Paramedic, Mr E

Ambulance Service

A Report by the

Deputy Health and Disability Commissioner

(Case 13HDC01190)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. Mrs A (aged 69 years at the time of these events) lived in her own home in a rural area. She had multiple co-morbidities including diabetes, ischaemic heart disease, and chronic obstructive airway disease (COAD). In December 2012, she had begun to use oxygen at home because of her COAD.

2. In mid 2013, Mrs A had had a cough for approximately three days. Her daughter, Mrs B, was with her mother overnight. At around midnight, Mrs A was finding it difficult to breathe, and had chest pains. Mrs B activated her mother's medical alarm, and was put through to a call-taker. The call-taker dialled 111 at 1.49am.

3. The responding ambulance was manned by paramedic Mr E and volunteer Mr F. On entering Mrs A's home, they found her sitting in a chair using oxygen. Mrs A's observations were abnormal, in particular, her oxygen saturations were low and her temperature was low.

4. Mr E telephoned Dr D, the duty Medical Officer at the hospital. Dr D recalls being told that Mrs A's vital signs were stable, and there were no other associated symptoms besides her baseline chronic shortness of breath.

5. Mrs A was not transported to hospital. Mr E and Mr F told Mrs B that if things got worse, she was to call the ambulance again.

6. At approximately 4.00am, Mrs B called the ambulance again. Mr E responded by going to the home of his volunteer, Mr F, to pick him up, but he was unable to wake him, so he responded to the call alone.

7. On arriving at Mrs A's home a second time, Mr E recognised that Mrs A was seriously unwell. He rang Dr D again, reporting her vital signs, and was advised to transport Mrs A to the hospital.

8. Mrs A had to walk eight metres to a wheeled chair outside the front door. Mrs B and Mr E then wheeled Mrs A to the ambulance, but during this time she had no oxygen as Mr E had not brought any portable oxygen up to the house. When they got to the ambulance, the chair tipped over. Mrs A was still strapped in, and Mr E then tilted Mrs A upright.

9. Mrs A then collapsed and fell to the ground as they attempted to get her to move into the ambulance. Mrs B took her mother by the legs, and Mr E took her under her arms, and they were able to lift her onto the stretcher and into the ambulance.

10. Mr E put Mrs A on oxygen at 8 litres per minute via an acute mask, and put her on the monitor so that he could record her heart rate and rhythm. Despite alarms sounding because Mrs A's oxygen levels were low, Mr E did not stop the ambulance until they reached the hospital.

11. Mrs A died during the journey to the hospital.

Findings

12. During the second attendance, Mr E did not take sufficient steps to obtain Mr F's assistance or other support. Mr E should have obtained assistance prior to moving Mrs A when he arrived at her house and became aware of her condition. Mr E decided to move Mrs A without portable oxygen when she was seriously unwell and dependant on oxygen. When Mrs A collapsed, he failed to assess her sufficiently, and took no action when the alarms sounded during the journey to the hospital.

13. The cumulative effect of these failings is that Mr E's assessment and treatment of Mrs A was inadequate. Mr E failed to provide services with reasonable care and skill and, accordingly, breached Right 4(1) of the Code.[1]

14. The standard of documentation from both attendances was well below the level required by the ambulance service's Clinical Practice Guidelines 2011–2013. The substandard documentation in this case represents a departure from accepted standards of care. Accordingly, Mr E failed to provide services in accordance with relevant standards and breached Right 4(2) of the Code.[2]

15. Adverse comment is made about the ambulance service and Dr D.

Complaint and investigation

16. The Commissioner received complaints from Mrs B and Mrs C about the services provided to their mother, Mrs A. The following issues were identified for investigation:

- *The adequacy and appropriateness of services provided by the ambulance service to Mrs A.*
- *The adequacy and appropriateness of services provided by Mr E to Mrs A.*

17. An investigation was commenced on 18 June 2014.

18. This report is the opinion of Deputy Commissioner Ms Theo Baker, and is made in accordance with the power delegated to her by the Commissioner.

19. The parties directly involved in the investigation were:

Mrs B	Consumer's daughter/complainant
Mrs C	Consumer's daughter/complainant
Rural hospital	Provider
Ambulance service	Provider

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

Dr D	Provider/Medical officer
Mr E	Paramedic
Mr F	Ambulance officer

Also mentioned in this report:

Ms G	Clinical Audit Manager

20. Independent expert advice was obtained from physician Dr Kingsley Logan (**Appendix A**) and paramedic Mark Bailey (**Appendix B**).

Information gathered during investigation

Introduction

21. Mrs A (aged 69 years at the time of these events) was living in her own home in a rural area. Mrs A was under the care of her general practitioner (GP) with regard to her multiple co-morbidities including diabetes, ischaemic heart disease, and chronic obstructive airway disease (COAD).

22. The nearest large public hospital is some distance away. The local hospital (the hospital) is privately owned and provides a wide range of medical, nursing and other healthcare services to people in the district. Staff members include GPs and medical officers. A medical officer (MO) is a doctor who has not yet specialised or gained a postgraduate qualification, or an international medical graduate who is not eligible for a consultant role because of Medical Council of New Zealand requirements.

23. Ambulance service crews in the district are made up of paid paramedics and unpaid volunteers. The ambulance service told HDC that from early 2012, paramedics were required to have a Bachelor of Health Sciences (BHSc) (Paramedic) qualification. Prior to this time, some paramedics had a basic life support (BLS) authority to practice (ATP). These personnel were informed that the Paramedic BLS qualification would be discontinued and, to retain a paramedic ATP, they were required to successfully complete a paramedic intermediate life support (ILS) upskilling course, or a BHSc (Paramedic). Personnel who did not complete this training were scheduled to have their ATP reduced to that of emergency medical technician (EMT)[3] in late 2014. At the time of these events, Mr E held a Paramedic BLS qualification, and was scheduled to have his ATP reduced to EMT in late 2014.

Background

24. This opinion relates to the events that occurred in 2013, when Mrs A's daughter, Mrs B, called the ambulance twice to assist her mother when she became unwell. Mrs A subsequently died.

[3] Paramedics have a wider range of treatment options they are able to use for patients than EMTs do.

25. In 2012, Mrs A had begun to use oxygen at home because of her COAD. She used an oxygen concentrator[4] 24 hours a day, which delivered the equivalent of 2L/min (litres per minute) of oxygen via nasal prongs.

26. Mrs A had had multiple admissions to the hospital, the latest being about two weeks prior to the events that are the subject of this report. On that occasion, MO Dr D recorded on the "Doctor & Nursing Assessment/History" form that Mrs A had been brought in by ambulance because of an acute onset of shortness of breath (SOB). The form notes that Mrs A was talking on the telephone when she developed SOB and could not complete her sentences. She called for an ambulance and was transferred to the hospital.

27. Mrs A was administered 6L/min of oxygen and, subsequently, was able to talk in full sentences. Dr D recorded his impression that the SOB was not caused by an acute pathology. The plan recorded was for Mrs A to receive oxygen up to 3L/min at home, and to be prescribed morphine 2.5mg–5mg every six hours as needed for worsening SOB. It is noted that if the SOB was not improving, Mrs A was to seek medical help.

First call-out

28. Mrs A had had a cough for approximately three days. Mrs B told HDC that she was with her mother overnight. At around midnight, Mrs A became unwell, was finding it difficult to breathe, and had chest pains. Mrs A took 2.5mg of her prescribed morphine with little effect.

29. Mrs B activated Mrs A's monitored medical alarm, and was put through to a call-taker. Mrs B said: "The symptoms I described were that she was holding her chest and coughing, and that her sugars were really high and her temperature was hot and cold. I also told [the call-taker] her feet were swollen which rang alarm bells with me that it was her heart." Mrs B said that after she told the call-taker her mother's symptoms, the call-taker dialled 111, as Mrs A "needed the hospital urgently".

30. The ambulance service told HDC that a 111 call was received in the ambulance communication centre at 1.49am. A ProQA determinant of "26A04 FEVER/CHILLS" was allocated.[5] The ambulance service stated that, based on the information conveyed by the monitored medical alarm call-taker, the call was prioritised "GREY (NOT URGENT — NOT SERIOUS or LIFE-THREATENING)".

31. The ambulance that responded was manned by Mr E and volunteer Mr F.

[4] An oxygen concentrator concentrates the oxygen from a gas supply (typically ambient air) to supply an oxygen-enriched gas mixture. Oxygen concentrators are used very widely for oxygen provision in healthcare applications.

[5] ProQA is a software system used to dispatch appropriate aid to medical emergencies. It is based on the Medical Priority Dispatch System (MPDS). MPDS starts with the dispatcher asking the caller key questions, which allow the dispatchers to categorise the call by chief complaint and set a determinant level ranging from A (Minor) to E (Immediately Life Threatening). The determinant "26A04" stands for sick person, minor (basic life support response required), and face-to-face clinical assessment required in 60 minutes.

32. Mr E is very experienced in ambulance work, as he has been working in the field full time for many years. Mr E said that when Mr F came on duty at 7pm that night, they had arranged that Mr E would pick up Mr F from his home if there was a call, because Mr F did not remain at the station when on duty.

33. Mr F said that they were returning from the public hospital in the main centre when Mr E's pager went off alerting them to a job. Mr F said that his pager did not sound, nor did the mobile data terminal (MDT) in the ambulance alert them to the job. Mr E said that Mr F's pager did not go off, but that the call did come up on the MDT screen and on his own pager.

Arrival at Mrs A's home

34. Mr E stated that on entering Mrs A's home, they found her sitting in a chair. Mr F said that Mrs A was using oxygen at that time. Mr E took a history from Mrs A while Mr F took her observations. Mr E recorded on the patient report form that her observations were: pulse 90 beats per minute (bpm),[6] blood pressure 142/66mmHg,[7] Glasgow Coma Scale (GCS) score 15,[8] oxygen saturation 86%, and temperature 36.2°C.[9] Mrs A's respiratory rate is not recorded.

35. Mr E recorded that Mrs A complained of "chills and cold", and noted that she had not been feeling well for five days, with flu-like symptoms. He recorded that Mrs A had a heart problem and was not able to mobilise freely, and that that night she had a dry cough, which felt raspy in her chest. The patient history does not mention Mrs A's COAD. Mr E stated:

> "On the first visit to this patient, I could see how unwell she was even though her vital signs didn't show any significant red flags except her low SpO_2 [oxygen saturation] levels. I knew they were low and had that documented because this was important to tell the MO at the [hospital]. I didn't know what her normal SpO_2 stats were in a normal situation so I knew I had to pass this on."

Contact with Dr D

36. Mr E telephoned the duty MO at the hospital, Dr D. Mr E said that after he reported Mrs A's vital signs to Dr D, including her oxygen saturation levels, Dr D told him: "There is no need for me … to see her tonight, there is nothing we will do anymore than what you have done, except monitor her for a few hours and then send her home." In response to my provisional opinion, Dr D told HDC that he was not overly concerned with the oxygen saturation numbers because he knew Mrs A well, having treated her at the hospital. Dr D said she was "chronically cyanosed"[10] both centrally

[6] The normal adult resting heart rate ranges between 60 and 100bpm.
[7] Blood pressure should normally be less than 120/80mmHg for an adult aged 20 years or over.
[8] The Glasgow Coma Scale is a neurological scale that aims to give a reliable, objective way of recording the conscious state of a person for initial as well as subsequent assessment. A patient is assessed against the criteria of the scale, and the resulting points give a patient score between 3 (indicating deep unconsciousness) and 15 (fully awake).
[9] Normal adult temperature is 36.5–37.5°C.
[10] A blue-purple discoloration of skin and mucous membranes usually resulting from a deficiency of oxygen in the blood.

and peripherally, and she was often used for clinical teaching of the medical students because her oxygen saturations were so low, yet she looked comfortable.

37. Mr E said that Dr D told him that Mrs A was at home to die, because her family wanted her to be at home. Mr E said that that concerned him, because if she did have the flu or pneumonia, he considered she should be seen by a doctor and have her condition explained to the family. Mrs B said in response to my provisional opinion that it was "very real news" to her that her mother was at home to die because her family wanted her at home. She stated: "We had never been told this, neither had Mum." Dr D told HDC:

> "It is true that [Mrs A] was getting palliative care, and her condition was deemed terminal, and she had made it abundantly clear that she would like to die in her own home, comfortably; but at no time did I use that as an excuse not to see her."

38. Mr E said he told Dr D that Mrs A was experiencing severe nausea, and that Dr D told him she had medication for that. However, in response to my provisional opinion, Dr D said that Mr E did not mention this during this telephone call.

39. In an email sent to the hospital the following day, Dr D stated that Mr E told him that Mrs A had been suffering from the flu and was coughing so much that her ribs had begun to hurt, that her vital signs were stable, and there were no other associated symptoms besides her baseline chronic SOB. Dr D noted that he was told by Mr E that Mrs A's blood pressure, heart rate, respiratory rate and temperature "were all grossly unremarkable", and so there was no indication that Mrs A needed to be seen urgently.

40. Dr D also stated that Mr E told him that Mrs A's "breathing was her normal baseline". In response to my provisional opinion, Dr D said that Mrs A was well known to the ambulance service ambulance crew. Dr D told HDC that he asked Mr E to count Mrs A's respiratory rate while he stayed on the telephone. Dr D said that "the numbers were reassuring". Mrs B said that Mr E did not tell Dr D her mother's respiratory rate.

41. In response to my provisional opinion, Mr E said that he tried valiantly to have Mrs A admitted to the hospital, but Dr D refused. Dr D told HDC that at no time did he refuse to admit Mrs A to the hospital. He said that he was well aware of Mrs A's past medical history, and he considered her symptoms in light of that history. Dr D told HDC that after-hours telephone calls to the hospital could fall into four categories, two of which were:

> "c) … calls from the ambulance service ambulance drivers informing us about patients that need to be seen as they are being transported to hospital. We do not have authority to override their decision, even if we disagree, as they are the first responders and are at the scene.
>
> d) … calls from the ambulance service ambulance drivers for advice regarding decisions they feel they have made and need reassurance or a second opinion on."

42. Dr D told HDC that Mr E's telephone call fell into category (d), and that Mr E did not deem Mrs A sick enough to be brought to the hospital for review. Dr D said: "I based my decision not to see [Mrs A] urgently on [Mr E's] initial assessment findings as the first responder, and his reassurance."

43. In his response dated 18 August 2014, Dr D told HDC that Mrs A had been prescribed morphine "as palliative treatment for worsening shortness of breath and pain". He said that Mr E told him that Mrs A had earlier self-administered 2.5mg of her prescribed morphine elixir, but had felt little relief. Dr D stated:

> "At this time, there was no indication from the first responder that [Mrs A] needed to be seen urgently, as her blood pressure, temperature, heart and respiratory rates were within a satisfactory range; so I advised that she be given additional 2.5mg of her prescribed 5mg oral Morphine elixir, for better pain control."

44. In the email to the hospital, and in a response to HDC, Dr D referred to having advised Mr E to give Mrs A 5mg of her oral morphine. In response to my provisional opinion, Dr D said that he is certain the dosage he advised was "an additional 2.5mg of her oral morphine elixir to be administered to add up to a maximum of 5mg since she was charted between 2.5–5mg".

45. Mrs B stated that Mr E did not tell Dr D her mother's blood pressure or heart rate. She said that after Mr F took Mrs A's temperature, Mr E passed that information to Dr D over the telephone, and gave the doctor his opinion that Mrs A had the flu, because there was flu in the house. Mrs B said that she told Mr E, while he was on the telephone to Dr D, that her mother needed to be in hospital, and that Dr D would have overheard this.

46. Mr E said that Dr D knew Mrs A well, and stated: "After some discussion with him on the phone, he advised the patient's daughter and myself to give [Mrs A] 5mg of her morphine elixir to assist with her pain." Mr E recorded on the patient report form: "Spoke with Medical Officer who [advised] to have 5mg of morphine." Mr E stated that he gave Mrs A 8mg ondansetron wafers (to prevent nausea and vomiting) before she took the morphine elixir.

47. With regard to administration of the morphine, Mr E said that he passed the telephone to Mrs B, and Dr D explained to her what he wanted her to do. However, Mrs B said that she never spoke to Dr D on the telephone. She said that she administered two doses of 2.5mg morphine to her mother. She stated: "I told [Mr E] to watch me while I gave it to her to oversee the dose and to make sure it was right. This was not for pain control, it was supposed to help her breathe better, that's why she had been prescribed morphine, to help her breathe." Dr D did not say that he spoke to Mrs B on the telephone.

48. Mr E said that he did not document that the morphine was administered because it was not prescribed or administered by the ambulance personnel.

49. Mrs A vomited after the morphine was administered. Mr E recorded on the patient report form that Mrs A had "vomited and settled well". Mrs B said that Mr E put

ondansetron wafers on her mother's tongue in response to the vomiting, and they were spat out so did not get into her system. Mr E submitted that the ondansetron wafers had been on Mrs A's tongue for five minutes before she vomited, and that they were not spat out.

50. Mrs B said that Dr D told Mr E to tell her to take her mother to the GP in the morning. Dr D agreed that he gave this instruction.

51. Mr E said that he and Mr F explained everything to Mrs B and told her that if things got worse, or if she was worried, she was to call the ambulance again. Mr E said that he and Mr F went to the ambulance and called the communication centre advising what they had done, and cancelled the job. The ambulance service stated that Mr E and Mr F cleared from the call at 3.03am. They then returned to the station, leaving a copy of the patient report form with Mrs A.

Pager

52. Mr F said that after the visit to Mrs A, his pager still had not gone off and the MDT screen was still blank. He said that approximately half way back to the station the MDT showed the job they had just attended. He added that the MDT had been "playing up" all night.

53. The ambulance service stated that it has a process for resolving issues with pager failure, including verbally reporting the issue and completing an equipment defect report form, and that, at the time of this incident, there were no reported pager issues.

Second call-out

54. At approximately 4.00am, Mrs B called the ambulance again. The ambulance service advised that the second call to Mrs A's address was allocated the same reference number as the first, which is highly irregular. Therefore, the original call to Mrs A was reopened, rather than a new call being created. The ambulance service response incident details report states that the case was assigned at 4.05am, and the ambulance, crewed by Mr E, was en route two minutes and 50 seconds later.

55. Mr F lived approximately 950 metres from the ambulance station, in the opposite direction from Mrs A's house. Mr E told HDC:

> "I immediately responded by going to [Mr F's] home, there were no lights on in his home so I pulled up alongside his gate and (ran) to his backdoor and knocked repeatedly. There were no signs of life or any lights on so I knocked again, hard … no one came so I ran back to the ambulance and called [the ambulance communication centre] explaining that I would be responding single crewed."

56. Mr E said he thought that he could not contact Mr F because there was a pager failure, "which happens quite often". Mr E stated that he did not wait at Mr F's address because he knew the call was a priority 1,[11] and a call-back to the same patient they had been to earlier. In response to my provisional opinion, Mr E noted that he was mindful of "the time to get to the patient within the [key performance indicator]

[11] Priority 1 generally requires lights/siren.

guidelines of the ambulance service". He added that no officers, if they have available assistance, willingly ignore it to expose themselves to the risks of single crewing. Mr E stated that after he had attempted to rouse Mr F, he called the ambulance communication centre, explaining that he would be responding single crewed because his volunteer was not with him, as Mr F had not responded to the pager or his knocks on the door. This Office has obtained a record of the audio files from the ambulance communication centre, and there is no record of that conversation.

57. Mr F said that after he arrived home from the first call-out, he went back to bed and, a short time later, his pager went off. He stated: "I sat up and looked at the screen and it was giving details of the job we had just attended. Believing this was a malfunction, like the [MDT], I went back to sleep."

58. Mr E said that he proceeded with the ambulance lights on to Mrs A's address, travelling at a speed of 80km through the town, and at a speed of under 130km on the open road. Mr E stated that the night was wet, cold and raining. The ambulance arrived at Mrs A's house at 4.23am. The ambulance service stated that the distance from Mr F's house to Mrs A's address is 14.1km, which is approximately 21 minutes' driving time at normal road speed. Mr E said that, on arrival, he went into Mrs A's home, taking with him the heart monitor and resuscitation bag. Mrs A was sitting on the same chair as previously, and her daughter was sitting opposite her on the couch. He checked the plastic bucket that Mrs A had been vomiting into previously, and noted that it contained about 100ml of clear fluid (the same amount that he noticed on the first visit). However, Mrs B said that she had emptied the bucket a few times in between the call-outs. At that time, Mrs A was not vomiting, but was nauseated and dry retching.

59. Mr E stated:

> "In my opinion the daughter was more distraught this visit than earlier. She just wanted her mother to be taken to hospital. This was of immediate concern to me because previously I had been advised by the doctor on the first visit that the family had agreed to have their mother pass away at home. My thoughts were that I would be providing clinical, pastoral[12] care to the family. I was acutely aware of how ill this patient was by observation and my earlier discussions with the Doctor."

60. Mr E said that he put the heart monitor on Mrs A to get her oxygen saturations and pulse rate, and took her temperature and respiratory rate. In contrast, Mrs B said that Mr E did not assess her mother at all. Mr E recorded on the patient report form that Mrs A's vital signs were: respiration rate 16 breaths per minute,[13] pulse 58bpm, blood pressure not taken, GCS 15, oxygen saturation 86%, and temperature 35.6°C.

61. Mr E recorded that Mrs A was sitting in a chair, talking, but feeling nauseous. Mr E told HDC that he asked Mrs B what had changed in her mother's condition since they

[12] Mr E's statement referred to "pastoral" care; however, Mr E advised HDC that this should have been "palliative" care.
[13] The normal respiration rate for an adult at rest is 12 to 20 breaths per minute.

left the first time, and she replied that her mother was getting worse and vomiting more.

62. Mr E said that he was able to recognise how seriously unwell Mrs A was. He rang Dr D again, reporting her vital signs, and was advised to transport Mrs A to the hospital. Mr E told Dr D that it would be at least half an hour before they arrived because he was on his own.

Transfer to ambulance

63. Mr E said that Mrs A was on an oxygen concentrator, which was in the bedroom at the end of the house set on 2L/min. He said that the oxygen tubing stretched from her machine to the lounge and down the passage to her bedroom. Mr E stated that therefore he "knew that the patient must mobilise from her chair to the toilet and her bedroom". He had noticed the same oxygen tubing arrangement during his earlier visit.

64. Mr E stated the reason he did not call for support:

> "As on many occasions when we worked single crewed at nights during the week, weekends; and during the days on weekends, we have to get people in and out of houses and places on our own by any means possible. If we were to call the fire brigade, who are also volunteers, they would be put under some serious strain by responding to assist us on a very regular basis."

65. Mr E said that he got the wheeled chair from the ambulance and set it up outside the front door. He explained to Mrs B and Mrs A that the only way he was going to get Mrs A out to the ambulance was if she would walk to the chair, then he would wheel her to the ambulance. He stated that the walk to the chair from where Mrs A was sitting was about eight metres.

66. Mrs B said that Mr E walked up the hall, then came back and said he had a bit of a problem as he was there on his own, and that she would have to assist him. Mrs B said that Mrs A was still vomiting, but she put a dressing gown on her mother and managed to assist her to the front door. Mrs B said her mother told her that she could not breathe, but she had to take off her oxygen at the door because Mr E had not brought any portable oxygen up to the house. Mrs B said that she assisted her mother down the steps. In response to the "information gathered" section of my provisional opinion, Mrs B said she thought that Mr E should have asked her where her mother's portable oxygen was. Mr E acknowledged that oxygen should have been provided between the house and the ambulance. He said that, at that time, he did not anticipate the complications that followed.

67. Mr E said that they got Mrs A on the chair, strapped her in, and had to wheel her about another ten metres to the back of the ambulance. Mrs B said that it was very cold, and she had to ask Mr E to bring her mother a blanket. She said her mother looked at her and repeated twice, "I'm going to die." Mrs B said that the chair then got stuck in the grass, so she and Mr E lifted it and carried it to the ambulance. In response to my provisional opinion, Mr E said that Mrs B did not lift the chair, only assisted in pulling it over the grass.

68. Mrs B said that when they got the chair to the ambulance, it tipped over and her mother hit the ground. Her mother was still strapped in, and Mr E tilted her back to sitting upright. Mr E said that Mrs A never hit the ground, but agrees that he tilted the chair back upright.

69. Mrs B said that Mr E told her mother that she had to get herself into the ambulance, so Mrs B took her mother under one arm, and Mr E was on the other side. She said that her mother fell back and said, "I can't," but she urged her mother on again.

70. Mrs B said that when she got her mother to the steps, Mrs A said she could not get up the steps and fell back into the chair. According to Mrs B, Mr E said, "Now come on [Mrs A]. You need to get into the ambulance, you're just being naughty and if you can't help yourself we can't." Mrs B stated:

> "With that, when she went to stand up again she fell onto the road like a rag doll, [Mr E] grabbed her pyjamas to try to heave her up and they got ripped at the bottom of the pyjama pants, [Mr E] kept telling her not to be naughty and that she's just given up."

71. In response to my provisional opinion, Mr E stated that it was Mrs B who said to Mrs A, "[Y]ou are just being naughty." Mrs B stated that her mother fell on her bottom with her legs coming out from under her, and her chest folded over her legs with her head hanging.

72. Mr E stated:

> "I got her to the back of the ambulance and was just about to get the stretcher to load her into it when she just collapsed onto me and fell on the ground. (It was raining and cold). I had all the weight of the patient on me and I couldn't manage to lift her from the ground back onto the chair so I went to ground with her … I got myself from under her and got a hold of her pyjama pants and lifted her but her pyjama pants ripped on me and I had to get another grip to get her up off the ground. At this stage I said to the patient, '[Mrs A] you have to help me so I can help you,' but she was unconscious and couldn't help. All this time the daughter was also yelling at her to get up and help us … The daughter wasn't any help because she was [unable] to lift so I had to do it all on my own which I was struggling to do."

73. Mr E stated that he considered it was inappropriate to call for assistance after Mrs A collapsed, because that would have incurred a delay of between eight and 60 minutes. He said that he considered back-up, but for the time involved and the weather conditions, he decided to take Mrs A to hospital in the quickest time possible.

74. Mrs B stated that her mother was unconscious, her eyes were wide open, and she made a growling noise. Mrs B said she took her mother by the legs, and Mr E took her under her arms. Mr E stated that he managed to get Mrs A back onto the chair and strap her in, and told Mrs B that she had to help him lift the chair up the steps into the ambulance so that they could get her mother onto a stretcher in the ambulance. He said that with Mrs B's help he got Mrs A onto the stretcher and put her on oxygen at

8L per minute via an acute mask, and put her on the monitor so that he could record her heart rate and rhythm.

75. Mrs B stated:

> "I screamed at [Mr E] that she'd had a stroke and he said, no it was lack of oxygen. He asked if I had any nasal prongs as he didn't have any and I tore back into the house to get some. When I got back he said, 'Get in. We've got to get her up there now.' He had a mask on her and he told me to keep her head up. Her whole face was set; her expression never changed; her arm kept draping on the floor."

76. Mrs B said that when she took the nasal prongs out of the packet, Mr E threw them to one side and put a mask on her mother.

77. In response to my provisional opinion, Mr E said that once Mrs A was secured in the ambulance, he reassessed her. He stated that Mrs A's respiratory rate was very slow, her heart rate was around 56bpm, and she was very pale. He said he told Mrs B that her mother was not well, and they had to get her to the hospital urgently.

78. Mr E stated: "I said to her to drive [the ambulance] but she wouldn't so I told her she would have to sit in the back with her mother and just look after her." Mrs B said that she was never asked by Mr E to drive the ambulance.

79. Mr E stated that during the journey to hospital, he had the monitor facing forward because of the seriousness of Mrs A's condition. He said that the alarms were set so that if there was an alert, he could see it. As Mrs A's oxygen saturation was below 88% (which the machine was set at), the alarm was sounding and the yellow oxygen saturation reading was going off. He stated that he could see this and hear the alarm during transport. He said he acknowledged several times to Mrs B that he was aware of the alarms. Mr E said that he called the communication centre and told them he was "travelling red" to hospital, and gave them the reason for this. He said he travelled the ten kilometres quickly. In response to my provisional opinion, Mr E said he was aware of Mrs A's condition, and stopping to treat her was not going to change the situation. He said that he visually assessed Mrs A during transport.

80. Mrs B stated that she was yelling at Mr E that the red light was flashing and there was a question mark alert but, "He just kept going and didn't even stop — we were flying." Mrs B said it felt as though they went sideways over a bridge. The ambulance service stated that the trip to the hospital is 19.5km, and the travel time at normal road speed was approximately 19 minutes, but the journey took nine minutes. Mr E said that going sideways was not an option, as the entrance to the bridge has a right-angled corner and a Give Way sign, and that ambulance drivers are extremely aware of the corner and the bridge crossing because it is narrow and often used by trucks.

Arrival at the hospital

81. Initially, Mr E advised HDC: "[J]ust as I was arriving at the entrance to the hospital the patient died. I pulled up and went straight into the Hospital and told the Doctor that the patient had died just as we were arriving. So the doctor and a nurse and myself went out to the ambulance." However, in response to my provisional opinion,

Mr E said that when they arrived at the hospital, he immediately attended to Mrs A and checked her carotid pulse. He said that the monitor indicated that she was in asystole,[14] and her pupils were fixed and dilated.

82. Mrs B said that when they arrived at the hospital Mr E did not look at her mother. She said that Mr E walked through from the front of the ambulance to the back and said, "I think we've lost her."

83. Mr E said that he did not try to resuscitate Mrs A as they arrived at the hospital because of her history, and because he did not know whether she had died before she arrived at the hospital or earlier during the journey to the hospital.

84. Dr D said that he went outside and sat with Mrs B in the ambulance with her mother for about five minutes, consoling her. He said that Mrs B was in shock and seemed to be concerned about whether she could have done more for her mother. Dr D said he reassured her that given the fact that Mrs A had been very ill for a long time, with multiple significant co-morbidities and multiple admissions in the past year alone, there was nothing more that she could have done. He said he praised Mrs B's dedication and devotion to her mother, as she had always been the one by her mother's side every time, even at odd hours of the night when she had presented to hospital. Mr E confirmed that Dr D spent some time talking to Mrs B in the ambulance.

85. In contrast, Mrs B said that Dr D did not sit with her and console her. She said that he closed her mother's eyes and left the ambulance, and that "he didn't check her heart or anything to make sure she was really gone". Mrs B stated that Dr D said: "Oh well it was going to be the same outcome but it turned out to be later rather than earlier." Dr D denies making this statement, and says he did not, and would not say that to a patient or relative at any time, let alone when that person had just lost a loved one. Dr D told HDC that when he climbed into the back of the ambulance, the first thing he did was to check for any sign of life in Mrs A, as he could not write a death certificate without having done that.

86. Mrs B stated that Mr E stood with a blanket over his arm to put over Mrs A and, in her view, neither he nor Dr D showed any respect or compassion for her or for Mrs A.

87. Mr E said that after about five minutes they took Mrs A into the ward and placed her onto a bed, so that the family could spend time with her. He said he left the room and went back to the ambulance to get the patient report form, and took it to the doctors' office to finish writing it up. He wrote, "pt collapse," and, "when pt collapsed at ambulance," but there is no documented evidence of an examination of Mrs A after her fall/collapse, and no reference to Mrs A becoming anxious. Although a respiratory rate of six breaths per minute is recorded at 4.55am, when oxygen was administered via an acute mask in the ambulance, there is no record of Mrs A's pulse rate, blood pressure, level of alertness, or oxygen saturation. It is recorded on the patient report form that due to Mrs A's extensive history, "Dr advised not to resuscitate."

[14] Asystole is a state of no cardiac electrical activity. Asystole is one of the conditions that may be used for a medical practitioner to certify clinical or legal death.

88. Dr D said that he notified the Coroner of Mrs A's death, and a decision was made that a post mortem was not required. As the Coroner did not wish to take jurisdiction, he signed the death certificate.

Further information from Mrs B

89. Mrs B said that she was concerned about the way in which she and her mother were spoken to, and the lack of dignity and respect in Mr E's communications to Mrs A, for example, she recalls him saying, "Harden up, it's just the flu." In response to my provisional opinion, Mr E stated that he would never use that language, especially in relation to a patient.

90. Mrs B said that she considers that the way her mother was transferred to the ambulance was inhumane, as was the way Mr E spoke to her mother and treated her when she had fallen and was on the ground. Mrs B said that she was also unhappy about the ambulance trip to the hospital, when Mr E told her to hold her mother's head back, there were no nasal prongs for the oxygen in the ambulance, and her mother was lying with nothing over her and only one slipper on.

Further information from the ambulance service

91. The ambulance service advised that it had been a longstanding practice that ambulance personnel could not transport a patient to the hospital without the permission of the MO, as the hospital does not have an emergency department, so patients required a referral from a doctor to effect admission.

92. The ambulance service advised that the automatic vehicle location (AVL) information from the ambulance is not available owing to technology failure, so it is unable to verify the vehicle's movements. In response to my provisional opinion, Mr E said that on the information system the AVL was stated to be working at 4.23am.

93. As stated above, the ambulance service advised that there is a process for resolving issues with pager failure, including verbally reporting the issue and completing an equipment defect report form. At the time of the incident, there had been no reported pager issues.

94. The ambulance service stated that although it was not described in exact detail in the Clinical Practice Guidelines 2011–2013 (the Guidelines), which were current at the time of the incident, there was general understanding amongst the ambulance service staff that if the provision of patient care could not be provided safely when single crewed, back-up should be requested. The ambulance service noted that Mr E was aware of resources available, such as the fire service, but he could not provide a satisfactory rationale for not calling for that help. In response to my provisional opinion, Mr E told HDC that when there is no volunteer, ambulance officers are exposed to a problem because the ambulance service back-up is 28km away, and a volunteer station with volunteers presumably asleep at 4am "is really no solution either". Mr E's representative stated:

> "The officers never contact the fire service. Comms [the ambulance communication centre] make the call after engaging with the officer concerned.

> The officer made the call 'single crewed'. Comms never came back and asked for back up. Nor did the officer ask. However, when responding to red to purple calls, customarily Comms have despatched the fire service. We acknowledge communication between officers and Comms could be improved, however, we note with respect to vehicle accidents, we can state that almost without exception, fire is despatched. This call was a red call."

95. Mr E's representative further stated that if Mr E could have done anything, it may have been that he could have requested that the ambulance communication centre call the volunteer fire brigade, when he arrived at Mrs A's house and realised they had not been dispatched. However, it would have taken a further eight minutes for the back-up to arrive. In that time, Mr E had loaded Mrs A into the ambulance and was on his way to the hospital. Mr E's representative stated: "The best outcome of [the volunteer fire brigade attendance] would have been a driver provided. We note fire officers can only drive an ambulance at normal road speed."

Recommendations and changes made by the ambulance service

96. Following this incident, the ambulance service's Clinical Audit Manager, Ms G, carried out an investigation. A number of recommendations were made in the investigation report and, as a result, changes have been made by the ambulance service.

97. There has been an operational management restructure, which has involved the creation of a new management layout. The ambulance service noted that while the station and its staff were once isolated, they are now included and are more visible within the overall district.

98. The station manager confirmed that all volunteer staff now work their shifts from the station 24 hours a day.

99. The ambulance service representatives met the hospital representatives on 5 December 2013, and it was agreed that the preadmission requirement would change. Ambulance personnel are now able to contact the MO to advise that they are transporting the patient to the hospital. In some cases, based on the symptoms discussed over the telephone, the MO may advise that the patient needs to be seen in the public hospital, and the patient should be transported accordingly.

100. Mr E's scope of practice was formally reviewed, resulting in a reduction from Paramedic BLS to EMT (prior to the scheduled date of September 2014).[15] A developmental support plan was implemented and, upon completion, Mr E's scope of practice was adjusted permanently to EMT. Mr E submitted in response to my provisional opinion that any number of rural based officers who have not been rotated through metropolitan stations or provided with refresher courses could find themselves in the same situation.

101. The ambulance service provided an apology in writing to the family of Mrs A, which was delivered personally by Ms G and the district operations manager.

[15] Refer to paragraph 23.

102. Feedback was provided to the manager of the ambulance communication centre regarding the decision to reallocate the original reference number to the second call-out.

103. The Clinical Procedures and Guidelines 2013–2015 have been updated recently, and reinforced with continuing clinical education for all staff.

104. A non-transport "Pause and Checklist" has been introduced for ambulance personnel. This states that, if a patient is being given a recommendation that transport to a medical facility by ambulance is not required, the crew must pause briefly and go through a checklist and agree that non-transport is the right decision. If consensus is unable to be achieved easily, the crew should have a low threshold for seeking clinical advice or transporting the patient. The checklist is as follows:

- The patient has been fully assessed, including a set of vital signs and appropriate investigations.
- None of the vital signs are significantly abnormal.
- Serious illness or injury has been reasonably excluded.
- No red flags are present, if the clinical condition is one that is contained within the red flag section.
- The patient has been seen to mobilise (when able to do so normally). If the patient is unable to mobilise, there is a clearly minor condition preventing this.
- The patient and/or caregivers have been given an explanation of when to seek further help.
- The patient report form has been completed and a copy is being left with the patient.

105. It was recommended in the investigation report that this case be used in the ambulance service's internal publication to support all the ambulance service staff to learn from it. The ambulance service stated that this has not yet occurred.

Clinical Practice Guidelines 2011–2013

106. The Guidelines used by the ambulance service's ambulance officers provide the following guidance for decisions that result in the non-transport of patients:

> "***General Principles of Treatment***
>
> …
>
> All patients require a primary and secondary survey, with appropriate intervention as required.
>
> …
>
> ***6.12 Referral and non-transport decisions***
>
> Whenever 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 detailed 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 doctor.
- Fully assess the patient's competency to understand information and make informed decisions.
- Take into account all available information, including non-clinical aspects such as social factors.
- Fully inform the patient regarding their condition, the recommendations and the benefits and risks of any alternative courses of action.
- Act in the patient's best interest, while allowing competent patients to decline recommendations.
- Insist on treatment and/or transport if it is in the best interest of a patient who is not competent to make decisions.
- Fully document assessment, interventions and recommendations.
- Contact a doctor or manager for advice if the situation is difficult.

…

Criteria for immediate referral

Personnel must always recommend immediate referral to a medical facility if any of the following criteria are met:

- Personnel are unable to confidently exclude serious illness or injury or

…

- There is a significant abnormality in any vital sign recording.

…

Documentation

Comprehensive documentation is always important but this is particularly the case when a patient is not being transported to a medical facility. As a rule, a third party (e.g. The Health and Disability Commissioner) will assume that if something is not written down, it did not occur.

When a patient is not transported to a medical facility, the documentation must include all of the following:

- Details of the patient assessment and findings.
- An assessment of the patient's competence.
- All treatment and interventions provided.
- A summary of what was said to the patient and/or family.
- A summary of what the patient and/or family said.
- Why the patient was not transported."

Responses to the provisional opinion

107. A response to the "information gathered" section of my provisional opinion was received from Mrs B. Responses to my provisional opinion were received from Mr E, the ambulance service, and Dr D and have been incorporated above as appropriate.

108. Mrs B said she feels that the ambulance service and Mr E let her and her mother down. She said that she should never have been put in that situation, which she considers arose because of single crewing. She told HDC she will never forget the way her mother died.

109. Mr E told HDC that the ambulance service failed to staff adequately. He submitted that a significant number of ambulance officers are faced with single crewing daily and are reliant on volunteers, and that single crewing in rural areas and smaller towns will continue to put ambulance officers and patients at risk. Mr E told HDC that he should never have been put in this situation. He said that had he been double crewed during the second attendance, Mrs A's vital signs would have been monitored continuously during the ambulance journey.

110. Mr E told HDC that he was doing his very best at all times in an extremely difficult situation. He acknowledged that, in hindsight, his documentation could have been better. However, he submitted that "the circumstances he was dealing with overrode his attention at the time".

111. Ms G responded to my provisional opinion on behalf of the ambulance service. She told HDC that the ambulance service would comply with the recommendations set out in my provisional opinion. Ms G said that Mr E has been provided with support since this incident.

112. Ms G said that the ambulance service acknowledges that at the time of the incident, clinical support, management oversight, and readily available back-up from higher qualified clinical staff were recognised as areas of need for the staff, and occasions where ambulances were responding single crewed was also identified to be a contributing factor to poor decision-making. She acknowledged that these challenges were contributing factors to Mr E's decision-making on this occasion. Ms G said: "[F]rom an organisational perspective we have identified a greater need to support, provide guidance and education to our non-urban staff if we are to support them to deliver safe clinical care to patients."

113. Dr D told HDC that he considers that he did demonstrate empathy towards Mrs B, but he apologises for "any perceived apathy she must have felt from my actions".

Opinion: Mr E

114. Mr E had worked as a paramedic for many years. This report considers the actions of Mr E during two call-outs to Mrs A's home. Mrs A was a 69-year-old woman who had multiple co-morbidities and was using an oxygen concentrator at home 24 hours a day. At the time of the call-outs, she was significantly unwell. Mrs A's daughter, Mrs B, was put in an unenviable position because her mother was not taken to the hospital after the first call-out, and during the second call-out she had to assist Mr E to get her mother into the ambulance. Mr E's actions in the circumstances would have added to what was already a traumatic situation.

115. I acknowledge that there are a number of instances where Mr E and Mrs B disagree on the details of events and, in some cases, I do not think it is necessary to make findings as to exactly what was said or done. Irrespective of the versions of events, my main concerns are with the deficiencies regarding the manner in which Mr E assessed and treated Mrs A, and with his record-keeping.

First attendance — Adverse comment

116. Mrs B activated her mother's monitored medical alarm, and the call-taker dialled 111. The ambulance service received the call at 1.49am. Mr E, accompanied by volunteer Mr F, arrived at Mrs A's home and found her seated in a chair using her oxygen. Mr E took a history from Mrs A, while Mr F took her observations. The observations were recorded in the notes as: pulse 90bpm, blood pressure 142/65mmHg, oxygen saturations 86%, and temperature 36.2°C and were relayed to Dr D over the telephone by Mr E. The documentation of the patient history does not include COAD, which suggests that this information was not known by the attending officers.

117. The vital signs were recorded only once, and do not include a record of Mrs A's respiratory rate. While Mrs B said that Mr E did not tell Dr D her mother's respiratory rate, Dr D told HDC that he asked Mr E to count Mrs A's respiratory rate while he stayed on the telephone. Dr D said that "the numbers were reassuring". I note that there are different versions of events, and that the respiratory rate is not recorded in the patient report form. However, I am persuaded by Dr D's account that he asked Mr E to assess the respiratory rate. Therefore, I find it more likely than not that Mrs A's respiratory rate was assessed.

118. Mr E stated: "On the first visit to this patient, I could see how unwell she was even though her vital signs didn't show any significant red flags except her low SpO_2 [oxygen saturation] levels. I knew they were low and had that documented because this was important to tell the MO at the [hospital]. I didn't know what her normal SpO_2 stats were in a normal situation so I knew I had to pass this on." Dr D was not overly concerned at Mrs A's low oxygen saturations because he knew Mrs A well. He also said that she was chronically cyanosed.

119. Mrs A's oxygen saturation of 86% while on inspired oxygen was significantly low. Mr E said that Dr D told him that there was no need for Dr D to see Mrs A that night. Dr D agreed that there was no indication that Mrs A needed to be seen urgently, but said that at no time did he refuse to admit her.

120. Dr D told HDC that after-hours telephone calls to the hospital could fall into four categories, and Mr E's call was in the fourth category, asking for advice on decisions Mr E had made and needing reassurance or a second opinion.

121. The Guidelines state: "Personnel must always recommend immediate referral to a medical facility if any of the following criteria are met:

- Personnel are unable to competently exclude serious illness or injury or
- There is a significant abnormality in any vital sign recording."

122. The ambulance service advised me that the practice at the time was that patients could not be transported to the hospital without the permission of a doctor.

123. My expert advisor, paramedic Mr Mark Bailey, advised me that the standard ambulance practice when consulting about a patient is that the duty of care rests with the clinician who is with the patient, and not the clinician on the other end of the telephone.

124. Mr E stated that Dr D told him that he did not wish to see Mrs A because there was nothing new about her condition, and told him to leave Mrs A at home, because there was nothing more he could do for her. However, Dr D stated that he did not at any time refuse to admit Mrs A, but he decided that she did not need to be seen urgently because of Mr E's initial assessment findings and because he was reassured by Mr E. I am unable to determine the exact discussion regarding transport of Mrs A to the hospital at that time. However, I accept that Dr D did not refuse to admit Mrs A, and I also accept that Mr E considered that he was not able to recommend immediate referral, as per the Guidelines.

125. Mr Bailey advised me that standard ambulance officer treatment for a patient suffering from low oxygen levels is the provision of supplemental oxygen. While I acknowledge that Mr E was in discussion with Dr D about Mrs A's condition, I am concerned that Mr E did not provide any additional oxygen to Mrs A for her low oxygen levels.

Second attendance

Further assistance not sought prior to attending Mrs A a second time

126. At approximately 4am, Mrs B called the ambulance again. Mr E responded single crewed. His reason for doing so was his inability to rouse Mr F. Mr E provided details of his attempts to rouse Mr F, as outlined above at paragraph 55.

127. The response details report notes that the case was assigned at 4.05am, and the ambulance was responding two minutes and 50 seconds later. The ambulance arrived at Mrs A's home at 4.23am. The ambulance service was unable to provide the AVL records from the ambulance because of a technical failure, and there is no record of Mr E calling the ambulance communication centre explaining that he would be responding single crewed. The driving time from the ambulance station to Mrs A's house is approximately 19 minutes at normal speed. Mr E's account is that he drove to Mr F's house in the opposite direction and attempted to rouse him, then continued on to Mrs A's house, within a timeframe of approximately 16 minutes.

128. Mr E said that the reason he left Mr F's house was because he was mindful of attending the patient within the time set by the ambulance service key performance indicator guidelines. Mr E also said that no ambulance officers, if they have available assistance, willingly ignore it to expose themselves to the risks of single crewing. Despite the lack of supporting evidence, I am persuaded by Mr E's submissions and I consider it is more likely than not that he drove to Mr F's house to attempt to rouse him.

129. However, I consider that Mr E should have made more effort to obtain Mr F's assistance, or, if that was not successful, he should have sought other support via the communication centre. Having been at Mrs A's house a short time ago, Mr E should have been aware that he would be unable to extricate Mrs A from the house by himself using a wheeled chair or stretcher, and also that Mrs A had been experiencing unusually low oxygen levels and a low temperature. Furthermore, Mr E gave no evidence of having made any other attempts to wake Mr F, such as telephoning him, knocking on windows, or radioing the communication centre and requesting that it telephone Mr F.

Further assistance not sought prior to moving Mrs A

130. Mr E arrived at Mrs A's house and again found her sitting on a chair. He said that he put a heart monitor on her to get her oxygen saturation and pulse rate, and took her temperature and respiratory rate. The patient report form states that Mrs A's vital signs were: respiration rate 16 breaths per minute, pulse 58bpm, blood pressure — not taken, oxygen saturations 86%, and temperature 35.6°C. Mr E said that he was able to recognise how seriously unwell Mrs A was. He rang Dr D again, reporting her vital signs, and was advised to transport Mrs A to the hospital.

131. Mrs B said that Mr E told her that she would have to help him, as the only way he was going to get Mrs A out to the ambulance was if Mrs A could walk to the wheeled chair, which was positioned outside the door, then he would wheel her to the ambulance, and she would have to climb the steps into the ambulance.

132. Mr Bailey advised: "The appropriate time to call for backup was prior to moving [Mrs A]. She was known to be hypoxic (very low levels of oxygen in her blood), therefore any exertion by her would create the significant risk that she would deplete these levels causing her to collapse and die."

133. Mr E failed to obtain assistance once he arrived at Mrs A's house and became aware of her condition. Mr E had the option of contacting the ambulance communication centre and requesting back-up. The ambulance communication centre could have contacted the volunteer fire brigade or other emergency support. Despite his concerns about a delay in such assistance arriving, I remain of the view that, in light of the difficulty in access to the house and Mrs A's need for continuing oxygen, Mr E should have obtained assistance before moving Mrs A to the ambulance. I also consider that it was inappropriate for Mr E to ask Mrs B to assist him in the circumstances.

Decision to move without oxygen

134. Mr E said that Mrs A was on an oxygen concentrator, set on 2L/min, which was in the bedroom at the end of the house. He noted that the oxygen tubing stretched from her machine to the lounge. Mr E stated that therefore he "knew that the patient must mobilise from her chair to the toilet and her bedroom". He had noted the same oxygen tubing arrangement during his earlier visit.

135. Mrs B said that her mother had to take off her oxygen to move to the ambulance, and that Mr E had not brought any portable oxygen up to the house. Mr E acknowledged that oxygen should have been provided between the house and the ambulance.

136. Mr Bailey advised that ambulance officers routinely use carry chairs to move patients out to the ambulance, and it is sometimes necessary to get a patient to walk to the chair if access is difficult. However, Mr Bailey advised that the decision to move Mrs A without oxygen while she was already hypoxic was not appropriate, and was a significant departure from expected standards. I accept this advice, and it is my view that the decision to move Mrs A without oxygen was unacceptable, particularly given her serious condition.

Lack of assessment when Mrs A collapsed or during transportation

137. While being moved to the ambulance, Mrs A collapsed. She was lifted into the ambulance by Mr E and Mrs B. Mr E then assisted Mrs A onto the stretcher and put her on 8L oxygen via an acute mask, and began monitoring to record her heart rate and rhythm. Mrs A's respiratory rate was very slow, her heart rate was around 56bpm, and she was very pale. Mr E recorded that at 4.55am, after Mrs A had collapsed, her respiration rate was 6 breaths per minute. There is no record of her pulse rate, blood pressure, level of alertness, or oxygen saturation at that time. Mr E stated that it was inappropriate to call for assistance after Mrs A had collapsed, because that would have incurred a delay of between eight and 60 minutes.

138. After Mrs A was placed on the stretcher in the ambulance, Mr E called the ambulance communication centre and told it that he was "travelling red" to the hospital. Although alarms were sounding during the journey, Mr E did not stop the ambulance to assess Mrs A or provide treatment. Mr E said he was aware of Mrs A's condition, but that stopping to treat her was not going to change the situation. He said that he visually assessed her during the journey while he was driving.

139. Mr Bailey advised me that reassessment should have taken place when Mrs A collapsed, and also when the defibrillator alarms sounded during the transport to the hospital. He said that there were insufficient vital sign recordings taken at these points "to present a picture of [Mrs A's] changing condition". I note Mr E's submission that he assessed Mrs A after she was secured in the ambulance. However, I accept Mr Bailey's advice, and am concerned that Mr E failed to assess Mrs A sufficiently following her collapse, and during transportation to the hospital.

Lack of resuscitation on arrival at the hospital

140. Mr E said that, on arrival at the hospital, he went straight in and told the doctor that the patient had died just as they were arriving. In response to my provisional opinion, Mr E said that when they arrived at the hospital, he immediately attended to Mrs A and checked her carotid pulse and noted that the monitor indicated that she was in asystole, and her pupils were fixed and dilated. Mr E did not attempt resuscitation. Mrs B said that when they arrived at the hospital Mr E did not look at her mother. I acknowledge that there are differing accounts of what happened, but I am persuaded that Mr E examined Mrs A. However, I find it concerning that Mr E did not attempt to resuscitate Mrs A given it is possible that she may have deteriorated only shortly before arrival.

Conclusions

141. I have carefully considered the care provided to Mrs A during the first attendance. While there is no reference to Mrs A's respiratory rate in the clinical notes, I find it more likely than not that her respiratory rate was taken. On balance I have decided that the assessment during this attendance was adequate. However, I am concerned that Mr E did not provide any additional oxygen to Mrs A for her low oxygen levels.

142. During the second attendance, Mr E did not take sufficient steps to obtain Mr F's assistance or other support. Furthermore, Mr E should have obtained assistance prior to moving Mrs A when he arrived at her house and became aware of her condition. Mr E decided to move Mrs A without portable oxygen when she was seriously unwell and dependent on oxygen. When Mrs A collapsed, he failed to assess her sufficiently, and took no action when the alarms sounded during the journey to the hospital.

143. In my view, the cumulative effect of these failings is that Mr E's assessment and treatment of Mrs A were inadequate. Mr E failed to provide services with reasonable care and skill and, accordingly, breached Right 4(1) of the Code.

Documentation

144. Mr E recorded on the patient report form from the first attendance that Dr D advised him that Mrs A should have 5mg of morphine, but did not record that the morphine was administered by Mrs B. Mr E said that he did not document that the morphine was administered because it was not prescribed or administered by the ambulance personnel.

145. Mr Bailey advised that the lack of documentation of the morphine administration did not comply with the policy on Documentation of Patient Care, which stipulates that an ambulance officer must document the treatment administered and the patient's response to the treatment. The morphine administration is not documented on the patient report form, and there is confusion about who received the instructions to administer morphine, and what the instructions were. In addition, the form does not associate the vomiting episode with the administration of morphine, or that Mrs A vomited after being given the morphine, and there is no documented rationale for administering ondansetron.

146. Furthermore, the advice given to Mrs A and Mrs B is not recorded, apart from a note that that they were to call the ambulance if worried. Amendments on the report are not signed or dated.

147. Mr Bailey advised me that the documentation from this attendance is substandard, although sufficient information is included to indicate that a degree of assessment and advice did occur.

148. The patient report form from the second attendance documents "pt collapse" and "when pt collapsed at ambulance", but there is no reference to Mrs A becoming anxious.

149. I note that Mr E agrees that his documentation could have been better, but submitted that the circumstances he was faced with overrode his attention to his documentation at the time.

150. Mr Bailey advised me that the standard of documentation from both attendances is well below the level required by the Guidelines. Common sense dictates that the administration of morphine, albeit not by a paramedic, is a highly relevant fact that should be recorded. In my view, accurate and comprehensive documentation is essential to continuity of care, and the substandard documentation in this case represents a departure from accepted standards of care. Accordingly, I find that Mr E failed to provide services in accordance with relevant standards and breached Right 4(2) of the Code.

Opinion: The ambulance service — Adverse comment

151. The ambulance service had a duty to Mrs A to ensure that services were provided that complied with the Code. In addition, under section 72(2) of the Health and Disability Commissioner Act 1994, an employing authority may be vicariously liable for acts or omissions by an employee. 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.

152. Both Mr E and Mr F stated that difficulties with technical issues such as pager failure were very common. Although there was a process to report pager failure, which was not complied with, it is evident that the communication failures contributed to Mr F's actions in this case. In addition, the practice of Mr F not remaining at the station overnight resulted in the difficulty in contacting him.

153. Mr Bailey advised that each time an ambulance responds, a report is generated that contains details of the case. Communications centre staff enter information relating to the case, including information provided by the ambulance officers en route to, or at, the scene. Mr Bailey noted that ambulance communications centres can become extremely busy, with the result that on occasion the staff are unable to enter all the information pertaining to a case. However, he noted that there is no information entered into the report that reflects any communication from the ambulance officers assigned to the case, with the exception of a closing code for each attendance. Mr Bailey advised that in his experience, "this is very unusual", and stated that the response incident details report lacks information normally recorded during cases like this, and was below the expected standard.

154. Furthermore, when the second call was received, the communications centre failed to create a new record for the second attendance, and instead reopened the original one. Mr Bailey advised that this was unusual. In my view, it was poor practice to reopen the original record, and I consider that this contributed to Mr F not recognising that there was a second call-out.

155. In addition, the ambulance service advised that the AVL in the ambulance was not working. The unavailability of this information is unsatisfactory.

156. I consider that Mr E's failings in this case were individual clinical errors. This Office has previously found providers not liable for the acts or omissions of staff, when those acts or omissions clearly relate to an individual clinical failure made by the staff member.[16] Despite my above criticisms of the ambulance service, overall, I consider that it took steps that were reasonably practicable to prevent acts or omissions such as Mr E's in this event. Accordingly, I do not consider that the ambulance service is directly or vicariously liable for Mr E's breach of the Code. However, given what happened on this occasion, and the subsequent review of Mr E's practice and decision to reduce his responsibilities, it begs the question whether the ambulance service should have been aware of any deficiencies in the standard of care Mr E was providing.

157. I note that the ambulance service recognised that clinical support, management oversight, and readily available back-up from higher qualified clinical staff were areas of need for the staff, and occasions where ambulances were responding single crewed was identified as a contributing factor to poor decision-making. Ms G acknowledged that these challenges were contributing factors to Mr E's decision-making on this occasion. Ms G said: "[F]rom an organisational perspective we have identified a greater need to support, provide guidance and education to our non-urban staff if we are to support them to deliver safe clinical care to patients." I agree.

158. I note that, since this incident, the ambulance service's medical and clinical representatives have met with the hospital, which has led to improved relations and improved access to the hospital for patients being seen by ambulance officers. Other improvements have also been made by the ambulance service in relation to management structure and staff support.

Opinion: Dr D — Adverse comment

159. On the night of these events, Dr D was the on-call MO at the hospital. He was familiar with Mrs A's condition, having seen her most recently a few weeks previously. During the night, paramedic Mr E telephoned Dr D to discuss Mrs A's condition.

160. Dr D said that Mr E told him that Mrs A had been suffering from the flu, and coughing so much that her ribs had begun to hurt, but that her vital signs were stable or "grossly unremarkable" and there were no other associated symptoms beside her baseline chronic SOB. Dr D stated that Mr E told him that Mrs A's breathing was at her normal baseline and that he asked Mr E to assess her respiratory rate, which was reassuring.

[16] Opinion 12HDC01483 (12 July 2013), available at: www.hdc.org.nz.

161. Dr D said that there was no indication from Mr E that Mrs A needed to be seen urgently, as he was told that her blood pressure, temperature, heart and respiratory rates were within a satisfactory range.

162. My expert advisor physician, Dr Kingsley Logan, advised that it was not unreasonable for Dr D to offer symptom relief initially. Dr Logan noted that Mrs A was known to Dr D, and advised: "Whilst he knew the patient and had had recent contact with [Mrs A] he was not able to correctly assess the severity of the situation." Dr Logan further advised: "Whilst [Dr D] was given a brief summary of findings and vital recordings, there should have been no reluctance to review or admit a palliative patient." While I acknowledge that Dr D said he asked Mr E to take Mrs A's respiratory rate, in my view, Dr D should have ascertained more detail about Mrs A's condition.

163. With regard to the dose of morphine he recommended, Dr D told HDC on 18 August 2014 that he advised that Mrs A be given an additional 2.5mg of her morphine elixir. In response to my provisional opinion, he reiterated that this was the instruction he gave, to ensure that Mrs A received a maximum of 5mg morphine. However, in the email to the hospital, and in a response to HDC in November 2013, Dr D referred to having advised Mr E to give Mrs A 5mg of her oral morphine. I note that the figure of 5mg is recorded in the contemporaneous documentation, and therefore I accept that the instruction, as understood and recorded by Mr E, was for 5mg. I am concerned about the lack of clarity as to what his instruction was about the dosage of a controlled drug.

164. There is conflicting evidence with regard to Dr D's instructions. Dr D stated that he did not at any time refuse to admit Mrs A, but he decided that she did not need to be seen urgently because he was reassured by Mr E. Mr E stated that Dr D told him that he did not wish to see Mrs A because there was nothing new about her condition, and told him to leave Mrs A at home, because there was nothing more he could do for her. Dr D advised that Mrs B should take her mother to the GP in the morning. Although I accept that Dr D did not refuse to admit Mrs A, the tenor of the conversation appears to have been that he did not consider transportation to the hospital was appropriate or necessary, and Mr E interpreted this as a refusal for Mrs A to be admitted.

165. With regard to Dr D's interactions with Mrs B at the hospital, Mrs B stated that Dr D did not sit with her and console her. She said that he closed her mother's eyes and left the ambulance, and did not check her mother's heart to ensure that she was really dead. Mrs B said that Dr D stated: "Oh well, it was going to be the same outcome but it turned out to be later rather than earlier." Dr D said that the first thing he did when he got into the ambulance was to check for any signs of life in Mrs A. Dr D said that he sat with Mrs B for about five minutes consoling her, and praised her dedication and devotion to her mother. Mr E confirmed that Dr D sat with Mrs B in the ambulance.

166. I am inclined to accept Dr D and Mr E's recollections that Dr D sat with Mrs B in the ambulance. While I am unable to determine what was discussed between Dr D and Mrs B, I note that Dr D apologised for any apathy that Mrs B must have felt from his actions. I consider that Dr D should reflect on his involvement in these events.

Recommendations

167. I recommend that Mr E provide a written apology to Mrs A's family. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Mrs A's family.

168. While I acknowledge that Mr E's scope of practice was reviewed formally, and resulted in a reduction from paramedic to emergency medical technician, I recommend that Mr E review the relevant aspects of his practice in light of this report, and provide evidence to HDC of this review and the subsequent changes he has made, within three weeks of the date of this report.

169. I recommend that the ambulance service undertake the following, within three months of the date of this report:

a) Provide evidence to HDC of specific training to staff about:
- the use of the new non-transport "Pause and Checklist";
- the procedure for reporting pager or technical concerns; and
- the need for requesting back-up when patient care cannot be provided safely while single crewed.

b) Provide a review of training provided to staff in relation to the updated Clinical Procedures and Guidelines 2013–2015, and evidence that all relevant staff have been trained in relation to these.

c) Provide evidence of ongoing refresher updates of the training on the Clinical Procedures and Guidelines 2013–2015 provided to staff.

170. I recommend that the ambulance service use this case anonymously in its internal publication, and provide evidence of this publication to HDC when it is available.

171. I recommend that the ambulance service audit the rate of pager failures for a period of six months before the date of this report, and report to HDC within three months of the date of this report, on the outcome of the audit and steps taken to resolve any problems.

Follow-up actions

172.
- A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the relevant district health board, and it will be advised of Mr E's name.
- A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the hospital and the New Zealand Ambulance Association.
- A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A — Independent expert advice to the Commissioner

The following expert advice was obtained from physician Dr Kingsley Logan:

"Re Confidential: HDC investigation 13/01190 — Request for expert advice **The appropriateness of [Dr D's] advice to [Mr E] during the first call-out (including whether it was appropriate for [Mrs A] to remain in her home and not to be transferred to [the hospital] at that stage)**

[Mrs B] had initially contacted the on call national triage system. She was given instruction in turn to call the ambulance service.

[Mrs A] had been unwell for 5 days on a background of significant co-morbidities, the most dominant being oxygen dependent interstitial lung disease, polyglandular autoimmune syndrome with features of insulin dependent diabetes and autonomic dysfunction.

She was severely compromised and was known to [Dr D]. The last interaction [with the hospital] has recorded features consistent with heart failure. The issues were discussed by [Dr D] at that stage.

[Mr E] assessed the situation and relayed the information to [Dr D]. The vital statistics were relayed but did not include [Mrs A's] respiratory rate.

[Mrs A] had been unwell for 5 days and given the history it was not unreasonable to initially offer symptom relief. There were no signs to suggest that she was haemodynamically unstable, the dominant issues of pain and vomiting addressed with advice to contact the ambulance service if there were on-going concerns.

The established triage system functions to assist the after hours delivery of medical service and follow strict guidelines to facilitate the safe management of patients. [Mrs A] was known to [Dr D], and whilst he knew the patient and had had recent contact with [Mrs A] he was not able to correctly assess the severity of the situation.

It is difficult to comment on the local protocols governing admission to [the hospital] but is distinct from initial evaluation and assessment. This would have been expected from [Mrs B] and whilst [Dr D] was given a brief summary of findings and vital recordings, there should have been no reluctance to review or admit a palliative patient.

[Mrs A] was seen by her daughter to have significantly deteriorated. Symptomatic relief rather than specific evaluation was offered, this was incorrect but given in the belief that this issue was simply that of pain relief and nausea associated with her analgesia. She was then prescribed a second dose of morphine.

This ultimately contributed to the many issues that followed but did not lead specifically to [Mrs A's] death. The sequence of events that followed could not have been predicted following this initial interaction.

The appropriateness of [Dr D's] advice to [Mr E] during the second call-out
[Mrs A] had not responded to the initial treatment prescribed, the vomiting and dry retching had continued and appropriate advice was given to transport [Mrs A] for evaluation and treatment.

[Dr D's] interaction with [Mrs B] at [the hospital]
The situation, shortcomings and traumatic events leading to [Dr D's] interaction with [Mrs B] at the [the hospital] describe a crisis situation. This would not have been easily managed. It is unclear whether [Dr D] was aware of all the issues and difficulties encountered en route. [Mrs B's] recollection is different from that of [Dr D] and I cannot comment further other than [Dr D] would have had to accept responsibility for his decision making earlier and should have been empathetic and sensitive.

[Mrs B] should have been supported through this process and the standard of care would have been that [Dr D] would have delivered his care with the assistance of the available nursing staff.

There is an expectation that medical practitioners should contact the Coroner where the cause of death was unclear or where issues of management needed to be clarified. It was appropriate that [Dr D] discussed the issues with the Coroner's Office.

There is no documentation of advance planning in the notes available.

The clinical features suggest on going deterioration. Interstitial lung disease is well recognised as a progressive disease and the advent of heart failure is ominous. These issues would normally be addressed as part of advance planning.

The overall level of communication between [Mr E] and [Dr D]
It is difficult to comment on the relationship between the health providers. [Mr E] had been involved in the service for some years; [Dr D] was employed as a locum. The interaction appears professional; responsibility was appropriately delegated to [Dr D].

Any other matter which you consider to be relevant in your assessment of the case
[The ambulance service] has taken full responsibility for the catastrophic sequence of events that were seen in [Mrs A's] transfer to [the hospital]. This is exemplary but also highlights the difficulties of rural care.

Kingsley Logan Physician FRACP"

Appendix B — Independent expert advice to the Commissioner

The following expert advice was obtained from paramedic Mark Bailey:

"Supplementary Report for the Office of the Health and Disability Commissioner
Providing further expert advice in relation to a complaint: C13HDC01190

Mark Bailey
Independent Advisor
August 2014

The author has been asked to provide an opinion to the Commissioner on case number 13/01190 and has read, and agrees to follow, the Commissioner's Guidelines for Independent Advisors.

Qualifications, training and experience relevant to the area of expertise
Bachelor of Health Science (Paramedic)
Root Cause Analysis training
Clinical investigation and reporting
Clinical audit
Communications Centre Experience (Dispatcher)
Extensive experience working in rural and metropolitan ambulance services, including as an intensive Care Paramedic and Flight Paramedic.

Supplementary Report
This is the second report requested of this advisor. The Deputy Health and Disability Commissioner (the Deputy Commissioner) has received responses to the original report from [the ambulance service] and [Mr E]. The Deputy Commissioner requests that after reviewing the responses, this advisor confirms, changes, amends, adds to, qualifies or departs from the preliminary expert advice provided. Comment is requested on all matters considered to be relevant.

Executive Summary
After reviewing the response of [the ambulance service], this advisor believes that appropriate systems, processes and training are in place. Whilst some processes were not followed appropriately (such as the local investigation), significant changes have taken place since and it is reasonable to expect that they will now be adhered to.

The response provided by ambulance officer [Mr E] has not significantly altered the findings of this reviewer. The conclusions are unchanged, with the exception of an additional finding that although the carry chair was an appropriate extrication method, utilising it without adequate help was inappropriate.

Expert Advice Requested
Was reasonable care provided in the circumstances, with comment required on the following topics:

- The initial decision not to transport [Mrs A] to [the hospital].
- The standard of documentation arising from the ambulance attendances.

- The adequacy of any assessments undertaken.
- The absence of a second ambulance officer when attending to [Mrs A] for the second time.
- The method used to transport [Mrs A] into the ambulance.
- The adequacy of the recommendations arising from [the ambulance service's] investigation.
- Any other matters considered to be relevant.

If it is considered that the care provided departed from the expected standards, the severity (mild, moderate or severe) of the departure and the reasoning that this is considered thus is requested.

…

Summary
The preliminary review has identified severe departures from the expected standard of care. These occurred in the following areas:

- The initial decision to not transport [Mrs A] to [the hospital].
- The adequacy of assessments undertaken.
- Treatment provided to [Mrs A].

Summary of initial recommendations made to the Commissioner
The preliminary review recommended that further investigation be considered in the following areas and that the Commissioner:

1. Requested and reviewed all audio communications pertaining to these cases from the Ambulance Communications Centre.
2. Requested and reviewed the Automatic Vehicle Location records for the ambulance responding to [Mrs A].
3. Ascertained whether [Mr E] made efforts above and beyond those established in an effort to ensure that he was appropriately and safely crewed.
4. Requested and reviewed electronic records from the defibrillator, and/or the summary document from the defibrillator.

Outcome of the above recommendations
1. Copies of audio communications pertaining to the two ambulance attendances at [Mrs A] were provided. While the review of these audio files is covered separately, in summary, they do not provide evidence in support of [Mr E's] description of events. Nothing further is recommended.
2. Automatic Vehicle Location records were requested for the ambulance that responded to [Mrs A]. Due to unknown technical issues, these records were unavailable. Whilst unfortunate in this instance, it is this advisor's experience that such technical issues do occur. A national program to refresh this technology is well advanced. Nothing further is recommended.
3. No additional information has been provided to demonstrate that [Mr E] made every reasonable effort to secure the services of the designated volunteer ambulance officer for the second call.
4. This documentation is not available.

Summary of initial recommendations made to the Commissioner

In relation to [the ambulance service], that the Commissioner considers recommending:

1. A process for resolving issues related to pager failure are developed and implemented urgently, and that this process is applicable 24 hours per day.
2. Point 70 of [the] Investigation report (the second point 70) be clarified for [Mrs A's] family, and for others reading the report.
3. [That ambulance] officers are encouraged to consider options other than non-transport when patients are declined admission to the hospital.
4. Point 76 of [the ambulance service] Investigation report be clarified for [Mrs A's] family.
5. That [the ambulance service] review the driving practices of [Mr E] to ensure that he is not placing himself and others in danger.

Outcome of the above recommendations pertaining to [the ambulance service]

1. The recommendation that a process for resolving pager failures be urgently implemented appears to have been unnecessary. [A report from the ambulance service] outlines the process that was already in place. Further, [the ambulance service] states that the importance of staff adhering to this process has been reinforced.
2. Point 70 (2) has been clarified. This is appreciated. Nothing further is recommended.
3. The intent of this recommendation was that ambulance officers in [the area] consider transporting patients to [the public hospital in the main centre] when [the rural hospital] was not able to see them. Whilst not addressed as such in the response, comments to this effect are noted in the associated documentation. This advisor therefore considers the intent of the recommendation has been addressed. Nothing further is recommended. In addition, medical and clinical representatives of [the ambulance service] met with [the hospital]. This is reported to have led to improved relations and improved access to [the hospital] for patients being seen by ambulance officers. This is viewed as a further enhancement. Nothing further is recommended.
4. Point 76 has been clarified. This is appreciated. Nothing further is recommended.
5. Concerns about [Mr E's] driving were raised based on the statement of [Mrs A's] daughter and the timeframes taken from [Mr E's] report. The comment [in the ambulance service's report] that 'these times are only valid if the "arrival at scene" and "depart scene" activations were correctly recorded' refers to the buttons that must be pushed manually by the ambulance officer. Ambulance officers may not always remember to push the buttons at the correct time. This adviser believes a review of [Mr E's] driving was warranted given the information provided. A review was conducted and [the ambulance service] appear satisfied that no further action is required. Nothing further is recommended.

Other matters considered relevant

The advisor notes that [the ambulance service] has undertaken a review of [Mr E's] practice and reduced his clinical practice level based on the outcome of this. Evidence of ongoing supervision and specific recommendations for further training is provided. Additionally, [Mr E] is encouraged to work in a double crewed capacity with someone of similar or higher qualification.

Initial non transport decision

The following two points, taken from the Clinical Practice Guidelines for [the ambulance service's] ambulance officers (see appendix 1) are key to determining whether the initial decision to leave [Mrs A] at home was appropriate. The presence of either circumstance mandates that the patient must be transported to an appropriate medical facility.

- Personnel are unable to confidently exclude serious illness or injury or
- There is a significant abnormality in any vital sign recording.

The assessment must also include seeing the patient mobilise (providing they can normally do so).

After reviewing the associated patient report form, the following points are noted:

- The respiratory assessment lacks detail such as rate, depth, and words per breath. These are important aspects in order to understand how hard [Mrs A] was working in order to breathe.
- The recorded $Sp0_2$ (blood oxygenation level) was 86%.
- [Mrs A] was documented as being 'not able to mobilise freely', although there is no elaboration on whether this was told to, or observed by, the two ambulance officers. It was not stated if this was her normal condition.

Commentary

1) Whilst [Mrs A] didn't complain of shortness of breath or difficulty breathing, her blood oxygen level was abnormally low. This indicated that she was significantly unwell. There is insufficient detail in the documented assessments and a lack of further appropriate assessments; therefore this advisor is unable to confidently exclude the presence of any serious illness. The decision for [Mrs A] to remain at home therefore does not comply with [the ambulance service] Guidelines (6.12 Referral and Non-Transport Decisions, criteria for immediate referral, page 130; Clinical Practice Guidelines). It is a severe departure from the expected standard of care, which is intended to safeguard patient wellbeing. The subsequent point (point 3) indicates that serious illness was present.
2) A significant abnormality existed in one of the vital signs recorded. The blood oxygenation level was below normal (normal is 94% or greater, or 88–92% for those patients with chronic obstructive airway disease) and is recorded on the form as 86%. This contravenes [the ambulance service] Guidelines (6.12 Referral and Non-Transport Decisions, criteria for immediate referral, page 130; Clinical Practice Guidelines). It is a severe departure from the expected standard of care, which would be to initiate treatment.
3) There is no documented evidence that [Mrs A] was able to mobilise to an appropriate level such that she was able to safely remain at home. This

> contravenes [the ambulance service] Guidelines (6.12 Referral and Non-Transport Decisions, obligations of personnel, page 129; Clinical Practice Guidelines). This appears as is a minor departure from the expected standard of care, in that not being able to mobilise freely infers that mobilisation with a degree of difficulty is possible. It should be noted that the documentation produced does not validate this assumption.

The guidelines covering the above points are intended for use by [the ambulance service] ambulance staff at all clinical practice levels, therefore both staff on scene were capable of determining that [Mrs A] was too unwell to remain without further medical care. The decision to leave [Mrs A] at home was clinically inappropriate and directly contravened three sections of [the] Clinical Practice Guidelines.

Initial Conclusion

The decision to leave [Mrs A], an elderly woman with a long term lung condition, at home without an adequate assessment and while she is suffering from low oxygen levels, represented a severe departure from the expected standards of care.

Review of [Mr E's] response

In his response, [Mr E] states that the decision for [Mrs A] to remain at home was made by the Medical Officer (MO) from the hospital.

[Mr E] states that he knew that it was important to tell the MO that [Mrs A] had a low blood oxygen level (SpO_2). It is implied that he conveyed this information (and in reference to the second visit, he states 'once again I quoted the SPO_2 levels from the monitor I was looking at.'). Further, he states that he did not know [Mrs A's] normal SpO_2 level but does not indicate that he ascertained what this was, nor obtained any advice on treating the abnormally low level.

No additional information is provided supporting the decision not to transport [Mrs A].

This decision by the doctor was based on the information provided via phone by [Mr E].

Standard ambulance practice when consulting about a patient is that the duty of care rests with the clinician who is with the patient (and not the clinician on the other end of the phone, in this case the MO). Opportunity existed for [Mr E] to clarify what [Mrs A's] normal SpO_2 should be, and what treatment was appropriate in the circumstances she now faced. There is no evidence that this occurred.

In his response, [Mr E] states 'On the first visit to this patient, I could see how unwell she was even though her vital signs didn't show any significant red flags except her low SPO_2 levels.' Later in this response, [Mr E] explains that when he spoke to the MO on the second visit he told him that 'this lady really needs to be seen by a doctor tonight' and also that 'the daughter wants her to be seen.' It is the experience of this advisor that when patients are firmly advocated for, then other health providers take notice, as appears to have occurred during the second attendance.

There is a lack of evidence that [Mr E] advocated strongly on behalf of [Mrs A] during the first visit. The patient report form generated makes reference to flu and chest infection.

Final Conclusion
Unchanged. The decision to leave [Mrs A] at home represents a severe departure from the expected standards of care.

The standard of documentation arising from the ambulance attendances.
The Patient report forms provided for both attendances are photocopies of the originals and as such contain variations in quality which contribute to some difficulty discerning the hand written notes. The quality of the second report is better than the first.

The hand writing itself was generally legible, although difficult to interpret in places.

First patient report form
In reference to the report produced during the first attendance, the following points are noted:

- The sentence structure is not conducive to the conveying of information and observations (e.g. dry cough and a raspy feeling when she coughs in the chest).
- The patient history does not include COAD (chronic obstructive airway disease; point 2, Clinical Complaint and Investigation, Final Report), suggesting that, if correct, this was not known by the attending ambulance officers.
- One set of vital signs was recorded. This did not include the respiratory rate.
- The abnormal vital sign documented does not have any associated corrective treatment (a blood oxygen level of 86% was recorded. This requires the administration of oxygen until a level of 94% or greater is reached unless the patient has chronic obstructive respiratory disease, whereby the blood oxygen level must be maintained between 88 and 92%).
- The report does not indicate that 5mg of morphine was administered. The report reflects that morphine was advised, without identifying that it was actually given, including when and how. The statements of both [Mr E] and [Mrs A's] daughter refer to it being given.
- The report does not associate the vomiting episode with the administration of morphine.
- Non standard advice purportedly given to the patient and her daughter is not recorded on the report.
- Amendments on the report are not signed and dated.

Initial Conclusion
The documentation resulting from the first attendance is sub standard. This is judged to be a minor departure from the expected standard of care, in the sense that it is the lack of interpretation of the results and corresponding lack of treatment that are the main departures. Sufficient information is present in the documentation to show that some degree of assessment and advice occurred, although treatment was limited to the patient's own medications, possibly administered by the patient herself.

Review of [Mr E's] response
In his response, [Mr E] advises that the conversation relating to the administration of morphine to [Mrs A] occurred directly between the doctor and [Mrs A's] daughter. This was not clear on the patient report form. He does not provide comment on the remaining points and it is the opinion of this advisor that they remain valid.

Final Conclusion
Unchanged. The documentation resulting from the first attendance is sub standard. This is judged to be a minor departure from the expected standard of care.

Second patient report form
In reference to the patient report form generated after the second attendance and transport, the following points are noted:

- The writing is more legible.
- The documented history is dedicated to explaining the earlier visit and non transport decision.
- The report documents 'pt collapsed' and 'when Pt collapsed at ambulance' in reference to one or more falls during which [Mrs A] came to be on the ground.
- The patient history does not include COAD (chronic obstructive airway disease; point 2, Clinical Complaint and Investigation. Final Report), suggesting that, if correct, this was not known by the attending ambulance officer.
- There is no documented evidence of an examination of [Mrs A] after her fall/collapse (point 14, Clinical Complaint and Investigation. Final Report).
- There is no reference to [Mrs A] becoming anxious (point 46, Clinical Complaint and Investigation. Final Report).
- The report notes that 'on arrival at [the hospital] pt (patient) went straight into aystole [sic] and with her extensive. Hx (history) Dr advised not to resuscitated [sic].
- A respiratory rate of 6 breaths per minute is recorded at 0455hrs, when oxygen was administered via an acute mask. A pulse rate, blood pressure, level of alertness and oxygen saturation of the blood are notably absent.
- A comment on the report appears to speculate on the reason why the ambulance responded with only one ambulance officer in attendance ('Single Crewed. (Pager failure.)? of [Mr F].').

Commentary
As a clinical record, this patient report form lacks documented assessments of the patient's condition on arrival of the ambulance, after her reported sudden deterioration/collapse/fall, and at the time of her reported death. The report form does not contain sufficient vital sign recordings so as to present a picture of [Mrs A's] changing condition.

The patient report form does not comply with [the ambulance service] Operational Management Policy 5.4, section 6.2, which stipulates that the information must be recorded in a logical, sequential format.

Initial Conclusion
The documentation resulting from the second attendance is sub standard.

The standard of documentation provided by the ambulance officer, arising from both ambulance attendances, is well below the level required by [the ambulance service] guidelines. It is a moderate departure from the expected standards.

Review of [Mr E's] response
In his response, [Mr E] does not present any new information pertaining to the second report.

Final Conclusion
Unchanged. The standard of documentation provided by the ambulance officer, arising from both ambulance attendances, is well below the level required by [the ambulance service] guidelines. It is a moderate departure from the expected standards.

Communications Centre Documentation
Each time an ambulance responds, a report is generated (Response Incident Details) which contains details of the case. Communications centre staff enter information relating to the case, including information provided by the ambulance officers en-route to, or at, the scene.

The information provided by the ambulance officers will normally include:

- Any information relating to unusual events affecting the response to a case (this will occur only in the event of an unexpected change, such as one crew member being unexpectedly unavailable). This is achieved via radio.
- Patient status (this occurs at scene, once the patient has been assessed). This is achieved via radio or telephone call. The status of the ambulance officer's safety is conveyed at this time.
- Intention to transport or not (this occurs from scene, prior to transport but once the patient has been assessed; or as the ambulance begins transporting in situations where the patient is loaded quickly and rapid transport is required — such as occurs in life threatening situations). This is achieved via radio or telephone call, and this information is frequently combined with the above message when a transport decision is obvious.
- The speed of transport: if this is expected to exceed the legal speed limit or the ambulance officer expects to use warning devices (lights and sirens) without necessarily exceeding the legal speed limit.
- A request to communicate with the receiving medical facility if this is a local requirement, or if the patient is in a serious or critical condition. The purpose of this is to alert the facility and give them time to prepare for the patient.

All of the above information is routinely entered into each Response Incident Report, with the exception of the request to communicate with a receiving facility. Almost all communications (radio and telephone calls and computer messaging) with the Communications Centre are recorded. The messages received by the Communications Centre are entered into the report, normally in a paraphrased fashion.

In his statement, ambulance officer [Mr E] states 'I called comms and told them that I was travelling red to [the hospital] and gave them the reason for this.' The phrase 'travelling red' is a reference to driving while using flashing red lights and potentially exceeding the legal speed limit. The phrase 'and gave them the reason

for this' suggests that [Mr E] explained by radio that his patient ([Mrs A]) was critically unwell. A brief explanation for travelling urgently with a patient on board is normally provided, although it may be implicit in the patient's listed status. There is no evidence of these messages in the reports provided.

Common practice (in the opinion of this Advisor), is that ambulance officers in similar circumstances would communicate:

- Any planned changes in crewing arrangements (as alluded to by the complainant).
- Difficulties in uplifting the expected crew member.
- Any request, by the responding ambulance officer, for the dispatcher to assist with locating crew members by telephoning their home.
- Radio or telephone calls from the scene (the home of [Mrs A]), stating the patient's condition and intention to transport.
- Any unexpected change to the patient's condition.
- Information pertaining to the speed and nature of transport (urgent or non-urgent).
- Attempts to alert the receiving facility (the hospital).

If such information is obtained, it may provide evidence that [Mr E] was aware (or otherwise) of the seriousness of [Mrs A's] condition and acted (or otherwise) in an effort to facilitate treatment beyond that documented.

Limitations
Ambulance Communication Centres can become extremely busy, with the result that on occasion the staff are unable to enter all the information pertaining to a case. Information provided for this review does not include data reflecting the workload within the Ambulance Communication Centre.

There is no information entered into the report that reflects any communication from the ambulance officer/s assigned to the case, with the exception of the closing code for each attendance. This is very unusual in the experience of this Advisor.

It is the opinion of this Advisor that the Response Incident Detail report lacks information normally recorded during cases such as this.

Initial Conclusion
The information documented by the Ambulance Communications Centre was below the expected standard.

Review of response
[The ambulance service] agrees with the above findings and does not comment further. Audio recordings of calls pertaining to the cases were provided and contain additional information.

Final Conclusion
Unchanged. The advisor notes that the quality of documentation in the communication centre has impacted the investigation but not the care provided to [Mrs A].

Initial Recommendation
The advisor recommended that the Commissioner requested and reviewed all audio communications pertaining to these cases from the Ambulance Communications Centre. The objective of this request was to understand the content of any communications that were not documented in the Response Incident Details.

Final Recommendation
This recommendation has been followed and the audio files provided. No further recommendation is made.

Adequacy of assessments

Requirements
The obligations of ambulance personnel in relation to patient assessments are detailed in [the ambulance service] Clinical Practice Guidelines (section 6.12, see appendix 1).

These obligations include, but are not limited to, obtaining a detailed history, performing a primary survey (an examination to confirm that the patient is alive and is breathing and has a pulse), performing a secondary survey (a more detailed examination of the patient, focusing on relevant body systems, e.g. the respiratory (breathing) system if the patient is having difficulty breathing).

1st attendance
The information recorded includes:

Flu-like symptoms for 5/7 (symptoms not specified).
Not able to mobilise freely.
Dry cough and raspy feeling when she coughs in chest.
Feeling hot and cold chills.
Hot and cold shivers.
Productive cough lungs dry.
Bowel and bladder ok.
No dehydration eating drinking.
Pt vomited and settled well after vomit.

The vital signs of pulse rate, blood pressure, level of consciousness, blood oxygen level, and temperature were recorded.

Commentary
The patient report form does not state why it was appropriate to administer morphine to [Mrs A], although the Incident Detail Report states 'infmt advised pt's chest hurts when coughing, fever' (during the 111 call it was stated that the patient's chest hurt when she coughed). Morphine is commonly administered to relieve pain, including in the setting of chest infection, however there is no evidence of pain, or a pain assessment documented on the patient report form.

Morphine may also be administered to relieve anxiety (point 47, Clinical Complaint and Investigation. Final Report) however anxiety was not documented on the patient report form as being present.

It is the opinion of this Advisor that while the lack of documentation to the contrary implies that the ambulance officers did not obtain [Mrs A's] detailed

medical history or her presenting condition, the action of ensuring [Mrs A] took morphine is suggestive of at least some knowledge of these, although this may have resulted from the conversation with the Medical Officer at [the hospital]. The statement by [Mr E] states 'The Medical Officer advised the patient's daughter and myself to give the patient 5mg of Morphine elixir to assist her pain [sic].'

The documentation of the morphine administration does not comply with [the ambulance service] Operations Management Policy on Documentation of Patient Care (OMP 5.4, 6.2.1 (iv)) which stipulates that an ambulance officer must document the treatment administered and the patient's response to treatment. The documentation of the morphine administration does not comply with the Medicines (Standing Orders) Regulations, 2011 (see appendix 3).

There is no evidence that differential diagnoses were explored (looking to distinguish between various illnesses which may present in similar ways). Therefore there is no ability to determine whether [Mrs A's] illness was related to suffering from the flu or from another more serious illness. Other serious illnesses could potentially include a worsening of her chronic (long term) lung condition, a serious chest infection, or an acute cardiac condition (new or suddenly worsening heart condition).

The recorded blood oxygen level of 86% is a significant finding. It is the opinion of this advisor that in circumstances such as this, a focused respiratory assessment should only be delayed if performing the assessment delays treatment of the patient. Some aspects of a respiratory assessment are easily observed while treatment is provided, such as skin colour, work of breathing and words per breath. These were not documented. Standard ambulance officer treatment for a patient suffering from low oxygen levels is the provision of supplemental oxygen and transport. The administration of oxygen was within the capabilities of both attending ambulance officers, yet there is no documented evidence that this occurred.

The diagnosis of 'flu and chest infection' was reached with little supporting evidence documented.

Initial Conclusion

It was the finding of this advisor that the assessment during the first attendance was inadequate and therefore the only appropriate decision would have been to transport [Mrs A] to a medical facility.

Review of response

In his response, [Mr E] has advised that the morphine was administered by [Mrs A's] daughter, on direct instruction to her by the MO.

The reason that the administration of morphine was appropriate remains a pertinent point that should have been recorded.

No further information is provided suggesting that a more thorough assessment took place than was documented. The resulting non-transport decision was based on this assessment.

Final Conclusion
Unchanged. The assessment during the first attendance was inadequate. This is a severe departure from the expected standard of care.

2nd attendance
Ambulance called because [Mrs A] was 'still vomiting and dry retching'.

The information recorded includes:

Pt sitting in chair.
Talking but feeling nauseous+++
Painful chest when she coughed but no cardiac chest.
Lung sounds dry and raspy.
Patient collapsed. After pt collapsed, resp rate was 6 (6 breaths per minute, half or less than the rate of a healthy adult).
On arrival at [the hospital] pt went straight into aystole [sic] (When the ambulance arrived at [the hospital], [Mrs A's] heart stopped and no electrical activity was present).

The patient report form accompanying the second attendance lacks important detail in relation to physical assessments and vital sign data.

In his statements to [the ambulance service] investigators, [Mr E] states that he felt 'the patient was just the same as last visit', but once [Mrs A] was on the stretcher in the ambulance, he 'noticed that her condition had deteriorated significantly and that she was very unwell.'

[Mrs A's] daughter reports that the alarm on the defibrillator was flashing and that she tried to alert [Mr E] to this, but that he did not respond.

Commentary
The information recorded during this attendance and transport does not reflect awareness of the increasing severity of [Mrs A's] condition as she deteriorated and died.

The critical points for reassessment of [Mrs A's] condition were immediately after she had fallen/collapsed outside the ambulance (or once she had been loaded into it, provided this could be achieved promptly), then again when the defibrillator alarms were sounding. These are key times at which appropriate treatment could have been initiated if there was an understanding of the nature of [Mrs A's] deterioration.

Initial Conclusion

The lack of thorough initial assessment is a significant departure from the expected standard. The results of the assessment performed contributed to the inappropriate decision that [Mrs A] could safely walk part of the way to the ambulance.

Accepted practice is to avoid having a patient walk when the level of oxygen in their blood is below the acceptable level. This is even more pertinent to a patient suffering from a long term lung condition such as [Mrs A's].

Review of response
At various points in his responses, [Mr E] makes the following statements:

- 'found the patient sitting on her chair in the same condition as we left her an hour or so earlier.'
- 'On the first visit to this patient, I could see how unwell she was even though her vital signs didn't show any significant red flags except her low SPO_2 levels' (Page 2, [Mr E's] response to the Complaint investigation of [Mrs A]).

In the absence of additional information (or documentation of a more thorough assessment of [Mrs A's] condition) it is difficult to see how [Mr E] arrives at these conclusions. During the first attendance, [Mrs A's] condition was described on the patient report form as Status 3. During the second attendance [Mr E] states during a radio call that 'this patient has dropped on us to status 2.' The patient [Mr E] is describing is chronically unwell, was known to have been hypoxic for more than an hour and has suddenly deteriorated, as evidenced by a sudden slowing of the heart and respiratory rates. It is the very firm opinion of this advisor that this patient is status 1 and is dying at this point.

During both this and the subsequent radio call (to [the hospital]), no reference is made to [Mrs A's] level of consciousness.

Final Conclusion
Unchanged. The lack of thorough assessment (at any stage) is a significant departure from the expected standard.

Absence of a second ambulance officer when attending to [Mrs A] for second time

The complainant appears to question whether [Mr E] actually went to the house of the second ambulance officer and tried to wake him.

The Response Incident Details report reflects that the case was assigned at 04:05:00 and that the ambulance was responding 2 minutes and 50 seconds later. The ambulance arrived at the address of [Mrs A] at 04:23:57. This reflects a driving time of 16 minutes and 7 seconds.

The statement provided by [Mr F], the volunteer ambulance officer, states that he was woken by his pager, sat up and read it, then went back to sleep.

The statement provided by [Mr E] reflects that, as the duty ambulance officer, he drove from [the] ambulance station to the house of [Mr F], the volunteer ambulance officer, and tried to wake him by knocking on the front door. It appears that [Mr F] was unable to be woken by this knocking, although this is likely to have occurred within approximately four minutes of [Mr F] having been woken by his pager.

[Mr E] does not detail any other attempts to awaken [Mr F], such as knocking on windows or radioing the Communications Centre and requesting that they telephone [Mr F].

The Google Maps travel time information provided for this review states that the drive time from [the] Station to [Mr F's] home is approximately 2 minutes at normal road speed. From [the] station, [Mr F's] home appears to lay it the opposite direction to the home of [Mrs A]. Therefore [Mr E] was required to drive away from [Mrs A's] home for a travel time of approximately 2 minutes, before

stopping for an undetermined length of time while attempting to gain [Mr F's] attention.

The Google Maps travel time website predicts that the drive time at normal road speed from [the] station directly to [Mrs A's] house will take 20 minutes at normal road speed.

Commentary

It is the opinion of the Advisor that while it is not unusual to have a drive time that is shorter than the predicted time for a direct route, but very unusual for this to be achieved by driving in the opposite direction for a portion of the journey. Therefore, it is the recommendation of this advisor that this aspect of the complaint be further investigated.

Ambulances are fitted with Automatic Vehicle Location (AVL), which would confirm the route driven by [Mr E] during the response and resolve this issue for the complainant.

When making a decision to respond without his colleague, [Mr E] would need to have considered the following points:

- [Mrs A] was unwell, as determined by the assessment of her during the initial response (although there is no evidence that [Mr E] comprehended the severity of this).
- His existing knowledge of access to [Mrs A's] house, with the associated difficulty in extricating her, if/when she required transport to a medical facility.
- The possibility of being diverted to another case while en route to [Mrs A] or being assigned to a follow-on case (as happened just prior to the initial response), while still single crewed.
- The inherent risks of crewing an ambulance alone. Single crewing and its associated safety issues for both ambulance officer and patient (as demonstrated by this case), are a high profile concern within the ambulance sector.

The two possibilities considered are:

1. [Mr E] was unable to locate his colleague despite diligent effort and as a result was forced by circumstance to make the best of a difficult situation.
2. [Mr E] made a conscious decision to respond without his colleague and did not drive to the volunteer's house.

Evidence supporting the statement by [Mr E] that he drove via [Mr F's] house is weak. It is not supported by the drive times recorded or his account of being unable to awaken [Mr F].

Initial Conclusion

No definitive conclusions are able to be reached due to lacking or conflicting evidence. It would be reasonable to endeavour to allay the complainant's concerns by seeking evidence that demonstrates [Mr E's] efforts to uplift his colleague.

Review of response

[Mr E] states that he drove to the volunteer's address and knocked on the door repeatedly and then returned to the ambulance when the door was not answered. It is acknowledged that [Mr E] would not have known that [Mr F] was woken by the pager. At this point he called [the communications centre], explaining that he would be responding single crewed as his volunteer wasn't with him.

A copy of this call was not included in the audio files provided by [the communications centre].

[Mr E] explains his logic for not waiting at [Mr F's] address as being because he knew the call was a priority one (urgent) and it was back to the same patient. This decision was made with the knowledge that he would be unable to extricate [Mrs A] by himself using a carry chair or stretcher and that one hour previously [Mrs A] had been experiencing unusually low oxygen levels. No evidence other than [Mr E's] repeated statement that he drove to pick up the volunteer has been presented.

When reviewing the audio files provided, [Mr E] can be heard twice referring to 'us' at times that he was single crewed ('this patient has dropped on us to status 2' — a reference to the patient's condition deteriorating; and later while speaking with [the hospital], 'collapsed on us').

Final Conclusion

Unchanged. No definitive conclusions are able to be reached due to lacking or conflicting evidence.

Initial Recommendations

1. This advisor recommended that the Commissioner request and review the AVL records for the response ambulance response to [Mrs A].
2. This advisor recommended that the Commissioner ascertain whether [Mr E] made efforts above and beyond those established in an effort to ensure that he was appropriately and safely crewed, such as asking the Communications Centre to contact [Mr F].

Final Recommendation

1. AVL records for this ambulance do not exist for these cases. No further recommendations are made.
2. An opinion based on local knowledge (in relation to the drive times) may assist the Deputy Commissioner in determining whether the advisor's assessment of these times is accurate. Should a travel time of 16 minutes or less while driving urgently from the ambulance station to [Mrs A's] residence via [Mr F's] residence be feasible then the advisor's concerns are negated.

The method used to transport [Mrs A] into the ambulance

The complainant does not challenge the proposed method for moving [Mrs A] from inside her home, out to the ambulance. This implies (without being fact) that access may have been difficult. No additional information was provided.

In the experience of this Advisor, it is common for ambulance officers to encounter homes and buildings which present difficulties when moving patients to the ambulance.

Google map street view of [Mrs A's house] appears to show a small, single storey house. The front door (visible) has a small porch and appears to have a single step, both of which would make extrication more difficult for a single ambulance officer. This information has not been verified.

Commentary
Ambulance officers routinely use carry-chairs to move patients out to the ambulance. This option is regularly the only viable choice when access difficulties preclude the use of a stretcher.

It is sometimes necessary to get a patient to walk to the chair if access is very difficult (such as tight corners or steep stairs). This occurs less frequently when two ambulance officers are present.

Initial Conclusion
It was the opinion of the Advisor that the use of the carry chair was likely to have been the most appropriate option in the circumstances. It is the experience of this Advisor that patients are moved more safely and comfortably with carry chairs when two ambulance officers are involved.

Review of response
[Mr E] states his view that it was inappropriate to call for assistance after [Mrs A] had collapsed. He explains that this would incur a delay of between 8 minutes and 30–60 minutes.

It is the very firm opinion of this advisor that the appropriate time to call for backup was prior to moving [Mrs A]. She was known to be hypoxic (very low levels of oxygen in her blood), therefore any exertion by her would create the significant risk that she would deplete these levels causing her to collapse and die.

The knowledge that [Mrs A] had previously been able to walk around her house while on home oxygen does not preclude her from deteriorating and being unable to.

The decision to move [Mrs A] without oxygen, when she was already hypoxic, was not appropriate.

Final Conclusion
The decision to utilise the carry chair was appropriate. The decision to move [Mrs A] without adequate assistance was not appropriate. This is a significant departure from the expected standard.

The adequacy of the recommendations arising from [the ambulance service's] investigation
In reviewing the adequacy of [the ambulance service's] recommendations, the advisor has considered whether the proposed changes affect individuals or policies and processes. If implemented, will the changes prevent a recurrence of events (and outcome) in similar circumstances?

In order to interrupt the chain of events leading to [Mrs A's] death, the advisor has identified six points at which a different decision would have offered [Mrs A] more appropriate care. It should be recognised that the appropriate care would not necessarily have altered the outcome, as [Mrs A] appears to have been diagnosed

with an illness which is inevitably fatal. The provision of appropriate care would however have contributed to a sense that [Mrs A] was being treated with respect.

1. Initial recognition by the ambulance officers of the severity of [Mrs A's] presentation.
2. An appropriate description of all of the vital signs to the Medical Officer, allowing him to offer more appropriate advice.
3. The Communications Centre create a completely new record for the second attendance, rather than re-open the original one.
4. A double crewed response to the second attendance.
5. A request for assistance to help move [Mrs A] from her home to the ambulance during the second attendance.
6. Initiating treatment at the scene, even though this would require waiting for driving assistance to arrive.

The recommendations arising from [the ambulance service] investigation are numbered 68 through 76 in the Clinical Complaint and Investigation, Final Report. The following comments are the opinion of this Advisor, who makes additional recommendations to the Commissioner throughout in this report.

68. It is appropriate that an apology be made to [Mrs A's] family.
69. It is appropriate that Communications Centre staff be provided feedback. It is likely that feedback alone will prevent this type of error recurring (point 3 above).
70. It is reported that a pager failure was identified during the first response to [Mrs A]. There is no evidence provided that action was taken at the time (or immediately after that case) to mitigate the risk of further pager failure. Whilst having all on duty staff housed at ambulance stations over night reduces this risk, it is not eliminated during the night hours and not addressed during daylight hours (point 4 above).
70. (the second point 70) This Advisor does not understand this recommendation.
71. It is appropriate to engage with [the hospital] and establish which patients can be admitted.
72. (This point is not present in the report provided).
73. This is an appropriate action.
74. Staff education is an appropriate recommendation (point 1 above).
75. Sharing the report with [Mrs A's] family is appropriate.
76. Clarification on this point is needed and would possibly assist [Mrs A's] family in accepting that improvements are being worked towards. It is the Advisor's opinion that the intent of this clause is to demonstrate that [Mr E] will receive ongoing education and mentoring to develop his clinical abilities and thus allow him to recognise the severity of patient conditions. If [Mr E] was acting in good faith, then it is appropriate that he receive the support and structured clinical supervision that will allow him to develop safe clinical practices.

Recommendations

1) A process for resolving issues related to pager failure are developed and implemented urgently, and that this process is applicable 24 hours per day.
2) Point 70 (the second one) be clarified for [Mrs A's] family, and for others reading the report.

3) [Ambulance officers] are encouraged to consider options other than non-transport when patients are declined admission to [the hospital].
4) Point 76 be clarified for [Mrs A's] family.

Other
The journey to transport [Mrs A] to [the hospital] appears to have been achieved in less than half of the normal time required. This suggests that the speed travelled was likely to exceed twice that of normal.

It is the opinion of this Advisor that travelling at twice the speed limit is not normally consistent with safe driving practice (for the occupants of the ambulance and other road users), nor is it conducive to comfort for the patient. The Advisor recognises that no information on driving and road conditions was presented, other than the time of day.

Initial Recommendation
This review recommended that [the ambulance service] review the driving practices of [Mr E] to ensure that he was not placing himself and others in danger.

Final Recommendation
This recommendation has been addressed by [the ambulance service]. No further recommendation is made.

Conflicting information
In his written statement, [Mr E] provides the following conflicting comments:

- 'just as I was arriving at the [the hospital] the patient died'; and also
- 'I didn't know if she passed on before I arrived at the [the hospital] or earlier on the trip in'.
- 'On arrival at [the hospital] pt went straight into aystole [sic]' is noted on the PRF.

An email from [Dr D] includes the comment:

- 'I was informed that [Mrs A] had died enroute.'

Modern defibrillators normally record extensive amounts of information, including ECG's (heart rhythms). Analysis of this data may provide insight into the timings related to [Mrs A's] deterioration and death.

Recommendation
This advisor recommended that the Commissioner requested and reviewed electronic records from the defibrillator, and/or the summary document from the defibrillator, if these were available.

Final Recommendation
As the defibrillator records were not available, this recommendation is void. [The ambulance service] did seek to obtain the records, but they had been overwritten by the time this occurred. The normal [ambulance service] procedure is to obtain the records as soon as it is realised an incident has/may have occurred.

Missing information
The account (by email) from [Dr D], Medical Officer at [the hospital], makes no reference to awareness that [Mrs A's] blood oxygen level was abnormally low.

His email states he was told that [Mrs A] was 'reportedly suffering from the flu and had been coughing so much that her ribs had begun to hurt. Her vital signs were stable, and there was no other associated symptoms besides her chronic shortness of breath (she's on domiciliary oxygen for a ? interstitial lung disease).'

He goes on to state 'at this time, there was no indication from the first responder that there was any need for her to be seen urgently: her BP, HR, RR, Temp were all grossly unremarkable.'

It is pertinent to note that the Medical Officer appears unaware that [Mrs A] had a low blood oxygen level.

In reference to the second phone call, [Dr D] describes being consulted (by [Mr E]) because [Mrs A] continued to vomit after being given morphine during the first attendance. Again there is no reported reference to oxygen levels.

It is the experience of this Advisor that possession of such information would normally result in advice to provide treatment intended to rectify this abnormal vital sign. Such treatment would normally include the provision of supplemental oxygen if not already being provided. The supplemental oxygen would be at a higher flow rate than that normally used at home by [Mrs A].

Conclusion
From the information provided, there was no evidence that the Medical Officer was made aware of vital information relating to the condition of [Mrs A]. This was a significant deviation from the expected standard of care.

Review of response
[Mr E] makes two references, one (first attendance) implying and the other (second attendance) stating that he conveyed information about [Mrs A's] oxygen level to the MO. This conflicts with the statement of [Dr D], the MO.

Final Conclusion
The statement by [Mr E] conflicts with the email from [Dr D]. If [Dr D] was aware of the hypoxic state of [Mrs A], it would be appropriate for the Deputy Commissioner to understand the doctor's rationale for not recommending the administration of additional oxygen by [Mr E]. This advisor is not qualified to comment on [Dr D's] decision.

Treatment
The treatment received by [Mrs A] was not in accordance with that set out in [the ambulance service's] Clinical Practice Guidelines.

In summary, the treatment received was:

- Administered 5mg morphine (own medication, during first attendance).
- Placed on oxygen, via an acute mask at 8 litres/minute (at the time of transport, second attendance).

The treatment options available to the ambulance officers, and provided for in the Clinical Practice Guidelines, which were appropriate to [Mrs A] include:

- Oxygen (during the first attendance, and early during the second attendance).

- Discussion with the Medical Officer to determine if [Mrs A's] lung condition would respond to medications available to the paramedics (Salbutamol and ipratropium).
- Two or more persons to extricate [Mrs A] from her house, thereby preventing physical exertion while she is suffering from low oxygen levels.
- Assisted breathing (during the second attendance, when [Mrs A's] breathing slowed down), with supplementary oxygen.
- Injection of adrenaline, if the paramedic believed [Mrs A] was suffering from chronic obstructive airway disease.

Initial Conclusion
The treatment provided was a significant departure from the standard of care expected.

Review of response
[Mr E] offers little additional information pertaining to the treatment of [Mrs A]. He advises that he believed he would be providing 'clinical pastoral care'. This term is not known to the advisor and is not found in [the ambulance service] Clinical Practice guidelines.

[Mr E] states that he knew an SPO_2 value of 86% was a 'red flag' however there is no evidence provided that he treated this condition.

Final Conclusion
Unchanged. The lack of treatment is a significant departure from the expected standard of care.

APPENDIX 1
Extracts from the Clinical Practice Guidelines used by [the ambulance service's] ambulance officers provide the following guidance for decisions that result in the non-transport of patients:

GENERAL PRINCIPLES OF TREATMENT (Page 8)
All patients require a primary and secondary survey, with appropriate intervention as required.

6.12 REFERRAL AND NON-TRANSPORT DECISIONS
Whenever 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 detailed 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 doctor.
- Fully assess the patient's competency to understand information and make informed decisions.
- Take into account all available information, including non-clinical aspects such as social factors.
- Fully inform the patient regarding their condition, the recommendations and the benefits and risks of any alternative courses of action.
- Act in the patient's best interest, while allowing competent patients to decline recommendations.
- Insist on treatment and/or transport if it is in the best interest of a patient who is not competent to make decisions.
- Fully document assessment, interventions and recommendations.
- Contact a doctor or manager for advice if the situation is difficult.

Criteria for immediate referral
Personnel must always recommend immediate referral to a medical facility if any of the following criteria are met:

- Personnel are unable to confidently exclude serious illness or injury or
- There is a significant abnormality in any vital sign recording.

Documentation
Comprehensive documentation is always important but this is particularly the case when a patient is not being transported to a medical facility. As a rule, a third party (e.g. The Health and Disability Commissioner) will assume that if something is not written down, it did not occur.

When a patient is not transported to a medical facility, the documentation must include all of the following:

- Details of the patient assessment and findings.
- An assessment of the patient's competence.
- All treatment and interventions provided.
- A summary of what was said to the patient and/or family.
- A summary of what the patient and/or family said.
- Why the patient was not transported.

APPENDIX 2
NZS81565.4 Patient Records

Outcome 5.4 Complete and accurate records are documented for each patient in compliance with legislative requirements.
5.4.1 The organisation shall specify the minimum requirements for patient records, including:

(a) A system for the identification of individual patient records; and
(b) The minimum contents of the health record as listed in Appendix E.

5.4.2 All patient records shall be legible, accurate and permanent. This may be achieved by, but not limited to, ensuring all entries are:

(a) Written clearly;
(b) Objective and factual, using only recognised abbreviations;
(c) Name and designation of clinical provider;
(d) Signed;
(e) Dated;
(f) Made in ink, or electronic; and
(g) Not defaced.

Extracts from Appendix E

Health Records
E2 Clinical Information
All clinical documentation includes as a minimum, information in the following groupings:

(1) Patient status (0 to 4) — Scene and [the hospital];
(2) Location of incident;
(3) Time of incident, where known;
(4) Diagram (front and back) — Injuries (fracture, laceration, abrasion, swelling, haemorrhage, tenderness, contusion, dislocation, burn, pain);
(6) Chief complaint
(7) History — A summary of history relating to the chief complaint and relevant past medical history including:
    a. Current medications, and
    b. Allergies;
(8) Pain score — Patients in pain should have a pain score recorded before and after treatment.
(9) Primary survey — Assessment of airway, breathing, circulation, conscious state (AVPU or GS). Vital signs including: Pulse rate, BP, respiratory rate, oxygen saturation if relevant;
(10) Physical findings;
(11) Focused examination findings relevant to the clinical condition of the patient;
(12) Treatments including:
    a. Interventions:
        i. Cardiopulmonary Resuscitation (CPR)
        ii. Airway management
        iii. Vascular access; and
        iv. Fluid therapy;
    b. Medications (including oxygen):
        i. Time
        ii. Dose, and
        iii. Route.
    c. Positioning — Patients are usually transported in the supine position, variations (prone, recovery, legs elevated, sitting) should be documented;

(13) Response to therapy — repeated assessments of primary survey and vital signs following drug therapy or at regular intervals during care;
(14) Names of all people providing clinical care such as PRIM doctors, midwives and so on; and
(15) Name of treating clinical provider, legible signature, and date.

E3 Cardiac Arrest Data
In order to compare outcomes between services, regions, and countries cardiac arrest data needs to be collected in a consistent manner.
(Standards New Zealand, 2014)

APPENDIX 3
Medicines (Standing Orders) Regulations

Clause 9 Obligations of person supplying or administering medicine under standing order
A person who administers or supplies a medicine under a standing order must ensure that —
(a) the medicine is supplied or administered in accordance with the standing order; and
(b) he or she records or charts the assessment and treatment of the patient (including any adverse reactions) and any monitoring or follow-up of the patient's treatment, if necessary.

Clause 10 Offences
(1) Every person specified in subclause (2) commits an offence who fails, without reasonable excuse, to comply with a requirement imposed on him or her under any of these regulations.
(2) The persons referred to in subclause (1) are —
  (a) an issuer:
  (b) a health provider:
  (c) a practitioner who is an employer of a person who is permitted to supply or administer a medicine under a standing order.
(3) Every person who commits an offence against these regulations is liable on conviction to a fine not exceeding $500.

Regulation 10(3): amended, on 1 July 2013, by section 413 of the Criminal Procedure Act 2011 (2011 No 81)."