated that these assessments are undertaken by registered nurses and paramedics specifically trained in telehealth and remote clinical assessment procedures. At the time of events, as part of the National Telehealth Service (NTS), the telehealth service was contracted by the Ministry of Health to provide nursing staff to the ambulance service for the purpose of providing secondary triage services.

24. The ambulance service told HDC that a formal call audit was completed by the telehealth service for this incident. The audit found that the secondary triage by RN C was applied correctly, and that it was clinically safe for Mrs A to be transported to her GP in the morning because she was fully alert, breathing normally, and experiencing no other symptoms at the time of the call, other than vomiting. The ambulance service also stated that Mrs A did not appear distressed and did not vomit during this call. However, the audit also found that neither Mrs A's mobility, nor her means of getting to her GP were assessed properly. The ambulance service stated that if this had been addressed, and if it had been determined that Mrs A would have benefitted from a face-to-face assessment by a paramedic, this may have resulted in an ambulance transport to hospital.

25. The ambulance service stated that 'on balance' an ambulance should have been sent to Mrs A, but it is likely that this would not have changed her outcome.

26. Further, the ambulance service stated that RN C did not consider adequately that Mrs A had been vomiting frequently for several days, and that although Mrs A did not appear distressed during the call, the vomiting history meant that there was a greater likelihood that she might have a more serious underlying medical condition.

Further information from the telehealth service

27. The telehealth service has used an 'internationally validated triage tool', which is utilised in several countries, since 2015 for over two million triage calls, of which over 300,000 have been through ambulance secondary triage. The triage tool has over 400 question sets of a maximum of 20 questions, each of which a nurse or paramedic uses to produce an outcome. This is given as a timeframe, and the local and individual's context is then taken into consideration before a recommendation is made. The original version of the triage tool was adapted to New Zealand conditions and underwent a three-year review of all the question sets. The telehealth service stated that the triage tool is 'felt to be a safe tool with minimal significant events and general support for its use by the clinicians using it and the system it supports'.

28. The telehealth service stated that Mrs A presented with normal tone, tempo, volume, and inflection of the voice, and that this showed her to be not distressed. The telehealth service said that RN C followed the expected process, gave advice on what to do if Mrs A's condition deteriorated, and appropriately adhered to the triage tool. However, the telehealth service also stated that despite this, RN C did not reach the correct outcome, and the telehealth

service acknowledged that RN C missed the opportunity to clarify several things that may have affected the outcome, such as:

- Why Mrs A was on dabigatran;
- What colour her stools were (specifically concerning the possibility of melaena[10] given Mrs A's anticoagulation therapy);
- The smell of the vomit since sometimes feculent vomiting[11] can be a red flag;
- Whether there was abdominal pain;
- More information about the abdominal swelling she was experiencing;
- How sick and how close Mrs A's friend who had had vomiting was (because it was assumed that the patient's vomiting was due to contact from this friend); and
- Social factors such as who the friend currently with her was, and whether the friend was staying the night.

29. The telehealth service also noted that at the time, RN C was a conservative clinician who would send ambulances more often, and at a higher priority than colleagues, and seldom downgraded the suggested disposition. However, RN C also had the shortest consultation times in the team, and the telehealth service stated that this raised concerns that RN C may not have been covering patient history as comprehensively as other clinicians.

30. The telehealth service provided HDC with a copy of the consultation report from the call. Points of note from this report are:

- The recommendation given by the triage tool was for face-to-face assessment within six hours.
- RN C answered the question 'is there any vomiting/nausea now (how bad is it)' with 'none at all'.
- RN C answered the question 'what does the vomit look like (any blood)?' with 'food content'.
- Under 'major long term health issues' and 'Other significant past medical history', RN C listed only diabetes.

31. The telehealth service also provided HDC with a copy of its 'Emergency Triage Nurse Training Workbook' that was used at the time. The workbook states:

> 'The role of an Emergency Triage Nurse Registered Nurse (RN) is to call back non-urgent calls that come through to the ambulance service via 111. The aim of the service is to redirect patients away from hospital emergency departments to more appropriate care which may be their GP, accident and medical centre or refer to a community nursing

[10] Dark tarry stools containing decomposing blood, which usually is an indication of upper gastrointestinal bleeding.
[11] Vomiting of faecal matter, usually due to a blockage in the intestines.

service or other health professional. In some instances, nurses are able to give comprehensive health advice to assist the patient to stay at home.'

32. Under the section 'Older people 101', the workbook recommends, 'Consider upgrading your disposition if the patient has multiple chronic health issues', and states:

> 'Some elderly callers have difficulty accessing medical care especially after hours, ensure the caller has a safe way of getting to a medical facility. If not discuss other options e.g., family or friends, taxi or if all other options exhausted and is urgent, you can organise an ambulance for transport. Often with [out-of-hours] calls you will be able to discuss the urgency level with the on-call GP.'

33. The workbook also recommends 'The Question, Probe, Confirm method' when questioning patients to gain an accurate picture of the caller's symptoms. The workbook gives the following example of this:

> 'Question: Can you describe the rash on your legs?
>
> Probe: When you say the spots are red, what shade of red are they? You've told me the spots are small, approximately what size are they? Can you feel the spots when you run your hand over them?
>
> Confirm: So, you have a rash of raised pinkish-red spots about the size of pinheads spread all over both your legs, is that right?'

Joint commentary from the ambulance service and the telehealth service

34. The ambulance service provided shared commentary from both the ambulance service and the telehealth service. The key points were:

- Mrs A did not appear acutely distressed during the call with RN C, and there was no reference made to vomiting blood.
- Mrs A agreed to the proposed plan to see her GP in the morning and was provided advice for if her condition deteriorated.
- RN C considered Mrs A to be more able than she was to self-manage because of her ability to engage during the call and because she was accompanied by another adult.
- These factors contributed to RN C not progressing Mrs A's call for a face-to-face assessment by ambulance, and, had that occurred, both the ambulance service and the telehealth service agree that it is likely that the ambulance staff would have provided symptomatic relief and Mrs A likely would have been transported to hospital.

35. The ambulance service and the telehealth service noted that RN C engaged 'openly and reflectively' after this incident and has the full trust and support of both organisations.

Further information

RN C

36. RN C stated that on the evening of Day 3 they were beginning a 12-hour night shift from 6.00pm until 6.30am the following day. There were three staff[12] from the telehealth service on the shift to cover the grey response secondary triages. RN C stated that they spent a lot of time looking after their colleague during the shift, as the colleague had just been signed off from training and this was the colleague's fifth shift to consolidate their practice. RN C also recalls it being a busy shift and that staff were unsettled because of the threat of COVID-19 at the time. Further, tele-triage staff were aware that they were going to be moved from their usual office location, and they did not know where they were going. RN C told HDC that these factors caused them to be distracted and not perform at their best during this shift.

37. Due to the number of calls RN C takes on a shift, and as the call happened more than two years ago, RN C has little recollection of the call with Mrs A. However, RN C listened to the call audio before providing comments. RN C stated that during the call, Mrs A was 'calm, collected, breathing normally, and talking in full sentences'. RN C stated that there were no signs of distress and no indications of blood or bleeding. RN C also noted that Mrs A had clearly stated that her vomit was green bile.

38. RN C said that Mrs A's friend was not spoken to again after she answered the call, because after speaking with Mrs A, they had no concerns about her being able to see her GP in the morning, and she had agreed to this when it was discussed. On reflection, RN C stated that there were red flags that they missed given that Mrs A had been vomiting for three days, was not able to take her medication, and had poor fluid intake. Other red flags included her comorbidities of diabetes, hypertension, and a previous hernia. RN C acknowledged that it would have been more appropriate to send Mrs A an ambulance so that she could have a face-to-face assessment by a paramedic.

39. Regarding the system used for triage, RN C stated that the triage tool has over 400 question sets of a maximum 20 questions each, which a clinician (the registered nurse or the paramedic) uses to come up with an outcome. This is given as a timeframe, and the local and individual context is then taken into consideration before a recommendation is made.

40. RN C also stated that due to the change to the past medical history section in the triage tool to upgrade the acuity if a patient has had a history of a hernia, a previous outcome of 12 hours would now be six hours as a guideline timeframe for a patient to be seen, and so they would have requested an ambulance rather than have Mrs A wait to see her GP later that morning.

41. RN C expressed condolences to Mrs A's family for their loss. RN C acknowledged that the call should have done better, and apologised for that.

[12] Two nurses and a paramedic.

Mrs B

42. Mrs B was provided with copies of the initial 111 call and the follow-up call with RN C. After listening to the calls, she told HDC that she could hear Mrs A vomit twice during the call with RN C, and that Mrs A apologised for it on the first occasion.

43. Mrs B feels that RN C did not listen to Mrs A sufficiently or investigate what was happening appropriately. She is concerned that RN C did not consider whether Mrs A was dehydrated and did not clarify or follow up on her responses that were not clear or complete. Mrs B was also concerned that RN C did not ask any questions about Mrs A's prior hernia, and never asked if she had pain when vomiting.

44. Mrs B was concerned by the ambulance service's statement that Mrs A agreed/did not argue when she was advised to wait and see her GP in the morning. Mrs B stated that Mrs A was calling in the middle of the night after having been sick for days, and she did not have the energy, nor would it have been in her nature, to argue.

45. Mrs B expressed further concern about the ambulance service's statement that it does not think that Mrs A's outcome would have changed even if an ambulance had been sent. Mrs B feels that this is outside the ambulance service's scope, and the ambulance service cannot say what would have happened. Mrs B also stated that even if the outcome did not change, she believes Mrs A would have suffered less had an ambulance been sent.

Responses to provisional opinion

Mrs B

46. Mrs B was given the opportunity to respond to the 'information gathered' section of the provisional opinion.

47. Mrs B told HDC that the reason for her complaint is to ensure that this does not happen to other families. She stated: 'It's all good and well saying sorry I should have done better [but at] the end of the day [Mrs A] should not have suffered like she did.'

48. Mrs B told HDC that the elderly are mostly reluctant to ask for help on any given day and 'play down [their] symptoms' and noted that you could hear it in Mrs A's voice that she was 'not ok'. Mrs B said that the nurse also should have asked Mrs A's friend questions to get more information.

49. Mrs B said: 'How dare [the ambulance service] state they don't think it would have made a difference. How about at the least [their attendance] would have stopped [Mrs A] suffering for a further 16 hours.' Mrs B said that she understands the pressure the ambulance service is under, but she noted that Mrs A always supported the ambulance service and 'in her time of need they were not there for her'.

Telehealth service

50. The telehealth service was given the opportunity to respond to the provisional opinion, including the proposed findings and recommendations.

51. The telehealth service expressed its sincere condolences to Mrs A's family and acknowledged their loss, and it apologised for the service it provided.

52. The telehealth service does not accept that there were system failings with the clinical decision support tool. It noted: 'We acknowledge that there is inherent risk in remote patient assessment. However, this risk is reduced by using clinical decision support tools in addition to clinical acumen.' It stated that '[t]he existence and use of a clinical decision tool does not replace the need for clinicians to apply their own clinical judgement'. Therefore, the recommendations given by the triage tool were based on the information entered, and not all information was input correctly.

53. Following this complaint, the telehealth service reviewed the clinical decision support tool and noted that this system can always be improved.

Ambulance service

54. The ambulance service was given the opportunity to respond to the provisional opinion, including the proposed findings and recommendations. It accepted the Deputy Commissioner's breach decision and did not make any further comments.

RN C

55. RN C was given the opportunity to respond to the provisional opinion, including the proposed findings and recommendations. RN C had no further comment and provided an apology letter for Mrs A's family.

Opinion: Telehealth service — adverse comment

56. At the time of these events, as part of the National Telehealth Service (NTS) contract, the telehealth service was contracted to provide nursing staff to the ambulance service for the purpose of providing secondary triage services.

57. I have undertaken a thorough assessment of the information gathered in response to this complaint. While I recognise that there were issues with the care the telehealth service provided to Mrs A relating to the application of decision tools and protocols for managing the secondary triage process, for the reasons outlined below, I find that the telehealth service did not breach the Code of Health and Disability Services Consumers' Rights (the Code).

Algorithm decision tools and protocols — adverse comment

58. The triage tool is the algorithm decision tool that has been used by the telehealth service since 2015. The telehealth service stated that the tool produces an outcome that is given as a timeframe, and then the local and individual's context is taken into consideration before a recommendation is made.

59. My clinical advisor, RN Wendy Sinclair, advised that any remote patient assessment carries inherent risk. She stated that algorithm-based programmes have been developed to 'support decision making, enable consistency and manage risk, and are widely used internationally and in New Zealand'. She advised that these systems are prescribed and

often allow little leeway, therefore it is vital that 'inherent in such systems, sufficient weight is given to non-clinical aspects of the patient and situational context in order to make sound and safe clinical decisions'.

60. RN Sinclair commented on the questioning around the presence of blood in vomit during the secondary triage. RN C asked Mrs A if she had been vomiting and for how long, and then asked 'if there [was] any bleeding at all'. The question in the triage tool regarding blood in vomit asks: 'What does the vomit look like (any blood)?' RN Sinclair stated that the presence of blood in vomit is unlikely to be recognised by the average person, as commonly it appears 'dark and grainy and not red as the average person would expect "bleeding" to look'. RN Sinclair advised that due to this, a 'no' response to this question is likely to be misleading. RN Sinclair recommended that questioning around the presence or absence of 'blood in the vomit' should be reviewed to ensure that accurate information regarding this 'vital clinical sign' is obtained from members of the public.

61. Regarding the overall assessment of Mrs A by RN C, RN Sinclair advised that 'the secondary triage falls below the standard of accepted practice' because risk factors such as Mrs A's age, diabetes, cardiac conditions, and anticoagulation therapy were not considered. RN Sinclair also advised that Mrs A's mobility, access to healthcare professionals, and ability to self-care were over-estimated because the assessment failed to elicit information regarding this.

62. RN Sinclair further advised:

> 'The algorithm used by [RN C] to support the secondary triage assessment failed to elicit significant information regarding the medical and medication history and therefore inadequate emphasis was placed on these aspects of the assessment and contributed to [RN C] underestimating [Mrs A's] level of clinical risk.
>
> It is my view that this failure of the secondary triage process to determine all significant clinical information regarding risk factors for sudden deterioration represents a moderate departure from an acceptable standard of care.'

63. RN Sinclair clarified that the significant clinical information that the secondary triage assessment failed to elicit included the following:

- Mrs A's blood sugar level, or if she was able to monitor it closely (given her diabetes).
- Whether there was any abdominal pain or distension.
- Whether there was any sign of blood in the vomit — which would have looked brown and grainy rather than red as the lay person might expect.

64. RN Sinclair also clarified that the secondary triage process failed to elicit whether Mrs A's friend was able to stay with her overnight, whether Mrs A was able to contact her GP in the morning, and if she had access to transport.

65. RN Sinclair made the following recommendation:

> '[T]hat algorithm decision tools and protocols be reviewed with regard to ensuring that risk factors in the medical and medication history, demographics i.e. age and social circumstances are given due weighting when decisions are made regarding urgency and the need for a face-to-face assessment, the management of distressing symptoms and transport for ongoing health assessment and management.'

66. RN Sinclair noted that it was pleasing that the telehealth service had progressed review of the triage tool following this event to mitigate clinical risk in the secondary triage process.

67. The telehealth service agrees that the decisions made by RN C following secondary triage did not consider the full context of Mrs A's situation, and the degree of urgency was underestimated. The telehealth service also agrees that some changes to the algorithm decision tool are warranted in light of this event. However, the telehealth service also stated that in the last five years,[13] 62,000 calls have been made where vomiting was the primary presentation, and 15% of those were sent to ED by ambulance or private car. Where the caller was elderly, this outcome increased to 40%. The telehealth service also stated that in the same period, 5,500 calls were made to 111 and evaluated by ambulance secondary triage where vomiting was the primary presentation. Of these, 45% were sent an ambulance, and this increased to 60% for elderly callers. The telehealth service stated that considering this data, the triage tool recognises that vomiting can be a worrying symptom, and that it is more concerning in the elderly.

68. I accept RN Sinclair's advice that the secondary triage undertaken by RN C fell below the standard of accepted practice because clinical risk factors in Mrs A's medical history (ie, her history of diabetes and cardiac conditions) and medications (ie, being on anticoagulation therapy) were not clearly identified at the time and given sufficient consideration; and because Mrs A's ability to manage her mobility, her access to healthcare professionals, and her ability to care for herself were overestimated (due to the secondary triage assessment process failing to elicit information on particular aspects of Mrs A's social context).

69. I questioned whether the triage tool was placing sufficient weight on Mrs A's clinical risk factors, and whether it was prompting RN C to obtain information from Mrs A regarding her social context. I also considered whether the non-specific questioning around bleeding (prompted by the triage tool) was less likely to elicit an accurate response from a member of the public. I believe that these factors contributed to RN C underestimating the severity of Mrs A's illness and the decision not to proceed with recommending face-to-face assessment. In its response to the provisional opinion, the telehealth service did not accept that there were system failings with the triage tool and noted that there was an 'inherent risk in remote patient assessment'. The telehealth service added that clinicians still have to 'apply their own clinical judgement' and that therefore, in this case, not all information was input correctly. The triage tool system, as a tool, cannot be used in isolation. As stated by the telehealth service, the triage tool also relies on the information input by a clinician.

[13] From 1 April 2022.

70. I have carefully considered the telehealth service's submission that the shortcomings were more a result of poor clinical judgement than a systems issue. I accept that the effectiveness of the triage tool system as a decision-making tool is conditional on the accuracy of the information entered. Therefore, in the circumstances, I find that the telehealth service did not breach the Code.

Triage timeframes — other comment

71. RN Sinclair advised that the Australasian College of Emergency Medicine's 'Guidelines for the Implementation of the Australasian Triage Scale' (ATS) provides professional guidance for triage decisions regarding urgency and complexity of patient presentations, and it is the document on which triage education for nurses is based in both New Zealand and Australia.

72. This document allocates an ATS of 3 for patients presenting with persistent vomiting, which dictates that patients should receive 'assessment and treatment starting within 30 minutes'. Category three is described either as 'potentially life-threatening', there is 'situational urgency', or 'humane practice mandates the relief of severe discomfort or distress within thirty minutes'.

73. RN Sinclair advised that although this guideline is intended for use in the context of emergency departments, it is reasonable to draw similarities between the context of an emergency department and pre-hospital services such as tele-triage services, as both deal with patients with 'undifferentiated illness or injury, and therefore are required to prioritise clinical need using a triage process'.

74. The telehealth service stated that ATS is a clinical tool used to establish the maximum waiting time for medical assessment and treatment of a patient presenting to an ED, and the time to be seen is not particularly relevant to the setting of telehealth, as patients calling with various symptoms are different to those attending an ED. The telehealth service also stated that in secondary triage, where a person is calling for an ambulance, 'six out of ten elderly patients are responded to with an ambulance within a 30–45-minute period — the recommended timeframe if presenting to an Emergency Department'.

75. RN C stated that although the time in which a person is to be seen is relevant to telehealth, patients calling telehealth services sometimes have different needs to those attending an ED, and given this, the triage tool is a more appropriate triage tool for telehealth.

76. I disagree with both RN C's and the telehealth service's response in this regard. I acknowledge RN Sinclair's advice that although the ATS is intended for use in EDs, it is reasonable to draw similarities between the context of an ED and tele-triage services, as both are intended to prioritise the clinical need of the patient using a triage process.

Opinion: RN C — breach

77. I have undertaken a thorough assessment of the information gathered in light of this complaint, and I am concerned by RN C's care of Mrs A. I find that RN C breached Right 4(1) of the Code.

Secondary triage assessment — breach

78. In her complaint to HDC, Mrs B raised concerns about the assessment RN C completed with Mrs A. In particular, Mrs B was concerned that RN C did not listen to Mrs A sufficiently and did not clarify unclear or vague responses. Mrs B also raised concerns about the lack of follow-up questions when Mrs A told RN C that she had a history of a hernia.

79. I sought independent advice from RN Sinclair regarding the standard of care RN C provided to Mrs A. RN Sinclair advised:

> 'Secondary triage provides the opportunity to gather more information to enable sound clinical decision making. It is generally accepted practice that assessments during secondary triage would include at least:
>
> • A clear history of the presenting complaint
>
> • Past medical history
>
> • Current medications
>
> • Social situation/level of competence/risk factors'

80. I discuss each of these areas of triage regarding RN C's assessment of Mrs A below.

History of presenting complaint

81. RN C obtained clear answers from Mrs A regarding whether she was breathing normally, whether she had any chest pain, how long she had been vomiting for, and whether there was any bleeding. However, when RN C asked Mrs A whether her urine was dark, whether her last bowel movements had been loose or normal, whether she had a temperature, and whether she had any swelling in her abdomen, Mrs A's answers were unclear, and RN C did not attempt to clarify them by probing her statements further.

82. The Emergency Triage Nurse Training Workbook that was used at the time of events recommends that staff use the 'Question, Probe, Confirm' method when questioning patients in order to gain an accurate picture of the caller's symptoms. RN C did not use this method in the assessment of Mrs A.

83. During the assessment, directly following a discussion of how long Mrs A had been vomiting, RN C asked Mrs A: 'Can I just ask if there is any bleeding at all?' Mrs A responded: 'No. But it's very green bile.'

84. I note that in the consultation report, in answer to the question, 'What does the vomit look like (any blood)?', RN C recorded 'Food content', despite Mrs A clearly stating that it was green bile.

85. Regarding RN C's questioning around bleeding, the telehealth service commented that RN C did not ask about the smell of the vomit, noting that sometimes feculent vomiting can be a red flag, or about the colour of the stools (specifically about melaena given Mrs A's anticoagulation treatment), which would have been just as important here.

86. Regarding RN C's assessment of gastric bleeding, RN Sinclair advised:

> 'The basic non-specific questioning around the presence of "blood in the vomit" was unlikely to elicit an accurate response in a non-medical member of the public, as blood in the gastrointestinal tract does not appear red as might be expected by a lay person.'

87. In response to RN Sinclair's advice, RN C noted that Mrs A had stated clearly that her vomit was green bile. However, I note that because of the way the question was phrased ('*is* there any bleeding'), it is reasonable to assume that Mrs A's response pertained only to her vomit at the time of the call. This failed to consider the vomiting that had been occurring earlier that day and in the previous days, which had included 'coffee ground' vomit, indicating bleeding.

88. RN C stated that there were no signs of distress during the call, and Mrs A was 'calm, collected, breathing normally and talking in full sentences'.

89. The ambulance service stated that RN C did not take into account adequately that Mrs A had been vomiting frequently for several days, and that although Mrs A did not appear distressed during the call, the vomiting history meant that there was a greater likelihood that she might have a more serious underlying medical condition.

90. RN Sinclair advised:

> 'I agree that it is likely that there was little overt evidence of acute distress during the interview, however, the role of the secondary triage is not only to determine the current level of distress but to seek information to enable the identification of differential diagnoses and develop a determination for the potential for deterioration.'

91. I am concerned that in taking the history of the presenting complaint, RN C did not ask further questions to clarify and confirm Mrs A's responses where they were vague and/or incomplete and recorded inaccurate information regarding what the vomit looked like.

92. Further, I accept RN Sinclair's advice that the questioning around bleeding was unlikely to elicit an accurate response from a non-medical member of the public, as blood in vomit may not appear as a layperson may expect. Because of this, and the fact that the question was phrased in a way that failed to consider Mrs A's vomiting in the preceding days prior to the call, I am concerned by the way RN C questioned Mrs A about the possibility of gastrointestinal bleeding.

Past medical history and current medications

93. RN C ascertained that Mrs A was taking furosemide, atorvastatin, allopurinol, dabigatran to treat hypertension, and metformin for borderline diabetes. RN C also ascertained that Mrs A had been unable to take her dabigatran because she could not keep anything down. However, RN C did not document Mrs A's hypertension in the consultation report under 'major long term health issues' (but did document that she had diabetes).

94. RN Sinclair advised:

> 'The transcript of the interaction between the nurse and [Mrs A] indicates that adequate appropriate medical information was gained. This should have raised some "red flags" regarding the clinical situation and indicates that there was a significant degree of urgency that warranted at least a face-to-face assessment and highly likely, ambulance transport to hospital.'

95. RN Sinclair advised that in particular, Mrs A taking metformin and dabigatran should have raised some concern in the presence of frequent and ongoing vomiting in an elderly patient. RN Sinclair said that recurrent vomiting and reduced intake over three days is likely to have resulted in Mrs A being somewhat dehydrated and, if she continued to take metformin, potentially this could result in her blood glucose levels becoming dangerously low, which subsequently could result in coma or death. Alternatively, her blood glucose could have been too high, resulting in dehydration, the risk of which is increased in elderly people. A medical assessment would have included a blood glucose assessment and management of dehydration and/or alteration of her metformin doses. RN Sinclair also noted that serious side effects of dabigatran include increased risk of bleeding, and any patient who presents with undifferentiated abdominal pain/vomiting must be assessed thoroughly to exclude gastric bleeding, as this can be devastating.

96. It is also notable that when Mrs A told RN C during the call that she had had a hernia a few years ago, RN C responded 'okay', and did not ask any follow-up questions or clarify the statement further.

97. RN C stated that due to the change to the past medical history section in the triage tool to upgrade the acuity if a patient has a history of a hernia, a previous outcome of 12 hours would now be six hours as a guideline timeframe for a patient to be seen, and so they would have requested an ambulance rather than have Mrs A wait to see her GP later that morning. However, I note that the recommendation from the triage tool recorded on the consultation report for Mrs A was for 'face to face assessment within six hours'. I discuss this further in the section below.

98. I am concerned that RN C did not document Mrs A's hypertension as a long-term health issue. I am also concerned that RN C did not ask any follow-up questions when Mrs A said that she had had a hernia previously, or document this under 'significant past medical history'. In saying that, I also accept RN Sinclair's advice that sufficient medical information was gained to have raised 'red flags', and for the situation to have warranted at least a face-to-face assessment, particularly in the presence of frequent and ongoing vomiting in an elderly patient with a history of hernia,[14] and given that Mrs A was unable to keep down her medication. The lack of critical thinking in this specific respect is concerning.

Social situation/level of competence/risk factors

99. At the end of the assessment, RN C advised Mrs A that she should wait until morning and then go to see her GP because it did not appear that she was having an immediately life-

[14] Nausea and vomiting in the context of a hernia can be indicative of a bowel obstruction.

threatening emergency and because her illness had been going on for three days. The recommendation from the triage tool recorded on the consultation report was for 'face to face assessment within six hours'.

100. The telehealth service's audit of the call found that neither Mrs A's mobility nor her means of getting to her GP were assessed properly. The ambulance service stated that if this had been addressed, and if it had been determined that Mrs A would have benefitted from a face-to-face assessment by a paramedic, this may have resulted in an ambulance transport to hospital.

101. RN Sinclair advised that because no social or competence assessment was completed, 'several risk factors were not identified or taken into account when assessing the urgency or need for face-to-face clinical assessment and ambulance transport'.

102. RN Sinclair noted that RN C did not check whether someone was staying with Mrs A overnight, or whether Mrs A would have any difficulty contacting and/or getting to her GP in the morning, particularly given her persistent vomiting. RN Sinclair further noted that RN C did not speak to Mrs A's friend at the end of the call to ensure that she was happy to take on the care responsibilities for Mrs A, and to discuss appropriate actions or safety-netting advice with Mrs A's friend.

103. RN C said that Mrs A's friend was not spoken to again after she answered the call because after having spoken to Mrs A about being able to see her GP in the morning, there had been no concerns, and Mrs A had agreed to this when it was discussed.

104. The ambulance service and the telehealth service stated that RN C considered Mrs A to be more able than she was to self-manage because of her ability to engage with RN C during the call, and because Mrs A was accompanied by another adult.

105. I am concerned by the lack of assessment of Mrs A's social situation by RN C, particularly given that she was an elderly patient, which generally would indicate a higher likelihood of mobility issues, and it was unclear what support Mrs A had available. I am particularly concerned that the recommendation in the triage tool for 'face to face assessment within six hours' does not appear to have been given sufficient consideration. A recommendation to be seen within six hours meant that Mrs A should have been seen before 8.30am that day. Many GP offices do not open until 8.30am, and RN C did not check whether Mrs A would have access to a GP by this time, nor did RN C advise Mrs A that she should be seen by this time. Given this, as well as the fact that the Emergency Triage Nurse Training Workbook recommends that staff consider upgrading the disposition given by the triage tool if the patient has multiple chronic health issues, such as in Mrs A's case, I am critical that RN C did not arrange for Mrs A to receive a face-to-face assessment.

Safety-netting advice

106. RN C advised Mrs A that she could always call back during the night if she started to experience chest pains, headaches, or dizziness.

107. RN Sinclair advised that given the safety-netting advice for Mrs A to call back if she started to experience chest pains, headaches, or dizziness, it is reasonable to assume that Mrs A thought that these were the only reasons to contact the ambulance service again, and not if the vomiting failed to settle or got worse, or other symptoms developed.

108. The telehealth service stated that RN C provided safety-netting advice of things to watch out for and things to call back with, but this did not take into account the full context of Mrs A's situation, and RN C did not advise around medications or symptom control, and did not explore the option for non-ambulance care and whether the patient could be transported to the closest Emergency Department at the time or if her condition worsened. The telehealth service agrees that the safety-netting advice could have been more contextual and could have included specific advice around vomiting and pain.

109. I am concerned that the safety-netting advice given by RN C was insufficient, as it did not take into account Mrs A's full context and did not give consideration to other reasons why it would be appropriate to call back, such as if the vomiting got worse or other symptoms developed.

Conclusion

110. RN C stated that on reflection there were red flags that they missed given that Mrs A had been vomiting for three days, was not able to take her medication, and had poor fluid intake. RN C acknowledged that the 'red flags' included Mrs A's comorbidities of diabetes, hypertension, and a previous hernia, and that it would have been more appropriate to send Mrs A an ambulance so that she could have a face-to-face assessment with a paramedic.

111. The ambulance service stated that secondary triage by RN C was applied correctly, but that RN C could have used additional clinical judgement to determine that it would have been appropriate to send an ambulance.

112. The telehealth service agrees that the decisions made by RN C following secondary triage did not consider the full context of Mrs A's situation, and the degree of urgency was underestimated.

113. The ambulance service and the telehealth service stated that the factors that contributed to RN C not progressing Mrs A's call for a face-to-face assessment by ambulance were that Mrs A did not appear acutely distressed during the call; no reference was made to vomiting blood; Mrs A agreed to the proposed plan to see her GP in the morning and was provided safety-netting advice; and RN C considered Mrs A to be more able than she was to self-manage because of her ability to engage with RN C during the call and because Mrs A was accompanied by another adult. Both the ambulance service and the telehealth service agreed that if Mrs A had received a face-to-face assessment, the ambulance would have provided symptomatic relief, and it is likely that Mrs A would have been transported to hospital.

114. RN Sinclair advised:

> 'It is my view that the information gained in [Mrs A's] secondary assessment by the nurse should have indicated a degree of urgency for definitive medical assessment and management and that a face-to-face assessment should have been provided as transport for timely definitive care was highly likely.
>
> It is therefore my view the secondary triage by the nurse, including safety net advice falls below the standard of accepted practice as risk factors applying to [Mrs A] such as her age, her history of diabetes and cardiac conditions and being on anticoagulation therapy were not taken into account when making decisions regarding the urgency of her need for medical assistance and face to face assessment. Her ability to manage her mobility, access to health care professionals including the GP and to self-care was also over estimated as enquiry failed to elicit information regarding this issue.'

115. RN Sinclair also advised that the algorithm used by RN C to support the secondary triage assessment 'failed to elicit significant information regarding the medical and medication history and therefore inadequate emphasis was placed on these aspects of the assessment'. RN Sinclair advised that this contributed to RN C underestimating Mrs A's level of clinical risk.

116. I accept RN Sinclair's advice that the information gathered during RN C's assessment of Mrs A should have resulted in a face-to-face assessment. Risk factors such as Mrs A's age, the length of time she had been sick, and her medical history, were not given sufficient consideration; nor was the fact that the recommendation from the triage tool was to be seen within six hours, which would have been very difficult to achieve without paramedics being sent to Mrs A.

117. I also accept RN Sinclair's advice that the algorithm used by RN C more likely than not contributed to RN C underestimating Mrs A's level of clinical risk because it failed to elicit significant information regarding Mrs A's medical and medication history. However, this does not change the fact that based on the information RN C did have, the assessment should have resulted in a face-to-face assessment.

118. On balance, it is my view that RN C did not provide Mrs A with an appropriate standard of care, and therefore breached Right 4(1) of the Code.

Vomiting during phone call — educational comment

119. In the consultation report, in answer to the question, 'Is there vomiting/nausea now (how bad is it),' RN C selected, 'None at all'. RN C and the ambulance service stated that Mrs A did not vomit during the phone call. However, Mrs B stated that she heard Mrs A vomit on two occasions during the call.

120. On listening to the audio recording of the call, I have been able to identify one occasion on which it sounds as if Mrs A vomited and then apologised for it, although I acknowledge that this is difficult to hear and would not have been noticed easily during the call.

121. This highlights the importance of not making assumptions regarding what is happening for a patient at the time of the call, as symptoms such as vomiting are not always clearly audible. I consider that it would have been more appropriate for RN C to have asked Mrs A whether she had vomited at any time during the call, rather than to have entered a 'no' answer into the triage tool based only on what RN C heard. I note that as a result of further training since the time of events, RN C now ensures that all the questions in the triage tool question sets are asked. I am satisfied that this change will prevent a recurrence.

Opinion: Ambulance service — other comment

122. Regarding the initial 111 call and primary triage, my clinical advisor, RN Sinclair, advised:

> 'The documents provided indicate that the primary survey was completed with enquiry around urgent and life-threatening symptoms with no immediate life-threatening issues identified. It was therefore appropriate that a more complete patient assessment be completed prior to dispatching an ambulance. A clear plan and timeline was established when contact would be made again for this secondary assessment to be completed.
>
> It is my view after reviewing the documents provided, that the call process including the initial triage by the call handler followed accepted procedure and that the call was handled in a professional and caring manner.
>
> … The call process including the initial triage by the call handler followed accepted procedure.'

123. Taking this advice into account, I have no concerns regarding the care provided during the primary triage by the 111 call-taker.

Changes made since events

Ambulance service

124. The ambulance service stated that feedback would be provided to RN C regarding the importance of thoroughly exploring whether a patient is able to mobilise.

125. The ambulance service stated that the telehealth service commenced monthly education updates with specific focus following themes of complaints or difficult calls.

Telehealth service

126. The telehealth service told HDC that at the time of the call, RN C was on an individual learning plan to monitor learning objectives identified through earlier call reviews and feedback from clinical coaches. The telehealth service also stated that RN C's consultation time increased over the five months up to 1 April 2022, indicating improvement. As at 1 April 2022 the telehealth service was continuing to review RN C's calls.

127. The telehealth service confirmed that it has implemented a mobility and transport checklist into its assessment tool to improve consistency and reduce the likelihood of inappropriate self-transport recommendations.

128. The telehealth service made a change to the 'Past Medical History' section. The question of whether the caller has a history of a hernia has been upgraded in acuity, so that if the answer is yes, a previous outcome of seeking care within '12 hours' would now be seeking care within 'six hours'.

129. The telehealth service reviewed the 'vomiting' questions in the triage tool and determined that it does not give enough weight to risk factors for bowel obstruction, and potentially those with atrial fibrillation or those on anticoagulation medication.

130. The telehealth service requested the following improvements be made by the operators of the triage tool:

- Make the question 'colour of vomit' and the answer 'bile' of higher acuity, as it is associated with bowel obstruction. This should increase the disposition to two hours.
- Make the question 'past medical history' include history of bowel obstruction and history of atrial fibrillation, which would increase the urgency of disposition.
- Ask whether vomiting in elderly naturally has a higher acuity than vomiting in a young adult, and signal that the telehealth service thinks this is appropriate.

RN C

131. RN C stated that since this incident, more has been learned, RN C's clinical knowledge and assessment skills have grown, and RN C's own clinical judgement has improved.

132. RN C said that the coaching programme completed (implemented by the ambulance service and the telehealth service) helped to complete better secondary triage calls. RN C stated that the programme also helped with better call flow and to make sure that the 'Rules Out Emergency Symptoms' questioning is completed, and all the questions in the triage tool's question sets are asked. RN C stated that it also helps to ensure that thorough 'worsening symptoms' are given for safety netting.

Recommendations

133. Taking into account the changes made since the time of these events, I recommend that the telehealth service:

a) Provide a written apology to Mrs A's family. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Mrs A's family.

b) Evaluate the effectiveness of the changes already made to the triage tool by conducting an audit of service outcome measures and provide HDC with a copy of the outcome report with any corrective actions implemented/to be implemented, within six months of the date of this report.

c) In the provisional report, I recommended that the telehealth service use this case as a basis for developing education/training for staff on the importance of thorough secondary triage assessments that take into account both clinical and non-clinical risk factors. The telehealth service advised HDC that it has based a learning activity around Mrs A's case, and it will provide HDC with evidence confirming the content of the education/training and delivery within six months of the date of this report.

d) In the provisional report, I recommended that the telehealth service evaluate the effectiveness of the new mobility and transport checklist by conducting an audit of service outcome measures and provide HDC with the outcome report with any corrective actions implemented/to be implemented. The telehealth service advised HDC that the mobility and transport checklist was implemented in May 2020 following an internal review of Mrs A's case, and it agreed to conduct a further audit on the use of the checklist and provide feedback to HDC within six months of the date of this report.

e) In the provisional opinion, I recommended that the telehealth service review the questioning around the presence or absence of bleeding in the context of vomiting, to ensure that a fulsome picture and accurate information is obtained from members of the public, and that the telehealth service report its findings back to HDC. The telehealth service advised HDC that it has reviewed the questions in the triage tool relating to the presence or absence of bleeding in the context of vomiting, and it confirmed that these are available in plain English, including a reference to coffee grounds. It has also provided an education module to staff in relation to what form blood in vomit may take. I therefore consider that this recommendation has been met.

f) In the provisional opinion, I recommended that the telehealth service confirm whether the triage timeframes recommended by the triage tool take into consideration the timeframes given by the ATS, and, if not, to consider reviewing the timeframes in respect of the ATS and report back to HDC on this consideration. The telehealth service advised HDC that the ATS 'has not been validated for use in a telehealth environment' and had had only three peer-reviewed evaluations published. The telehealth service stated:

> 'On the basis of lack of evidence, we do not agree that the ATS offers any additional benefit in the telehealth setting … [and that the triage tool in comparison] gives timeframes and disposition advice which is suitable for a telehealth environment.'

Based on the telehealth service's research and response in relation to ATS timeframes, I consider that this recommendation has been met.

134. Considering the changes made since the time of events, I recommended that RN C provide a written apology to Mrs A's family. The apology has been sent to HDC and forwarded to Mrs A's family.

Follow-up actions

135. A copy of this report with details identifying the parties removed, except the advisor on this case, will be sent to Te Kaunihera Tapuhi o Aotearoa|Nursing Council of New Zealand, and it will be advised of RN C's name.

136. A copy of this report with details identifying the parties removed, except the advisor on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent clinical advice to Commissioner

The following independent advice was obtained from RN Wendy Sinclair, dated 15 March 2021:

> 'Thank you for your request to provide clinical advice in relation to complaint Ref: C20HDC00862
>
> In preparing advice on this case, to the best of my knowledge I have no personal or professional conflict of interest. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.
>
> I registered as a General and Obstetric Nurse from Waikato Hospital in 1979. I hold a MN(Clin) from Victoria University of Wellington. I have worked in the tertiary emergency service since 1988 in roles that have included Staff Nurse, Charge Nurse, Nurse Educator and Unit Manager and I am currently employed in a tertiary Emergency Department as a Clinical Nurse Specialist.
>
> I have read and reviewed the documentation provided to me:
>
> 1. Copy of complaint dated [2020]
> 2. Copy of the ambulance service's response dated [2020]
> 3. Copy Ambulance care summary dated [Day 4]
>
> **Clinical Advice**
>
> **1. Call process and initial triage by call handler.**
>
> The documents provided indicate that the primary survey was completed with enquiry around urgent and life threatening symptoms with no immediate life threatening issues identified. It was therefore appropriate that a more complete patient assessment be completed prior to dispatching an ambulance. A clear plan and timeline was established when contact would be made again for this secondary assessment to be completed.
>
> *It is my view after reviewing the documents provided, that the call process including the initial triage by the call handler followed accepted procedure and that the call was handled in a professional and caring manner.*
>
> **2. Secondary triage by the nurse.**
>
> Secondary triage provides the opportunity to gather more information to enable sound clinical decision making. It is generally accepted practice that assessments during secondary triage would include at least:
>
> - A clear history of the presenting complaint
> - Past medical history
> - Current medications
> - Social situation/level of competence/risk factors

Presenting complaint
Information was gathered around the presenting complaint of vomiting — duration, frequency and effects indicates constant and frequent vomits over 3 days — without diarrhoea, in an elderly patient who was unable to maintain any oral intake, and was suffering a degree of exhaustion and distress — enough to call her friend for help in the middle of the night.

The basic non-specific questioning around the presence of "blood in the vomit" was unlikely to elicit an accurate response in a non-medical member of the public, as blood in the gastro intestinal tract does not appear red as might be expected by a lay person.

Past medical history including medications.
[Mrs A] provided information regarding her past medical history and medications. Of particular note is that she had Type 2 Diabetes — being treated with Metformin, and was on the anti-coagulant Dabigatran. These medications should have raised some concern in the presence of frequent and ongoing vomiting in the elderly patient.

The transcript of the interaction between the nurse and [Mrs A] indicates that adequate appropriate medical information was gained. This should have raised some "red flags" regarding the clinical situation and indicates that there was a significant degree of urgency that warranted at least a face-to-face assessment and highly likely, ambulance transport to hospital.

Social situation/competence/risk factors
The secondary triage transcript provided documents no social or competence assessment and therefore several risk factors were not identified or taken into account when assessing the urgency or need for face-to-face clinical assessment and ambulance transport.

[Mrs A] was not questioned regarding her ability to contact her GP in the morning or whether she was physically able to organise transport to a GP appointment — especially in the presence of persistent vomiting.

No information was gathered that ensured that someone could stay with [Mrs A] overnight and she would not be left alone.

It is my view the degree of [Mrs A's] distress was also under estimated. Her 3 day history of frequent and persistent distressing symptoms were enough for her to seek the help of a friend in the middle of the night, who in turn was concerned enough to call an ambulance for help.

Safety Netting
The transcript records the nurse discussing the plan forward at the end of the interaction, and it appears that [Mrs A] agreed to the plan to see the GP in the morning. The nurse didn't speak to the adult friend present to ensure they were happy to take on the care responsibilities for [Mrs A] and to discuss appropriate actions or a safety net with them.

[Mrs A] was advised she could "call back during the night if having chest pain, headaches or dizziness". It is reasonable to assume that [Mrs A] thought these were the only reasons that they could contact the 111 Ambulance service again, and not if the vomiting failed to settle, got worse or other symptoms developed.

"The Guidelines for the Implementation of the Australasian Triage Scale (ATS) in Emergency Departments" from the Australasian College of Emergency Medicine (ACEM) provides professional guidance for triage decisions regarding urgency and complexity of patient presentations, and is the document that Triage education for nurses is based on and is in current use in New Zealand and Australia. This document allocates an ATS of 3 for patients presenting with persistent vomiting indicating that this symptom is "potentially life threatening" or there is "situational urgency" or "requires humane practice for relief of suffering". This score allocation dictates that patients should receive definitive assessment and management within a 30 minute time frame as there is potential for adverse outcome.

Although the context of Emergency Departments and pre hospital services are not the same, it is reasonable to draw similarities — both services deal with patients with undifferentiated illness or injury, and therefore are required to prioritise clinical need using a triage process. It is my view that the information gained in [Mrs A's] secondary assessment by the nurse should have indicated a degree of urgency for definitive medical assessment and management and that a face-to-face assessment should have been provided as transport for timely definitive care was highly likely.

It is therefore my view the secondary triage by the nurse, including safety net advice falls below the standard of accepted practice as risk factors applying to [Mrs A] such as her age, her past history of diabetes and cardiac conditions and being on anticoagulation therapy were not taken into account when making decisions regarding the urgency of her need for medical assistance and face to face assessment. Her ability to manage her mobility, access to health care professionals including the GP and to self-care was also over estimated as enquiry failed to elicit information regarding this issue.

It Is my recommendation that algorithm decision tools and protocols be reviewed with regard to ensuring that risk factors in the medical and medication history, demographics ie age and social circumstances are given due weightings when decisions are made regarding urgency and the need for a face-to-face assessment and the management of distressing symptoms.

3. Appropriateness and application of the sick person/vomiting protocol

Initial triage using the internationally used [triage] tool — the *Sick person/vomiting* protocol was elected and based on the responses provided by the caller, determined that there was no immediate threat to life, and that an enhanced telephone assessment was appropriate. It is my view that this was reasonable given the transcript of the interaction provided.

I would like to comment on the assessment of gastric bleeding — especially during the initial call. Blood present in vomit is unlikely to be recognised by the average person — as it commonly appears dark and grainy and not red as the average person would expect "bleeding" to look. The response "no" to the question regarding the presence of any blood in the vomit is likely to be misleading. I would advise revision of the wording of questions around identifying the presence of blood in vomit to reflect the general knowledge level of the general public.

In Summary

After reviewing the documents provided I offer the following:

Any remote patient assessment carries inherent risk. Algorithm based programs have been developed in order to support decision making, enable consistency and manage risk and are widely used internationally and in New Zealand. These systems are prescribed and often allow little leeway. It is vital that inherent in such systems, sufficient weight is given to non-clinical aspects of the patient and situational context in order to make sound and safe clinical decisions.

It is my view after reviewing the documents provided, that:

- *The call process including the initial triage by the call handler followed accepted procedure.*
- *Decisions made following secondary triage by the nurse, including safety net advice, failed to take into account the full context of [Mrs A's] call for ambulance assistance and that the degree of her distress and urgency were under estimated, and therefore she failed to receive the clinical care she needed and this falls below the standard of accepted practice.*
- *Algorithm decision tools and protocols be reviewed with regard to ensuring that risk factors in the medical and medication history, demographics ie age and social circumstances are given due weightings when decisions are made regarding urgency and the need for a face-to-face assessment, the management of distressing symptoms and transport for ongoing health assessment and management.*
- *The use of the "sick persons/vomiting" protocol was reasonable. However, review of the questioning around the presence or absence of "blood in the vomit" be reviewed to ensure that accurate information regarding this vital clinical sign is obtained from members of the public.*

Conclusion

Thank you for the opportunity to contribute to quality care in New Zealand in the HDC case 20HDC00862. I trust that the HDC process will support a satisfactory outcome for the whānau for [Mrs A] and result in an improved safety service for the public of New Zealand.

Wendy Sinclair RN, MN(Clin).

Reference:

"Guidelines on the Implementation of the Australasian Triage Scale in Emergency Departments". Australasian College of Emergency Medicine 2016.'

Further advice from RN Sinclair, dated 21 March 2023:

'Thank you for your request for review of the responses to my initial advice regarding the above complaint. I have read and reviewed the documentation provided:

1. Copy of the response from [the Chief Executive Officer], [the telehealth service]
2. Copy of the Call Flow Guideline: Emergency Triage
3. Position Description Emergency Teletriage Nurse
4. Emergency Triage Call Review Tool
5. [Telehealth service] — Consultation Report
6. [RN C's] response

Response

It is my view that the documentation of the investigation provided by [the Chief Executive Officer] largely supports the advice provided by myself.

I would like to make further comment in regard to [Mrs A's] level of distress during the telephone interview. I agree that it is likely that there was little overt evidence of acute distress during the interview, however, the role of the secondary triage is not only to determine the current level of distress but to seek information to enable the identification of differential diagnoses and develop a determination for the potential for deterioration.

The algorithm used by [RN C] to support the secondary triage assessment failed to elicit significant information regarding the medical and medication history and therefore inadequate emphasis was placed on these aspects of the assessment and contributed to [RN C] underestimating [Mrs A's] level of clinical risk.

It is my view that this failure of the secondary triage process to determine all significant clinical information regarding risk factors for sudden deterioration represents a moderate departure from an acceptable standard of care. It is pleasing to note that [the telehealth service] has progressed review of [the triage tool] system following this unfortunate incident to mitigate this area of clinical risk around the secondary triage process.

Thank you for the opportunity to provide this response to support this investigation to lead to a satisfactory outcome for the whānau of [Mrs A].

Kind regards, Wendy Sinclair RN, MN(Clin)'

Clarification of advice from RN Sinclair, dated 12 August 2023:

'Tena Koutou

Re: Clarification of expert advice C20HDC00862 initially provided March 2021.

It is some time after I initially reviewed all the documents provided regarding this case and my responses here are based on my memory and the copies of my responses to you at the time of that review.

1. The secondary triage assessment failed to determine significant clinical information such as:

- [Mrs A's] blood sugar level or if she was able to closely monitor it.
- Whether there was any abdominal pain or distension
- Whether there was any sign of blood in the vomit — which would have looked brown and grainy (often described as "coffee grounds") rather than red as the lay person might expect.

The secondary triage assessment failed to determine significant information such as:

- Whether [Mrs A's] friend was able to stay with her overnight
- Was she able to contact her GP in the morning? Did she have access to transport?
- Was [Mrs A] able to monitor her blood sugar levels overnight?

2. Diabetes is a disease process that affects the ability to produce and/or metabolize glucose resulting in raised blood glucose levels. Metformin is a medication prescribed to manage or lower blood glucose levels.

Recurrent vomiting and reduced intake over 3 days is likely to have resulted in [Mrs A] being somewhat dehydrated and if she continued to take Metformin could result in affecting her blood glucose levels becoming potentially dangerously too low — a state that could result in coma or death, or too high resulting in increased dehydration. In the elderly, this risk is elevated.

A medical assessment would include blood glucose assessment and management of dehydration and/or alteration of her Metformin doses.

Dabigatran is an anticoagulant medication. It is unclear from the documentation why [Mrs A] was on this medication but it is commonly prescribed to reduce the occurrence of blood clotting as occurs in stroke etc and is often prescribed where there is a cardiac history.

Significant side effects of Dabigatran include increased risk of bleeding. Any patient who presents with undifferentiated abdominal pain/vomiting etc must be thoroughly

assessed to exclude gastric bleeding as a risk or cause, as such outcomes can be devastating.

I hope this clarification assists you to progress your opinion to provide a satisfactory outcome for this whānau.

Regards

Wendy Sinclair'