District Health Board

Registered Nurse, RN A

A Report by the

Health and Disability Commissioner

(Case 15HDC01664)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. Mr B, aged 73 years, had a complex medical history which included ischaemic cardiomyopathy[1] and a previous acute myocardial infarction (heart attack).

2. At approximately 1pm on Day 1[2] 2013, Mr B was admitted to the Emergency Department at a public hospital with shortness of breath, leg swelling, diarrhoea and vomiting, and low blood pressure. Dr C completed Mr B's admission documentation and implemented a "Do Not Resuscitate" instruction, and recorded that it was "medically indicated".

3. Mr B remained in hospital and, on Day 7, he was assigned to the care of Registered Nurse (RN) RN A.

4. At 9am, RN A reviewed Mr B's medical chart and noted the prescribed medication of 11.875mg metoprolol daily. RN A was unfamiliar with this dose of metoprolol and believed the doctor must have placed the decimal in the incorrect place and intended to write 118.75mg. RN A stated that she meant to check this dosage with a colleague, but became distracted and returned and gave Mr B 118.75mg.

5. At approximately 12pm, RN A reviewed Mr B and took his observations. She noted that his health, including his blood pressure, had deteriorated. The man also scored 4 on the early warning score (EWS) chart. She contacted medical staff regarding Mr B's observations and was provided with advice. RN A did not document this advice. She also did not notify the ward nurse, ensure that Mr B was reviewed by medical staff within 30 minutes, or monitor him every 30 minutes as was required by hospital EWS policy. Later that day, at approximately 2pm, Mr B rang his call bell, and a health assistant attended to him. The health assistant informed RN A, who reviewed him and noted that his condition had deteriorated further. RN A contacted Dr G and requested that she review Mr B.

6. Medical staff reviewed Mr B's medication chart and identified that RN A had provided an incorrect dose of metoprolol.

7. Following the identification of the error, Mr B was transferred to the Coronary Care Unit, where attempts were made to remedy his low blood pressure. Mr B's condition continued to deteriorate, and at 11.55pm he passed away.

Findings

8. By failing to provide the correct dosage of metoprolol to Mr B, by failing to notify the ward nurse of Mr B's Early Warning Sign (EWS) score of 4, and by failing to repeat observations following her identification of Mr B's EWS of 4, RN A did not provide

[1] Significant damage to the heart muscle.
[2] Relevant days have been referred to as Days 1-7 to protect privacy.

services to Mr B with reasonable care and skill. Accordingly, RN A breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[3]

9. By failing to record Mr B's deterioration in health at approximately 12pm, by failing to document her discussions with other medical professionals, and by failing to document that a medication error had occurred once it was identified, RN A failed to provide services in accordance with professional standards and, as such, breached Right 4(2) of the Code.[4]

Recommendations

10. The Commissioner recommended that RN A undertake further training on professional communication. RN A has provided a letter of apology to Mr B's family for her breach of the Code, as recommended in the provisional opinion.

11. The Commissioner recommended that the Nursing Council of New Zealand consider undertaking a competence review of RN A.

Complaint and investigation

12. The Commissioner received a complaint from Mrs F about the services provided to her father, Mr B, by the district health board (the DHB) and RN A. The following issues were identified for investigation:

- *Whether the DHB provided Mr B with an appropriate standard of care between in 2013.*
- *Whether RN A provided Mr B with an appropriate standard of care in 2013.*

13. An investigation was commenced on 11 August 2016.

14. The parties directly involved in the investigation were:

Mrs F	Complainant
RN A	Provider
DHB	Provider

15. Information was also reviewed from:

Mrs B	Consumer's wife
Dr C	Provider
Dr D	Provider
Dr E	Provider

[3] Right 4(1) of the Code states: "Every consumer has the right to have services provided with reasonable care and skill."
[4] Right 4(2) of the Code states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."

Dr G Provider
NZ Police
Coroner
Nursing Council of New Zealand

16. Expert advice was obtained from in-house nursing advisor Ms Dawn Carey **(Appendix A).**

Information gathered during investigation

Admission to the public hospital

17. Mr B had a complex medical history which included ischaemic cardiomyopathy[5] and a previous acute myocardial infarction (heart attack). Prior to admission, Mr B was taking a daily dose of 47.5mg metoprolol (two tablets of 23.75mg)[6] as a standard treatment for ischaemic cardiomyopathy.

18. At approximately 1pm on Day 1, Mr B, aged 73 years, was admitted to the Emergency Department at the public hospital with shortness of breath, leg swelling, and diarrhoea and vomiting. Mr B's blood pressure was recorded as 112/79mmHg (the normal range being over 120/80mmHg).

19. At 3.20pm, Mr B was assessed by medical registrar Dr C. Dr C documented that Mr B's presenting problem was dehydration. At 5.30pm, Mr B was admitted to the medical ward at the public hospital.

Care provided in the Coronary Care Unit

20. On Day 2, Mr B was assessed by consultant physician Dr D, who recorded that Mr B had symptoms of heart failure.

21. On Day 3, a cardiologist requested an ultrasound scan of Mr B's heart, which confirmed that the left side of his heart muscle was impaired. It was documented that Mr B's heart rhythm was abnormal and his blood pressure was low at 85/54mmHg.

22. At approximately 8.20pm on Day 3, a registrar assessed Mr B and documented that she had discussed Mr B's condition with the cardiologist. She recorded the treatment plan as involving "low dose metaraminol[7] target BP 100". Mr B was subsequently transferred to the Coronary Care Unit (CCU) for ongoing treatment. Following the transfer, Mr B received an infusion of the medication metaraminol to raise his blood pressure.

[5] Significant damage to the heart muscle.
[6] A medication used in heart failure to assist the heart with pumping blood. Metoprolol is dispensed in tablet form and is available in four strengths — 23.75mg, 47.5mg, 95mg and 190mg. It can also lower blood pressure.
[7] A medication used to treat low blood pressure.

23. On Day 4, a house officer documented that Mr B's blood pressure had improved to 100/70mmHg, and that his heart rhythm had returned to normal. The house officer withheld Mr B's usual dose of metoprolol owing to the medication's ability to cause low blood pressure.

24. At 8.50am on Day 5, Dr D reviewed Mr B and documented that his blood pressure was in an acceptable range for Mr B at 92/64mmHg. Dr D also documented that Mr B had developed a chest infection, was still suffering heart failure, and that his kidney function had decreased. Dr D restarted Mr B on a lower strength of 11.875mg metoprolol (half a 23.75mg tablet daily).

25. At approximately 2.15pm on Day 5, it was documented that Mr B's health was improving and he was transferred back to the medical ward for further management of his congestive heart failure.

26. On Day 6, Mr B was reviewed by medical registrar Dr E. Dr E assessed Mr B and documented that he was still suffering from heart failure, and his blood pressure was 95/70mmHg. Dr E also documented that Mr B's kidney function continued to deteriorate. Dr E continued to prescribe Mr B a low dose of 11.875mg metoprolol daily.

Medication error

27. On Day 7, Mr B was assigned to the care of RN A. At the time of events, RN A had been a registered graduate nurse for less than a year, and had completed the necessary assessments to allow her to administer prescription drugs to patients.

28. At 8.30am, Mr B was reviewed by Dr D and house officer Dr G. Dr G recorded in Mr B's medication chart that he was to receive 11.875mg metoprolol daily and antibiotics to remedy a chest infection.

29. At 9am, RN A reviewed Mr B's medical chart and noted the prescribed medication of 11.875mg metoprolol daily. RN A told HDC:

> "I looked at the dose (11.875mg) and questioned to myself, whether it was the correct dose. I had given Metoprolol a number of times before, but never in a dose that small. I had previously given 118.75mg dose on several occasions."

30. RN A told HDC that she believed that Dr G might have placed the decimal point in the wrong place. She stated:

> "I had intended to leave the medication room and contact the House Officer about the dose, however prior to my leaving I was distracted by another nurse talking to me and so forgot about the need to check the dose with the House Officer."

31. RN A told HDC that she then returned to Mr B and gave him 118.75mg of metoprolol (one 95mg tablet and one 23.75mg tablet). RN A recorded this dosage on Mr B's medication chart, and recorded in the clinical notes (no time is recorded) that Mr B's Early Warning Score (EWS) was 0 and that she had given medications as charted.

32. The EWS protocol is a trigger system or tool used to calculate and recognise when a patient's physiological state is deteriorating and to help staff to increase observation frequency and/or escalate care to the most appropriate level. It uses a simple scoring system that can be calculated at the patient's bedside, using key physiological parameters and vital sign monitoring.

33. The DHB's EWS policy outlines the action required depending on a patient's EWS scores. The EWS scores are outlined as ranging from zero to three or greater, with three or greater being the most serious in nature and requiring a greater level of medical review.

34. Following providing Mr B with metoprolol at 9am, RN A reviewed Mr B's notes and identified that he was due for a trial removal of his catheter. She returned to Mr B and performed this procedure.

35. At approximately 10.30am, RN A returned to Mr B to assist him with showering. She told HDC: "At this stage there was no indication that he was feeling anything but tired."

36. RN A told HDC that she returned later in the morning to give Mr B an enema. She said: "At this time [Mr B] seemed to be the same as when I had last seen him."

37. At approximately 12pm, RN A returned to take Mr B's observations. RN A told HDC that, at this time, Mr B looked "tired and listless". She stated: "He said that he felt tired and low in energy. On questioning, [Mr B] said that he had no shortness of breath, dizziness or pain of any kind."

38. RN A told HDC that she took his observations. She stated:

> "They included a blood pressure (BP) of 80/52 and respiratory rate (RR) of 24. I saw that this was a significant drop of BP from the morning observations. He scored 4 on the Early Warning Score (EWS) chart which was a significant change from earlier that day and indicated that a House Officer was to be informed immediately."

39. RN A did not document these observations in the clinical notes. She told HDC:

> "Focusing on getting tasks finished was my first priority and with constant interruptions during the day I thought that at the end of the shift I would be able to sit down and get all notes written when I could fully focus and concentrate on what I was writing without interruptions."

40. The DHB's EWS policy outlines that patients with an EWS score amounting to 1 or more requires the registered nurse performing the calculation to notify the ward nurse. Any patient with an EWS of 2 should also be reviewed by medical staff within one hour, with observations repeated by the nurse every 30 minutes, and any EWS of 3 or greater should result in a review by medical staff within 30 minutes, with observations repeated by the nurse within 30 minutes.

41. RN A told HDC that, at around 12.45pm, she contacted house officer Dr G and informed her of Mr B's observations.

42. Dr G told HDC:

> "I told her to give him oral fluids only to help improve his blood pressure as he was on a fluid restriction for his heart failure. I also told her to re-check his blood pressure in about 30 minutes later and to contact [Dr E] for possible review as I knew she was on the ward."

43. RN A told HDC that she then contacted Dr E and informed her of Mr B's low blood pressure and EWS. RN A said:

> "[Dr E] stated that [Mr B] had had consistent low BP during his stay in hospital and explained this was because of his stage of heart failure. I said that [Mr B's] [blood pressure] automatically scored him a 3 on EWS chart and he [had] a respiratory rate over 22 which scores a 1 (totalling 4). She said that she was not surprised due to the extent of his heart failure and the on-going pattern of ongoing low BPs. As he was asymptomatic except for tiredness, the plan which she set was for me to give [Mr B] a glass of water and not to take any further action."

44. In contrast, Dr E told HDC:

> "[RN A] said that she was concerned about [Mr B] because he appeared fatigued and had told her he felt breathless. I do not recall her reporting any specific observations to me, certainly not an elevated Early Warning Score (EWS). I told [RN A] that I was dealing with an emergency and would review [Mr B] as soon as I was able. I recommended keeping him under close observation and to contact me again if she noted any signs of deterioration."

45. RN A did not inform the ward nurse of Mr B's observations. She told HDC:

> "During my time on the ward I had on different occasions approached the Co-ordinator to ask questions. On some occasions, I felt unsupported in my conversations and at times was made to feel bewildered, embarrassed, alone and confused. These occasions impacted on my confidence and led me to retreat from asking certain people for help."

46. RN A told HDC:

> "I decided to ring the doctors first, because ultimately I thought this is what the Co-ordinator would tell me to do, and then with their reassurance and still having lots of jobs to do, I didn't follow-up with the Co-Ordinator."

47. RN A did not document her discussions with Dr G or Dr E at this time, or any subsequent monitoring. RN A told HDC:

> "Due to time pressures, and being flustered with tasks still to do, I overlooked the half hourly monitoring. I visited [Mr B] regularly during the shift at different times

to help with cares and communicate with him directly but did not complete EWS protocol."

48. Later that day, at approximately 2pm, Mr B rang his call bell and a health assistant attended to him. RN A told HDC that the health assistant informed her that Mr B was feeling short of breath. RN A attended Mr B, who informed her that he was finding it hard to breathe. RN A told HDC that she asked Dr G to review Mr B, as "his level of consciousness was declining and he was complaining of shortness of breath".

49. Dr G attended Mr B and found that he could speak only very faintly and was having difficulty breathing. Dr G inserted oxygen nasal prongs and administered oxygen to Mr B. Dr G requested Dr E's attendance.

50. RN A told HDC that it was difficult for the electronic machine to determine Mr B's blood pressure, so Dr G performed a manual check. At 3.45pm, Dr G documented a retrospective note that recorded Mr B's blood pressure at 70/58mmHg.

51. Dr E arrived and reviewed Mr B's medication chart. When she identified that the medication chart stated that RN A had given Mr B 118.75mg of metoprolol (instead of the prescribed 11.875mg), she queried with RN A whether she had in fact given that amount. RN A confirmed that she had.

52. Dr E contacted Dr D, informed her of the medication error, and requested her attendance at the ward.

53. At approximately 3.30pm, Dr G and Dr D attended a family meeting with Mr B's wife and son to discuss Mr B's condition and inform them of the medication error. Dr G recorded that she informed them of his heart failure and the medication error, and "[e]xplained that he may not pull through this".

54. At approximately 4pm, after consultation with Mrs B and her son, Mr B was transferred to CCU for closer observations and metaraminol infusions to maintain his blood pressure. Dr G documented the treatment plan as transferring Mr B to CCU and providing intravenous fluids, glucagon, and a metaraminol infusion.

55. At some stage, following the identification of the medication error, RN A documented under the heading "Nursing Notes Am [continued]" that Mr B had been low in energy and that she had informed Dr G and Dr D. She also documented that she had followed Dr D's instructions and given Mr B fluids.

56. RN A did not document that a medication error had occurred. She told HDC: "Having realised the extent of what I had done I was distraught and was not able to mentally focus, therefore I missed documenting relevant details of what events occurred."

Transfer to CCU

57. At 4.20pm, Dr D reviewed Mr B and documented: "Continue to increase IV metaraminol. Aim [blood pressure] 90."

58. Following Mr B's transfer to CCU, he was monitored on an electrocardiogram machine.[8] Mr B was also monitored and had his observations taken and recorded on a "CCU Flowsheet" five times between 4pm and 11pm. Mr B's blood pressure and fluid intake were also recorded at 5pm.

59. At 10pm an RN reviewed Mr B and recorded his blood pressure as 75/53mmHg and his heart rate at 60bpm.

60. At 11.15pm, Mr B had a blood pressure of 99/70mmHg. An RN retrospectively recorded that the medical registrar reviewed Mr B's clinical notes.

61. At 11.35pm, Mr B became bradycardic with a heart rate of 35bpm, which increased to 50bpm. At 11.40pm Mr B had periods of bradycardia again, with a heart rate of less than 25bpm. A medical registrar was informed.

62. At 11.44pm, the medical registrar reviewed Mr B and documented that Mr B was having prolonged bradycardias with a heart rate of 23bpm. The medical registrar discussed Mr B's condition with his family.

63. Mr B's condition continued to deteriorate, and, at 11.55pm, he passed away.

Additional information

64. Mrs F told HDC that only moments before Mr B's death the family were made aware of a "Do Not Resuscitate[9]" (DNR) instruction on his file. She was not previously aware of this, and queried whether this had been discussed with Mr B.

65. On [Day 1], Dr C recorded in Mr B's clinical notes under "Resuscitation Treatment Decision" that it was medically indicated that resuscitation treatment options, including cardiopulmonary resuscitation[10] and direct current cardioversion,[11] were to be withheld.

66. The DHB's "Resuscitation Treatment Decisions" policy stated:

> "Patients should have the opportunity to express their wishes about the use of resuscitation measures during their hospital stay. This process should encompass discussion about their disease processes, therapeutic options, resuscitation measures and the realistic potential for benefit from these measures."

67. The policy further stated:

> "The wishes of the patient will be honoured unless the patient's preferred treatment is considered futile or unavailable … Resuscitation treatment decisions

[8] A machine that records the electrical activity of the heart over a period of time using electrodes placed on the skin.
[9] An order that states that methods of resuscitation, for example cardiopulmonary resuscitation or life support, are to be withheld.
[10] An emergency procedure that involves chest compressions and artificial ventilation in an effort to restore blood circulation.
[11] A procedure to return an abnormal heart rhythm to a normal heart rhythm.

> will be documented by the consultant or registrar responsible for the patient's care and … Documentation will include: … Reasons for decision."

68. Dr C did not record any discussions between Mr B and himself regarding the DNR instruction. In addition, Dr C did not document his reasoning behind his decision that a DNR was medically indicated. Dr C told HDC: "I cannot recall the involvement I had with [Mr B] on [Day 1]. This extends to the conversation about his do not resuscitate status."

69. Dr C told HDC:

> "In writing medically indicated in the DNR box I can only assume that I meant CPR and DC cardioversion would not have been indicated given his complex medical history and his family was understanding of this. However, given I am unable to recall the conversation it would be hard to confirm this either way.
>
> My omission in documenting this in the notes also makes it difficult to confirm what happened around this discussion and would have been unusual for me at this time and I can only put it down to it being a very busy shift in ED and intending to fill the details out later."

70. Dr C stated: "At the time of [Mr B's] admission my standard approach was to discuss with each patient what they would like to have happen if for some reason their heart or lungs were to stop while they were in hospital." Dr C told HDC that this included an explanation of the risks and benefits of resuscitation methods.

71. Mrs F told HDC that the family was with Mr B during his admission to the public hospital, and does not recall Dr C having a discussion with Mr B about the medically indicated DNR instruction. Mrs F said that the family "consider it unlikely that this was discussed and agreed by [Mr B]".

72. Mrs B told HDC: "[T]o the best of my recollection … while I was with my late husband [Mr B], in the ED of the public hospital, there was no discussion between [Dr C] and ourselves about a 'Do Not Resuscitate Order'."

Communication with family

73. Mrs F told HDC that communication with the family was inadequate following the medication error, both in the medical ward and following Mr B's transfer to CCU.

74. The Director of Nursing at the DHB told HDC that Mrs F's comments regarding poor communication are accepted.

75. The DHB's EWS protocol required the DHB staff to "[c]onsider Discussion with patient/relative" when a patient's EWS score was three or greater. At approximately 12pm, RN A took Mr B's observations and established that his EWS was four.

76. The Director of Nursing told HDC that, as RN A did not escalate her concerns to senior nursing staff [the ward nurse], as required by the EWS protocol, the family were not contacted earlier in the day. She said that it was only when RN A contacted a

junior doctor regarding Mr B's status that the medication error was identified and senior nursing staff became aware of Mr B's condition. The family was told of the medication error and Mr B's condition when they arrived to visit him at 3.30pm.

Actions taken following these events

77. The DHB investigated the causes of the incident and reported that RN A had made a conscious deviation from the standards of practice..

78. The DHB also consulted with the Health Quality and Safety Commission (HQSC) about the 2012 Safety Signal (oral metoprolol administration) communiqué. Subsequent to this, HQSC issued a Medication Alert for action by DHB Chief Medical Officers concerning the prescribing of 11.875mg metoprolol.

79. the DHB made the following changes as a result of its investigation:

- It has further developed its process for managing Alerts and Safety Signals from HQSC, which outlined accountabilities and communication plans.
- HQSC Medication Alerts are now a mandatory agenda item on the monthly Clinical Governance Board meeting.
- It has appointed a pharmacist whose focus is on medication safety.
- It has removed the 23.75mg dose from the DHB and decided that no further prescribing of the 11.875mg dose will occur.
- It now requires all new graduates to attend an Acute Life-threatening Events: Recognition and Treatment (ALERT) course within the first six months of practice to reinforce EWS escalation protocol.
- It has shared the case study anonymously for learning with external governance groups and all nurses across the DHB.
- A new "Documentation" DVD has been launched as part of the new graduate nursing education programme, and the standard of its clinical documentation is audited at regular intervals.
- All new graduate nurses now complete the ALERT course within the first six months of employment. This reinforces the escalation protocol that needs to be followed when a patient's vital signs trigger an EWS greater than zero.

80. RN A told HDC: "My conscience reminds me of my huge error regularly, which saddens me and emotionally takes me to [a] place of remorse and wishing I could change that whole day." She stated: "I would like to sincerely apologise to [Mr B's] family for the error that I made and for the impact [Mr B's] death has had on their family."

81. RN A also told HDC that this error has made her "extra diligent and extra cautious around medication delivery", and that she checks with the relevant medical professional if she has any concerns about any medications charted to be delivered.

82. RN A stated that since her new employment she has worked closely with an experienced registered nurse who has supported and guided her throughout her

practice. RN A said that she has completed additional training and worked with another registered nurse to implement an electronic medication system that ensures that medication is delivered in a safe and timely manner.

Response to provisional opinion

83. Mrs F told HDC:

> "The lack of communication between the medical staff and our family was unacceptable as we did not realise the gravity of the situation. It led us to make decisions that we have deeply regretted. This includes family members going home for the night and being unaware of the Not for [Resuscitation] ruling."

84. RN A was provided with an opportunity to respond to the relevant sections of the provisional opinion. RN A told HDC that she has since completed further education on medication safety.

85. Dr C was provided with an opportunity to respond to the relevant sections of the provisional opinion. Dr C told HDC:

> "Since the incident I have changed my practice so that another member of hospital staff is present when discussing DNR statuses of patients and their families. I have also changed my documentation practices to ensure it is more thorough even when under pressure due to high patient workloads."

86. Dr C stated: "[M]y practice has certainly changed since this event and that I carry these forward with me for every patient I deal with."

87. The DHB was provided with an opportunity to respond to the provisional opinion. The DHB had no further information to add.

Opinion: RN A — Breach

Medication administration

88. On Day 1, Mr B was admitted to the Emergency Department at the public hospital with shortness of breath, leg swelling, and diarrhoea and vomiting.

89. At 7.30am on Day 7, Mr B was in the medical ward at the public hospital, and his vital signs were within an acceptable range. At 8.30am, Dr G prescribed Mr B 11.875mg of metoprolol. At approximately 9.20am, RN A gave Mr B 118.75mg of metoprolol instead of the 11.875mg of metoprolol prescribed by Dr G. At this time, Mr B had an EWS score of zero.

90. RN A told HDC that previously she had never seen a prescribed dosage of 11.875mg of metoprolol, although she had seen 118.75mg prescribed previously, and believed Dr G had placed the decimal point in the incorrect place.

91. RN A told HDC that she intended to check this with Dr G, but became distracted by a conversation with another nurse. RN A then returned to Mr B and gave him the dosage of 118.75mg. RN A accepts that this dosage was incorrect.

92. My expert advisor, RN Dawn Carey, advised:

> "Safe medication administration is a core competency that all nurses are deemed to have achieved upon registration … When [RN A] had doubts about the veracity of [Mr B's] prescription, she could have chosen to speak with the RN co-ordinating the shift and sought advice. It needs to be acknowledged that no hospital based new graduate nurse practises in isolation. Also being open to seeking advice and assistance are behaviours expected of all nurses."

93. RN Carey also advised that RN A had various options available to her when she became unsure of the prescribed dosage. RN Carey said:

> "Alternative appropriate actions available to [RN A] included withholding the prescribed 'once daily' Metoprolol until she had clarified the dose with the prescriber or administering 11.875mg Metoprolol while waiting for the opportunity to clarify the dose with the prescriber."

94. Once RN A doubted the accuracy of Mr B's prescription, she should have taken one of the various alternative options available to her. Instead, on the basis of an incorrect assumption, RN A acted outside her scope of practice and provided Mr B with a significantly greater dose of metoprolol than had been prescribed. This action was plainly unacceptable.

Communication with co-ordinating registered nurse

95. At 12.50pm, RN A reviewed Mr B and established that his vital signs totalled an EWS of 4. The DHB's EWS protocol required RN A to escalate her concerns regarding the elevated EWS score to the ward nurse. RN A did not follow this protocol. She told HDC that, previously, she had felt unsupported by the co-ordinator. She stated:

> "I decided to ring the doctors first, because ultimately I thought this is what the Co-ordinator [ward nurse] would tell me to do, and then with their reassurance and still having lots of jobs to do, I didn't follow-up with the Co-ordinator."

96. While I note RN A's comments, RN Carey advised that the lack of communication with the ward nurse is concerning. I agree. RN A failed to adhere to the EWS protocol and inform the ward nurse of Mr B's elevated EWS score.

Monitoring of vital signs

97. RN A told HDC that, at approximately 12pm on 3 May 2013, she took Mr B's observations and he had an EWS of 4.

98. The DHB's EWS protocol required RN A to continue monitoring Mr B's observations on a half-hourly basis. RN A accepts that she did not do this. She told HDC: "Due to time pressures, and being flustered with tasks still to do, I overlooked the half hourly monitoring."

99. RN Carey advised that RN A's monitoring of Mr B's vital signs following her identification of his EWS score of 4 was inadequate. I agree. The protocol is a safety mechanism, and RN A's failure to follow it in these circumstances was unacceptable and represents very poor care.

Conclusion

100. RN Carey advised that the combination of RN A's failures amounted to a significant departure from an accepted standard of care.

101. By failing to provide the correct dosage of metoprolol to Mr B, by failing to notify the ward nurse of Mr B's EWS of 4, and by failing to repeat observations following her identification of Mr B's EWS of 4, RN A did not provide services to Mr B with reasonable care and skill.

102. Accordingly, I find that RN A breached Right 4(1) of the Code.

Documentation

103. I accept that RN A sought advice from Dr G and Dr E following her identification of Mr B's EWS of 4. However, there is a lack of clinical documentation detailing Mr B's observations. Furthermore, RN A did not document the details of her conversations with Dr G or Dr E until after the medication error was identified, and at no time did she document that a medication error had occurred.

104. I note that RN A told HDC: "Having realised the extent of what I had done I was distraught and was not able to mentally focus, therefore I missed documenting relevant details of what events occurred."

105. As a registered nurse, RN A is responsible for ensuring her adherence to professional standards. The Nursing Council of New Zealand's "Competencies for registered nurses" (December 2007) states:

> "Competency 2.3
>
> Ensures documentation is accurate and maintains confidentiality of information.
>
> Indicator: Maintains clear, concise, timely, accurate and current health consumer records within a legal and ethical framework …"

106. The Nursing Council of New Zealand's "Code of Conduct" (June 2012) relevantly states:

> "Principle 4
>
> Maintain health consumer trust by providing safe and competent care
>
> …

4.8 Keep clear and accurate records …"

107. RN Carey advised me that RN A's documentation was inadequate. I agree. RN A had a responsibility to ensure that she documented Mr B's health status, and she did not.

108. By failing to record Mr B's deterioration in health at 12.30pm on Day 7, by failing to document the discussions she had with other medical professionals, and by failing to document that a medication error had occurred once it was identified, RN A failed to provide services in accordance with professional standards and, as such, breached Right 4(2) of the Code.

Opinion: Dr C — Adverse comment

109. Mrs F told HDC that the family was with Mr B during his admission to the public hospital and does not recall Dr C having a discussion with Mr B about the medically indicated DNR instruction. Mrs F said that the family "consider it unlikely that this was discussed and agreed by [Mr B]". Furthermore, Mrs B told HDC: "[T]o the best of my recollection … while I was with my late husband [Mr B], in the ED of the public hospital, there was no discussion between [Dr C] and ourselves about a 'Do Not Resuscitate Order'." Dr C told HDC that he cannot recall his interactions with Mr B, or any conversations they had.

110. The DHB's "Resuscitation Treatment Decisions" policy stated:

> "Patients should have the opportunity to express their wishes about the use of resuscitation measures during their hospital stay. This process should encompass discussion about their disease processes, therapeutic options, resuscitation measures and the realistic potential for benefit from these measures."

111. The policy further stated:

> "The wishes of the patient will be honoured unless the patient's preferred treatment is considered futile or unavailable … Resuscitation treatment decisions will be documented by the consultant or registrar responsible for the patient's care and … Documentation will include: … Reasons for decision."

112. I am unable to determine what was discussed, if anything, with Mr B in relation to the DNR instruction that Dr C documented as "medically indicated". However, the importance of the medical record is well established, and I am critical that Dr C did not document any discussions he had with Mr B. I am also critical that Dr C failed to record the reasons behind his decision, in line with the DHB's policy "Resuscitation Treatment Decisions" in place at the time of these events.

Opinion: DHB — No breach

Vicarious liability

113. Under section 72(2) of the Health and Disability Commissioner Act 1994 (the Act), an employing authority may be vicariously liable for acts or omissions by an employee.

114. As RN A was an employee of the DHB, consideration must be given as to whether the DHB is vicariously liable for her breaches of the Code. Under section 72(5), it is a defence for an employing authority to prove that it took such steps as were reasonably practicable to prevent acts or omissions leading to an employee's breach of the Code. Previously, this Office has found a provider not liable for the act or omission of its staff when the act or omission clearly relates to an individual clinical failure made by the staff member.

Medication error — RN A

115. I note that, in relation to the medication error, RN A had a responsibility to ensure that she administered medication within her scope of practice and in line with the authorised prescription.

116. I also note that in relation to Mr B's deterioration identified by RN A at approximately 12.30pm on Day 7, the DHB had appropriate systems in place that required RN A to alert the ward nurse when she observed that Mr B had an EWS of 4. RN A did not follow the EWS protocol.

117. The DHB was entitled to rely on RN A, as a registered nurse, to provide an appropriate standard of care and adhere to the protocols in place. In my view, RN A's failures in this case were individual clinical errors, and cannot be attributed to the system within which she was working. Accordingly, I do not find the DHB vicariously liable for RN A's breach of the Code.

DNR — Dr C

118. Dr C reviewed Mr B on Day 1 and instigated a "medically indicated" DNR instruction. Dr C did not document any discussions with Mr B regarding this order, nor did he record his reasoning behind the order.

119. The DHB had a "Resuscitation Treatment Decisions" policy in place at the time of events. This policy outlined that the registrar or consultant was to allow the patient to have an opportunity to express his or her wishes about the use of resuscitation measures during his or her stay, and stated: "This process should encompass discussion about their disease processes, therapeutic options, resuscitation measures and the realistic potential for benefit from these measures."

120. Furthermore, the policy stated: "Documentation will include: … Reasons for decision."

121. I accept that the protocols in place were appropriate and that the DHB was entitled to rely on Dr C to ensure that he complied with the protocols. In my view, Dr C's

omission to document any discussions he had with Mr B, and his reasoning behind his decision to instigate a DNR instruction, was an individual clinical choice, and cannot be attributed to the DHB.

Recommendations

122. I recommend that RN A:

a) Undertake further training on professional communication, and provide HDC with confirmation of her attendance at the appropriate workshops. RN A should provide a report to this Office within three months of the date of this report, confirming her compliance.

b) In the provisional opinion, I recommended that RN A provide a written apology to Mr B's family for her breach of the Code. RN A has since provided a letter of apology to Mr B's family for her breach of the Code.

123. I recommend that the Nursing Council of New Zealand consider undertaking a competence review of RN A.

Follow-up actions

124. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Nursing Council of New Zealand and the Coroner, and they will be advised of RN A's name.

125. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to HQSC and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent nursing advice to the Commissioner

The following expert advice was obtained from Registered Nurse Ms Dawn Carey:

"1. Thank you for the request that I provide clinical advice in relation to the complaint from [Mrs F] about the care provided to her late father [Mr B] on [Day 7] by [the public hospital]. In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

2. I have reviewed the following documents available on file: complaint from [Mrs F]; response from [the DHB] dated 11 January 2016 including [Mr B's] clinical notes, Root Cause Analysis Report, correspondence with NZNC, Coronary Care Unit Early Warning Score (EWS) document, RCA outcomes and implementation update, education record for [RN A]; response from [RN A].

3. Complaint background
[Mr B] was admitted to [the public hospital] on [Day 1] with worsening breathlessness on a background of recent onset diarrhoea and weight loss. He had known ischaemic cardiomyopathy and on admission was in congestive heart failure. During his hospital stay, [Mr B] also developed acute on chronic renal failure, a chest infection and rectal bleeding.

On [Day 7], [Mr B] was one of [RN A's] allocated patients. [RN A] was [a new graduate]. At approximately 9.20am, [RN A] administered 118.75mg Metoprolol Controlled Release to [Mr B]. This was ten times the prescribed dose. The error was realised at approximately 3.30pm and [Mr B] was transferred to the Coronary Care Unit for supportive therapies. Despite these being instituted, [Mr B's] condition continued to decline and he died later that same evening.

4. Response: [RN A]
[RN A] reports being allocated [Mr B] and three other patients on [Day 7]. She had not nursed [Mr B] prior to this and reports feeling pressurised for time as she had started the morning medication round later than she would have wanted. [RN A] reports questioning herself about [Mr B's] prescribed Metoprolol dose (11.875mg) as she had never given a dose that small and it was not a strength stocked in the drug cupboard. She reports thinking that the doctor may have put the decimal point in the wrong place and that the prescribed dose was meant to be 118.75mgs. Due to a distraction, [RN A] reports not questioning the House Officer as she intended and administering 118.75mg Metoprolol Controlled Release to [Mr B]. [RN A] reports alerting medical staff via telephone later when [Mr B] was hypotensive and tachypnoeic and being reassured that this was due to his end stage heart failure. Approximately two hours after this, medical staff were asked to urgently review [Mr B] and the administration error was identified. [RN A]

reports that shock of the error and [Mr B's] deterioration affected the quality of the clinical notes for the latter part of her shift.

5. Response: [the DHB]
A comprehensive response has been received by [the DHB]. The response includes the Root Cause Analysis (RCA) report and findings. The RCA team determined that there were team, individual and wider organisational factors which contributed to [Mr B] receiving the wrong dose of metoprolol medication. The RCA team concluded that the care provided by [RN A] was suboptimal, the progress notes were inadequate, communication was poor and that expected organisational processes were not followed. The response reports identifying and completing a number of recommendations aimed at reducing the likelihood of such an event occurring again:

- Discussion with Health Quality & Safety Commission (HQSC) about 2012 Safety Signal (oral Metoprolol administration) communiqué. Subsequent to this HQSC issued a Medication Alert for action by DHB Chief Medical Officers concerning the prescribing of 11.875mg Metoprolol.
- Development of a more robust internal process for managing Alerts and Safety Signals from HQSC with clear accountabilities and communication plans.
- HQSC Medication Alerts are now a mandatory agenda item on the monthly Clinical Governance Board meeting.
- Appointment of a Pharmacist whose focus is medication safety.
- The removal of Metoprolol 23.75mg tablets from ward imprest lists (i.e. this dosage has to be requested from pharmacy and is issued for a specific patient).
- A new 'Documentation' DVD has been launched as part of the new graduate nursing education programme and the standard of their clinical documentation is audited at regular intervals.
- All new graduate nurses now complete the Acute Life-threatening Events: Recognition and Treatment (ALERT) course within the first 6 months of employment. This reinforces the escalation protocol that needs to be followed when a patient's vital signs trigger an Early Warning Score (EWS) greater than zero.
- The learning from this error was shared at a Nursing Grand Round through an anonymised case study.
- The review of relevant policies.

Following the completion of the new graduate fixed term contract, [RN A] ceased employment at [the DHB] and Nursing Council of New Zealand was advised of her role in the error and the completed remedial actions that relate to her.

6. Review of clinical records focussed on scope of advice request

   i. On [Day 5], [Mr B] transferred from Coronary Care Unit to [the medical ward] for ongoing management of his congestive heart failure. Ward round notes include *... restart lower dose Metoprolol 11.875mg ...* [the medical ward] nursing plan is consistent with the reported Coronary Care Unit nursing handover; *monitor BP, once daily Clexane, IV antibiotics, fluid restriction 1.5litres, Fluid Balance Chart, Daily weight, monitor sore right ankle, Assessments.*

   ii. Ward round notes — [Day 6] — acknowledges [Mr B's] chronically low blood pressure since he was commenced on amiodarone to manage his paroxysmal atrial fibrillation; his acute kidney injury and the difficulty in managing this in the context of decompensated heart failure … *discuss with [Dr D] re. Frusemide dose given weight increased and increased Creatinine; withhold Aspirin, Ace Inhibitor due to acute kidney injury, give Metoprolol and Amiodarone ...*

Comment: [RN A] reports that after nursing handover she would usually review the last couple of nursing entries and the last doctor's notes in her patients' files.

   iii. On [Day 7] at 7.30am, [Mr B's] vital signs were within acceptable parameters as *evidenced* by Early Warning Score 0. The medication chart shows that [Mr B] was administered Metoprolol Controlled Release 118.75mg at 9.20am by [RN A]. This was a 'daily' medication.

Comment: I note that the documentation on [Mr B's] 8 Day National Medication Chart is clear and consistent with the relevant HQSC instruction guide.

   iv. At 12.50pm, [Mr B's] *documented* vital signs totalled a EWS 4 due to an elevated respiration rate 24 and low systolic blood pressure 80mmHg.

Comment: The Activation of Adult Early Warning Score Algorithm is a 'sticker' that is attached to the patient's notes and uses the communication tool SBAR[1] to guide staff when communicating their clinical concerns about a patient. The [DHB] response reports that [RN A] did not utilise this document on this occasion.

   v. Untimed *Nursing Notes AM* report … *EWS 0.* The next entry is by [Dr G] at 3.30pm and records a family meeting led by Consultant [Dr D]. The notes report that [Dr D] explained that [Mr B] had received a bigger dose of Metoprolol than intended and the consequences of this … *Explained that he may not pull through this ... Discussed back to Coronary Care Unit and Metaraminol to maintain blood pressure ...* A retrospective note by [Dr G] at 3.45pm details being asked to review [Mr B] due to shortness of breath; low blood pressure and drowsiness and the error being realised, *... noted on medication chart patient given 118.75mg Metoprolol instead of 11.875mg ...*

[1] SBAR (situation, background, assessment, recommendations) is recognised as a simple but effective way to standardise communication between clinical staff. Patient safety focussed research has associated SBAR with improved patient outcomes.

vi. Subsequent clinical documentation is by [RN A] ... *Nursing Notes AM continued: [Mr B] has been very low in energy states no pain but feeling very listless and tired. [House Officer] informed as patient states short of breath. ECG and oxygen via nasal prongs given. IV fluids and Glucagon intramuscular given as* requested *by [Dr D]. Enema given as charted. Bowels open soon after, greenish and watery. Patient now on oral antibiotics as charted. Plan: oral antibiotics, IV fluids, strict Fluid Balance Chart, fluid restrict 1500mls, encourage mobilisation.*

Comment: [RN A's] documentation is inadequate

vii. In the Coronary Care Unit, [Mr B] was commenced on a Metaraminol infusion to maintain his systolic blood pressure above 90mmHg. Documentation reports him becoming bradycardic at approximately 11.15pm and the Medical Registrar being notified. Medical and nursing notes report a discussion with [Mr B's] son and daughter and agreement that treatment switch from active to a comfort focus. [Mr B] died at approximately 11.55pm.

7. Comments

The responses suggest that confirmation bias[2] was a factor in [RN A's] reasoning that the prescription was wrong. Within the relevant research, confirmation bias is a known contributory factor in medication errors. Within New Zealand, Metoprolol 11.875mg has been associated with previous nursing administration errors and significant outcomes for the patients involved. The [DHB's] response correctly refers to the Health Quality & Safety Commission Safety Signal which was issued in 2012 after two such incidences. Despite the research highlighting the common nature of medication errors, they cannot ever be deemed an acceptable part of practice. Safe medication administration is a core competency that all nurses are deemed to have achieved upon registration.

When [RN A] had doubts about the veracity of [Mr B's] prescription, she could have chosen to speak with the RN who was co-ordinating the shift and sought advice. It needs to be acknowledged that no hospital based new graduate nurse practices in isolation. Also being open to seeking advice and assistance are behaviours expected of all nurses[3]. Alternative appropriate actions available to [RN A] included withholding the prescribed 'once daily' Metoprolol until she had clarified the dose with the prescriber or administering 11.875mg Metoprolol while waiting for the opportunity to clarify the dose with the prescriber.

8. Clinical advice

In my opinion there are a number of concerning issues about the care [RN A] provided to [Mr B] on [Day 7] — the lack of safe medication administration practice; the inadequate monitoring of vital signs after recording EWS 4; the lack of communication with the co-ordinating RN; the failure to document that medical

[2] Confirmation bias refers to a type of selective thinking whereby individuals select what is familiar to them or what they expect to see, rather than what is actually there.
[3] Nursing Council of New Zealand (NCNZ), *Code of conduct for nurses* (Wellington: NCNZ, 2012).

advice had been sought at approximately 12.50pm and the failure to document that a medication error had occurred. In my opinion [RN A] provided nursing care that significantly departed from accepted standards[4]. I do acknowledge that the [the DHB] investigation has addressed all these issues . In my opinion, the investigation and actions taken by [the DHB] were appropriate and comprehensive. I have no further recommendations to add.

Dawn Carey (RN PG Dip)
Nursing Advisor
Health and Disability Commissioner
Auckland"

[4] Nursing Council of New Zealand (NCNZ), *Code of conduct for nurses* (Wellington: NCNZ, 2012). New Zealand Standards (NZS), *8134.1:2008 Health and disability services (core) standards* (Wellington: NZS, 2008).