Ambulance Service

Paramedic, Mr C

Paramedic, Mr B

A Report by the

Deputy Health and Disability Commissioner

(Case 16HDC01960)

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Executive summary

1. One evening in 2016, Mr A, aged 73 years, experienced shortness of breath. His wife called an ambulance, and paramedics Mr C and Mr B attended Mr A at his residence that night. They examined him, recorded his vital signs, and carried out some assessments. They did not obtain a further recording of Mr A's temperature or advise him of any abnormal vital signs. Together, the paramedics made the decision not to transport Mr A to a hospital, without obtaining a 12-lead ECG. They advised Mr A to see his GP in the morning and to call an ambulance if his condition worsened.

2. Mr A collapsed shortly after the paramedics left the residence. An ambulance was called immediately and an ambulance with Mr C, Mr B, and another paramedic arrived at the residence. Mr A was in cardiac arrest and did not respond to the paramedics' efforts to resuscitate him.

Findings

3. By not carefully considering Mr A's vital signs in light of his presenting complaint and his medical history, by not obtaining a further recording of Mr A's temperature, by not advising Mr A of any abnormal vital signs, by not performing a 12-lead ECG prior to making a decision not to transport Mr A, and by not documenting the discussion about not transporting Mr A and the reasons for the decision, paramedics Mr C and Mr B provided Mr A with suboptimal service. Accordingly, Mr C and Mr B breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).

4. By having guidelines in place and by providing training (as reported) to Mr C and Mr B on vital signs and 12-lead ECGs, the ambulance service took such steps as were reasonably practicable to prevent the particular errors that led to Mr C's and Mr B's breach of the Code. Accordingly, the ambulance service was not vicariously liable for Mr C's and Mr B's breach of the Code.

Recommendations

5. It was recommended that each of the paramedics:

   a) Provide a written apology to Mr A's family.

   b) Provide a progress report including anonymised examples of all changes made to their practice since this complaint.

   c) Undertake further education and training through the ambulance service on vital signs and when these are considered to be significantly abnormal.

   d) Undertake a refresher course through the ambulance service on 12-lead STEMI training.

   e) Undertake a refresher course through the ambulance service on documentation on the electronic patient report form (ePRF).

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Complaint and investigation

6. The Commissioner received a complaint about the services provided by an ambulance service. The following issues were identified for investigation:

- *Whether the ambulance service provided Mr A with an appropriate standard of care in 2016.*
- *Whether paramedic Mr C provided Mr A with an appropriate standard of care in 2016.*
- *Whether paramedic Mr B provided Mr A with an appropriate standard of care in 2016.*

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

8. The parties directly involved in the investigation were:

Mr A	Consumer (dec)
Mr B	Paramedic/provider
Mr C	Paramedic/provider
Ambulance service	Provider

Mr A's wife, Mrs A, is also mentioned in the report.

9. Independent expert advice was obtained from a paramedic, Geoff Procter.

Information gathered during investigation

Introduction

10. At the time of these events, Mr A was aged 73 years. Mr A was diabetic and was taking long-term medication for this and other conditions.

11. Paramedics Mr B and Mr C were employed by the ambulance service.

12. Mr A experienced shortness of breath. At approximately 11pm, Mr A's wife called 111.

First attendance

13. Paramedics Mr C and Mr B arrived at Mr A's residence at 11.26 pm. On arrival, Mrs A led Mr C and Mr B to a bedroom where Mr A was sitting on the edge of a bed.

14. Mr B told HDC that Mr C spoke with Mr A and obtained vital signs. Mr B said that he spoke with Mrs A to obtain details about Mr A, such as his name, date of birth, and current medications. Mr B recorded this information, as well as information on Mr A's vital signs, on the Electronic Patient Report Form (ePRF).

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15. Mr C told HDC:

> "I … carried out the examination while questioning [Mr A] and his wife. He was slightly pallid, his skin was dry and he was talking in whole sentences. I auscultated his chest,[1] which was clear, and recorded his respiration rate, his heart rate and his oxygen saturations …"

16. Mr C also told HDC that Mr A reported that he had been experiencing an increase in shortness of breath and dizziness prior to their arrival, and these symptoms had worsened while straining to have a bowel motion that night. Mr C stated that Mrs A expressed concern that Mr A's shortness of breath had worsened over the last several days.

17. Mr B documented in the ambulance care summary (the summary) and the complaint history that Mr C's clinical impression was that Mr A had "[s]hortness of breath". Mr B documented:

> "Recently started [antibiotics] for chest infection [two] days ago. Increase [shortness of breath] today and tonight with increase[d] activity, wife concerned that [patient] struggling. Felt dizzy prior to our arrival."

18. Mr B also recorded:

> "[Patient] breathing settled before our arrival, [patient] experiencing more stress past [two] days with family [matter], [FAST][2] test negative, [patient] cool to touch, [patient] feels normal within self now. Chest clear on auscultation, normal mobility, nil nausea, denies any pain."

19. Mr A's past medical history was recorded as "diabetic", and his current medications were recorded as metformin,[3] roxithromycin,[4] and glipizide.[5]

20. Mr C observed Mr A's vital signs, and at 11.32pm the following was recorded in the summary:

> "Level of consciousness (GCS): 15 (Eye: 4 Verbal: 5 Motor: 6); Heart Rate: 71 bpm Location: Radial; Respiratory Rate: 28/min: Sounds: Normal; Blood Pressure: 145/120 Monitor; SpO_2[6]: 90%; ECG: 3 lead; Initial presenting rhythm: Sinus Rhythm[7]; Blood Glucose: 9; Cap[illary] Refill[8]: Peripheral:3; Temperature: 34.70°C (Tympanic); Pain Score: 0."

[1] Listened to sounds arising within the chest.
[2] "Facial drooping, Arm weakness, Speech difficulties and Time to call emergency services".
[3] Medication for the treatment of type 2 diabetes.
[4] An antibiotic used to treat respiratory tract, urinary tract, and soft tissue infections.
[5] Medication used to treat diabetes.
[6] Oxygen saturation — an estimate of the amount of oxygen in the blood.
[7] Normal, regular heart rhythm.
[8] The time taken for colour to return to an external capillary bed after pressure is applied to cause blanching.

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21. The vital signs were observed again at 11.50pm and recorded as:

> "Level of consciousness (GCS): 15 (Eye: 4 Verbal: 5 Motor: 6); Heart Rate: 65 bpm Location: Radial Strength: Normal Regularity: Regular; Respiratory Rate: 22/min; Sounds: Normal; Blood Pressure: 140/110 Monitor; SpO_2: 95%."

22. The second set of observations did not include another 3-lead ECG or a record of Mr A's blood glucose, capillary refill, temperature, and pain score.

23. Mr C told HDC that Mr B recorded the first and second set of vital signs on the ePRF. Mr C stated:

> "While I noted that several of [Mr A's] vital signs were abnormal (respiration rate, diastolic blood pressure[9] and temperature), these appeared to be improving with the second set of vital signs recorded approximately 20 minutes later. The low temperature reading didn't seem to fit with the patient presentation, although I did note that he felt cold peripherally. I have had reason to distrust temperature readings in the past and would also question the reliability of the tympanic thermometers[10] used … However, it is unfortunate that I did not record another set of vital signs."

24. With reference to the chest infection Mr A complained of, Mr C told HDC that Mr A's history caused him to have "tunnel vision" and not "question the abnormalities that were present". Mr C stated that Mr A was adamant that he did not need to be transported to hospital. Mr C said he asked Mrs A whether she was "happy with the decision [not to transport]", and she confirmed that she was. In a later statement to HDC, Mr C said that he did notice that Mrs A was very uncomfortable with the decision not to transport Mr A to hospital. Mr C told HDC: "I regret not involving her more in the decision-making process."

25. Mr B told HDC:

> "In regards to vital signs obtained, two sets of vital signs were taken and improvements were observed over a twenty minute period. Consideration of this is used in the field as a settling trend, in this case the vitals were improving and [Mr A] mobilised a considerable distance with no return of symptoms, as documented. [Mr A] was involved with the decision process as indicated in the ambulance care summary. [Mr A's] wife voiced her concerns, which were factored in to the decision process. However, [Mr A] indicated he didn't want to go to hospital. It was discussed that if the symptoms returned transport to hospital would be imminent."

26. Mr C and Mr B did not discuss any abnormal vital signs with Mr A.

27. Mr B also told HDC:

> "[Mr C] and I had a discussion between ourselves to summarise our findings and decided that if the patient didn't want to be transported to hospital then we would start the process of documentation …"

[9] The pressure in blood vessels when the heart rests between beats.
[10] Thermometers that measure body temperature via the ear canal.

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28. The ambulance service's Clinical Procedures and Guidelines (*The Guidelines*) state:

"[W]henever personnel are assessing a patient they must make four initial decisions:

1. Is treatment required?
2. Is referral to a medical facility required?
3. If referral is required — what type of medical facility is most appropriate?
4. If referral is required — what mode of transport is most appropriate?

Obligations of personnel

Personnel must convey these decisions to the patient as firm recommendations. When making decisions and conveying recommendations, personnel must always:

- Fully assess the patient including a history, primary survey, secondary survey and the measurement of appropriate vital signs. The assessment must include seeing the patient mobilise (providing they can normally do so) prior to them receiving a recommendation that they do not require immediate referral to a medical facility.

…

- Fully document the assessment, interventions and recommendations.
- Seek clinical advice if the situation is difficult to resolve.

…

[W]hen a patient is not transported to a medical facility, the documentation must include all of the following:

- Details of the assessment and findings.
- An assessment of the patient's competence.
- All treatment and interventions provided.
- A copy of the 12 lead ECG if one was acquired.
- What was recommended and the reasons why.
- A summary of the communication between personnel, the patient and/or family members."

29. The summary records the decision not to transport Mr A to a hospital; however, there is no record in the summary of the reasons that led to this decision and, contrary to Mr B's statement to HDC, Mr A's involvement in the decision.

30. Mr C told HDC that one of the "non-transport checks" is to check for normal mobility. He stated that Mr A was able to "mobilise up and down the corridor (20 metres) with no sign of distress or return of [shortness of breath]".

31. Mr C and Mr B together made the decision not to transport Mr A to hospital. Prior to leaving Mr A's residence, Mr C and Mr B completed a "Non-transport checklist" in line with *The Guidelines*. They advised Mr A to see his GP in the morning in regard to a possible allergy to the antibiotic he was on, and to call an ambulance if his condition worsened.

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32. Mr C told HDC that no 12-lead ECG[11] was performed as, at the time, it was not a requirement of *The Guidelines* for shortness of breath. Mr C accepts that he should have performed one, in light of the non-transport decision and the fact that Mr A was elderly and a diabetic. Mr C stated: "I did in fact miss the information that the patient was a diabetic and that he had had a pre-syncope[12] event while on the toilet (I only recalled that he had felt dizzy)."

33. Mr B told HDC:

> "My reasoning for not taking a 12 lead ECG as I recall was because there was no chest/abdominal pain or any other form of pain. [Mr A's] shortness of breath had resolved prior to our arrival with clear chest sounds. A 3 lead ECG was taken with no abnormalities noted (If there had been abnormalities a 12 lead would have been taken). This has/had been standard practice at the time of this event."

34. Mr A collapsed approximately 28 minutes after the ambulance left his residence. Mrs A called an ambulance immediately and started performing cardiopulmonary resuscitation (CPR).

Second attendance

35. At 12.41am, an ambulance with Mr C, Mr B, and another paramedic arrived at Mr A's residence. Mr A was in cardiac arrest.[13] The paramedics continued with CPR, introduced intravenous access[14] and administered intravenous adrenaline,[15] and initiated endotracheal intubation.[16] However, Mr A did not respond and, at 1.20am, resuscitation was discontinued and Mr A was declared dead.

36. Shortly after Mr A's death, Mrs A stated in her police statement that Mr C and Mr B had asked Mr A whether he wanted to go to hospital, and Mr A had not wanted to. Mrs A said that she said to Mr C and Mr B, "Please take him, he needs to go," but the paramedics told her that they had to follow Mr A's wishes.

Subsequent events

37. Following this attendance, the crew referred Mr A's case to the ambulance service's national audit process and reportable incident process, and informed their manager of the case and explained their concerns. The ambulance service told HDC that Mr C and Mr B "have engaged openly in [its] reportable incident process".

38. The ambulance service acknowledged that "the concerns of [the family] and [Mrs A's] concerns were not adequately taken into account".

[11] A 12-lead ECG records the heart's electrical activity through 12 different perspectives.
[12] Feeling of light-headedness and faintness.
[13] His heart had stopped.
[14] Access directly through a vein.
[15] Medication used to treat a number of conditions, including cardiac arrest.
[16] Placement of a tube into the windpipe (trachea) through the mouth or nose to maintain an airway.

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Changes to practice

39. Mr C told HDC:

> "I also regret not pausing longer to consider the implications of the abnormal vital signs and to check the patient history better (i.e. diabetic). This is now something that I routinely do for all jobs, but especially for possible non-transport decisions. I also try and document non-transport decisions and the reasoning behind them better."

40. The ambulance service told HDC:

> "We have subsequently met with [the family], we have apologised for what happened, we have explained that the crew has received feedback on their error and that we will be publishing the case (in a de-identified manner) for all staff to learn from. We have also offered to meet them again."

Response to provisional opinion

41. The complainant was provided with an opportunity to comment on the "information gathered" section of the provisional opinion. On behalf of Mrs A, she submitted that Mrs A found the episode with the paramedics stressful and felt that her concerns for her husband were dismissed.

42. The complainant also told HDC:

> "We do appreciate that [the ambulance service] [has] apologised and it is reassuring to note that they, and the paramedics involved, have made changes to their practices as a result."

43. Mr C was provided with a copy of the relevant sections of the provisional opinion. He told HDC:

> "I deeply regret the poor decisions that I made that contributed to the death of [Mr A] and the loss to his family. I also recognise that I did not document these decisions well or the reasons for them."

44. Mr B was provided with a copy of the relevant sections of the provisional opinion. He told HDC:

> "I am saddened and remorseful for the [family's] loss of a husband, father and family member. I realise my part in poor documentation and overall assessment resulting in the non-transport of [Mr A]."

45. The ambulance service was provided with an opportunity to comment on the provisional opinion and told HDC that it "… acknowledges and agrees with the 'provisional' opinion and accepts these findings".

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Opinion: Paramedic Mr C — breach

46. Paramedic Mr C examined Mr A and discussed Mr A's complaint of shortness of breath. Mr B obtained information about Mr A's medical history and current medications, including his medication for diabetes.

47. Mr C said that he missed the fact that Mr A was diabetic and that Mr A had reported that the shortness of breath and dizziness had worsened during a bowel motion earlier that night.

Clinical care

48. Mr C took Mr A's vital signs and observed that several were abnormal. Mr C then took another set of observations but did not obtain Mr A's blood glucose, temperature, capillary refill, or pain score. Mr C and Mr B discussed Mr A's condition and decided that Mr A did not need to be taken to hospital. The decision not to transport was taken without obtaining and recording a 12-lead ECG. Mr C thought this to be appropriate because the second set of vital signs had showed improvement.

49. My expert advisor, Mr Procter, advised:

> "It is not possible to say whether the paramedics should have made a recommendation to transport to hospital … What is possible to say is that the paramedics should not have made a decision not to transport [Mr A] without first obtaining a 12 Lead ECG given that … [Mr A] had experienced shortness of breath and dizziness."

50. Mr Procter advised that not taking a 12-lead ECG would be considered a moderate departure from the expected standard of care, as the paramedics would have been unable to assess the patient fully to rule out a significant hidden condition.

51. I note that Mr C told HDC that he thought Mr A's symptoms were related to his chest infection, which caused him to have "tunnel vision" and not "question the abnormalities that were present". Mr C accepted Mr A's symptoms in light of his history without questioning and investigating the abnormalities in the vital signs and considering their implications, and without thoroughly checking Mr A's history.

52. Given Mr A's presentation, in particular his shortness of breath and dizziness, it is unacceptable that Mr C did not obtain a 12-lead ECG before making the decision not to transport Mr A to hospital. I consider that a 12-lead ECG should have been taken to ensure that Mr A did not have a significant underlying condition. It is also unacceptable that Mr C did not obtain a further recording of Mr A's temperature, advise Mr A of any abnormal vital signs, and record the reasons for not transporting Mr A to hospital.

53. Mrs A stated that Mr C and Mr B asked Mr A whether he wanted to go to hospital, and Mr A did not want to go. Mrs A said to Mr C and Mr B, "Please take him, he needs to go," but the paramedics told her that they had to follow Mr A's wishes.

54. Mr Procter advised that, where the patient is competent, it is the patient's choice as to whether to be transported to a medical facility. While I accept that, it is important that attention is paid, and consideration given by providers, to all of the information available, including the concerns and viewpoints of family members present. It is also important that

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before a paramedic relies on a patient's decision regarding transfer to a medical facility, all relevant tests and assessments have been undertaken and discussed with the patient, to ensure that the patient has the relevant information to enable them to make an informed decision.

55. In accordance with *The Guidelines*, it is important that when a patient is not transported to a medical facility, a summary of the communication is contained in the documentation, including any communication with family members. Mr Procter has advised that not documenting any discussion would be a moderate departure from accepted standards of care. Although Mr B stated that Mrs A's concerns were factored in, there is no documentation of the discussion that took place between Mr C, Mr B, Mr A, and Mrs A, or whether Mrs A's concerns were considered in the decision not to transport.

Conclusion

56. The service Mr C provided to Mr A was suboptimal in the following respects:

- Mr C did not carefully consider Mr A's vital signs in light of his presenting complaint and his medical history.
- Mr C did not obtain a further recording of Mr A's temperature.
- Mr C did not advise Mr A of any abnormal vital signs.
- Mr C did not perform a 12-lead ECG prior to making a decision not to transport Mr A.
- Mr C did not document the discussion about not transporting Mr A and the reasons for the decision.

57. These issues amount to a failure to provide services to Mr A with reasonable care and skill. Accordingly, Mr C breached Right 4(1) of the Code.[17]

Opinion: Paramedic Mr B — breach

58. In 2016, paramedics Mr B and Mr C attended Mr A. Mr B recorded in the summary the information that Mr C obtained from Mr A about his complaint of shortness of breath. Mr B also recorded information on Mr A's medical history and current medications, obtained from Mrs A. Mr B was aware that Mr A was a diabetic.

Clinical care

59. Mr B recorded Mr A's vital signs and noted that his diastolic blood pressure was marginally elevated. Mr B then recorded another set of vital signs, which did not include Mr A's blood glucose, temperature, capillary refill, or pain score. Mr B and Mr C discussed Mr A's condition and decided that Mr A did not need to be taken to hospital. The decision not to transport was taken without obtaining and recording a 12-lead ECG. Mr B thought this to be appropriate because the 3-lead ECG taken showed no abnormalities.

[17] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."

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60. Mr Procter advised:

> "It is not possible to say whether the paramedics should have made a recommendation to transport to hospital … What is possible to say is that the paramedics should not have made a decision not to transport [Mr A] without first obtaining a 12 Lead ECG given that … [Mr A] had experienced shortness of breath and dizziness."

61. Mr Procter also advised that not taking a 12-lead ECG would be considered a moderate departure from the expected standards of care, as the paramedics would have been unable to assess the patient fully to rule out a significant hidden condition.

62. Mr B stated that because Mr A's shortness of breath had resolved before the ambulance arrived, his chest sounds were clear, there was no chest or abdominal pain or any other form of pain, and a 3-lead ECG had been taken and, in Mr B's view, had shown no abnormalities, he considered that it was not necessary to obtain a 12-lead ECG.

63. Given Mr A's presentation, in particular his shortness of breath and dizziness, it is unacceptable that Mr B did not obtain a 12-lead ECG before making the decision not to transport Mr A to hospital. It is also unacceptable that Mr B did not obtain a further recording of Mr A's temperature, advise Mr A of any abnormal vital signs, and record the reasons for not transporting Mr A to hospital.

64. Mrs A stated that Mr B and Mr C asked Mr A whether he wanted to go to hospital, and Mr A did not want to go. Mrs A said that she said to Mr B and Mr C, "Please take him, he needs to go," but the paramedics told her that they had to follow Mr A's wishes.

65. I have stated previously in this report, and the statement is equally relevant here, that Mr Procter advised that where a patient is competent, it is the patient's choice as to whether to be transported to a medical facility. While I accept that advice, it is important that attention is paid, and consideration given by providers, to all of the information available, including the concerns and viewpoints of family members who are present. It is also important that before a paramedic relies on a patient's decision regarding transfer to a medical facility, all relevant tests and assessments have been undertaken and discussed with the patient to ensure that the patient has the relevant information to enable them to make an informed choice.

66. In accordance with *The Guidelines*, it is important that when a patient is not transported to a medical facility, the documentation contains a summary of the communication that has taken place, including any communication with family members. Mr Procter advised that not documenting any discussion would be a moderate departure from accepted standards of care. Although Mr B stated that Mrs A's concerns were factored in, there is no documentation of the discussion that took place between Mr C, Mr B, Mr A, and Mrs A, or whether Mrs A's concerns were considered in the decision not to transport.

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Conclusion

67. The service Mr B provided to Mr A was suboptimal in the following respects:

- Mr B did not carefully consider Mr A's vital signs in light of his presenting complaint and his medical history.
- Mr B did not obtain a further recording of Mr A's temperature.
- Mr B did not advise Mr A of any abnormal vital signs.
- Mr B did not take a 12-lead ECG prior to making the decision not to transport.
- Mr B did not document the discussion about not transporting, and reasons for the decision.

68. These issues amount to a failure to provide services to Mr A with reasonable care and skill. Accordingly, Mr B breached Right 4(1) of the Code.

Opinion: Ambulance service — no breach

69. As a healthcare provider, the ambulance service is responsible for providing services in accordance with the Code. In this case, I consider that the error that occurred did not indicate broader systems or organisational issues at the ambulance service. Therefore, I consider that the ambulance service did not breach the Code directly.

70. In addition to any direct liability for a breach of the Code, under section 72(2) of the Health and Disability Commissioner Act 1994 (the Act), an employing authority is vicariously liable for any actions or omissions of its employees. A defence is available to the employing authority under section 72(5) if it can prove that it took such steps as were reasonably practicable to prevent the acts or omissions.

71. Mr Procter advised that the guidelines in place were adequate and appropriate. The ambulance service informed HDC:

> "There are multiple opportunities for staff to attend Continuing Clinical Education (CCE). Attendance is actively monitored as part of the requirement to maintain authority to practice. There are also planned wash up CCE courses that are designed to pick up staff that have not attended CCE (via monitoring attendance electronically)."

72. At the time of these events, Mr C and Mr B were employees of the ambulance service. Accordingly, the ambulance service is an employing authority for the purposes of the Act. As set out above, I have found that Mr C and Mr B both failed to provide Mr A with reasonable care and skill and therefore breached Right 4(1) of the Code.

73. I refer to the ambulance service's "Acute STEMI Recognition on 12 Lead ECG Guide", and its learning objectives. I note Mr Procter's comment that the objectives do not refer to learning when to obtain a 12-lead ECG, and it is unclear to him whether the course includes

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this learning or whether *The Guidelines* were relied on instead. I would like the ambulance service to consider Mr Procter's comments on this matter.

74. Overall, I am satisfied that the ambulance service took such steps as were reasonably practicable — through the guidelines in place and the reported vital signs and 12-lead ECG training provided to Mr C and Mr B — to prevent the particular errors that led to Mr C's and Mr B's breach of the Code. Accordingly, I find that the ambulance service is not vicariously liable for Mr C's and Mr B's breach of Right 4(1) of the Code.

Recommendations

75. I recommend that Mr C:

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

b) Provide a progress report, including anonymised examples of all changes made to his practice since this complaint, within three months of the date of this report.

c) Undertake further education and training through the ambulance service on vital signs and when these are considered to be significantly abnormal, and provide proof of that training within six months of the date of this report.

d) Undertake a refresher course through the ambulance service on 12-lead STEMI training, and provide proof of that training within six months of the date of this report.

e) Undertake a refresher course through the ambulance service on documentation on ePRF, and provide proof of that training within six months of the date of this report.

76. I recommend that Mr B:

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

b) Provide a progress report, including anonymised examples of all changes made to his practice since this complaint, within three months of the date of this report.

c) Undertake further education and training through the ambulance service on vital signs and when these are considered to be significantly abnormal, and provide proof of that training within six months of the date of this report.

d) Undertake a refresher course through the ambulance service on 12-lead STEMI training and provide proof of that training within six months of the date of this report.

e) Undertake a refresher course through the ambulance service on documentation on ePRF, and provide proof of that training within six months of the date of this report.

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Follow-up actions

77. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the New Zealand Ambulance Association.

78. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Coroner.

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

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