Public Hospital

General Medicine Consultant, Dr D

Medical Office Specialist Scale, Dr C

A Report by the

Health and Disability Commissioner

(Case 18HDC00583)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to a woman by a rural public hospital, a MOSS, and a general medicine consultant in 2018. At the time of events there were a significant number of concerning systemic issues at the public hospital, which resulted in a poor standard of care being provided to the woman.

Findings

2. The Commissioner identified a number of failings that she considered reflected serious dysfunction in the hospital system operating at the time of the woman's admission. The Commissioner noted that a background of unclear lines of nursing and medical responsibilities and policies and procedures provided inadequate guidance to staff, and that multiple staff provided poor care on numerous occasions. The Commissioner found the public hospital in breach of Right 4(1) of the Code.

3. The Commissioner also considered that staff failed to cooperate effectively with one another to ensure that the woman received quality and continuity of services, and found that the public hospital breached Right 4(5) of the Code.

4. The Commissioner found that the care provided to the woman by the MOSS fell below the expected standard, as he did not conduct an appropriate daily clinical examination of the woman, and his standard of documentation was poor. Accordingly, the Commissioner found the MOSS in breach of Right 4(1) of the Code.

5. The Commissioner made adverse comment about the general medicine consultant. She considered that the consultant's presence at ward rounds and/or reviews indicated that he was, at least in part, responsible for providing some oversight or carrying out assessments of the woman.

Recommendations

6. In response to the recommendations made in the provisional report, the public hospital implemented a number of further changes, and the consultant provided an apology to the woman's family.

7. The Commissioner also recommended that the public hospital use the anonymised version of this report as a basis for staff training, and that the public hospital and the MOSS provide a written apology to the woman's family.

Complaint and investigation

8. The Health and Disability Commissioner (HDC) received a complaint from Ms B about the services provided to her mother, Mrs A, by a public hospital. The following issues were identified for investigation:

- *Whether the public hospital provided Mrs A with an appropriate standard of care in 2018.*
- *Whether Dr C provided Mrs A with an appropriate standard of care in 2018.*
- *Whether Dr D provided Mrs A with an appropriate standard of care in 2018.*

9. This report is the opinion of the Commissioner.

10. The parties directly involved in the investigation were:

Ms B	Complainant/consumer's daughter
Public hospital	Provider
Dr C	Medical officer of specialist scale (MOSS)[1]
Dr D	Medical consultant

11. Also mentioned in this report:

RN E	Registered nurse
RN F	Registered nurse
RN G	Registered nurse
RN H	Registered nurse
Dr I	Locum medical officer
Dr J	Microbiologist
EN K	Enrolled nurse
RN L	Registered nurse
Dr M	Locum doctor
RN N	Registered nurse
RN O	Registered nurse
Dr P	Nurse manager
RN Q	Registered nurse

12. Independent expert advice was obtained from a rural hospital specialist, Dr Jennifer Keys (Appendix A), a general physician and rural hospital specialist, Dr Richard Shepherd (Appendix B), and a registered nurse, Dr Kaye Milligan (Appendix C).

[1] A non-training position for a doctor who has yet to specialise or gain a postgraduate qualification, or an international medical graduate who has a postgraduate qualification but is not eligible for a consultant role because the requirements for a vocational scope of practice have not been met.

Information gathered during investigation

Introduction

13. This report concerns the care provided from Day 1[2] to Day 5 by the public hospital, Dr D (a general medicine consultant), and Dr C (a MOSS) to Mrs A, aged in her eighties at the time of events.

14. Mrs A had a medical history of type 2 diabetes,[3] acid reflux,[4] heart attack, stroke,[5] and surgical removal of the gallbladder. She was admitted to the public hospital with diarrhoea, and during her admission she suffered a fall and became more unwell.

15. Sadly, Mrs A died during her hospital admission, on Day 5. I take this opportunity to extend my condolences to her family.

Public hospital

16. The public hospital is the only hospital in the district that provides secondary-level healthcare services. It is categorised as a rural hospital and offers inpatient and emergency services, maternity services, and radiology services.

17. In relation to rural hospital medicine, the Medical Council of New Zealand (MCNZ)[6] states:

> "Rural hospital medicine is determined by its social context, the rural environment, the demands of which include professional and geographic isolation, limited resources and special cultural and sociological factors. It is invariabl[y] practised at a distance from comprehensive specialist medical and surgical services and investigations.
>
> A broad generalist set of skills, knowledge and attitudes are needed to deliver optimum patient outcomes in rural hospitals. Unlike rural general practice, rural hospital medicine is orientated to secondary care and is responsive rather than anticipatory and does not continue over time."

18. Dr D had worked at the public hospital as a specialist physician in general medicine with a special interest in respiratory medicine. For many years, he had been the only consultant covering the public hospital. Dr C had worked at the public hospital for many years as a MOSS in the Emergency Department (ED) and subsequently on the ward.

Care on Tuesday Day 1

Admission to public hospital

19. At 3.30pm on Day 1, Mrs A was referred by her GP to the ED by ambulance. She was suffering from diarrhoea.

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[2] Relevant dates are referred to as Days 1–5 to protect privacy.
[3] A chronic condition that affects the way the body metabolises sugar.
[4] A digestive disorder.
[5] A stroke.
[6] https://www.mcnz.org.nz/registration/scopes-of-practice/vocational-and-provisional-vocational/types-of-vocational-scope/rural-hospital-medicine/

20. The ED notes record that Mrs A was reviewed by a fifth-year medical student. The medical student noted that Mrs A had been defecating around 4–5 times a day and 4–5 times at night, she had vomited, and she looked "tired and drained". ED nursing observations were normal.

21. The medical student noted the following plan for Mrs A: to stop taking her medication for acid reflux, diabetes (metformin), and heart disease (furosemide); to be administered intravenous (IV) fluids (containing normal saline and potassium); for an ECG[7] and blood and stool tests to be carried out; and for her to be encouraged with a salty diet.

22. The ED notes record that a MOSS reviewed the medical student's notes and agreed with the plan. The MOSS added that Mrs A should also take Enerlyte.[8] IV fluids were administered in the ED, and Mrs A was referred to the Medical Ward. An ISBAR[9] Handover Form was completed by an ED nurse at 5.30pm.

23. The public hospital told HDC:

> "[The Clinical Director] has reviewed the admission note and believes it is of a reasonable standard for the Emergency Department admission … [The Clinical Director] also considers the decision to commence IV fluids (normal saline) with correction of Potassium (40 mmol) is of a satisfactory standard … A full set of clinical observations were taken and recorded and there was documentation of the physical examination undertaken in the Emergency Department."

Admission to ward

24. The Admission Frontsheet notes the primary consultant as Dr C. The clinical notes document that Mrs A had had diarrhoea for four days prior to her admission, and that the source of diarrhoea may have been a fish pie she ate a few days earlier. The notes record that Mrs A was transferred to the ward at 5.45pm and telemetry[10] was attached.

25. A nursing assessment form was completed by a nurse. For the questions relevant to "falls risk criteria", the nurse ticked "no", except for the question, "Does the patient have bowel problems?" The form noted this question as a "falls risk". The nurse ticked "yes" and recorded "only in the past four days". The nurse also ticked "yes" to the question, "Sight Problems?" and the form asked, "Falls Risk: Yes/No". The nurse did not identify a falls risk for sight problems, but noted, "glasses all the time". At the end of the nursing assessment form, the following is stated: "Falls Risk: Falls Risk Assessment is required if you have answered YES to any Falls Risk questions or by clinical judgement." The nurse ticked "no", and no falls risk assessment was completed.

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[7] An electrocardiogram (a test to evaluate the heart's electrical activity).

[8] A drink used to replace fluids and electrolytes.

[9] Identification, Situation, Background, Assessment, and Recommendation — a communication tool used by healthcare workers, particularly to report changes in a patient's status and/or deterioration.

[10] A device used to monitor vital signs.

26. The nurse told HDC that her overall assessment at the time was that Mrs A did not require a full falls risk assessment, given that overall she had no history of falls, and had been living independently with only limited support from her family.

27. The public hospital stated:

> "The documented nursing assessment completed at the time, did identify a 'yes' to more than one falls risk question and a falls risk assessment therefore would have been expected. This falls below the expectation of [the public hospital]."

28. At 6.30pm, IV fluid was commenced and Enerlyte drinks were given to Mrs A. At 9pm, she was given paracetamol[11] and administered her medications as charted. The nurse also documented: "[Dr C] aware of the telemetry result." However, no actual result is noted or whether it was significant.

29. At 10.45pm, the first bag of IV fluid was completed and telemetry discontinued. Mrs A was washed, and she used the bathroom with assistance and settled back in bed. A stool sample was sent to the laboratory.

30. Dr C said that he was not present at the time of Mrs A's admission, as it was outside his ordinary hours of attendance.

Handover from ED to ward

31. The public hospital told HDC that the usual process when a patient is transferred from ED to the ward is for medical and nursing staff to make appropriate documentation in the patient's clinical notes, and for the ED nurse to accompany the patient to the ward with the relevant notes. The public hospital stated:

> "There is no clear evidence of a (Doctor to Doctor) handover process from what can be seen from the notes other than the presence of ED notes. There would have been opportunity for the day ED doctor to hand over to the night doctor, although there was no documented evidence of this. This appears consistent with usual practice of [the public hospital] at the time."

32. There is no clinical documentation regarding the handover between the ED and ward staff. The public hospital told HDC: "[G]iven this apparent lack of medical documentation, we accept that the medical notes directly after admission from ED do not meet the standard expected of a Rural Hospital."

Care provided on Wednesday Day 2

33. At 12.35am, the night nurse, RN E, noted that Mrs A was sleeping and her saline IV fluids were running. No further potassium was administered to Mrs A.

34. At 2.30am, Mrs A rang the call bell to be assisted to the toilet. RN E documented:

[11] A pain-killer.

> "Mobility poor — very unsteady on feet. High fall risk. [Patient] incontinent of runny faeces. Washed cleaned and dried bottom half of [patient] and washed floor … [Patient] settled back to bed. Abdomen appears distended."

35. No full falls risk assessment was completed despite the note that Mrs A was a high falls risk. RN E stated: "I can only reiterate that on this shift, I did not have time." She said that often the night shift on the ward is very busy because normally there would be only one registered nurse and an enrolled nurse to provide nursing care to 20 ward patients, as well as demands from other areas. She also said that a full falls risk assessment involves asking the patient a number of questions, so usually it is not done on a night shift.

36. Dr C reviewed Mrs A around late morning and charted loperamide for diarrhoea, re-charted her further IV fluids (saline and potassium), checked her blood results, and reduced and discontinued her diabetes medication (glipizide and metformin, respectively). He noted that Mrs A's blood results showed that her sodium and potassium levels were low. He said that he accompanied his supervisor, Dr D, on the morning ward round.

37. Dr D did not make any record in the clinical notes, but said that he asked Dr C to implement IV fluids and a fluid balance chart,[12] and for stool tests to be sent to the laboratory. The fluid balance chart was commenced at midday and noted the IV fluid intake at 12pm, 1pm, 2pm, and 3pm, but not thereafter on this date, and the person who recorded the intake was not documented. No urine output was noted on the chart on this date, and the fluid balance was not calculated.

38. At midday, Mrs A's temperature was 38.1°C (high), and Dr C reviewed her. At 12.45pm, he documented that Mrs A's sodium and potassium levels were still low and that she had a fever. He planned for IV fluids to continue over the next 24 hours and for blood cultures to be taken.

39. At 2.15pm, RN G, the morning nurse, made a retrospective note that Mrs A had had an Early Warning Score (EWS) of 0 at 7.30am. The Early Warning Score (EWS) is a tool used to identify the early signs of clinical deterioration for the purpose of initiating early intervention and management. An EWS of 0 indicates no concerns. RN G noted that at 12pm, Mrs A's EWS changed to 1[13] because of her rise in temperature to 38.1°C. RN G documented that at 1.30pm Dr C was contacted again as Mrs A appeared weaker and was unable to get up from bed, and required two people to transfer her to the commode.

40. The public hospital said that despite the noted increase in EWS and Mrs A's deterioration at 1.30pm, "there is no evidence in the clinical file of a reassessment by [Dr C]".

41. At 3.15pm, the afternoon nurse documented that Mrs A's bowels had opened and were loose, that diarrhoea medication (loperamide) was given, and that Mrs A appeared alert and oriented.

[12] Used to document a patient's fluid input and output within a 24-hour period to assess hydration.
[13] An EWS of 1–5 indicates that nurses should manage pain, fever, or distress, consider medical review, increase the frequency of observations if required, and discuss the patient with the nurse in charge.

42. At 5.20pm, the afternoon nurse noted that Mrs A's EWS was 3, as her temperature was 34.7°C. The nurse documented: "[Dr C] is aware and no new order."

43. The public hospital stated: "The notes highlight [Dr C] was aware of this change in [Mrs A's] condition but provided no new orders. No further notes were made by a Doctor at that time."

44. At 8.20pm, it was noted that Mrs A was given further diarrhoea medication in addition to her normal medications. At 10.30pm, another bag of fluid was commenced, and Mrs A appeared "awake but comfortable".

Care provided on Thursday Day 3

45. At 1am, the night nurse, RN E, noted that Mrs A had had a "large, explosive, fluid" bowel movement, and that Mrs A told her: "I feel as weak as water." Loperamide was given. IV fluids were continued, and Mrs A's observations were taken. Although her blood pressure (100/60mmHg), heart rate (88 beats per minute (bpm)), and temperature (36.3°C) were normal, her oxygen saturation levels were slightly low (94%).

46. At 5.50am, RN E noted that Mrs A had had only one bowel movement overnight.

47. Dr C recorded in the clinical records (no time noted):

> "[Blood sugar levels] low this morning [less than] 4[mmol/L].[14] Glipizide[15] withheld … had peaked yesterday at [unreadable] and fell overnight without Rx[16] other than IV fluids. One episode of diarrhoea overnight and nil since. Awaiting on bloods before charting more IV fluids."

48. Dr C told HDC that Mrs A's kidney function appeared to be improving, and her IV fluids were discontinued because she appeared to be tolerating more oral fluids throughout the day.

49. At 8.40am, the morning nurse documented that Mrs A's blood sugar level (BSL) was 3.9mmol/L (low) and she was given milkshakes, banana, and stewed apple. At 9am, the nurse noted that Mrs A's BSL had improved to 4.9mmol/L (still lower than normal), and that this was discussed with Dr C, who advised to withhold glipizide and to restart IV fluids.

50. At 10.30am, the morning nurse noted that Mrs A had had another bowel movement, that a daily weight check had been commenced, and that they were still awaiting the results of the stool sample. The nurse also recorded that IV fluids were discontinued after a discussion with Dr C, as Mrs A's cannula had been leaking. Another blood test was taken.

51. Following the above nursing note there is a record by Dr C, but no time is recorded. Dr C documented that the IV line had been leaking and was removed. He further noted Mrs A's

[14] Normally blood sugar levels are between 4.0 and 8.0mmol/L.
[15] Medication used to treat high blood sugar levels caused by type 2 diabetes.
[16] Treatment.

blood results and the plan to encourage oral fluids, consider antibiotic treatment (metronidazole), await the result of the stool test,[17] and check bloods in the morning. Dr C told HDC that he saw Mrs A during a formal morning ward round with Dr D.

52. Dr D said that when they saw Mrs A during the ward round, they "stepped up treatment with more fluid therapy".

53. At 4pm, the afternoon nurse, RN H, documented that Mrs A had had a bowel movement.

54. The stool test results were received by fax at 5.34pm, and were positive for Salmonella. The result was also available on Eclair.[18] However, the public hospital told HDC that no doctor accepted the results as "read" electronically because at the time it was not standard practice for doctors to review and accept results electronically.

55. At 8pm, RN H noted that Mrs A ate fruit and a quarter of a cup of milk, and that her medication was given as charted and her family visited. RN H also recorded that Mrs A "reported lower abdominal discomfort", and that paracetamol was administered.

Care provided on Friday Day 4

56. The night nurse, RN G, documented at 2.15am that Mrs A appeared "confused". Mrs A's observations were taken. Her blood pressure (98/60mmHg), temperature (36.6°C), and oxygen levels (96%) were within normal ranges, but her pulse (92bpm) was slightly elevated and her BSLs were very high (27.1mmol/L). The nurse also noted: "Duty Nurse informed about the confusion and BSL. An alarm in situ, P[atient] abdomen extended and P[atient] [complained of] pain on palpation."

57. At 3.30am, Mrs A was reviewed by Dr I, a locum medical officer. He noted that he was asked to see Mrs A as she was unwell. He reviewed Mrs A's blood results and observations and recorded that she was drowsy, tired, mildy confused, but not feverish, and that the stool test result showed *Salmonella enterocolitis*.[19] Dr I documented a plan that included notifying public health services about Mrs A's Salmonella infection, immediate administration of IV fluids (saline) followed by a bag of fluid with potassium, and encouraging a salty diet. Dr I also planned to contact the Microbiology Department about starting antibiotics, and to repeat blood tests in the morning.

58. At 3.54am, Dr I faxed the Salmonella result to the Ministry of Health. Dr I told HDC that he did not administer antibiotics immediately because he felt that discussion with the Infectious Diseases team would be helpful to determine whether antibiotics were indicated. He said that it seemed reasonable to wait for a few hours to hand over his assessment to the day team.

59. At 6.15am, RN G documented that IV fluid had been commenced at 3am, and that Mrs A had settled and gone to sleep after this.

[17] A diagnostic test to detect bacteria and parasites.
[18] An electronic system for managing test results.
[19] A bacterial infection of the small intestine.

60. Mrs A was reviewed by Dr C in the morning. He said that when he attended, he reviewed Dr I's annotation and became aware of the Salmonella diagnosis. Dr C made the following untimed entry in the clinical records: "[A] degree of confusion noted and delirium[20] … [C]ontinue IV fluids. Check bloods …" A copy of the printed Salmonella result dated Day 3 was signed by Dr C, but he did not note the date or time of his review. Dr C wrote "notified" on the printed result, but did not note when the Ministry of Health was notified about the result.[21]

Discussion with microbiologist

61. Dr D said that he saw Mrs A during his normal morning round, and that this was when he first became aware of the Salmonella diagnosis. He stated that he advised Dr C to contact the Infectious Diseases specialist at a main centre hospital, and that following this review he was not contacted further about Mrs A.

62. Dr C told HDC that he recalls discussing Mrs A's presentation with Dr D prior to seeking advice from the microbiologist. Dr C stated:

> "[Dr D's] opinion was that antibiotics were not suitable due to [Mrs A's] bowel movements reducing, but it would be sensible to consult microbiology to confirm this was appropriate."

63. Dr C said that he then consulted with a microbiologist, Dr J, and advised him that Mrs A's bowel movements had subsided and she was more stable than when she had first been admitted. Dr C stated that it is difficult for him to recall the detail of his conversation, but that his ordinary practice would have been to discuss the patient's history, risks, and presentation.

64. Dr C said that the advice he received was to use an antibiotic called ciprofloxacin if there was increased frequency of diarrhoea. However, the clinical notes contain no documentation of the discussion with the microbiologist, or when it occurred. The only documentation about the discussion was in Mrs A's discharge notes, where Dr C recorded: "[Discussed with] microbiologist and waiting on further ID of type: could use ciprofloxacin if necessary but no marked [increase] in diarrhoea."

65. Dr C stated:

> "[F]ollowing the advice from microbiologist [Dr J], I did not consider antibiotics to be a suitable treatment option as nursing staff had documented that [Mrs A's] [bowel] movements had decreased in frequency and antibiotics can prolong the course of the salmonella enteritis and lead to a carrier state.[22]"

[20] Mental confusion and disorientation.

[21] According to the Ministry of Health, the Health Act 1956 requires attending medical practitioners to notify the local medical officer of health immediately if probable or confirmed cases, including asymptomatic cases, are identified.

[22] Someone who may be free from symptoms of a disease but may pass on the disease to others.

66. Dr J told HDC: "I do not recall this case, discussing it with [Dr C], or giving treatment advice, although it is quite possible that I did." Dr J said that he routinely receives telephone consultations as part of his clinical duties, and does not consistently keep a record of the calls if he is away from his office at the time of the call. He told HDC that he has checked the laboratory information system and his emails, and can find no record of this case.

67. Dr C told HDC:

> "On the morning of [Day 4] I did not consider it necessary to call [Dr D] regarding management of [Mrs A] as [Dr I] had been informed of [Mrs A's] diagnosis earlier that morning and had clearly documented this together with an appropriate treatment plan. I did not consider [Mrs A] had significantly deteriorated such that there was a need to seek input from [Dr D] at that point."

Catheterisation and distended abdomen

68. At 11.50am, the morning nurse documented that Mrs A remained disoriented and confused. Her vital signs were taken, and her EWS was 0. Loperamide was given at 8am, and at 11.15am it was noted that Mrs A had had one bowel movement. IV fluids were continued.

69. At 2.30pm, the nurse noted that Mrs A had had one further loose bowel motion and that her abdomen was distended.

70. At 4pm, EN K documented that Mrs A's EWS was 1 because of her reduced oxygen saturation level of 95%. EN K noted that she "reported to [the doctor and received] no new orders". At 4.50pm, EN K noted that Mrs A's BSL was 16.1mmol/L (high) and documented: "[Patient] states she is comfortable at this time. Noted abdomen still distended, P[atient] states abdomen is not sore at this time."

71. EN K told HDC that she was completing her new graduate programme as an enrolled nurse at the time, and was working part time at the public hospital. As an enrolled nurse, she was working under the direction and delegation of a registered nurse.

72. At 6.30pm, EN K documented that Mrs A was very unsteady and struggled to stand. Mrs A's daughter was visiting, and she expressed her concern about her mother's distended abdomen. At 7pm, EN K noted that Mrs A had "passed nothing on the toilet, pad dry".

73. EN K told HDC that she listened to the family's concerns about Mrs A's tummy being distended, and then reviewed the nursing notes. She said that a registered nurse was about to put up another bag of IV fluid, so she told the nurse that the patient's abdomen was distended and that there had been minimal urine output. EN K said that she was advised by the nurse to report this to the doctor.

74. At 7.10pm, EN K noted that she had discussed with the Duty Nurse, RN L, that the patient had asked for a review by a doctor. EN K documented:

> "[Dr M, locum doctor] did bladder scan and noted to have over one litre of fluid in bladder. Put catheter[23] in with [RN N] drained 1100 ml in first 20 min. Catheter clamp and restarted 40 min later draining well."

75. There is no documentation by Dr M. He stated: "I am very sorry for my lack of documentation and have endeavoured to ensure that I document every episode of care." Dr M recalled that he had to return to the ED to continue with urgent tasks, and that later he was informed by the nursing staff that they had successfully placed an indwelling catheter for Mrs A. Dr M could not comment on the timing of the catheterisation.

76. The public hospital stated: "It appears that the ED doctor was informed that there was a potential for urinary retention and he did use Point of Care Ultrasound to diagnose urinary retention."

77. At 9pm, EN K documented that Mrs A did not appear oriented, as she thought that the nurse was her daughter and that her daughter had said that she could go home. EN K rang Mrs A's daughter to inform her about the catheterisation.

Fall

78. At 9.30pm, EN K noted: "Found [patient] on her knees beside the bed. Rung for help. Took 3X staff to assist [patient] back onto bed. Alarm [in situ]."

79. EN K told HDC that several registered nurses on the shift discussed whether the incident would be classified as a fall,[24] as Mrs A had been found at the side of her bed. EN K said that from memory, no review by a doctor was sought, as there were no apparent injuries.

80. The Duty Nurse, RN L, was informed of the fall. RN L said that she is uncertain whether she informed the doctor immediately after the call from the ward. She told HDC:

> "[I]t was a busy night in ED and it may have been that I informed the doctor but there was little opportunity for the doctor to attend the ward, or [I] may have held off informing the medical officer if he was already attending to more urgent care."

81. EN K said that they lowered the bed to the lowest level, put in a falls alarm, and checked on Mrs A regularly. At 10.25pm, EN K noted that she had found Mrs A half out of bed, and she had taken off the alarm. EN K recorded that she talked to the Duty Nurse, and they moved Mrs A to another room to be closer to the nurses station. Mrs A then settled down, and the alarm was reinstated. At the end of the shift, EN K noted:

> "Omeprazole not given tonight as it was charted as a review. Patient has not complained of any nausea this shift. Please review in the morning … Incident form filled out. Please notify family in the A.M."

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[23] A tube placed in the body to drain and collect urine from the bladder.

[24] According to the Health Quality & Safety Commission, a fall is defined as "any unintentional change in position where the person ends up on the floor, ground, or other lower level; includes falls that occur while being assisted by others".

82. EN K noted on the incident form that she had "found [the patient] on her knees beside her bed", and that there was "no injury noted".

83. The night nurse, RN N, made the following retrospective note about the incident:

> "Duty Nurse [RN L] aware of patient's confusion however not new as daughter voiced this had been ongoing since prior to admission. Patient was moved into a room closer to the nurse station … as per Duty Nurses instructions."

84. No subsequent falls assessment was completed, and a falls bracelet was not put on Mrs A's wrist.

85. Mrs A's family was not informed about the fall. Mrs A's daughter, Ms B, said that she was made aware of the fall only following her complaint to HDC. Ms B told HDC: "[W]e are devastated to learn that [our mother] was found on the floor by her bed on [Day 4]. This is the first we knew of such incident."

86. In response, the public hospital told HDC: "[We] would like to apologise for not informing [Ms B] on [Day 4] as would be the usual practi[c]e. The nurse did not want to disturb family at that hour."

Care provided on Day 5

87. At 12.05am, the ward night nurse, RN F, noted that Mrs A "had [a] small faecal/coffee ground vomit". Mrs A was assisted to the commode and discharged around 100ml of yellow/green liquid. RN F also noted that Mrs A thought that she saw two people standing in the anteroom, but only an apron was hanging there.

88. RN F told HDC that she explained to Mrs A why the alarm was attached to her nightdress, and Mrs A understood that it was for her safety. At 1am, RN F noted that Mrs A appeared comfortable, and at 2am, RN F noted that she reassured Mrs A that it was night time and she needed to sleep.

Request for medical review

89. At 2.30am, RN F noted that Mrs A was very cool to touch although her temperature was within normal range (36.8°C). However, the rest of Mrs A's observations were abnormal. She had a high respiratory rate of 36 breaths per minute, her oxygen levels were low (89%), her blood pressure was 115/43mmHg, and her BSL continued to be high (17.9mmol/L). Her urine output was minimal (75ml).

90. As a result of Mrs A's increased respiratory rate and reduced oxygen saturation level, her EWS was increased to 6. RN F said that she questioned Mrs A and she reported no pain. RN F commenced oxygen via nasal prongs at 2 litres/minute, and Mrs A's oxygen saturation rose to 94%.

91. RN F documented that the Duty Nurse, RN O, was notified of Mrs A's increased EWS. RN F told HDC that the Duty Nurse and the doctor were "very busy", and she recalls that she

was "advised that the doctor would come as soon as he could but at the time was engaged in some emergency cases in ED".

92. Mrs A was not reviewed medically when her EWS increased to 6. The public hospital said that at the time of these events, the process for requesting a medical review of an inpatient overnight was for the ward nurse to notify the Duty Nurse, and for the Duty Nurse to request the medical review. The public hospital stated that when RN F notified the Duty Nurse, he was in the ED with a locum doctor. The ED was very busy, and the doctor was attending to a very unwell patient.

93. The public hospital stated:

> "[W]e accept that the Duty Nurse was tied up with an unwell patient in ED at the time. This has been part of our deliberate change process to ensure that the ED area always has two registered nurses on at any time."

94. RN F said that as the doctor had not appeared, she stayed with Mrs A until she went back to sleep. At 3am, RN F noted that Mrs A was sleeping and appeared more comfortable.

Mrs A's death

95. At 3.40am, RN F noted that Mrs A had vomited dark fluid. Shortly afterwards she was noted to have died. Dr C certified Mrs A's death at 4.10am, identifying the cause of death as bleeding in the digestive tract (gastrointestinal haemorrhage) due to Salmonella infection.

96. Mrs A's family was not informed of her death immediately. RN F told HDC that the presence of the large vomit contributed to her delay in contacting the family, as she needed the doctor to see the situation for an accurate death certificate notation prior to cleaning the area. Ms B said that the family was informed that Mrs A passed away at 4am.

97. Dr D told HDC that he was not informed of Mrs A's deterioration and death until three days later.

98. The public hospital told HDC:

> "[T]he nursing staff did not call the family immediately as the death was to be certified by the Doctor and it took 20 minutes for him to arrive to do that … because she died in the early hours of the morning there are limited staff and particular procedures to follow in these circumstances. The death was very sudden and impossible to predict at that time and therefore family would not have been notified earlier as she was comfortable and sleeping peacefully 40 minutes prior to her death."

EWS

99. During Mrs A's admission, her EWS was calculated and noted on the EWS chart. A copy of the EWS chart was provided to HDC, and the table below provides a summary.

Time of EWS assessment	Length of time from previous EWS assessment	EWS documentation
Day 1		
3.40pm	Not applicable	Total EWS not documented
5pm	1 hour and 20 minutes	0
Day 2		
7.30am	14 hours and 20 minutes	0
12.10pm	4 hours and 40 minutes	1
1.40pm	1 hour and 30 minutes	Total EWS not documented
5.25pm	3 hours and 45 minutes	Total EWS not documented on chart but EWS documented in progress notes as 3
Day 3		
12.30am	7 hours and 5 minutes	2
8am	7 hours and 30 minutes	Total EWS not documented
12pm	4 hours	0
4pm	4 hours	Total EWS not documented
Day 4		
2am	10 hours	1
4.30am	2 hours and 30 minutes	0
8am	3 hours and 30 minutes	Total EWS not documented
11.30am	3 hours and 30 minutes	0
3.35pm	4 hours and 5 minutes	1
Day 5		
2.30am	10 hours and 55 minutes	6

Nursing observations

Fluid balance chart

100. The nurses at the public hospital recorded the management of Mrs A's IV fluids on the fluid balance chart. As discussed above at paragraph 37, this was ordered by Dr D on Day 2. On Day 2 it was noted that normal saline with potassium was given at 12pm, but no amount or running total was documented. At 1pm, Mrs A was given 125ml of fluid and the running total was noted as 125ml. At 2pm, another 125ml of fluid was given and the running total was noted as 250ml. At 3pm, another 125ml of fluid was given and the running total was noted as 375ml. The type of fluid given at 1pm, 2pm, and 3pm was not recorded, and the total fluid input and output was not documented on the fluid balance chart on this date.

101. On Day 3, the oral fluid intake was documented at 8am, 12pm, 3.30pm, 8pm, and 8.30pm, but no urine output was recorded. No IV fluids were given on this date. It was also documented that Mrs A had bowel motions at 8am, 3.30pm, and 8.30pm.

102. A fluid balance chart was not completed on Day 4 or Day 5.

Weight chart

103. Mrs A's weight was documented once daily on Day 1, Day 3, and Day 4, but not on Day 2. On admission, her weight was 63.70kg, and by Day 4 it had decreased to 59.9kg (a loss of almost 4kg).

BSL testing chart

104. During Mrs A's admission to the ward between Day 1 and Day 4, her BSL was noted on the BSL testing chart regularly. The chart showed that on admission, her BSL was 14mmol/L. Of significance, the chart notes that on Day 3 her BSL decreased to 3.9mmol/L from 8.50am and increased to 13mmol/L by noon, and on Day 4 at 1.30am her BSL spiked to 27.1mmol/L and then decreased to around 15mmol/L at 8.50am.

Initial investigation and information from public hospital

105. The public hospital told HDC that in 2017 (prior to this incident) an independent investigation was carried out in respect of Dr C's practice. The outcomes of the investigation included recommendations relating to establishment of clear lines and areas of responsibility for medical staff and maintenance of continuity of care.

106. At the time of these events and when this complaint was made to HDC, a different management team was in place at the public hospital. A restructure of the public hospital's organisational processes and management had occurred.

107. A critical review meeting was held to discuss Mrs A's case. Dr D was a member of the review committee. The meeting minutes identified only that nursing observations were lacking, and recorded:

> "[T]here was no documentation of nursing obs[ervations] for 12 hours. As a nursing perspective we need to keep up with recordings on a patient with a changing condition, however in this case it would not have changed the outcome."

108. Initially, Dr P, the Nurse Manager of the public hospital, told HDC:

> "Antibiotics are not usually indicated for the treatment of Salmonella and the prognosis can be severe or lead to death especially in infants or people over 65 years of age as was the case for [Mrs A]."

109. Dr D stated that he was part of the critical review committee because no independent doctors were available, Mrs A's deterioration was unexpected, and he was not contacted by the MOSS or nursing staff following his morning ward round on Day 4.

Staff arrangements and supervision

Medical staff

110. For many years, until his retirement, Dr D was the only consultant covering the public hospital. Dr D said that the arrangement was to have medical staff working with him who were at least at the level of a MOSS. Usually they had significant experience and could work independently.

111. Dr D stated that the arrangements had been that he would be on call every week from Monday morning at 8am until Friday evening at 5pm, and would be available at any time for consultation with the resident doctor to the point of advising over the telephone or even attending the hospital during the night. Dr D said that on Monday and Thursday he would undertake formal morning ward rounds, and for the other weekdays he would undertake a curtailed ward round, seeing everyone in HDU, any new admissions, and any patients in an unstable condition. These ward rounds were done in conjunction with the MOSS and nursing staff.

112. Dr D told HDC:

> "In this context I expected the MOSS to be in charge of the ward, to keep the medical documentation up-to-date, and of course to contact me if and when the patient deteriorated. It however, did not mean that I was notified on the arrival of any new patient unless the MOSS experienced some difficulty or problem."

Dr C

113. Dr C was not vocationally registered.[25] His records show that there was a named person to provide oversight for his work in the ED. However, this person left the public hospital in 2017. The public hospital stated:

> "[T]he CEO at the time no longer works at [the public hospital] so it is unclear what alternative arrangements were put in place, as there is no documentation in [Dr C's] personnel file."

114. Dr C told HDC:

> "As a Doctor registered in a general scope of practice at the time of these events, I was required to have a 'collegial relationship'[26] provider to comply with Inpractice requirements. That was [Dr D] from about 2012 until the time I stopped practising."

115. Dr D told HDC that there was no formal clinical supervision relationship between himself and Dr C, as Dr C had been qualified for many years, and was considered to be a competent MOSS. Dr D stated: "[W]e worked together when I came to the ward to do ward rounds. He did have a collegial relationship with me for the purpose of his practi[s]ing certificate."

116. Dr C stated that his arrangement with Dr D was to accompany him during morning ward rounds, and to discuss the patients admitted to the ward each morning and plan further intervention or treatment as required. Dr C said that he would carry out Dr D's directions, and Dr D would leave him to treat patients with the understanding that he would contact him if there were any significant changes that warranted his input.

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[25] "Vocationally registered" doctors are those who hold a fellowship or postgraduate qualification. They are registered with the Medical Council of New Zealand as specialists.

[26] The MCNZ website states that the main purpose of a collegial relationship is to ensure a Professional Development Plan (PDP) and Continuing Professional Development (CPD) activities, and to assist in maintaining competence by guiding and facilitating planning for continuing learning and reflective practice.

Nursing staff

117. At the time of these events, both enrolled nurses and registered nurses provided care to Mrs A. As discussed above, EN K attended Mrs A's unwitnessed fall on Day 4.

118. The Ministry of Health guidelines state:[27]

> "Enrolled nurses work in teams under the direction of registered nurses. They provide health care and education in home, community, residential and hospital settings. As regulated health practitioners, enrolled nurses are required to comply with professional standards and codes of practice."

119. RN N stated that at the time of events on Day 4, she had recently graduated as a nurse, and was not the registered nurse responsible for EN K's direction and delegation. However, EN K told HDC that on her shift of Day 4, RN N was the registered nurse responsible for her direction and delegation.

120. The public hospital told HDC:

> "It was not clear who the registered nurse responsible for direction and delegation to [EN K] was on the shift in question … we accept that there appears to have been a lack of clear documentation and processes as to which RN on a particular shift had the direct responsibility for direction and delegation of an EN working on the same shift."

121. The public hospital agrees with HDC's nursing expert that junior staff require ongoing support from more experienced nurses.

122. The job descriptions for the public hospital's enrolled nurses and registered nurses at the time of events were provided to HDC. The enrolled nurse description does not include specific information about direction and delegation and reporting lines, and, as agreed by the public hospital, the two job descriptions are similar.

Clinical oversight of Mrs A

123. It is not clear which clinician had the overall responsibility for Mrs A at the time of her stay at the public hospital. The admission sticker on the clinical records notes Dr C as the doctor responsible for Mrs A.

124. The public hospital told HDC:

> "We are unable to answer the question of whether at the time [Mrs A] was a patient, [Dr D] retained overall responsibility for her care, or whether the MOSS, [Dr C] had overall responsibility with physician input on an overview advisory basis as this is unclear to us."

[27] https://www.health.govt.nz/our-work/nursing/nurses-new-zealand/enrolled-nurses-new-zealand.

125. When asked how clinical lines of responsibility were explained to clinical staff at the time of events, the public hospital told HDC: "In the absence of any other senior staff remaining at the public hospital we are unable to answer this question."

126. Dr C told HDC: "[Dr D] was the lead clinician for the ward team at [the public hospital] at the time of [Mrs A's] admission. [Dr D], as the lead clinician had overall responsibility for [Mrs A's] care." Dr C said that had he considered that Mrs A had deteriorated significantly and was in need of a higher level of care, he would have contacted Dr D.

127. Dr D stated:

> "[O]verall responsibility for [Mrs A's] care was by the TEAM and clearly depended on good communication. The MOSS was medically in charge of the ward and was required to assess ward patients at least daily and to maintain adequate standards of documentation which included outcomes discussed with me."

128. Dr D said that he was the senior clinician for the ward, and always available for consultation by any MOSS or the nurses. He told HDC that he was not contacted by Dr C after his morning ward round on Day 4 to advise of Mrs A's deterioration. Dr D stated: "I was not expected to reside on the ward but to advise and come in when requested and that did not happen."

Subsequent structural change at public hospital

129. The Chief Executive Officer (CEO) told HDC that the leadership team changed around mid to late 2018, and the new team became aware of this case in December 2018. The CEO stated:

> "At this time, I asked the newly appointed Clinical Director to review the clinical file and obtain this information. During this review, the Clinical Director brought to my attention a number of serious concerns relating to the management of this case, which were in keeping with some of her early observations relating to clinical quality and standards."

130. The CEO also told HDC:

> "[The initial review by the public hospital in 2018] did not include the attending doctor. The impact of this was a much reduced opportunity for the attending doctor to either participate in the review or learn from the case. This we viewed as a lost opportunity for quality improvement activity."

131. The CEO stated:

> "These internal issues were compounded by environmental matters where the physical layout of the hospital was a barrier to effective use of our staffing resource. This was evidenced by the hospital having the patients with the highest health need spread across the facility …

These issues, coupled with feedback from cases such as [Mrs A's] therefore led us to undertake a complete organisational restructure as we were facing issues of clinical quality, safety and sustainability as well as financial sustainability."

132. The DHB confirmed that it received a proposal by the public hospital for an organisational restructure.

Public hospital review

133. Following the change of leadership team (as discussed above at paragraph 129), in February 2019 the new Clinical Director conducted another review of the care provided to Mrs A, which identified a number of issues (a summary can be found at Appendix D).

134. The new management team told HDC that the incident management policy was not followed, and the lack of reporting of this SAC1[28] event to the Ministry of Health suggests that it was not viewed as such by the attending clinical team.

Further information

135. The public hospital told HDC:

"[W]e accept that there were aspects of [Mrs A's] care during her admission to [the public hospital] [in 2018] that did not meet acceptable standards and for that we are very sorry. We have taken significant steps to improve the level of care, systems and staffing at [the public hospital] to ensure any failings in [Mrs A's] care do not happen again."

Clinical review and examination

136. The public hospital told HDC:

"[W]e are unable to explain the lack of a documented clinical examination and daily medical review of [Mrs A] by the medical staff including a record of daily weight and fluid status. We accept that this is a departure from the expected standard practice for inpatient care for a patient with [Mrs A's] clinical presentation."

137. The public hospital also said that it believes that daily clinical examination of Mrs A was an individual professional responsibility.

138. In relation to fluid management, the public hospital stated:

"Unfortunately, the clinical reasoning around fluid hydration during the rest of [Mrs A's] stay in [the public hospital] is unclear from the clinical records. The documentation of blood results … does not clearly coincide with the decision to start or stop fluid resuscitation. We accept that appropriate documentation would include

[28] Severity Assessment Code 1 — a clinical incident that has or could have caused serious harm or death, and that is attributed to healthcare provision (or lack thereof) rather than the patient's underlying condition or illness.

the clinical reasoning for decisions that were made regarding clinical management, including fluid and electrolyte management."

139. Dr C said that examination was not undertaken routinely, as observations were stable and daily blood tests were regarded as improving with electrolyte balance from IV fluids. He stated:

"[C]linical examination in this instance was more to do with recorded observations; temperature, pulse, respiratory rate, blood pressure and oxygen saturations, blood sugar levels and nursing support."

140. Dr C does not agree that he was responsible for the lack of clinical examination of Mrs A. He stated:

"I accompanied [Dr D] on morning ward rounds, we discussed patients and formed treatment plans, I would carry out tests or follow-up actions in accordance with his directions. Had [Dr D] considered a full clinical examination of [Mrs A] was warranted I would have carried one out accordingly, but neither of us considered this would have provided any additional information in the circumstances of [Mrs A's] presentation."

141. Apart from the regular morning ward round review, Dr C did not seek any further advice or communicate Mrs A's case to Dr D. Dr C stated: "[H]ad I considered there to have been any significant change in [Mrs A's] clinical status I would have communicated this to [Dr D] in a timely manner."

Other clinical issues

142. Mrs A was on four anti-cardiac-failure medications but no record was made about her heart condition.[29] Dr C stated that despite not mentioning Mrs A's heart function in the clinical documentation from her admission, her heart function was considered. He said that the rate of her IV fluids and electrolyte levels was monitored and corrected in a considered fashion to avoid inducing heart failure.

143. Dr C stated:

"In hindsight, I recognise my clinical documentation of this case could have been more thorough. My clinical documentation was an area of practice I was actively undertaking steps to improve."

Management of Salmonella

144. The public hospital stated:

"Given her age, the comorbidities [Mrs A] had, and the rising [protein in blood (CRP)][30] we agree with the [HDC expert advisor] that the management of [Mrs A's] Salmonella diagnosis was below the appropriate standard of care."

[29] Left ventricular dysfunction.
[30] A high level of CRP in the blood is a marker of inflammation.

145. The public hospital told HDC that antibiotics should have been prescribed and administered.

146. Dr D stated:

> "[T]he question of antibiotics is a difficult one in salmonella infection in the gut although it should be clear cut if the salmonella has progressed into the blood which was not shown in her case."

147. Dr D told HDC that he saw Mrs A each morning and, as her clinical status was similar to the previous day, he therefore suggested "to continue with the treatment as before i.e. intravenous fluids and certainly antibiotics if blood culture[s] were positive".

Patient plan of care

148. On the day of admission a patient plan of care was completed by a nurse. The expected outcome was noted as "safe discharge and stable blood sugar". The patient plan of care form states:

> "[A]fter the initial plan of care is written, the care plan is reviewed each shift and updated as required. Signature, name and designation: signature denotes that care plan is current."

149. The patient plan of care was not updated, and was completed for only 7 out of the 13 shifts for which Mrs A was in the ward. On Day 3, the patient plan of care contains no documentation about falls risk assessment, and no signatures by any of the nurses.

150. The public hospital told HDC: "The failure to complete the care plan for all shifts falls below the expectation of the public hospital."

The public hospital's policies

151. A copy of relevant extracts of the policies in relation to EWS, falls, open disclosure, and incident management is attached to this report as Appendix E.

152. The public hospital told HDC that the falls policy had been in place since 2002 and, according to its document control system, the falls policy was reviewed every two years, but no significant changes were made. The falls policy did not consider the use of enablers and restraints. The public hospital said that it agrees with HDC's nursing expert advisor that the falls policy needs to be reviewed, and currently a review is underway. The public hospital also agrees that clearer guidelines about using clinical judgement should be included in the falls policy, including triggers for review.

Responses to provisional opinion

Ms B

153. Ms B was given an opportunity to comment on the "information gathered" section of the provisional decision. Ms B told HDC that the family was "gutted and the emotional stress has been great". She said that the family is disappointed "knowing what [their] mother went through in the hands of [those] that were meant to look after her".

Dr C

154. Dr C was given an opportunity to comment on the relevant sections of the provisional report. He told HDC that he did not wish to comment.

Dr D

155. Dr D was given an opportunity to comment on the relevant sections of the provisional report. He stated that he regrets that he did not meet with Ms B before her mother's death so that she could have voiced her concerns regarding her mother. He said that he did not learn of these concerns until Ms B complained to HDC.

The public hospital

156. The public hospital was given an opportunity to comment on the provisional report. The public hospital told HDC that it has no changes to make to the facts of the investigation. The public hospital stated: "We do sincerely convey our apologies to [Mrs A's] family." In response to the recommendations proposed in the provisional report, the public hospital provided further information about the changes it has made since these events. A summary of the changes is included in Appendix F.

Opinion: Public hospital — breach

Introduction

157. The public hospital has a duty to provide services of an appropriate standard. This includes providing adequate support to staff in respect of the application of relevant policies, and ensuring that all staff work together and communicate effectively. Mrs A received care from the public hospital from Day 1 to Day 5. The care provided to Mrs A by the public hospital was deficient in a number of respects in relation to both the medical and nursing care.

158. I acknowledge that the public hospital is a rural hospital, and that unique challenges are faced by providers located in rural New Zealand. My rural hospital expert, Dr Jennifer Keys, advised:

> "It is also a systemic issue (in the sense of the New Zealand Health System, rather than [the local] system) which results in a hospital such as [this] having ongoing great difficulty recruiting and retaining doctors (as recurrently expressed in the public hospital statements)."

159. Ultimately, at the time of these events there were a significant number of concerning systemic issues at the public hospital and, in turn, this resulted in a poor standard of care being provided to Mrs A. The public hospital has accepted that several aspects of Mrs A's care did not meet an acceptable standard. Following these events, the public hospital underwent a restructure, and a number of improvements were made.

Names have been removed (except the experts who advised on this case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Nursing care

160. Expert advice about the nursing care provided was obtained from RN Kaye Milligan, who advised:

> "I consider the issues were systemic. The situation at [the public hospital] was one of high demand for medical and nursing attention that coincided with [Mrs A's] condition deteriorating."

161. I accept RN Milligan's advice. While there is individual accountability for the substandard care provided between Day 1 and Day 5, multiple failures by several nurses reflect systemic weaknesses at the public hospital, including a pattern of poor compliance with policies.

Falls management

162. As set out above, Mrs A's falls risk was managed poorly.

163. First, on Mrs A's admission to hospital, the initial nursing assessment did not identify her as a falls risk, notwithstanding the two positive answers to the screening questions. Had nursing staff acted in accordance with the form and the policy, Mrs A would have undergone a formal falls risk assessment, which would have enabled clear planning for that risk.

164. Further, when Mrs A had an unwitnessed fall on Day 4, medical staff were not contacted to review her, her family were not contacted immediately, and a falls bracelet was not placed on her wrist.

165. I note that whilst a nursing assessment of Mrs A's condition following the fall appears to have been carried out, the details of the assessment were not documented, so it is not possible to determine the adequacy of the assessment.

166. It is also evident that there was no further falls risk assessment or planning at that time.

167. RN Milligan advised:

> "In my professional opinion [the falls policy] was not implemented and the management and planning to prevent falls was omitted … Collectively they indicate a lack of implementation of a policy which is a major omission and indicates a systemic issue. The documentation falls below professional expectations."

168. RN Milligan also reviewed the falls policy and considered the policy itself to be inadequate. She advised:

> "The seven questions on the 'nursing assessment' form that were used to screen for the requirement for a falls risk assessment should be reviewed as they are inadequate (for example they ask about any changes in balance but do not include weakness and omit patient's age and diagnoses). Clearer guidelines about using clinical judgement

should also be included. Further triggers for a review of the need for falls risk assessment should also be included on the patient plan of care."

169. I agree with RN Milligan. Falls prevention and risk assessment practices were not carried out by a number of nursing staff. These practices were essential to ensuring patient safety and also compliance with the falls policy in place at the time. It is particularly concerning that medical staff were not contacted to review Mrs A following the fall, and that a falls bracelet was not placed on her wrist. I am also critical that there were deficiencies in the falls policy and that it lacked adequate guidance for staff.

EWS and nursing observations

170. An EWS is calculated from routine vital sign measurements, and increases as vital signs become increasingly abnormal. The EWS triggers an escalating clinical response so that clinicians with the appropriate skills can intervene and manage the patient's deterioration.

171. EWS assessments were undertaken and documented during Mrs A's admission. However, the EWS was not totalled on six occasions despite being assessed.

172. The public hospital's EWS policy states that nurses are responsible for the calculation and documentation of the EWS, and all clinical staff must follow the appropriate EWS Escalation Path. The EWS policy states that all patients must be started on a minimum of four-hourly observations, and that observations should be undertaken more frequently if the patient's condition warrants this, for example for "recognised physiological instability". The policy indicates that for an EWS of 1–5, the clinician should consider increasing vital sign frequency, and for an EWS of 6–7, the nurse in charge should be informed, a house officer should review the patient within 30 minutes, and the frequency of vital sign observations should be increased to every 30 minutes until the EWS is less than 6.

173. An EWS was calculated once every nursing shift except for the afternoon shifts on Day 3 (no EWS was calculated after 4pm for the rest of the day) and Day 4 (no EWS was calculated after 3.35pm for the rest of the day). The frequency of EWS observations was not increased despite Mrs A being catheterised for her distended abdomen and suffering a fall overnight on Day 4. In addition, the interval between EWS calculations was not consistent; for example, sometimes the EWS was not calculated for more than 10 hours, and on some occasions the EWS was calculated 7 hours after the previous record.

174. At 12.05am on Day 5, RN F noted that Mrs A had a coffee-ground vomit. At 2.30am, Mrs A's EWS increased to 6. RN F informed the Duty Nurse, but Mrs A was not reviewed by a doctor. It is not known whether the doctor was informed.

175. RN Milligan advised that the Duty Nurse should have been informed about the vomit, and, when the EWS increased to 6, the medical officer should have been notified.

176. Failure to adhere to the EWS and associated paths of escalation has the potential to increase negative outcomes for patients. In my opinion, particularly in the context of rural hospitals where there are limited clinical resources, the proper application of the EWS tool is vital to ensure that patients receive appropriate care.

177. It is extremely concerning that staff failed to use the EWS tool adequately for Mrs A (noting the gaps in calculation outlined above), and that they also failed to comply with the EWS policy at the time of these events, in terms of escalating care appropriately and adequately, and increasing observations when clearly indicated.

178. In my view, the absence of a medical review within the required timeframe when Mrs A's EWS score reached 6 is a serious omission in care.

Coordination of care

Lines of clinical responsibility

179. Across both nursing and medical staff, there were unclear lines of responsibility and communication. I note that the public hospital and those involved in Mrs A's care cannot agree on who had primary responsibility for Mrs A during her admission.

180. My nursing advisor, RN Milligan, advised:

> "It is not clear who the registered nurse responsible for direction and delegation to [EN K] was. I consider this led to each RN considering they had no responsibility for [Mrs A] which contributed to a lack of assessment … ENs work under the direction and delegation of a registered nurse and they have competences that they must meet within their own practice and registration."

181. Similarly, my rural hospital specialist advisor, Dr Keys, commented:

> "[The public hospital] was using a different model, with a specialist physician providing a consulting service for a MOSS run ward. Which person/organisation has overall responsibility is a difficult question, and I think that the comments from the public hospital and both clinicians reveal that the relationships and responsibilities were poorly defined and based on assumptions which were not the same for all."

182. Expert advice was also obtained from Dr Richard Shepherd, a general medicine and rural hospital specialist, who advised that the rural hospital model in use by the public hospital at the time was a more historical and increasingly less common model of care. He advised: "[C]lear DHB policy does not appear to have been in place to explicitly inform expected operational practice."

183. I accept the expert advice above and agree that the public hospital did not have in place an effective structure to ensure that staff understood their responsibilities. It is imperative that where an enrolled nurse is involved in clinical care, there is a clearly designated registered nurse responsible for the direction of, and delegation to, that enrolled nurse. This is critical to ensure senior oversight of the clinical care provided to patients who are under the care of the enrolled nurse. It also identifies and clarifies clinical responsibilities in relation to individual patients.

184. In 2017, the public hospital conducted an independent review of the care provided by Dr C. The outcome included a recommendation to establish clear lines and areas of

responsibility for medical staff, and maintenance of continuity of care. In response to this complaint, the public hospital acknowledged to HDC:

> "We are unable to answer the question of whether at the time [Mrs A] was a patient, [Dr D] retained overall responsibility for her care, or whether the MOSS, [Dr C] had overall responsibility with physician input on an overview advisory basis as this is unclear to us."

185. I am critical that at the time of these events, eight months after that review, the lines of responsibility continued to be unclear. The lack of clarity was known to the hospital, and was an unacceptable situation that resulted in both doctors believing the other had clinical responsibility. The potential for this lack of clarity to affect the clinical safety of Mrs A was very real and highly concerning.

186. I do not consider it necessary to determine whether Dr C or Dr D had the ultimate responsibility for Mrs A. As will be discussed below, both doctors shared responsibility for the adequacy of the care provided to her. That said, the lack of clarity was an unacceptable situation that resulted in both doctors believing the other had clinical responsibility.

Other issues

Admission to ward

187. Dr Keys advised that the nature of the handover between the ED and the ward doctors is not clear. She also said that there was a minor departure from the accepted standard of care in relation to the management of Mrs A's potassium level.

188. Dr Shepherd advised that his expectation would be that following admission to the ward, an assessment would be performed by a doctor involving a review of the history and a physical examination. The doctor would then form an opinion regarding the diagnosis or differential diagnosis, which would be documented, together with a problem list and an appropriate management plan.

189. Following Mrs A's admission to the ward from the ED, no medical note was recorded by a doctor. Dr C said that he did not review Mrs A at the time of her admission as it was outside his ordinary hours of attendance. Fluids were discontinued for a period from 10.45pm until Dr C reviewed Mrs A the following day during the morning ward round and restarted them. Following her admission to the ward from the ED, Mrs A was not reviewed by a doctor until the following morning. As a result, no further potassium was administered to Mrs A until the next day. It is evident that Mrs A's transition was poorly coordinated and communicated amongst staff.

Laboratory reporting procedure

190. According to the Eclair system, Mrs A's Salmonella result was received by fax, and the result was available at 5.34pm on Day 3. However, the public hospital said that no doctor accepted the results online as "read" because the standard practice at the time was for results to be accepted by fax and not electronically. The faxed copy was placed in Mrs A's file, but it appears that it was not reviewed by a doctor until 3.30am on Day 4, when Dr I

noted the Salmonella result. Dr C told HDC that he became aware of the Salmonella diagnosis when he reviewed Dr I's notes during the morning ward round on Day 4.

191. Dr Shepherd advised that the reporting policy with respect to inpatients with significant positive results was unclear — particularly out of hours. Dr Shepherd emphasised that this is a systems support area that is critical to get right. Dr Shepherd stated:

> "It does not however appear to have been specifically notified to the clinical staff responsible for [Mrs A's] care. The 'discovery' of her positive result appears to have been somewhat incidental when nursing staff asked for a clinical review by the overnight on call ward doctor at 03:30hrs [Day 4]."

192. I am satisfied that there was no proactive management of the results once the result was available to the public hospital. Mrs A's positive Salmonella result was poorly managed and not actioned until the incidental review by Dr I at 3.30am on Day 4 — around eight hours after the result was available.

Documentation

193. As noted above, nursing staff failed to apply the EWS policy and falls policy appropriately. The nursing staff did not document Mrs A's condition as required by the policies. RN Milligan advised that overall, "[t]he documentation falls below professional expectations [and] [c]ollectively … documentation of care did not meet [the public hospital's] policies".

194. In the sections below relating to Dr C and Dr D, I discuss issues with the standard of documentation, which was criticised by both Dr Keys and Dr Shepherd.

195. Complete and accurate documentation promotes patient safety, quality of care, and good coordination of care. It concerns me that multiple medical and nursing staff on numerous occasions demonstrated poor documentation across Mrs A's admission.

Conclusion

196. The above failings reflect serious dysfunction in the hospital system operating at the time of Mrs A's admission. Against a background of unclear lines of nursing and medical responsibilities, and policies and procedures that provided inadequate guidance to staff, there were numerous instances of multiple staff providing poor care.

197. In summary, I consider that the public hospital failed to provide appropriate care to Mrs A for the following reasons:

- The assessment and management of Mrs A's risk of falling was inadequate.
- The care provided after Mrs A's fall on Day 4 was not to an expected standard.
- The assessment and management of Mrs A's deterioration was poor, including inadequate nursing observations and recording of Mrs A's EWS.

- There was no response to an increased EWS necessitating clinical review within 30 minutes, amounting to a complete absence of medical care in the final hours of Mrs A's life.
- Mrs A's transfer to the ward from the ED was inadequate, as she was not reviewed medically until the following morning.
- Mrs A's positive Salmonella result was poorly managed, resulting in a delay in adequate treatment.
- There was a pattern of poor documentation by staff.

198. Accordingly, I find that the public hospital breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[31]

199. In addition, staff failed to cooperate effectively with one another to ensure that Mrs A received quality and continuity of services, for the following reasons:

- There were unclear lines of nursing and medical responsibilities for Mrs A during her admission. This contributed to the inadequate response to her deterioration.
- The handover and transition of Mrs A from the ED to the medical ward was poor, and did not include a prompt assessment by the medical team.
- Mrs A's positive Salmonella result was poorly managed and not actioned promptly.

200. As a result, I also find that the public hospital breached Right 4(5) of the Code.[32]

201. I note that the public hospital has undergone a major restructure, and that numerous changes were made following these events. In the context of such wide-reaching changes, it is important for there to be continuing monitoring and assessment as to whether such changes — intended to improve quality and risk management — are in fact meeting that objective.

Informing Mrs A's family about her fall — adverse comment

202. Mrs A's family became aware of the unwitnessed fall only following their complaint to the public hospital. The public hospital apologised for not informing Mrs A's family of the fall at the time, and noted that the nurse did not want to disturb them at that hour.

203. The public hospital's open disclosure policy states:

> "When things go wrong, the patient and their support person should be provided with information about what happened, in an honest manner at all times [and] in some circumstances where the patient has died or is severely compromised, disclosure will be made to a third party."

[31] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[32] Right 4(5) states: "Every consumer has the right to co-operation among providers to ensure quality and continuity of services."

204. RN Milligan advised: “As this event occurred later in the evening on [Day 4], and in the context of no obvious injury, it seems reasonable to inform family members the following day.”

205. In my opinion, Mrs A’s family was entitled to know about the unwitnessed fall, at least in the morning after it occurred. I am critical that the public hospital failed to inform the family about the unwitnessed fall until they made a complaint to HDC.

Investigation of concerns from Mrs A’s family — adverse comment

206. A critical review meeting was held to discuss Mrs A’s case. Dr D was one of the review committee members, and the meeting minutes show that the committee identified only that the nursing observations were lacking. Dr C was not interviewed or involved with the critical review meeting. Apart from the meeting minutes, no other documentation was provided regarding the review.

207. The public hospital’s incident management policy stated that the review team should not include the health professional(s) involved in the incident, and should not be led by the leader of the service involved.

208. The public hospital told HDC that the incident management policy was not followed, and the lack of reporting of this SAC1 event to the Ministry of Health suggests that it was not viewed as such by the attending clinical team.

209. Dr Shepherd advised:

> “The ‘Incident Management Policy/Procedure [Public Hospital] October 2016’ does not appear to have been followed with respect to the investigation process of [Mrs A’s] death. It is unclear to me from the documentation provided why this occurred. The lead investigator appears to have been [Dr D] (together with [Clinical Nurse Manager]) in contradiction to the stated policy … [Mrs A’s] complaint does not appear to have followed stated due process.”

210. There were clear deficiencies in the initial investigation of the care provided to Mrs A, and the public hospital’s incident management policy was not followed. In my view, it was inappropriate for Dr D to be included on the review panel. I am also concerned that information was not sought from Dr C. The failure to undertake an adequate review, in accordance with the policy, represented a missed opportunity to take valuable learnings from the episode of care. It also failed to ensure a fair and robust process to consider the family’s concerns properly and meet their needs in this respect.

Opinion: Dr C — breach

Introduction

211. At the time of events, Dr C had been working as a MOSS at the public hospital for many years. He was not vocationally registered. Dr C provided care to Mrs A following her admission to the ward from the ED on Day 1. He reviewed Mrs A during the morning ward rounds on Day 2, Day 3, and Day 4, and also signed her death certificate.

212. As noted above, I consider that it was unclear who had the overall responsibility for Mrs A's care. In any event, Dr C had a duty to provide reasonable care to Mrs A.

Standard of care

Daily physical examination

213. Dr C first reviewed Mrs A during the morning ward round on Day 2. At 2.15pm, a registered nurse noted that Mrs A's EWS had increased to 1 and that Dr C had been informed. However, there is no evidence of a reassessment by Dr C. At 5.20pm, another nurse documented that Mrs A's EWS had increased to 3, and noted: "[Dr C] is aware and no new order." No physical examination by Dr C is documented on this date.

214. On Day 3, Dr C reviewed Mrs A during the morning ward round. He noted that her blood sugar level was low and that she had had one episode of diarrhoea overnight. He discontinued her IV fluids and made a note for staff to encourage oral feeding and to consider administering metronidazole. He also recorded that the results of the stool test had yet to arrive, and that blood tests would be checked in the morning. Again, there is no documentation of a physical examination by Dr C.

215. On Day 4, Dr C reviewed Mrs A during the morning ward round. He noted that she had a degree of confusion and delirium, and requested that IV fluids be continued. No physical examination by Dr C is documented. Ultimately, Dr C did not document a physical examination at any of his reviews on Day 2, Day 3, and Day 4.

216. A fluid balance chart was commenced on Day 2 but did not document any fluid output on this date or on Day 3. The chart records that Mrs A had three bowel movements on Day 3. On Day 4, Mrs A's abdomen was noted to be distended, and she was found to have over one litre of fluid in her bladder.

217. Dr C told HDC that examination was not undertaken routinely, as Mrs A's observations were stable and her daily blood tests were improving. He said that clinical examination in this instance was more to do with recorded observations, being temperature, pulse, respiratory rate, blood pressure, oxygen saturations, and blood sugar levels, and nursing support.

218. Dr Keys advised:

> "Daily clinical examination of [Mrs A] was essential in her management. My opinion that the lack of a daily clinical examination of this lady was a severe departure from

the standard of care has been reinforced by [Dr C's] statement. I believe my peers would agree."

219. Dr Keys advised that fluid balance charts in the presence of diarrhoeal illness can be very difficult or inaccurate, but she "would [have] expect[ed] at least daily clinical (medical officer) assessment (including daily weight) of [Mrs A's] fluid status". This would have included assessment of Mrs A's mucous membranes, skin turgor, JVP,[33] and lung auscultation.[34] Dr Keys said that a febrile illness with diarrhoea also mandates a daily abdominal examination.

220. I am satisfied on the evidence, including Dr C's responses to this investigation, that Dr C did not conduct a daily clinical examination of Mrs A, and instead relied on the nursing observations and documentation. Such documentation provided an incomplete clinical picture in that on some days nursing staff did not record Mrs A's fluid output or calculate her EWS regularly. It is concerning that Dr C considered this satisfactory in the absence of a daily clinical examination, and I accept my expert's opinion that this was a severe departure from the expected standard of care.

221. As my expert also comments, overall Dr C had a general lack of appreciation that Mrs A was becoming more unwell and was at significant risk.

Documentation and heart condition management

222. Mrs A was on four anti-cardiac-failure medications at the time of her admission, but Dr C did not document any notes regarding a probable underlying left ventricular dysfunction despite Mrs A's cardiovascular conditions. His records in the clinical notes also are not timed, and he did not record in detail the content of his discussion with the microbiologist.

223. Dr C said that despite not mentioning Mrs A's left ventricular dysfunction in the clinical documentation, this condition was considered, and the rate of her IV fluids and her electrolyte levels were monitored and corrected in a considered fashion to avoid inducing heart failure. Dr C acknowledged that his clinical documentation of this case could have been more thorough, and said that clinical documentation was an area of practice he was actively undertaking steps to improve. Given the evidence available, I am unable to make a finding as to whether Dr C specifically considered Mrs A's heart condition. However, Dr C's documentation regarding this issue was clearly inadequate.

224. MCNZ's August 2008 statement regarding the maintenance of patient records states that doctors "must keep clear and accurate patient records that report relevant clinical findings and decisions made".[35]

[33] Jugular venous pressure (JVP) can be used to help to distinguish different forms of heart and lung disease.
[34] Listening to the lungs.
[35] See Appendix G.

225. Dr Keys advised:

> "[N]o clinical note regarding probable underlying left ventricular dysfunction and its treatment is concerning, as is the lack of any note which would suggest that [Mrs A] was reviewed by medical staff each day."

226. Dr Shepherd advised:

> "On the post admission Medical Ward Round no history was recorded, no examination findings were recorded (including an assessment of fluid status, weight or abdominal examination), and no diagnosis or problem list was recorded. Such poor documentation as recorded in [Mrs A's] notes invites speculation that attention to detail may have been poor, no examination was actually performed, no fluid balance assessment made and the potential severity of [Mrs A's] illness then overlooked."

227. I am critical of Dr C's standard of documentation. Clear and concise medical record documentation is a key component in providing patients with quality care and in helping other healthcare providers to evaluate and plan the patient's treatment and maintain the continuum of care.

Conclusion

228. In conclusion, I am satisfied that the standard of care provided to Mrs A by Dr C fell below the expected standard of care to a serious degree, as follows:

- Dr C did not conduct an appropriate daily clinical examination of Mrs A, including an assessment of Mrs A's mucous membranes, skin turgor, JVP, and lung auscultation, and did not conduct a daily abdominal examination.
- Dr C's standard of documentation was poor.

229. Dr C also failed to appreciate that Mrs A was becoming more unwell and was at significant risk.

230. I therefore consider that Dr C failed to provide services to Mrs A with reasonable care and skill, and breached Right 4(1) of the Code.

Management of Mrs A's Salmonella diagnosis — other comment

231. On Day 4, Dr C became aware of Mrs A's Salmonella diagnosis. Dr C said that Dr D's view was that antibiotics were not suitable, but Dr D also advised him to seek further advice from a microbiologist about the appropriateness of using antibiotics. Dr C consulted Dr J, a microbiologist. Dr C said that the advice he received was to use ciprofloxacin if there was an increased frequency of diarrhoea. The only documentation about this conversation was in the discharge notes. Dr J told HDC that he does not recall this case or having discussed it with Dr C.

232. Dr C said that following the advice from the microbiologist, he considered that antibiotics would not be a suitable treatment option.

233. Following the first critical review meeting, which included Dr D as one of the panel's members, it was noted that antibiotics are not usually indicated for the treatment of Salmonella, and that prognosis can be severe or lead to death.

234. Dr Keys advised:

> "The rates of morbidity and mortality of salmonella enteritis in this age group are high and antibiotics would generally be recommended in someone who was multi-morbid and systemically unwell.
>
> …
>
> As communication with microbiology did take place, I do not know if there was a departure from the standard of care. If [Dr C] explained to [Dr J] (the microbiologist) that [Mrs A] was very unwell and deteriorating, and was advised to withhold antibiotics, there would be no departure, as he would have accepted specialist advice. If the 'picture was painted' that she had been unwell and was getting better then I would consider that there was a departure from the standard of care."

235. Dr Shepherd also advised that in Mrs A's case:

> "[T]he potential for antibiotics to improve disease, or prevent complications, would be regarded as outweighing the risks of antibiotic use. This could then be strongly argued met the threshold warranting empiric antibiotic treatment pending the results of stool specimens."

236. The public hospital also told HDC that given Mrs A's age and co-morbidities, antibiotics should have been prescribed and commenced.

237. The evidence does not enable me to determine with any degree of certainty what was communicated between Dr C and the microbiologist. Dr C also appears to have been guided by Dr D's advice about antibiotics. I am unable to conclude whether Dr C's decision not to prescribe antibiotics was informed by more specialist advice and, therefore, whether there was a departure from the standard of care. However, I note, with the benefit of hindsight, that it appears that antibiotics would have been indicated clinically.

Opinion: Dr D — adverse comment

Mrs A's care

238. Dr D was the only general medicine specialist at the public hospital at the time of these events. He said that he was the on-call doctor every day and was available at any time for consultation with the resident doctor. Dr D considered that the overall responsibility for Mrs A's care lay with the team, and he expected the MOSS to assess ward patients at least daily and to maintain adequate standards of documentation.

Names have been removed (except the experts who advised on this case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

239. Dr D saw Mrs A together with Dr C during the morning ward rounds on Days 2, 3, and 4. Dr D provided direction to Dr C for Mrs A's treatment plan. No physical examination was documented on these dates.

240. Apart from the regular morning ward rounds, Dr D was not contacted by Dr C or the nursing staff about Mrs A. Dr D was not informed of Mrs A's fall or her distended abdomen on Day 4. He also said that he was not aware of Mrs A's death for three days.

241. Dr Shepherd advised that it was not clear which clinician had the overall responsibility of Mrs A's care, but he said with the model that the public hospital was operating on, he would not regard Dr D as being responsible, and in that setting "a clinical case discussion is more often had discussing management principles and care treatment options without specific mandated instructions on the plan of how to proceed. In that setting ultimate decision making is left to the MOSS as a senior colleague."

242. As noted above, it was unclear who had the ultimate clinical responsibility for Mrs A, but given Dr D's presence at ward rounds, I consider that he shares responsibility for the deficiencies in the care provided to Mrs A. In my view, Dr D's presence at ward rounds and/or reviews indicates that he was, at least in part, responsible for providing some oversight or carrying out assessments of Mrs A.

Documentation

243. Dr D did not document any notes during Mrs A's admission. He said that his expectation was that the MOSS would keep the medical documentation up to date.

244. MCNZ's August 2008 statement regarding the maintenance of patient records states that doctors "must keep clear and accurate patient records that report relevant clinical findings and decisions made".[36]

245. Dr Shepherd advised:

> "The standard of documentation is however very poor which makes an assessment of [Dr D's] advice or care challenging with him ultimately not involved in the areas of [Mrs A's] care where things deteriorated more significantly."

246. I note that Dr D believed that Dr C was responsible for the documentation. However, Dr D also saw Mrs A daily on the morning ward round from Days 2–4, and I am critical that he did not make any documentation.

Salmonella diagnosis — other comment

247. Dr D said that the question of antibiotics is a difficult one in Salmonella infection in the gut. On Day 4, he advised Dr C to seek advice from a microbiologist. Dr C said that Dr D's opinion was that antibiotics were not suitable, but that a microbiologist should be contacted. Dr C spoke to a microbiologist and decided not to commence antibiotics. Dr D was not contacted further about Mrs A.

[36] See Appendix G.

248. Following the first critical review meeting, which included Dr D as one of the panel's members, it was noted that antibiotics are not usually indicated for the treatment of Salmonella, and that prognosis can be severe or lead to death. Subsequently, the public hospital told HDC that given Mrs A's age and co-morbidities, antibiotics should have been prescribed and commenced.

249. Dr Shepherd advised that in Mrs A's case:

> "[T]he potential for antibiotics to improve disease, or prevent complications, would be regarded as outweighing the risks of antibiotic use. This could then be strongly argued met the threshold warranting empiric antibiotic treatment pending the results of stool specimens."

250. Dr Shepherd also advised:

> "Even before [Mrs A's] result was noted as Salmonella on [Day 4] I would argue her presentation, clinical results, circumstances and nursing staff documentation argued for a very sick elderly woman at risk of invasive disease and a poor complicated outcome … In any eventuality no antibiotics were commenced."

251. Dr D directed Dr C to seek further advice from a microbiologist regarding the use of antibiotics, but did indicate that antibiotics might not be suitable. This is contrary to Dr Shepherd's advice and the public hospital's clinical view. I accept that Dr D left the responsibility regarding antibiotics to Dr C, but I note that with the benefit of hindsight the use of antibiotics appears to have been indicated clinically.

Opinion: Conclusion

252. I express my sympathy to Mrs A's family. I acknowledge that this matter continues to cause Mrs A's family significant distress, and I thank Ms B for bringing this complaint to my attention.

253. I note that Dr Keys advised:

> "It is not possible to know whether any changes to her management during the four-day illness, including changes to fluid or electrolyte management, use of antibiotics, consideration of transfer to another hospital or earlier involvement of medical staff on the night she died would have changed the outcome of this illness."

254. While it is not possible to know whether the outcome may have been different, as noted above, I find that the overall care provided to Mrs A at the public hospital fell well below acceptable standards. In my opinion, Mrs A deserved better care. I acknowledge that the public hospital has undergone several organisational changes since this incident.

Changes made since incident

255. Both Dr D and Dr C retired following these events. The Medical Council told HDC that Dr D is no longer on the medical register, and Dr C is no longer practising.

256. As discussed above, the public hospital has undergone organisational and management restructuring. The public hospital stated:

> "[T]he current Leadership team has worked hard to implement change, and improve clinical services and patient safety at [the public hospital]. This change process has not been easy and we acknowledge that this has been difficult for some current staff and some people in the community."

257. The public hospital told HDC that several substantive changes were made after this incident. A summary of the changes is attached as Appendix F.

Recommendations

258. I note that following these events, the public hospital made extensive changes and improvements to its processes. In response to the provisional report, the public hospital told HDC that it has already carried out some of the recommendations proposed. These further changes are outlined in Appendix F. Nevertheless, in light of this complaint and the findings made, I recommend that the public hospital:

a) Use the anonymised report as a basis for staff training at the public hospital, focusing on the breaches of the Code identified, and disseminate the learning and changes from this case via the public hospital's existing forums for nursing and medical teams. The public hospital is to provide HDC with evidence that this has been completed, within five months of the date of this report.

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

259. I note that Dr C retired following these events. I recommend that Dr C provide a written apology to Mrs A's family for the breach of the Code identified in this report. The apology is to be sent to HDC, for forwarding to Mrs A's family, within three weeks of the date of this report.

260. I note that Dr D retired following these events. In response to my provisional opinion, Dr D provided an apology letter to Ms B and Mrs A's family.

Follow-up actions

261. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand, and it will be advised of Dr C's and Dr D's names.

262. A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the Ministry of Health and the DHB. The Ministry of Health and the DHB will be advised of the name of the public hospital.

263. A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the New Zealand Rural Hospital Network, the the New Zealand Rural Hospital Network, the New Zealand Institute of Rural Health, the Royal New Zealand College of General Practitioners, the Division of Rural Hospital Medicine of New Zealand, and the Health Quality & Safety Commission, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

264. I have decided not to publish the name of the rural hospital on the Health and Disability Commissioner website in this instance, noting that to do so would likely lead to the identification of the other individual providers breached or commented upon in this opinion. In this respect, the privacy interests of those individuals would be compromised in a situation where their names would ordinarily not be made public.[37]

[37] See HDC's naming policy at: https://www.hdc.org.nz/decisions/naming-policy/

Appendix A: Independent advice to the Commissioner

The following expert advice was obtained from Dr Jennifer Keys:

"**Report for Health and Disability Commissioner 19th April 2019**

My name is Dr Jennifer Keys. I have been asked to provide an opinion on case C18HDC00583. I have read the Guidelines for Independent Advisors from the Office of the Health and Disability Commission and agree to follow them.

I qualified MBChB in 1991 from the University of Dundee, Scotland. My postgraduate qualifications are MRCP(UK), MRCGP, MSc (Remote Healthcare) and FDRHMNZ. I work as a Rural Hospital Doctor and Clinical Director at Lakes District Hospital, a rural hospital, in Queenstown. In addition, I am Chair of Council of the Division of Rural Hospital Medicine.

I have been asked to advise whether I consider the care provided on this occasion to [Mrs A] by [the public hospital] was reasonable in the circumstances, and why.

In particular, I have been asked to comment on:

1. Whether the management of [Mrs A's] electrolyte disturbance was adequate.
2. Whether [Mrs A's] fluid balance was managed appropriately, including the timeliness of catheterisation.
3. The appropriateness of the management of [Mrs A's] salmonella diagnosis, including whether the commencement of antibiotics was appropriately discussed/ offered/considered.
4. The overall appropriateness of the care [Mrs A] received during her [2018] admission from [the public hospital].
5. Any other matters that you consider amount to a departure from accepted standard.

I have been provided with the following documents, which I have reviewed.

1. Letter of complaint dated [2018]
2. [The public hospital's] response dated [2018]
3. Clinical records from [the public hospital] covering the period [Day 1–Day 5].
4. Complainant's feedback to response dated [2018].
5. [The public hospital's] further response dated [2018].
6. [The public hospital's] further response dated [2019]. (Please note certain information from this copy has been redacted in order to avoid bias.)

Background

On [Day 1] [Mrs A] was referred by her GP and admitted to [the public hospital] with diarrhoea. Upon her admission it was suspected that the cause of her diarrhoea was related to food she had consumed and tests were conducted. She was treated with anti-diarrhoeal medication and intravenous fluid.

On [Day 4], [Mrs A's] abdomen was noted to be distended. A bladder scan was completed and a catheter was inserted and 1500mls of urine was drained. The catheter was then clamped. [Mrs A] was diagnosed with salmonella gastroenteritis. Public Health was notified.

Unfortunately, [Mrs A] continued to deteriorate. On [Day 5] [Mrs A] died rapidly from intestinal haemorrhage secondary to salmonella.

Discussion:

Admission note: The admission note was done by a 5th year medical student. It is complete in terms of the history of the current illness but does not indicate knowledge of either the past medical history or the medication history. The medical student note was countersigned by the admitting doctor, who prescribed intravenous fluid and admission drugs.

[Mrs A] had a significant past medical history, including that of a CVA, type II diabetes, a nonSTEMI and GORD. Much of her medication relates to these diagnoses, but there does not seem to have been consideration of her medical or medication history and the interaction with the current illness. In particular, it would seem important to look at the control of her diabetes (BSL noted on triage sheet on admission) and the reason for the omeprazole (which was stopped, because of the hyponatraemia), the bisoprolol, quinapril, frusemide and spironolactone (the most recent assessment of her cardiac function and what implications this would have for fluid management and the continuation/cessation of any of these medications.) There was a note made of her creatinine (231) but no note as to whether this rise was acute or chronic until [Day 2]. There is a note made of a request for a stool sample, but no note of FBC or LFT results.

It is not clear whether there was any handover to the next doctor, who prescribed further fluid (but without potassium, or checking a further potassium level).

Ongoing medical care

There are medical notes written on [Day 2], [Day 3] and [Day 4], but no note is made at any point that [Mrs A] was physically reviewed or examined. Her oral intake, urine output and fluid status is not noted by a Medical Officer. A RN notes that the MO took blood on [Day 2]. Her past medical history is not alluded to in the continuation notes, with the exception of diabetes (medication stopped when BSL was low). In particular, no mention is made of her left ventricular function, despite being on four anti-cardiac failure medications.

Management of fluid and electrolyte disturbance:

Results

	[Day 1]	[Day 2]	[Day 3]	[Day 4] 0330	[Day 4]
Sodium (no baseline noted)	122	123	126	128	126
Potassium	2.7	2.8	3.2	3.3	4.0
Creatinine (baseline 150)	231	317	250	275	240
IV fluid	2000	3000	nil	1500	3000 charted
IV potassium	40 (first bag)	60		20	
Weight	63.7		63.7		59.9

[Mrs A's] hyponatraemia, hypokalaemia and raised creatinine is likely caused by electrolyte losses and hypovolaemia (related to her diarrhoeal illness), with possible interaction with impaired left ventricular function and the drugs being used to treat this.

I note that she was managed in the Emergency Department with a high dose of potassium in intravenous saline, but the IV potassium was not continued on admission to the ward. IV fluid was subsequently continued, discontinued and then restarted (the majority of which was prescribed with potassium supplementation).

Salmonella diagnosis

A stool specimen was requested on admission. [Mrs A] had a labile temperature over the first 48 hours of her admission (34.7 deg to 38 deg, both of which can be associated with sepsis). Blood cultures were done on [Day 2] when she was febrile. She became confused on the night of [Day 4] (more than 48 hours after admission).

The first occasion when the salmonella positive stool PCR was mentioned was during the night on [Day 4] (according to the Clinical Director report the result was available at 1727 on [Day 3]). The night doctor recommended that this was discussed with microbiology with regard to the commencement of antibiotics. It is not clear whether the doctor on [Day 4] was aware of the salmonella diagnosis, considered the use of antibiotics or discussed the case with a microbiologist.

I note CRP on admission was 51 (after 3 days of illness), 153 on [Day 3] (and WCC 6.2 with L shift and toxic changes) and CRP 195 on [Day 4].

Management of diabetes

[Mrs A's] metformin was stopped on admission. She became hypoglycaemic on [Day 3] in the morning and glipizide was also withheld from that time. BSL was 28 overnight on [Day 4] and then returned to levels in the teens thereafter.

EWS score

70 minutes prior to passing away [Mrs A] had an EWS score which was calculated as 6. There were no observations noted between this time and 1530 the previous day (11 hours) despite regular nursing notes of confusion, and one note of a coffee-ground or faeculent vomit.

Details from the observation chart would suggest that the respiratory rate was 36 and that her O2 saturation was 89 but improved to 94% with 2 litres of O2. This corresponds with an EWS Code Blue which mandates an immediate medical review. As per the chart used, an EWS score of 6 mandates a medical review within 30 mins and a repeat of observations in 15 minutes. Neither of these was done.

Cause of death

Death is noted as gastrointestinal haemorrhage secondary to salmonella enteritis. [Mrs A] had an upper gastrointestinal bleed, with no notes of lower gastrointestinal bleeding. No post-mortem was considered, and the underlying cause of the gastrointestinal bleed is not known.

Medications

Frusemide — withheld from day of admission

Spironolactone — withheld from [Day 2] (but not clear who directed this)

Bisoprolol, Quinapril — both continued

Omeprazole — withheld for three days from admission (hyponatraemia)

Metformin — withheld from admission and glipizide withheld from [Day 3]

Regarding the Commissioner's questions:

Whether the management of [Mrs A's] electrolyte disturbance was adequate.

[Mrs A's] potassium returned to the normal range on the morning of day 4, but was close to the normal range on day 3. She was given IV fluid without additional potassium on the day of admission.

Her sodium level was climbing slowly but gradually throughout the admission. I do not know what the baseline sodium is (it is possible that it is chronically low).

Hypokalaemia of the level on admission and on [Day 2] is potentially problematic (particularly in the presence of cardiac disease) and could have been corrected more quickly. Hyponatraemia would likely correct after resolution of the diarrhoea, correction of fluid balance and modification of medication.

The standard of care for correction of hypokalaemia in the presence of diarrhoea and heart disease would be for it to be brought close to the normal range as soon as possible. [Mrs A's] sodium was adequately managed. <u>I think that, with regard to the potassium replacement, there was a minor departure from the standard of care and that my peers would agree.</u>

Whether [Mrs A's] fluid balance was managed appropriately, including the timeliness of catheterisation.

[Mrs A] was hypovolaemic secondary to a febrile diarrhoeal illness in the presence of left ventricular dysfunction and polypharmacy (including β blocker, which may mask tachycardia). Close monitoring of her fluid balance was indicated. A fluid balance chart in the presence of a diarrhoeal illness can be very difficult or inaccurate, but I would expect at least daily clinical (medical officer) assessment (including daily weight) of her fluid status. There is no evidence that any such assessment took place. <u>I would view lack of a daily clinical examination of this lady as a severe departure from the standard of care and believe that my peers would agree.</u>

Catheterisation of patients for reasons of convenience or difficulty toileting is now strongly discouraged, and it would have been inappropriate to catheterise unless retention of urine became a problem. I am unable to tell from clinical notes when [Mrs A's] urinary retention began, and am unable to comment on the timeliness of cathetherisation.

The appropriateness of the management of [Mrs A's] salmonella diagnosis, including whether the commencement of antibiotics was appropriately discussed/offered/ considered.

The stool specimen was sent to the lab in a timely manner. The doctor overnight on [Day 4] commented that antibiotics for salmonella enteritis should be discussed with microbiology the following day. Given that [Mrs A] was unwell at that time (drowsy, confused, tachypnoeic, hypotensive, HR 90 despite β blocker) it may have been appropriate to treat with antibiotics overnight, or to seek advice first thing in the morning.

The rates of morbidity and mortality of salmonella enteritis in this age group are high and antibiotics would generally be recommended in someone who was multi-morbid and systemically unwell.

The Medical Officer who reviewed [Mrs A] on the morning of [Day 4] (day 4 of admission and day 8 of illness) noted that the CRP was stabilising, (although it was continuing to climb), and did not note the positive microbiology. He did not seek advice (either from a general physician, with regard to the ongoing and increasing illness, or a microbiologist, regarding the positive result). I would expect a generalist doctor working in a rural hospital (whether vocationally registered in Rural Hospital Medicine or not) to consult appropriately, and I feel that the failure to do so at this time was a severe departure from the standard of care. I think that my peers would agree.

Any other matters that you consider amount to a departure from accepted standard.

On the evening and the night of [Day 4] and then [Day 5] [Mrs A] remained unwell, but no nursing observations were done, and no medical review was requested.

At 0230 her EWS score was noted to be 6 (or could have been calculated to be Code Blue). The duty nurse was informed, but no doctor was notified, and the observations were not repeated. 30 minutes later [Mrs A] was noted to be sleeping peacefully, and 70 minutes later she had died, having had a large upper GI bleed.

The actions required for a raised EWS score are clearly noted on [the public hospital's] observation chart.

It is not possible to know if anything could have been done to prevent [Mrs A's] demise at that time, but I would regard failure to request a medical review for a patient with a sudden increase in EWS score to 6 or Code Blue as a severe departure from the standard of care, and I believe my peers would agree.

The overall appropriateness of the care [Mrs A] received during her [2018] admission, from [the public hospital].

[Mrs A] unfortunately died as the result of an upper gastrointestinal bleed. This is not a common complication of salmonella enteritis, and may have occurred for a number of reasons, including the underlying illness, the use of dipyridamole (to prevent further strokes and heart attacks) and stress ulceration as the result of an acute illness. It is not possible to know whether any changes to her management during the four-day illness, including changes to fluid or electrolyte management, use of antibiotics, consideration of transfer to another hospital or earlier involvement of medical staff on the night she died would have changed the outcome of this illness.

With regard to the overall appropriateness of the care from [the public hospital], there appears to have been a lack of appreciation of the medical complexity of treating a hypovolaemic (and perhaps septic) multimorbid elderly lady. In particular, no clinical note regarding probable underlying left ventricular dysfunction and its treatment is concerning, as is the lack of any note which would suggest that [Mrs A] was reviewed by medical staff each day.

There also appears to have been a lack of appreciation (with perhaps the exception of the overnight medical note on [Day 4]) that [Mrs A] was becoming more unwell. The nature of medical handover on the morning of [Day 4] is unknown.

Recommendations for improvement that may help to prevent a similar occurrence in future.

I would hope that the medical care provided for a patient with this condition would be as good in a rural hospital as in a base hospital, with consultation and/or transfer as required to the appropriate base hospital or speciality team(s).

My recommendations for improvement are likely beyond the scope of this report and relate to improved postgraduate training for rural generalist doctors. Unfortunately New Zealand will not have enough vocationally registered Rural Hospital Medicine doctors to staff its rural hospitals for many years to come. Until [the public hospital] is able to employ a team of skilled rural hospital generalists it must consider systems which will enable good medical care to be routine. This may include routine discussion of all non-straightforward patients with either vocationally registered rural hospital doctors or base hospital specialists, regular input or ward rounds with base hospital specialists or a lower threshold for transfer of all non-straightforward patients. I would hope that the local base hospital would be able to support the routine care provided in [the public hospital].

The nature of handover from ED medical officer to the ward medical officer on [Day 1] and from the night to the day medical officer on [Day 4] is not clear, and on both occasions good handover may have improved care. Whilst shift-work is necessary to cover 24-hour rosters, poor handover can be the source of minor or significant errors in care. I would recommend that [the public hospital] reviews its medical handover arrangements.

In addition, the lack of communication from nursing to medical staff with a high EWS score on the night of [Day 5] is significant, and I would suggest that a review of the reasoning behind the lack of communication to medical staff is done, with resolution of the underlying issues.

Dr Jennifer Keys"

The following further advice was received from Dr Keys:

"**Follow-up report for the Health and Disability Commissioner**

Dr Jennifer Keys 16th November 2019

[Mrs A] 18HDC00583

I have read the additional documentation regarding this case provided by the Health and Disability Commissioner including:

Full copy of [the public hospital's] further response dated [2019]
[The public hospital's] response dated [2019] and its appendices
[Dr I's] statement dated [2019]
[RN Q's] statement dated [2019]
Email from [Dr P] dated [2019]
[Dr C's] statement dated [2019]

Addendum to report of 19th April 2019

Whether [Mrs A's] fluid balance was managed appropriately, including the timeliness of catheterisation.

I stated that I would view lack of a daily clinical examination of this lady as a severe departure from the standard of care and believe that my peers would agree.

Assessment of fluid balance in a patient with diabetes, heart failure, on 4 medications for heart failure (which had been partly stopped) and with high fluid losses related to diarrhoea and a febrile illness mandates an (at least) daily assessment of fluid balance to ensure that the correct volume of fluid is being prescribed, and that the patient is not under or over resuscitated. This includes assessment of mucous membranes, skin turgor, weight, JVP and lung auscultation. I have now located a nursing daily weight chart, although this is not referred to in the medical notes. A febrile illness with diarrhoea also mandates a daily abdominal examination.

[Dr C's] statement of [2019] confirms that he did not examine [Mrs A], but relied on nursing observations. He describes stable nursing observations and improving blood tests as a reason why clinical examination was not done. During her admission, temperature varied from 34.7 to 38.1, systolic blood pressure varied from 98 to 140, BSL varied from 3.8 to 27 and weight dropped by 3.8kg, creatinine improved somewhat and CRP continued to rise.

Daily clinical examination of [Mrs A] was essential in her management. <u>My opinion that the lack of a daily clinical examination of this lady was a severe departure from the standard of care has been reinforced by [Dr C's] statement.</u> I believe my peers would agree.

The appropriateness of the management of [Mrs A's] salmonella diagnosis, including whether the commencement of antibiotics was appropriately discussed/offered/ considered.

[Dr C] has offered additional information with regard to communication with microbiology. He notes that this was recorded on the discharge summary (after [Mrs A's] death) rather than in the continuation notes. He was advised to treat with antibiotics if the diarrhoea was increasing.

It is not possible to know the content of the conversation with the microbiologist. Withholding antibiotics is usual advice for salmonella in a patient who is young and usually well. I believe that it is unlikely that this would be the usual advice for an elderly diabetic patient with a 7 day illness, difficult fluid balance, ongoing symptoms, new delirium, increasing CRP and marked decrease in weight.

Verbal communication with medical specialists requires that a 'picture is painted'. From his own notes (no daily physical examination, no note of co-morbid conditions, his note [Day 4] that CRP was stabilising) and subsequent statement (did not consider antibiotics to be suitable as diarrhoea had decreased in frequency and antibiotics can prolong the course or lead to a carrier state) it appears that [Dr C] did not consider that [Mrs A] was very unwell or had a condition with a significant risk of mortality.

As communication with microbiology did take place, I do not know if there was a departure from the standard of care. If [Dr C] explained to [Dr J] (the microbiologist) that [Mrs A] was very unwell and deteriorating, and was advised to withhold antibiotics, there would be no departure, as he would have accepted specialist advice. If the 'picture was painted' that she had been unwell and was getting better then I would consider that there was a departure from the standard of care.

Any other matters that you consider amount to a departure from accepted standard.

I previously commented on the nursing response to an EWS score of 6. Expert nursing advice is being obtained and I will make no further comment on the EWS response.

I have also been asked to comment on

1 a) The care provided by [Dr D] (Specialist Physician)

Please note that I am not a Specialist Physician. The Commissioner may wish to seek advice from a Fellow of the Royal Australasian College of Physicians.

In my initial report I was not aware that [Dr C] was accompanied by, or supervised by, a Specialist Physician.

I understand from the clinical notes and from statements from [Dr D] and [Dr C] that [Mrs A] was seen by [Dr D] on ward rounds on [Day 2] and [Day 3]. It is not clear what [Dr D's] input after [Day 3] was, although he notes in his statement that 'we were considering giving her antibiotics' which suggests that he continued to discuss the case with [Dr C]. [Dr D] also notes the diagnosis of salmonellosis, and that antibiotics would have been indicated for positive blood cultures, although his choice of antibiotic (metronidazole) is not indicated for salmonella. He was aware that [Mrs A] had deteriorated on [Day 4].

It would be usual, if a specialist physician and a medical officer were to jointly take care of a patient, then the specialist physician would take the role of directing care and decision making, with the medical officer providing daily review, ordering and managing results of investigations, and consulting the specialist for advice.

With regard to antibiotic treatment: I would consider that a Specialist Physician would think that an elderly multimorbid lady with a 7 day history of salmonellosis, unstable observations, new delirium and a rising CRP, who was clinically deteriorating, was unwell enough to be treated with antibiotics and would communicate this information to the Medical Officer, who would then discuss with the Microbiologist. As noted above, it is not possible to know what 'picture was painted' to the Microbiologist when he was consulted. It is also not possible to know what the discussions between [Dr D] and [Dr C] consisted of.

With regard to daily clinical examination: I believe that a specialist physician would consider that daily clinical examination for fluid status was mandatory in this case, and that they would either do this themselves, or ensure that it was done by another member of staff.

<u>In my opinion [Dr D] is a party to failure to ensure a daily clinical examination of [Mrs A] and believe that this was a severe departure from the standard of care.</u>

b) The care provided by [Dr C]

Is covered by my report of 19th April and the addendum above.

c) The care provided by [Dr I]

[Dr I] saw [Mrs A] on one occasion. His assessment and plan is complete and clearly documented. He recalls handing over verbally to [Dr C] and although [Dr C] does not recall a verbal handover, he did follow [Dr I's] plan. His plan to wait a few hours until the morning to discuss antibiotics with Microbiology was not inappropriate.

d) The care provided by [Dr M]

It is unfortunate that there is no note of the care provided by [Dr M], but his recollection is consistent with nursing notes (and subsequent nursing statements) and his care was timely and appropriate.

2. Whether the error identified by you was due to systemic issues at [the public hospital] or whether it was more attributable to an individual.

As I noted in my initial response, any omissions in the management of [Mrs A] may not have led to, or been associated with, her subsequent gastrointestinal bleed and death.

With regard to the failure to perform a daily clinical examination, and the apparent failure to understand that [Mrs A] was becoming more unwell and was at significant risk, I believe that the responsibility lay with [Dr D] and [Dr C]. [The public hospital] ensured that [Dr C] had appropriate oversight, and there is no suggestion that the facility or nursing care provided by [the public hospital] was inadequate. There is nothing in the statements from either doctor that their workload did not give them enough time to perform a daily examination, or that they were otherwise prevented from doing so. Both doctors had worked at [the public hospital] for many years, which means that the content of the current orientation document would have had little relevance for them.

With regard to the overnight response to an EWS score of 6, [the public hospital] has stated that the delayed response of the doctor was related to the doctor being busy in the Emergency Department with another unwell patient. Medical and nursing staff in rural hospitals can easily become overwhelmed by clinical work with small numbers of patients requiring input simultaneously, and some rural hospitals have call-back rosters to deal with this.

Most rural hospitals have to make a judgement between risk to patients and staff and cost of additional staffing. I do not know about the usual workload and staffing of [the public hospital], or whether a doctor being unavailable to look after an in-patient is a frequent event.

I stated in my initial response that, to provide equitable care, rural hospitals should be staffed by appropriately trained generalist doctors (rural hospital doctors), but I was not aware that [Dr C] was being supervised by a Specialist Physician. This level of daytime staffing is appropriate for [the public hospital's] in-patient service, although it is not a model which exists in other rural hospitals.

3. At the time of the incident, the appropriateness of [the public hospital's] Medical Officer orientation.

I have been provided with an orientation document which was updated [2018] (this is after the incident) and has since been entirely rewritten. It appears relatively comprehensive, although it does not direct Medical Officers where to ask for clinical advice or support. I would regard this as information which should be known by any doctor who is working rurally in New Zealand (if unknown would be verbally communicated at handover) without direction from an orientation document."

The following further advice was received from Dr Keys:

"**Follow-up report for the Health and Disability Commissioner (2)**

Dr Jennifer Keys 18th July 2020

[Mrs A] 18HDC00583

…

I have been supplied with the following documents by the Health and Disability Commissioner.

1. Further statement from [Dr D] [2020]
2. Letter from [the public hospital] [2020]
3. Letter from [Dr C] [2020]
4. Letter from [Dr D] [2020]
5. Letter from [the public hospital] [2020]
6. Letter from [Dr C] [2020]
7. [RN O's] response [2020]

Further HDC questions.

1. Whether it causes you to amend the conclusions drawn in your initial advice, or make additional comments.

I do not wish to amend my previous conclusions.

Additional comments:

<u>Responsibility for daily examination of [Mrs A]</u>

I have criticised the lack of daily examination of [Mrs A], given that she was unwell, and that her fluid balance was of pivotal importance to her management. There is no agreement between the statements of [Dr C] and [Dr D] regarding how review of patients took place on the ward.

[Dr C] states [2020] that he saw [Mrs A] on a daily basis when he accompanied [Dr D] on his daily ward round. He describes that they focussed on her recorded observations, and states that if a full clinical examination had been required by [Dr D] then he would have done this, but that neither doctor 'considered that this would have provided any additional information'. [Dr D] states that he examined [Mrs A] on [Day 2]/[Day 3]/[Day 4]. This is not recorded, and is contrary to [Dr C's] description.

<u>Overall responsibility</u>

[Dr C] describes [Dr D] as being the 'lead clinician' for [Mrs A's] care [2020].

[Dr D] describes 'the TEAM' as being responsible [2020]. He states that he was always available for consultation but that, as an experienced MOSS, he expected [Dr C] to practise independently and consult him if a patient became unwell. He states 'from my point of view the doctor in charge of the ward was the MOSS'.

[The public hospital] [2020] states that they are unable to answer the question of whether [Dr D] had overall responsibility of [Mrs A's] care, or [Dr C] had overall responsibility with physician input 'as this is unclear to us'.

It is not at all clear who did what on a day-to-day basis or who had overall responsibility. It is not clear whether either doctor appreciated how unwell [Mrs A] was. Each appears to believe that the other was responsible.

2. Any further comments about the care provided by [Dr C], MOSS, following his response.

I have no further comment.

3. Whether the issues identified by you were due to systemic issues at [the public hospital]. If there are systemic issues, please elaborate on these with reference to how other rural hospitals operate in this area.

In my initial response I had not realised that [Dr D] was a specialist physician. I am not aware of any other rural hospital which runs a service with specialist physicians and

MOSSes. Since [Dr D's] retirement [the public hospital] no longer has a specialist physician on staff. Most rural hospitals run either with Rural Hospital Medicine (RHM) Specialists only, or a combination of RHM specialists and MOSSes with occasional RMO staff. In most cases I believe that RHM specialists work on one roster with equal responsibility with MOSSes. There is generally not a senior/junior relationship between RHM specialists and MOSSes, with most rural hospitals hoping to move to a situation where MOSSes will be replaced by RHM specialists.

[The public hospital] was using a different model, with a specialist physician providing a consulting service for a MOSS run ward. Which person/organisation has overall responsibility is a difficult question, and I think that the comments from [the public hospital] and both clinicians reveal that the relationships and responsibilities were poorly defined and based on assumptions which were not the same for all.

This is a systemic issue in the sense that [the public hospital] employed both clinicians and had a responsibility to ensure that a structure was in place where expectations and responsibilities were clear. It does not appear that this was the case.

In addition, concern about [Dr C's] practice appears to have been well known to [the public hospital], who note 'independent investigations' in 2017 …

Despite concerns about [Dr C] and recommendations from their independent advisor in 2017 and MCNZ in 2018 [the public hospital] does not appear to have tried to formalise the relationship between the two clinicians or increase supervision.

4. Any other matters in this case which you consider warrant comment.

It is also a systemic issue (in the sense of the New Zealand Health System, rather than [the local] system) which results in a hospital such as [this] having ongoing great difficulty recruiting and retaining doctors (as recurrently expressed in [the public hospital] statements). I must express some sympathy for the management of [the public hospital] who appear to have been trying to manage a situation where they had significant concerns about a doctor's practice and for [Dr D], who clearly spent several decades providing service to the people of [the region], when at times additional medical staff were very difficult to find."

The following further advice was received from Dr Keys:

"Your questions:

1. My advice is unchanged. It is not clear what was the nature of the handover between the Emergency Department and the ward doctors. The degree of hypokalaemia on admission is potentially problematic.

2. I do not believe that there is any evidence that [Dr C] included an awareness of [Mrs A's] left ventricular dysfunction into his calculations about how much fluid was prescribed. He neither makes written note of it, nor examines the patient for signs of

fluid overload or dehydration. Nursing observations do not adequately substitute for a clinical examination.

I hope this is helpful. Please contact me if you need additional information.

Regards, Jennifer"

Appendix B: Independent advice to the Commissioner

The following expert advice was obtained from Dr Richard Shepherd:

"**Independent Medical Advice to the Commissioner**

Date: 07/01/2020

Complaint: [Mrs A]/[the public hospital]

Your Ref: 18HDC00583

My name is Dr Richard Shepherd. I have been asked to provide an opinion to the Commissioner on case number C18HDC00583 regarding the care the late [Mrs A] received from [the public hospital] during her admission [in 2018]. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I am a Consultant General Physician and Rural Hospital Specialist employed by the Waikato District Health Board. I graduated from Otago Medical School in 1997 with Bachelor of Medicine and Surgery (MBChB). I have attained fellowships with the Royal New Zealand College of Urgent Care, The Division of Rural Hospital Medicine and the Australasian College of Physicians. I have subspecialty interests in nephrology, emergency medicine and palliative care. I have completed the Auckland University Postgraduate Diploma of Community Emergency Medicine, the RACP Clinical Diploma in Palliative Medicine and the Otago University Certificate in Physician Performed Ultrasound. I have no conflicts of interest to declare in this case.

I have been requested by the Commissioner to provide expert advice on the following issues:

Please review the enclosed documentation and advise whether you consider the care provided to [Mrs A] by [Dr D] and [the public hospital] was reasonable in the circumstances, and why.

Please note that expert advice has also been obtained from a rural hospital specialist and a nurse. We would appreciate if you can limit your advice on the care provided by [Dr D] and any systemic issues at [the public hospital].

In particular please comment on:

1/ The appropriateness of the care provided during [Mrs A's] admission at [the public hospital] from [Day 1–Day 5] by [Dr D];

2/ Whether the error identified by you (if any) was due to systemic issues at [the public hospital]. If there are systemic issues, please elaborate on these.

3/ The appropriateness of the supervision provided by [Dr D] to [Dr C] in a rural hospital setting;

4/ Any other matters in this case that you consider warrant comment.

For each question I have been requested to advise:

a) What is the standard of care/accepted practice?

b) If there has been a departure from the standard of care or accepted practice, how significant a departure it is in my view.

c) How would the departure be viewed by my professional peers?

d) Recommendations for improvement that may help to prevent a similar occurrence in the future.

Sources of information reviewed in the preparation of this report:

Letter of complaint dated [2018]

The [public hospital's] response dated [2018]

Clinical records from [the public hospital] covering the period [Day 1]–[Day 5].

Complainant's feedback to response dated [2018]

[The public hospital's] further response dated [2018]

[The public hospital's] further response dated [2018]

[The public hospital's] response dated [2018] and its appendices

[Dr I's] statement dated [2019]

[RN Q's] statement dated [2019]

Email from [Dr P] dated [2019]

[Dr C's] statement dated [2019].

Overview:

On [Day 1] at 3.27pm [Mrs A], [in her eighties], was admitted to [the public hospital] (a rural hospital) via her GP with acute diarrhoea. She was initially seen by a 5th year medical student, who completed her admission medical records.

On [Day 2], [Mrs A] was seen by [Dr D] (Consultant Physician) and [Dr C] (Medical Officer Specialist Scale — MOSS). A brief note was written by [Dr C]. This recorded that '*loperamide was charted for diarrhoea, IV fluids were restarted, bloods tests were to be repeated (noting a low sodium 122 and potassium 2.7 the previous day), a dose reduction in her Glipizide diabetes medication due to decreased oral intake and that metformin had been discontinued due to her elevated creatinine 231 up from 150s'* — (suggesting an acute renal injury). There was no physical examination findings recorded, no diagnosis and no problem list documented. Three 1L Normal Saline IV bags of fluid with 20mmol potassium added were charted over an 8hour period each. Loperamide 2mg as needed after each bout of diarrhoea was charted by [Dr D]. No 24hr limit was specified. She received 3 doses over [Day 2], 3 doses over [Day 3] and 2 doses over [Day 4]. Her Quinapril 20mg mane was continued over [Days 2–4].

At 12:30hrs her blood results from [Day 2] were recorded as *'Na 123, K 2.8, Cr 317 therefore continue IV fluids over next 24hrs'*.

Names have been removed (except the experts who advised on this case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

At 12:45hrs a further entry by [Dr C] recorded *'Fever noted BCs taken'* (Blood Cultures). No further clinical review findings were documented. At 1330hrs nursing note entries recorded *'[Dr C] informed. Patient appears weaker at 1330hrs. Unable to get up from bed. Needed two assistance to transfer to commode.'*

A fluid balance chart for [Day 2] recorded only 3 hours of IV fluid input use with no outputs recorded. A fluid balance chart from [Day 3] recorded no IV fluid use and 8 hours of output data. No weights were recorded.

On [Day 3] a further brief Ward Round entry was made with [Dr D] also in attendance. This recorded *'BSLs (Blood Sugar Levels) low this morning <4. Glipizide withheld and treatment given (had peaked yesterday at 17 and fell overnight without treatment other than IV fluids). One episode of diarrhoea overnight and nil since. Awaiting on bloods before charting more IV fluids.'*

A further *'Medical Note [Dr C]'* was entered on [Day 3] stating blood results *'Creat 250 down from 317. Na 126 K 3.2 CRP 185 WCC 6.2 left shift with toxic changes'.* A plan was documented *'Encourage oral fluid, consider metronidazole — awaiting faecal PCR, check bloods mane.'*

The [public hospital] Admission Details sheet recorded admission to the internal medicine department with the consultant listed as [Dr C]. [The public hospital] specific medication chart was used.

Over [Days 4–5] [Mrs A's] condition deteriorated further. A diagnosis of Salmonella enterocolitis was made at 03:30hrs [Day 4]. On [Day 5] at 03:40hrs [Mrs A] was found deceased with evidence of a large dark vomit. Her death certificate recorded the cause of death as *'Gastrointestinal Haemorrhage due to Salmonella Enteritis'*.

Advice to the Commissioner:

1/ The appropriateness of the care provided during [Mrs A's] admission at [the public hospital] from [Days 1–5] by [Dr D]?

In my opinion the care provided by [Dr D] was likely to have been suboptimal and likely fell below the standard of care in this case. I would regard that as a likely moderate departure. That view would however be subject to a number of caveats below and could be weighed differently by my professional colleagues depending on the perceived scenario in place.

In reviewing this case it is unclear to me who had overall clinical responsibility or coordination for [Mrs A's] care whilst an inpatient. [Dr C] appears to have been involved with reviewing [Mrs A] each day from [Day 2]–[Day 4] and responsible for following up her results, responding to nursing staff queries and adjusting her treatment. It is however unclear from the clinical records, or the responses from the staff involved, exactly where the lines of clinical responsibility fell in this case. There are no notes recorded by [Dr D] in the clinical record. He was recorded as having attended a Medical Ward Round on [Day 2] and [Day 3] by [Dr C]. He does not appear to have been involved in her care over [Day 4]. In my opinion the standard of documentation during [Dr D's] most obvious involvement fell well below the accepted standard. I would regard that as a moderate departure. As such making a clear or even inferred assessment of his care is challenging.

I would therefore set out an opinion to the above question in two possible scenarios:

1/ Where [Dr D] retained overall responsibility for care and 2/ where the MOSS, [Dr C] had overall responsibility — with physician input on an overview advisory basis.

1/ Where [Dr D] retained overall responsibility for care.
In this scenario I would regard [Dr D] as being ultimately responsible for the documentation of [Mrs A's] care — even if via delegation. In this setting the standard of care would involve completing a post admission Specialist Physician assessment. This would be expected to involve a review of the history, performing a physical examination, documenting an opinion regarding the diagnosis/differential diagnosis and documenting a problem list together with an appropriate management plan. In that scenario I would regard the documentation as falling at least moderately below the accepted standard. I would regard that as even more significant in the setting of the patient's notes to that point having been recorded by a 5th year medical student.

On the post admission Medical Ward Round no history was recorded, no examination findings were recorded (including an assessment of fluid status, weight or abdominal examination), and no diagnosis or problem list was recorded. Such poor documentation as recorded in [Mrs A's] notes invites speculation that attention to detail may have been poor, no examination was actually performed, no fluid balance assessment made and the potential severity of [Mrs A's] illness then overlooked. This could then have been reflected in her management plan inviting speculation that her rate of IV fluid and potassium replacement was suboptimal, criticism of failing to withhold her Quinapril (and initial spironolactone) medication in the setting of an acute kidney injury, and no stated maximum to loperamide prescription dosing.

If [Dr D] maintained overall clinical responsibility for care it would also have been my expectation that he would have been updated regarding significant changes in [Mrs A's] condition. In that setting the development of a fever in an elderly hospitalised woman with acute kidney injury, significant hyponatraemia, hypokalaemia, and significant underlying atherosclerotic heart disease, could have been argued to have breached the threshold for 'Severe Illness — in an individual at high risk of invasive disease and complications'. In such individuals the potential for antibiotics to improve disease, or prevent complications, would be regarded as outweighing the risks of antibiotic use. This could then be strongly argued met the threshold warranting empiric antibiotic treatment pending the results of stool specimens.

(https://www.uptodate.com/contents/approach-to-the-adult-with-acute-diarrhea-in-resource-rich-settings?search=acute%20salmonella%20gastroenteritis%20treatment&topicRef=2697&source=see_link) *Algorithm 1*

I would then question [Dr D's] statement in his response to the commissioner. *'The Question of antibiotics is a difficult one in salmonella infection in the gut although it should be clear cut if the Salmonella has progressed into the blood which was not shown in her case.'*

Even before [Mrs A's] result was noted as Salmonella on [Day 4] I would argue her presentation, clinical results, circumstances and nursing staff documentation argued for a very sick elderly woman at risk of invasive disease and a poor complicated outcome. Metronidazole would not however have been considered a first line empiric treatment in this setting. It is however not clear from the notes whether this was [Dr C's] opinion or [Dr D's]. In any eventuality no antibiotics were commenced.

Whilst I am mindful of the benefit of hindsight (being aware of the outcome indicating severe disease) there is nothing in the clinical record to support a defence that [Mrs A] did not have features of high risk disease when reviewed by [Dr D] on [Day 2]. I would have to be significantly critical of that and therefore fall on the opinion that her care was likely to not have been the most appropriate.

2/ Where the MOSS [Dr C] had overall responsibility with physician input on an overview advisory basis.
Rural Hospitals can sometimes operate on the basis of a physician providing general oversight, or advice to the resident medical staff on a take it or leave it basis and not being involved in the overall care and detailed specifics of a patient's care (specific blood results, medication management, IV fluid management, no expectation of examining the patient etc.). In that setting I would not regard [Dr D] as being responsible for the standard of documentation, providing detailed review of the patient's history, examining the patient or offering specific precise patient advice after weighing up the relevant issues. In that setting a clinical case discussion is more often had discussing management principles and care and treatment options without specific mandated instructions on 'The Plan' of how to proceed. In that setting ultimate decision making is left to the MOSS as a senior colleague. In that setting I would struggle to be critical of the appropriateness of [Dr D's] care if the relationship on the ward round was not specifically one of him being the lead clinician responsible for the patient. In that setting my criticism would more specifically be applied to the appropriateness of [Dr C's] care.

Recommendations for improvement:

If not clear to the clinicians involved clear lines of clinical responsibility would be expected and form part of the job descriptions of the clinicians working at [the public hospital]. No job descriptions were provided to me. The standard of documentation should be reviewed by those involved as per the standards set out by the Medical Council in *'Coles Medical Practice in NZ'.* Clear review and documentation of the patient's problem list or issues should form a critical part of the medical record to ensure attention to detail, consideration of all aspects of care, and facilitate good ongoing care during periods of frequent staff handover. The team caring for the patient should then have a shared understanding and appreciate the importance of recordings such as accurate fluid balance, stool chart, and changes in the patient's condition where such changes have the potential to influence treatment decisions.

2/ Whether the error identified by you (if any) was due to systemic issues at [the public hospital]. If there are systemic issues, please elaborate on these.

My advice has been requested to remain restricted to the care provided by [Dr D] and any systemic issues at [the public hospital].

I would however break down the potential systemic issues into 4 categories:

1/ The attending medical staff:
Ultimately 5 different medical staff were involved with [Mrs A's] care. The quality of medical care provided overall — outside of that provided by just [Dr D] (By [a] — MOSS, [Dr C] — MOSS, [Dr I] — Locum MO, & [Dr M] — Locum SMO) raises concerns regarding the supervision vs oversight vs independent practitioner model in operation at [the public hospital] and the appropriate credentialing of such staff not practising within a vocational scope. *(Collegial Relationship Guide — Medical Council of NZ 23/11/2018.)* There are conflicting accounts from the involved medical staff statements regarding the handover arrangements (from none to verbal handover occurred).

I would anticipate [the public hospital] would have now adopted the '*National Medication Chart*' and '**EWS scoring Chart**' since [Mrs A's] care as improvements over the documentation in place at the time of her incident.

2/ Laboratory reporting of significantly positive results.
It is unclear to me from the documentation provided what the … Laboratory (or the … laboratory in the case of processing microbiology samples) reporting policy is with respect to inpatients with significantly positive results — particularly out of hours. [Mrs A's] Salmonella positive result appears to have been reported electronically at 17:34hrs on [Day 3] by the Laboratory and faxed to [the public hospital]. It does not however appear to have been specifically *notified* to the clinical staff responsible for [Mrs A's] care. The 'discovery' of her positive result appears to have been somewhat incidental when nursing staff asked for a clinical review by the overnight on call ward doctor at 03:30hrs [Day 4]. I would suggest review of those processes and the notification policy in place currently, and why this did not occur in [Mrs A's] case?

3/ Nursing Staff Issues:
I am aware an opinion has been sought from a nursing advisor. I would comment however from a systemic issues viewpoint there appears to have been a significant lack of updating medical staff regarding [Mrs A's] deterioration and clinical concerns — particularly in the latter stages of her illness. Documentation around fluid management, EWS scoring and notification to medical staff I would anticipate to have been addressed in that opinion.

4/ Procedural Issues: (see also Question 4 below)
The *'Incident Management Policy/Procedure [Public Hospital] October 2016'* does not appear to have been followed with respect to the investigation process of [Mrs A's] death. It is unclear to me from the documentation provided why this occurred. The lead investigator appears to have been [Dr D] (together with [the Clinical Nurse Manager]) in contradiction to the stated policy of *'The team will not include the health professional(s) involved in the incident and must not be led by the leader of the service involved.'* It is also unclear if the stated escalation procedures in the policy were followed and what the CEO's role in that clinical governance process was. I was not provided with a root cause analysis, the critical review minutes or an incident report of the event. [Mrs A's] complaint does not appear to have followed stated due process. I note a paper based review by a subsequently appointment Clinical Director did occur after her complaint was made.

The *'Orientation for New and Locum Doctors [Public Hospital] July 2019'* does describe the expectations regarding handover and the documentation in place regarding this. It also describes the ward doctor's responsibilities and does not include any mention of a supervising physician role. I am unclear what arrangements were in place at the time of [Mrs A's] care anticipating that document may have been developed in part following recognition of the issues at the time of [Mrs A's] incident.

3/ The appropriateness of the supervision provided by [Dr D] to [Dr C] in a rural hospital setting;

At the time of [Mrs A's] care [Dr C] appears to have been practising under General Registration within a collegial relationship and participating in the *Inpractice* program administered by bpac. In his statement to the commissioner [Dr C] states he was up to date with his inpractice requirements. No evidence was provided to me to substantiate that claim. I note [Dr C] is listed as no longer practising by the Medical Council of New Zealand, and does not hold a current practising certificate. There is no specific documentation or statements specifically addressing the formal '*supervision*' or '*oversight*' arrangements in place between [Dr D] and [Dr C].

The standard of supervision in this setting is first set by the Medical Council of New Zealand via its annual practising certificate requirements. If practising under a *'collegial relationship'* [Dr D] would not have been responsible for *'supervision'* of [Dr C]. Under a *'collegial relationship'* arrangement, and as a condition of his annual practising certificate, [Dr C's] collegial relationship provider would have played the role of mentor and being responsible for ensuring his professional development plan and continuing professional development activities were appropriate. Four formal meetings per year to review and discuss requirements should have occurred. *(Collegial Relationship Guide Medical Council of NZ 23/11/2018.)* He would not then have been required to be directly clinically '*supervised'* in his practice.

That said [Dr C's] employer may have specified specific working relationships within his job description regarding expectations, interactions and potential 'clinical supervision' from [Dr D]. No documentation specifically addressing this was available to me.

If there was an expectation that [Dr D] was providing '*clinical supervision*' to [Dr C] then the standard of that clinical supervision would be expected to involve direct case discussion, direct review of practice and documentation, and [Dr C] following [Dr D's] clinical direction and plans. It would also be an expectation that any changes in [Mrs A's] clinical status, or significant positive investigation results would be communicated to his supervisor in a timely fashion. This did not appear to have occurred in this case with no documentation regarding any ongoing communication of such issues with [Dr D] from [Dr C]. In that setting I would regard [Dr D's] supervision provided to [Dr C] would fall well below the expected standard for '*supervision*'. I would regard that as at least a moderate deviation with again the significant limitation in the notes inviting comment of poor practice. I would regard my professional peers as holding a similar view.

4/ Any other matters in this case that you consider warrant comment.

It appears there has been significant dialogue regarding [the public hospital's] response to [Mrs A's] death since her complaint was made. All of the involved medical staff appear to have resigned or are no longer employed.

I note from the '*[Public Hospital] Report dated [2019]*' that '*a new leadership team has more recently been in place with a number of significant changes:*

(a) Implementation of a change management plan.

(b) We have implemented Clinical Governance and Medical Peer Review

(c) Clinical non-contact time now includes paper audit of clinical notes

(d) We intend to reform the morbidity and mortality meetings. This will be assisted once we have a stable medical workforce. Currently the clinical director has direct oversight of these matters.

(e) The Clinical Director attends board meetings

(f) Establishment of a clinical trainer position including recording of all training undertaken by staff at [the public hospital]. Annual appraisal forms now include staff professional development plans together with the review of the IT systems to allow recording of professional development activities within the system.

(g) For current doctors requiring supervision we now access a primary supervisor with a vocational scope in either emergency medicine or rural hospital medicine.'

Dr Richard Shepherd **Date: 07/01/2020**
Consultant Physician General Medicine
Waikato District Health Board
MBChB FRACP FDRHMNZ"

The following further advice was received from Dr Shepherd:

"**Independent Medical Advice to the Commissioner**

Date: 20/06/2020

Complaint: [Mrs A]/[Public hospital]

Your Ref: 18HDC00583

My name is Dr Richard Shepherd. I have been asked to provide an opinion to the Commissioner on case number C18HDC00583 regarding the care the late [Mrs A] received from [the public hospital] during her admission in 2018. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I have been requested by the Commissioner to provide further expert advice from additional comment and information received:

1/ Whether it causes you to amend the conclusion/s drawn in your initial advice, or make additional comments.

2/ Any further comments about the care provided by [Dr D], general medicine consultant, and his supervision of [Dr C] following his response.

3/ Whether the issues identified by you were due to systemic issues at [the public hospital]. If there are systemic issues, please elaborate on these with reference to how other rural hospitals operate in this area.

4/ Any other matters in this case you consider warrant comment.

Sources of information reviewed in the preparation of this report:

Further statement from [Dr D] dated [2020]
Letter from [the public hospital] dated [2020] and its attachments
Letter from [Dr C] dated [2020]
Letter from [Dr D] dated [2020]
Letter from [the public hospital] dated [2020]
Letter from [Dr C] dated [2020]
[RN O's] response dated [2020]

Advice to the Commissioner:

1/ Whether it causes you to amend the conclusion drawn in your initial advice, or make additional comments.

Essentially the additional responses do not cause me to significantly amend my initial advice but does allow some narrowing down of the available possible scenarios previously discussed — particularly around lines of responsibility. I would make the following additional comments leaning more towards my original opinion of a preferred option two scenario of: *'2/ Where the MOSS [Dr C] had overall responsibility with physician input on an overview advisory basis'.*

The additional responses listed above provide further clarification of the involved doctors' *understanding* of the arrangements and responsibilities in place at [the public hospital] at the time. I would however note that *understanding* of '*overall responsibility'* does differ from the responses provided by [Dr C] and [Dr D]. That in of itself is reflective of some of the issues identified.

The model in existence at the time of [Mrs A's] care appears to be a somewhat more historical and increasingly less common model of care as Rural Hospital Medicine has become its own recognised Vocational pathway and MOSS doctors (Medical Officer Specialist Scale doctors) are increasingly uncommon. This model involves MOSS doctors who do not hold vocational registration but are senior experienced doctors working effectively as independent practitioners. They are however under specific Medical Council Inpractice (https://inpractice.org.nz/) requirements (but not clinical supervision), and as appears to have been the case in [the public hospital] at the time, will often also work with, and variably somewhat under, the practical supervision (*note again not Medical Council required supervision*) of a vocationally registered doctor — most frequently a Vocationally Registered General Physician.

In my view, and historical experience, this potentially creates rather unclear lines of clinical responsibility. Lines which are often only exposed when things go wrong.

In his response [Dr D] sums it up as *'… These ward rounds were also done in conjunction with the MOSS and nursing staff. We discussed the patients in detail, their progress, their required investigations and treatment. In this context I expected the MOSS to be in charge of the ward, to keep the medical documentation up to date, and of course to contact me if and when the patient deteriorated. It however did not mean that I was notified on the arrival of any new patient unless the MOSS experienced some difficulty or problem.'* He further goes to state '*Overall responsibility for [Mrs A's] care was the TEAM and clearly depended on good communication. The MOSS was medically in charge of the ward and was required to assess ward patients at least daily and to maintain adequate standards of documentation which included outcomes discussed with me. There was no formal clinical supervision between myself and [Dr C] … He did have a collegial relationship with me for the purpose of his practi[s]ing certificate.*'

This tends then to be a much more implicit rather than explicit arrangement. A situation can then arise where the Physician is 'responsible' in hours and when on the floor but when not on the floor and when out of hours that responsibility is deferred back to the duty MOSS. As such, more experienced and independent practising doctors in a MOSS model tend to operate on an advice model of 'call me if you need to basis'. Rather than the much more rigid formal regular shift change updating clinical handovers and case discussions from RMOs to SMOs as seen in bigger centres where formal clinical medical council supervision requirements are in place.

Consequently unravelling lines of clinical responsibility and the fluid timing of those, versus having independent judgement of when to call for advice or update (which then doesn't suggest a supervision relationship) becomes complex. This is highlighted in the differing responses from [Dr D] and [Dr C] regarding their understanding of things. I would therefore agree with [Dr D] — this was a team arrangement **but** with implicit expectations also in operation particularly around documentation and independent decision making by the MOSSs involved.

I would therefore tend to favour my original previously expressed option 2 opinion:

2/ Where the MOSS [Dr C] had overall responsibility with physician input on an overview advisory basis.

Rural Hospitals can sometimes operate on the basis of a physician providing general oversight, or advice to the resident medical staff on a take it or leave it basis and not being involved in the overall care and detailed specifics of a patient's care (specific blood results, medication management, IV fluid management, no expectation of examining the patient etc.). In that setting I would not regard [Dr D] as being responsible for the standard of documentation, providing detailed review of the patient's history, examining the patient or offering specific precise patient advice after weighing up the relevant issues. In that setting a clinical case discussion is more often had discussing management principles and care and treatment options without specific mandated instructions on 'The Plan' of how to proceed. In that setting ultimate decision making is left to the MOSS as a senior colleague. In that setting I would struggle to be critical of the appropriateness of [Dr D's] care if the relationship on the ward round was not specifically one of him being the lead clinician responsible for the patient. In that setting my criticism would more specifically be applied to the appropriateness of [Dr C's] care.

2/ Any further comments about the care provided by [Dr D], general medicine consultant, and his supervision of [Dr C] following his response.

[Dr D] appears to have been involved in the early stages of [Mrs A's] care from a general overview perspective rather than being involved with the more detailed ongoing assessment and daily nuances of her clinical management later in her illness as might be expected from an explicit clinical supervision arrangement between an RMO and an SMO. This was not the model in operation at [the public hospital] at the time — both from [Dr D's] statements but also from operationally the way [Mrs A] appears, and was documented to have been managed.

The standard of documentation is however very poor which makes an assessment of [Dr D's] advice or care challenging with him ultimately not involved in the areas of her care where things deteriorated more significantly.

From the further responses received it appears [Dr C] was not engaged in a formal Medical Council required supervision arrangement with [Dr D]. A degree of practical collegial support and advice does appear to have been provided with [Dr D] operating at times as 'the lead' doctor, but operationally the MOSS does appear to have operated the independent practical running of the ward and patient management with a significant degree of autonomy — but the option to call to ask for advice ***if they*** felt that to be necessary. That could not be regarded as providing clinical *supervision.* Clear DHB policy does not appear to have been in place to explicitly inform expected operational practice.

3/ Whether the issues identified by you were due to systemic issues at [the public hospital]. If there are systemic issues, please elaborate on these with reference to how other rural hospitals operate in this area.

Further to my initial provided advice: I would incorporate my original advice with additional comment based on the further information received. I note extensive comment regarding very wide ranging systemic changes have been provided by [the] Chief Executive Officer. This includes changes to extensive nursing systems, care management processes, patient flow, care unit changes and operational management improvements to name a few — well in excess of issues perhaps solely identified by [Mrs A's] care. In my opinion such measures are to be applauded and form an excellent template of what can be achieved from responsive managerial oversight — though regrettably spawned from clinical tragedy rather than pre-emptive effective management. I would note some significant learnings for my own DHB which operates 4 Rural Hospitals and tends at times, to enact an enforced reactive model, rather than a proactive one, in its approach to clinical care needs.

My advice was requested to remain restricted to the care provided by [Dr D] and any systemic issues at [the public hospital].

I had initially broken those down into 4 categories:

1/ The attending medical staff:

A significant number of quality and systemic processes appear to have been implemented as stated in the additional information supplied by [the] Chief Executive Officer. This appears to include a stated plan to review staff position descriptions to ensure that all requirements for supervision are identified and made clear in the letter of offer. An orientation for new and locum doctors policy appears to have been developed. The *'Orientation for New and Locum Doctors [Public Hospital] July 2019'* does describe the expectations regarding handover and the documentation in place regarding this. It also describes the ward doctor's responsibilities and does not include any supervising physician role.

Long shift hours appear to have been significantly reduced from 63 hour weekends to 15 hour maximum shifts.

Many of the above initiatives appear to now be led and facilitated by the appointment of a Clinical Medical Director to oversee and take a direct clinical supervision role outside of any individual Medical Council requirements. Peer review processes appear to have been put in place.

I would anticipate [the public hospital] would have now adopted the *'National Medication Chart'* and *'EWS scoring Chart'* since [Mrs A's] care as improvements over the documentation in place at the time of her incident.

Further information in the above reports appears to state that an EWS champion has been nominated with monthly auditing and current compliance at 90–100% with further oversight by a quality committee.

2/ Laboratory reporting of significantly positive results.

It was initially unclear to me from the documentation provided what the … Laboratory (or … laboratory in the case of processing microbiology samples) reporting policy was with respect to inpatients with significantly positive results — particularly out of hours. [Mrs A's] Salmonella positive result appears to have been reported electronically at 17:34hrs on [Day 3] by the Laboratory and faxed to [the public hospital]. It does not however appear to have been specifically *notified* to the clinical staff responsible for [Mrs A's] care. The 'discovery' of her positive result appears to have been somewhat incidental when nursing staff asked for a clinical review by the overnight on call ward doctor at 03:30hrs [Day 4].

Further information provided states that any escalation of results of concern are now directly phoned through to the one doctor on site.

It also appears from subsequently provided information, that laboratory processes have been further reviewed with electronic results now provided by the laboratory provider. It however remains unclear if an audit process/real time electronic report of outstanding unacknowledged results system is also in place to support its operation, or if that is restricted to the paper based locum method.

For locum doctors it appears *'laboratory reports are placed in a folder with the Clinical Director maintaining oversight to ensure these are dealt with appropriately.'*

It would be my expectation that any such system would be robust and not create potential confusion between electronic vs paper based acknowledgement and tracking. Audit and real time reporting may also be less effective if maintaining a dual system.

In my opinion this is a systems support area that is critical to get right and made all the more fragile with mixed paper based vs electronic systems and the involvement of potentially transient locum staff. The devil is in the detail which was not provided to me.

I would however be optimistic that such systems have been reviewed and better thought out from the limited overview that was provided.

3/ Nursing Staff Issues:

I am aware an opinion has been sought from a nursing advisor. I would comment however from a systemic issues viewpoint there appears to have been a significant lack of updating medical staff regarding [Mrs A's] deterioration and clinical concerns — particularly in the latter stages of her illness. Documentation around fluid management, EWS scoring and notification to medical staff I would anticipate to have been addressed in that opinion.

As noted above there is additional extensive comment provided regarding such issues from the Chief Executive Officer with my expectation these have been reviewed by the nursing expert adviser involved.

4/ Procedural Issues:

The 'Incident Management Policy/Procedure [Public Hospital] October 2016' does not appear to have been followed with respect to the investigation process of [Mrs A's] death. It is unclear to me from the documentation provided why this occurred. The lead investigator appears to have been [Dr D] (together with [Clinical Nurse Manager]) in contradiction to the stated policy of *'The team will not include the health professional(s) involved in the incident and must not be led by the leader of the service involved.'* It is also unclear if the stated escalation procedures in the policy were followed and what the CEO's role in that clinical governance process was. I was not provided with a root cause analysis, the critical review minutes or an incident report of the event. [Mrs A's] complaint does not appear to have followed stated due process. I note a paper based review by a subsequently appointment Clinical Director did occur after her complaint was made.

Further information provided appears to state a significant wide ranging overhaul to clinical governance processes, quality and risk processes, risk register use and the handling of SAC 1 & 2 cases with a layered leadership structure. '*[The public hospital] has also in the last twelve months implemented a team approach to leadership. This sees the development of a team including Clinical Director, Quality and Risk Leader, Human Resources Officer, Director of Nursing and Operations, Chief Financial Officer and Chief Executive Officer. This is deliberate to ensure at leadership decision making level there is a balanced team to provide appropriate critique, challenge and advice*'.

This would be in keeping with processes at larger facilities and my own DHB's Rural Hospitals.

My only antidote comment from my own experience within such corporatized structures being a caution that identification, risk registering and reporting are not the same as responding effectively and adequately correcting issues — 'All talk and no Action' … hidden behind glossy clinical governance structures in my own DHB's Rural Hospitals has not always led to improved patient safety. … With the release of 'The Health & Disability Review Final Report March 2020' perhaps some of the health system more ‘systemic issues’ beyond the scope of the HDC, but nevertheless critical, in providing good care may enter wider debate and addressing at a political level.

4/ Any other matters in this case you consider warrant comment.
I have no additional comments to make.

Dr Richard Shepherd **Date: 20/06/2020**
Consultant Physician General Medicine, Rural Hospital Physician
Waikato District Health Board
MBChB FRACP FDRHMNZ”

Appendix C: Independent advice to the Commissioner

The following expert advice was obtained from RN Kaye Milligan:

"***[Public hospital] and [Mrs A]***

I have been asked to provide advice to the Commissioner on case number 18HDC00583.

I have read and agree to follow the guidelines 'Guidelines for Independent Advisors'.

My qualifications are Registered Nurse, Doctor of Philosophy (PhD), Master of Arts (Hons), Bachelor of Arts (Nursing), and Diploma of Teaching (Tertiary). I have worked as a registered nurse for approximately 40 years in clinical practice and in nursing education. My teaching experiences include undergraduate nursing students (including teaching in older persons' health), registered nurses and postgraduate students. My clinical practice as a registered nurse includes surgical services and also Assessment, Treatment and Rehabilitation of Older Adults. My PhD thesis was a case study of the clinical decisions that Registered Nurses in Residential Aged Care in NZ make.

The aim of this report is to provide the Commissioner with advice about the care provided by [the public hospital] to [Mrs A] [in 2018]. I will provide advice as requested on:

1. The appropriateness of the care provided by the nursing staff at [the public hospital] to [Mrs A] [in 2018], particularly:
   a. The falls management and planning for [Mrs A] following her admission to [the public hospital]
   b. The nursing care provided following the fall on [Day 4] and whether the family should have been informed earlier and medical review sought
   c. The use of EWS scores by the nursing staff and whether appropriate medical review was sought in a timely manner by nursing staff
   d. The timing that [Mrs A's] family was informed about her death
2. Any departures from accepted standard of care
3. The adequacy of [the public hospital's] falls policy and EWS policy at the time of the incident and currently (if different)
4. Any other comments

List of documents and records reviewed:

- Letter of complaint dated [2018]
- [The public hospital's] response dated [2018]
- Clinical records from [the public hospital] covering the period [Days 1–5]
- Complainant's feedback to response dated [2018]
- [The public hospital's] further response dated [2018]

- Further comment provided by [the public hospital] dated [2019]
- [The public hospital's] response dated [2019]
- [Dr I's] statement dated [2019]
- [RN Q's] statement dated [2019]
- [EN K's] responses dated [2019]
- [RN N's] response dated [2019]
- [RN L's] response dated [2019]
- [RN F's] response dated [2019]
- Email from [Dr P] dated [2019]

List of resources referred to:

Health and Disability Commissioner (1996). Code of Health and Disability Services Consumers' Rights. Retrieved from http://www.hdc.org.nz/the-act--code/the-code-of-rights

Nursing Council of New Zealand (2007, amended 2016). *Competencies for Registered Nurses.* Retrieved from: https://www.nursingcouncil.org.nz/Public/Nursing/Scopes_of_practice/Registered_Nurse/NCNZ/nursing-section/Registered_nurse.aspx?hkey=57ae602c-4d67-4234-a21e-2568d0350214

Nursing Council of New Zealand (2012). *Competencies for Enrolled Nurses.* Retrieved from https://www.nursingcouncil.org.nz/Public/Nursing/Scopes_of_practice/Enrolled_nurse/NCNZ/nursing-section/Enrolled_nurse.aspx

Nursing Council of New Zealand (2012). *Guideline: Responsibilities for direction and delegation of care to enrolled nurses.* Retrieved from: h*ttps://www.nursingcouncil.org.nz/Public/Nursing/Standards_and_guidelines/NCNZ/nursing-section/Standards_and_guidelines_for_nurses.aspx?hkey=9fc06ae7-a853-4d10-b5fe-992cd44ba3de*

Standards NZ (2008). *Health and Disability Services (restraint minimisation and safe practice) standards, NZS8134.* Retrieved from: https://www.standards.govt.nz/assets/Publication-files/NZS8134.2-2008.pdf

1a: The falls management and planning for [Mrs A] following her admission to [the public hospital]

Pertinent aspects of [the public hospital's] Policy/Procedure

The [public hospital's] Falls Prevention and Management Policy/Procedure listed appropriate documentation to include a 'falls risk assessment', 'falls risk care plan', 'patient plan of care', 'case history sheet' and 'progress notes'. A red falls risk bracelet was to be placed on the 'at risk' patient's wrist. Strategies to prevent falls were listed in the policy as well as specific nursing actions. The interventions when a patient fell were also listed in the policy and included the patient being 'checked' for signs of injury, notification to the Medical Officer to assess the patient and notification to the Duty Nurse. The patient's family was to be notified.

<u>Application to [Mrs A]:</u>

- [The nurse] completed the 'nursing assessment' form [Day 1] at 1740 hrs (on admission). This form was the initial form that identified if a full falls risk assessment was required and included seven questions that comprised the initial 'falls risk assessment'. The responses to these seven screening questions for [Mrs A] were 'no' to six and 'yes' to one. If any of the responses were 'yes' a full falls risk assessment was to be completed. [The nurse] concluded on this form that a full risk assessment was not required. However she should have identified this was required based on the 'yes' response to a GI assessment question about any problems with bowels. Other factors that would have fitted under 'clinical judgement' that were omitted were [Mrs A's] age and her weakness following a four day history of diarrhoea.
- No subsequent falls risk assessment was completed when it would have been appropriate: i.e. when she was identified in the progress notes to have a high risk of falls or poor mobility and also when she developed delirium.
- As a falls risk was not identified a 'falls risk care plan' was not completed.
- The 'patient plan of care' was completed however it is not clear who wrote it. Falls risk was not documented in the plan of care over the time [Mrs A] was in hospital. The 'patient plan of care' was not updated over the next 4 days to reflect changes in [Mrs A's] condition (i.e. updated each shift as required) and it appears only one addition was made. Updating the care plan would be expected of each nurse. Nurses should have signed the 'patient plan of care' each shift. Thirteen shifts were completed and seven of the thirteen nurses' initials are present and six are missing. Signatures were omitted once each by [RN H], … [RN G], [RN E], … and [EN K].
- The 'case history sheet' did not refer to any falls issues.
- 'Progress notes' were completed each shift as would be expected. [Mrs A] was identified to be at high falls risk on [Day 2] 0230 hrs by the RN on night shift, [RN E], however no full falls risk assessment was completed and no specific actions were included on the patient plan of care. [Mrs A's] risk of falls was subsequently not specifically referred to in the progress notes, however there were references most shifts to [Mrs A's] lack of mobility e.g. the assistance required and provided when [Mrs A] mobilised to the commode.

  Documentation in the progress notes occurred when [Mrs A] was found on her knees on [Day 4] at 2100hrs. Some of the strategies that were implemented at this time were appropriate and there is evidence of some careful consideration of these actions.
- There is no evidence a red falls risk bracelet was put onto [Mrs A's] wrist, even after she was found on her knees on [Day 4] at 2100hrs.

- Specific strategies to prevent falls were not identified as specified nursing actions.
- After [Mrs A] was found on her knees on [Day 4] at 2100hrs there was no documentation she was 'checked' for signs of injury. The Duty Nurse was spoken to and appears to have been responsible for notifying the Medical Officer. An incident form was apparently completed (but not included in documentation provided).
- [Mrs A's] family was not notified that evening with a staff request they be notified in the morning.

Summary: *In my professional opinion the [public hospital's] Falls Prevention and Management Policy/Procedure was not implemented and the management and planning to prevent falls was omitted.*

Individually I consider each omission (as above) to be minor–moderate for each RN and EN. Collectively they indicate a lack of implementation of a policy which is a major omission and indicates a systemic issue. The documentation falls below professional expectations.

1b: <u>The nursing care provided following the fall on [Day 4] and whether the family should have been informed earlier and medical review sought</u>

After the incident on [Day 4] at 2130hrs when [Mrs A] was found on her knees there is evidence in the progress notes of careful consideration by Enrolled Nurse (EN) [EN K] of appropriate actions to be taken. There is no evidence of any assessment being undertaken and this would be expected from both the enrolled nurse and registered nurse. The enrolled nurse should have taken vital signs and these were omitted for this shift. [RN N], who was also on the ward, assisted [Mrs A] back onto the bed, along with [EN K] and another nurse. The other nurse identified by [RN N] in her statement was [RN Q], however [RN Q] states she has no recollection of attending to [Mrs A]. The Duty Nurse, [RN L], was notified as per the [public hospital's] Falls Prevention and Management Policy/Procedure. There is no evidence that [RN L] saw [Mrs A] or completed any assessments. The Medical Officer should also have been notified as per the policy. It appears the Duty Nurse was responsible for notifying the Medical Officer however this did not happen.

As this event occurred later in the evening on [Day 4], and in the context of no obvious injury, it seems reasonable to inform family members the following day.

<u>Comment:</u> It is not clear who the registered nurse responsible for direction and delegation to [EN K] was. I consider this led to each RN considering they had no responsibility for [Mrs A] which contributed to a lack of assessment.

Summary: *In my professional opinion the [public hospital's] Falls Prevention and Management Policy/Procedure was not implemented and an assessment of [Mrs A] was not completed by a registered nurse and medical officer. This is a major omission.*

Each individual nurse should take responsibility for their part in the omission.

1c: <u>The use of EWS scores by the nursing staff and whether appropriate medical review was sought in a timely manner by nursing staff</u>

Vital signs were documented at least once each shift with the exception of the afternoon shift on [Day 3] and afternoon shift on [Day 4]. EWS scores were not always totalled on the 'Adult Vital Signs Chart'. A significant change in vital signs was recorded between 1530hrs on [Day 4] when the EWS score was 1 and 0230hs on [Day 5] when the EWS score was 6. This change in total score was significant and the Duty Manager was notified of this change at 0230hrs. The Duty Manager … stated she and the Medical Officer were busy at this time and neither saw [Mrs A]. At 0230hrs [RN F] also administered oxygen therapy via Nasal Prongs at 2 litres per minute. Oxygen therapy must be prescribed and in this situation it was not prescribed.

A previous change in [Mrs A's] condition was the '… small ?faecal/coffee ground vomit (20–30mls)' documented by [RN F] at 0005hrs on [Day 5]. As [Mrs A] had not vomited this type of liquid before, this change should have been notified to the Duty Nurse and subsequently the Medical Officer. While there appear to have been no other obvious changes in [Mrs A's] condition, recording vital signs alongside this event would have been prudent.

Summary: *In my professional opinion:*

[RN F] should have notified the Duty Manager of the vomit. I consider this to be a minor–moderate omission.

[The Duty Nurse] should have notified the Medical Officer of the changed EWS score. As the change was from 1 to 6 this is a significant omission.

1d: <u>The timing that [Mrs A's] family was informed about her death</u>

The documentation indicates that while there was a delay in notifying [Mrs A's] family there were appropriate reasons for this delay.

Summary: *In my professional opinion, the delay was reasonable.*

<u>2: Any departures from accepted standard of care</u>

As above.

<u>3: The adequacy of [the public hospital's] falls policy and EWS policy at the time of the incident and currently (if different)</u>

The [public hospital's] Falls Prevention and Management Policy/Procedure was issued in 2002 and had a review date of September 2018. It is not evident if any changes were made between these dates.

The policy has useful components however the policy and relevant documents needed/need review. The seven questions on the 'nursing assessment' form that were used to screen for the requirement for a falls risk assessment should be reviewed as they are inadequate (for example they ask about any changes in balance but do not include weakness and omit patient's age and diagnoses). Clearer guidelines about using clinical judgement should also be included. Further triggers for a review of the need for falls risk assessment should also be included on the patient plan of care. The policy needs to consider any relationship to enablers and restraints and there are clear requirements about enablers and restraints as per the Standards NZ website.

The Early Warning Score Management Guidelines Procedure was issued in August 2015 and had a review date of December 2019. It includes the NZ Early Warning Score Vital Sign Chart User Guide 2017 although it makes no links to the user guide. Overall however this is an adequate procedure.

4: Any other comments

I note that both [EN K] and [RN N] were relatively newly registered at the time [Mrs A] was in [the public hospital]. [EN K] is recorded on the NCNZ website as having a registration date of [2016] and appears to have been employed half time (0.5) from [2017]. This means [EN K] was still within her first year of clinical experience. ENs work under the direction and delegation of a registered nurse and they have competences that they must meet within their own practice and registration. [RN N] is also recorded on the NCNZ website as having a registration date of [2016] and appears to have been employed for one year, part time (0.8) from [2017] on the Nurse Entry to Practice Programme. She had therefore completed one year and one month in practice (on a 0.8 basis).

I would expect both nurses would require ongoing support from more experienced nurses at this stage of their practice.

The Job Descriptions provided by [the public hospital] to Enrolled Nurse [EN K] (in 2017) and [RN F] (in 2007) are very similar with minor changes made: the EN is receptive to guidance, and knows her/his limitations; the RN has a leadership role including direction and vision to enrolled nurses and students. The enrolled nurse description does not include specific information about direction and delegation and reporting lines. This has been a confusing area for some employers within the health context. I recommend clarification with clear lines of communication and responsibilities so that specific roles are known. When an enrolled nurse is on duty clarity about the responsible RN regarding direction and delegation is needed."

The following further advice was received from RN Milligan:

"***[Public hospital] and [Mrs A]***

I have been asked to provide further advice to the Commissioner on case number 18HDC00583.

The aim of this report is to provide the Commissioner with further advice about the nursing care provided by [the public hospital] to [Mrs A] [in 2018]. I will provide advice as requested on:

1. Whether I wish to amend the conclusions drawn in my initial advice or make additional comments
2. Any further comments or changes to my initial advice about the care provided by individual nurses that I mentioned in my initial advice
3. Whether the issues I identified were due to systemic issues at [the public hospital]
4. Any other comments

List of documents and records reviewed:

- Further statement by [Dr D] dated [2020]
- Letter from [the public hospital] dated [2020] and its attachments
- Letter from [Dr C] dated [2020]
- Letter from [Dr D] dated [2020]
- Letter from [the public hospital] dated [2020]
- Letter from [Dr C] dated [2020]
- RN O's response dated [2020]

1: Whether I wish to amend the conclusions drawn in my initial advice or make additional comments

I do not wish to amend the conclusions I drew in my initial advice. Additional comments are below.

2: Any further comments or changes to my initial advice about the care provided about individual nurses that I mentioned in my initial advice

The responses by the registered nurses (RNs) reinforce that there was a lack of clarity about which RN held responsibility for the direction and delegation of the Enrolled Nurse (EN) and that both the ED and ward areas were very busy during the afternoon and night shift. The 'busyness' meant the ward nurses did not have access to nursing or medical staff as would be usual.

3: Whether the issues I identified were due to systemic issues at [the public hospital]

I consider the issues were systemic. The situation at [the public hospital] was one of high demand for medical and nursing attention that coincided with [Mrs A's] condition deteriorating. Nurses are responsible for reporting changes in a patient's condition to medical staff and to request medical assessments of patients as appropriate. Collectively, the care and documentation of care did not meet the [public hospital] policies.

4: Any other comments

[The public hospital] has made substantial quality improvements.

- This includes the implementation of a designated 'Shift Leader' who is able to access nursing support from a key RN via the Escalation Phone.

Re Appendix 5: Shift Leader Expectations: under the list of extra tasks is 'Have knowledge and understanding of Standing Orders and Policies'. I recommend revising this to include ensuring policies are implemented.

- There are always to be at least two RNs in each of the clinical areas.
- There is a designated RN responsible for direction and delegation of the EN/s.

RE: Appendix 6: EN Position Description. This description is clearer and more appropriate. I recommend further review of three aspects.

1) Under 'role specific competencies' the 'level of problem solving' is too high and for this position description should involve referrals to the registered nurse.
2) The 'desired' 'Education and Qualifications (or equivalent level of learning)' is stated to be 'Postgraduate Qualification or studying towards' however this is not possible as the Diploma of Enrolled Nursing does not meet entry for postgraduate study.
3) Under 'other duties' it is stated 'Research undertaken is robust and well considered' however an EN should not be undertaking research.

- Extra support for newly registered and newly appointed RNs is to be available through the Clinical Trainer.
- The addition of a Health Care Assistant to support the EN and RN should be a positive addition.

These are substantial changes and I consider they should positively impact patient care as well as provide support for nurses.

K MILLIGAN

30/6/2020"

Names have been removed (except the experts who advised on this case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Appendix D: Summary of issues from the public hospital's review

In summary, the review report stated:

a) IV fluids and fluid balance should have been closely adhered to during the entire admission;

b) "Medical inpatient notes, including Ward round notes are clearly deficient: [Dr C] was the key inpatient doctor for this patient, under Consultant, [Dr D]";

c) Salmonella was identified just after 5pm on [Day 3] but no broad spectrum antibiotic was commenced;

d) There appears to have been no interaction by the medical team with the patient's daughter;

e) "An elderly patient in this situation was likely to be suffering from pre renal kidney failure and sepsis, from salmonella and would not demonstrate typical changes in observations … [T]he management of this patient, in my opinion, is not of an acceptable standard. This does put into question the quality of care provided by [Dr C] a non-vocationally trained Doctor, in spite of his current supervision by Internal Medicine Consultant [Dr D]."

f) During the last 24 hours of [Mrs A's] care, the nursing staff did not call for assistance from medical staff. This may have reflected the previous lack of input by both the principle doctor caring for this patient ([Dr C]) under the supervision of Consultant [Dr D].

g) The initial review by [the public hospital] in [2018] was not accurate. For example, the review did not identify the deficient medical care. The report stated: "[G]iven the end result of an inpatient death I would have expected greater clarity and discussion around the entire inpatient stay."

h) The care provided to [Mrs A] was below an acceptable standard for the practise of Rural Hospital Medicine. The report stated: "[T]his does place [the public hospital] in a vulnerable position in maintaining the current staffing model for the inpatient ward, with non-vocationally registered Doctors in Rural Hospital Medicine (or equivalent)."

Appendix E: Relevant public hospital policies

The relevant sections of the public hospital's policies are:

EWS policy
The public hospital's "Early Warning Score Management Guidelines Procedure" (August 2015) (the EWS policy) states:

> "2. Vital Sign Frequency
>
> 2.1 All patients must start on a minimum of 4 hourly observations which are to be recorded and scored on the designated observation chart.
>
> 2.2 Observations should be undertaken more frequently if the patient's condition warrants this, e.g. during blood transfusion, recognised physiological instability or if Policy/Procedure dictates.
>
> …
>
> 4.4 Management and documentation responsibilities
>
> 4.4.1 Nursing staff must calculate EWS total from the observation chart and document this score at the bottom of the chart. The total is also documented in the Progress notes for [inpatients] and on the admission form for ED patients.
>
> 4.4.2 All clinical staff must follow the appropriate EWS Escalation Path according to the EWS total."

A copy of HQSC New Zealand Early Warning Score Vital Sign Chart User Guide 2017 is attached to the EWS policy. The guide states:

> "EWS 1–5:
>
> - Consider increasing vital sign frequency.
> - Discuss with senior nurse.
> - Manage pain, fever and distress.
>
> EWS 6–7 Acute illness or unstable chronic disease:
>
> - House officer review within 30 minutes
> - Monitor vital signs every 30 minutes until EWS <6 and/or ingoing monitoring plan documented.
> - Inform nurse in charge.
> - Consider involving SMO."

Falls policy
The public hospital's "Falls Prevention and Management Policy/Procedure" (September 2002) (the falls policy) states:

"1 Assessment and Intervention for Patients at Risk of Falls

1.1 All patients fitting the assessment criteria will be assessed within 24 hours of admission. The goal is to identify the patient who is at risk before he/she falls, so that the fall and related injuries can be prevented. See Fall Risk management Flow Chart.

1.2 Reassessment is an ongoing process, especially if the patient's condition deteriorates/changes …

1.5 A red Falls Risk Bracelet is placed on the patient's wrist …

5 Intervention when the patient falls

5.1 The patient is checked for signs of injury.

5.2 Contact the Medical Officer to come and assess the patient."

Falls risk management flow chart
The falls policy also provides a falls risk management flow chart, which states:

"Admission of new patient ->

Does the patient fit into one of the following criteria:

1. All those persons aged 65 years and over
2. All those persons admitted with a history of falls
3. All those persons presenting with a fall
4. All those considered by the assessor to be of potential risk of falls
5. Fall risk alerts on care plan ->

Yes ->

Complete Falls Risk Assessment Tool."

The public hospital's nursing assessment form to be completed when a patient is admitted to the ward contains seven questions that are noted as "falls risk". The form requires that if any of the falls risk questions are answered "yes", a full falls risk assessment is required. The seven falls risk questions are:

"[I]nappropriate: behaviour, language?, memory problems?, disoriented?, patient has a brain injury or cognitive/perceptual deficit that requires assessment?, Are there any recent changes regarding the patient's balance?, [D]oes the patient have bowel problems? Does the patient have any continence problems?"

The nursing assessment form does not include the patient's age and diagnoses as factors for consideration of falls risk.

Appendix F: Summary of changes made since incident

The public hospital also told HDC that as a result of this incident, it addressed issues and made several improvements, including the following:

a) The High Dependency Unit has closed, and the public hospital has opened two beds in its Acute Care area (previously ED). A dedicated resuscitation room with updated equipment has also been created.

b) Base staffing levels in the inpatient area have been established, and a demand management plan has been instigated to address times of either increased demand or staff shortages.

c) It is recruiting rural hospital medical specialists who are skilled to work across both acute care and inpatients.

d) Key roles have been appointed to ensure the improvement of clinical quality and safety. The roles include a Clinical Director, a Director of Nursing and Operations, a Quality and Risk Leader, and a Clinical Trainer.

e) A Medical Peer Review Group approved by Medical Council has been established and is operating well.

f) Core staffing for all professional groups has been re-established incorporating adequate cover to release staff for leave.

g) The skill mix requirements for its clinical services have been redefined, and healthcare assistants work to support the clinical teams.

h) The Clinical Governance Group has been refreshed.

i) It has been rigorous in ensuring that doctors who are working under supervision are fulfilling the supervision requirements.

j) A falls review group with a focus on a falls auditing tool has been developed. A falls prevention champion has been identified to complete monthly audits using the falls compliance tool. This work is being overseen by the quality group.

k) A new draft falls policy articulates the expected audit process and follow-up of any identified issues.

l) The quality and risk leader reports monthly to the board on falls, SAC1 and 2, and CARs.[1]

m) The 2018–19 Falls Prevention Plan has been completed and provided to HDC. The plan includes staff training and the introduction of intentional rounding (checking whether a patient needs anything) and bedside handovers.

n) The 2020 Falls Prevention Plan includes finalising the new draft falls policy and its implementation and training. New initiatives in the plan include a clear understanding of patients who are at risk of falling. The new draft falls policy includes guidelines on a

[1] Corrective Action Recommendations.

patient's previous falls history, and will also be based on age, ethnicity, and other co-morbidities.

o) Each nursing shift in both the Acute Care Area and the Impatient Area now has a designated Shift Leader. The Shift Leader is further supported by an Escalation Phone that is answered by either the Director of Nursing and Operations, her deputy, or the Clinical Leader 24/7.

p) An EWS Champion has been identified and is responsible for the EWS audit tool, which is undertaken monthly. The public hospital has told HDC that current compliance on this is 90–100%.

q) The previous role of nurse educator was disestablished during the restructure and replaced with a Clinical Trainer role. The notable difference is the wider reach of the role, beyond nursing only. The Clinical Trainer is a registered nurse, and is responsible for overseeing the preceptorship of new nurses, and for the orientation of new staff.

r) The public hospital is working with NZNO to revise the job descriptions of enrolled nurses and registered nurses to ensure that they are more specific and include greater emphasis on direction and delegation for enrolled nurses.

s) Since [late] 2018, the public hospital has employed a new Clinical Director. As a result of the appointment, it has actively ensured that medical staff have appropriate supervision plans in place where indicated, and that these meet the requirement guidelines of NZMC. All medical clinicians who require supervision now have a signed plan lodged with NZMC that is monitored on a regular basis by the Clinical Director. The supervisors are both internal to the public hospital and external, usually through a main centre hospital.

t) The medical team meets on a fortnightly basis for an hour of peer review. The meetings are compulsory for all medical staff, and minutes are taken. The meetings enable a safe and professional forum for clinical, ethical, and professional matters to be discussed. Corrective actions or improvements to service delivery are presented to Clinical Governance from peer review.

u) Currently the position descriptions for medical staff are in the process of review. At the time of appointment of any medical staff, the recruiting team, which involves the Clinical Director, has the responsibility to ensure that all requirements for supervision are identified and that these are included in the letter of offer.

v) [The public hospital] continues to attempt to recruit permanent doctors. It told HDC: "[T]he current dependence upon the locum workforce is untenable."

w) It has implemented a new Medical Job Description and Orientation for New and Locum Doctors Policy. These documents provide clarity around supervision and reporting for medical staff. It has also worked hard to address other areas of concern for medical staff, such as abolishing the 63-hour weekends. Shifts now have a maximum length of 15 hours (which includes the ability to sleep at night if circumstances permit).

x) It now utilises electronic results from the laboratory provider, which are all placed in one folder, with the Clinical Director maintaining oversight to ensure that the results are being dealt with appropriately.

y) [The public hospital] now has one doctor on site at the facility at all times. Any escalation as a result of concern is telephoned through to that person. From 5pm to 8am, this doctor is responsible for the entire hospital, including inpatients.

z) Since early 2019, [the public hospital] has attempted to move towards a Rural Hospital Medicine model where it can have doctors working across the facility. Although this is the intended pathway, it has yet to be implemented fully, and remains dependent on locums because of ongoing recruitment challenges.

aa) Subsequent to its changes in early 2019, [the public hospital] has completed a range of actions to improve clinical safety and quality relating to escalation to a responsible person, including:

   i. Regular monitoring, auditing, and reporting on compliance with Early Warning Score usage;

   ii. Mandatory Early Warning Score training for all staff;

   iii. Instigation of a 24/7 escalation phone manned by either the medical or nursing clinical leader to provide support and guidance for clinical staff at all times;

   iv. ISBAR training, which has been completed and is ongoing. It identified an issue with the quality of handover information, and subsequently this approach has been implemented;

   v. ISBAR training as part of the orientation for both medical and nursing staff. ISBAR is used for liaison with the base hospital to improve quality of clinical handover;

   vi. [The public hospital's] implementation of an electronic on-line document for medical handover. This is available to all clinical staff caring for the patient;

   vii. [The public hospital] plans to use the electronic on-line handover document for nursing handover in the near future. This would also be stored on HCS;

   viii. [The public hospital's] offer of the postgraduate paper in assessment of the deteriorating patient, and subsequent completion of the paper by 12 nurses in 2020. Further courses are planned;

   ix. [The public hospital's] offer of regular triage courses for nursing staff.

Further changes since these events

In response to the provisional report, [the public hospital] told HDC that it has:

a) Implemented a new audit tool to audit against the EWS policy, and currently carries out these audits on a regular basis in both its Emergency Department and the ward. [The public hospital] provided copies of several audits that show 100% compliance with its policy.

b) Developed an audit tool and completed mini falls audits monthly to audit against the falls policy, with ten patients audited on a monthly basis. The Quality Manager reports on audits and incidents to staff, through quality meetings, ED, and ward meetings, and monthly through a report to the Board. [The public hospital] told HDC that where the audit results did not show 100% compliance, they took additional steps to address the issue.

c) Carried out documentation audits monthly in the ward and ED for general documentation and standard orders against policy. [The public hospital] told HDC that audits will continue to be completed monthly.

d) Audited compliance with the incident management policy, and full compliance was achieved for its Health and Disability Certification audit in February 2021. It has reviewed its policy and procedure on incident management, and a copy of its updated incident management policy was provided to HDC.

e) Achieved full compliance with its audit of the open disclosure policy.

f) Laboratory results are now a computer-based system. The system notifies the Clinical Director as well as the Quality Manager and Chief Medical Officer of any outstanding results that have not been reviewed.

g) Established a new nursing staff structure with a new management and team structure for both the ED and the wards. As part of the change process, there has been a focus on upskilling nursing staff and increasing experience in acute care.

h) Carried out a quality improvement initiative for falls, which included the implementation of a new falls prevention and management policy and procedure.

i) Updated the enrolled and registered nurses position descriptions. A copy of the updated position descriptions were provided to HDC.

j) Updated the position description for medical staff. All permanent and new doctors are required to complete credentialing documentation. The orientation policy was also renewed, and currently is undergoing an annual review and update.

k) Trained all staff, including any new staff, about the EWS policy, ISBAR, and falls policy. These topics are included in the orientation education package.

Appendix G: Relevant standard

MCNZ's statement "Maintenance and Retention of Patient Records" (August 2008) states:

"01 (a) You must keep clear and accurate patient records that report:

relevant clinical findings

decisions made

information given to patients

any drugs or other treatment prescribed.

(b) Make these records at the same time as the events you are recording or as soon as possible afterwards."