Care Alliance Limited

A Report by the
Deputy Health and Disability Commissioner

(Case 16HDC01437)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. Ms A, aged 71 years at the time of events in 2015, was initially discharged from a public hospital (Hospital 1) to a rest home on 11 Month2[1] following an InterRAI assessment that concluded that she required long-term hospital-level care.

2. Ms A had a background of severe peripheral vascular disease (PVD),[2] congestive heart failure (CHF),[3] and Type 2 diabetes.[4] She had had a left below-knee amputation in 2013, and an angioplasty[5] in 2015.

3. Hospital 1 recorded that if her right leg ulcers did not improve, Ms A would require surgical review. Its discharge plan to the rest home included the recommendation that Ms A have ongoing podiatry input.

4. Ms A developed five further wounds while at the rest home, and staff documented these wounds in wound care plans and continuous wound assessment charts (CWACs).

5. Ms A's clinical records between Month7 and Month8 make frequent reference to her wounds being malodorous during dressing changes, with varying degrees of exudate. A care plan for pressure injury prevention was not put in place until 2 Month8, and there is no documentation to show that there was ongoing assessment of Ms A's wounds overall.

6. Ms A experienced considerable pain during wound reviews and procedures relating to them. There is no evidence that any form of pain relief was offered to Ms A prior to dressing her wounds, and there was no specific care plan in place for managing the pain associated with her wounds. Rest home staff used a "+" sign as a measurement of pain in the CWAC documentation, which could not be interpreted consistently between staff.

7. On 27 Month8, Ms A was noted to be "weak but … responding". The next day Ms A became unresponsive and an ambulance was called. She was transferred to Hospital 2. Her hospital records show that she was admitted with deteriorating chronic leg and sacral wounds, necrosis[6] at her left leg amputation site, and two sacral pressure sores with significant erythema.[7]

8. The following day, a nurse recorded: "[Left below-knee amputation] — necrotic stump extending over knee, [no] exudate noted, malodorous, maggots present." It was noted that maggots were also found in Ms A's right foot wounds, and that Ms A's right toes all had necrotic tissue. Sadly, Ms A died as a result of sepsis secondary to her infected ulcers.

[1] Relevant months are referred to as Months 1–9 to protect privacy.
[2] Damage to, or dysfunction of, the arteries outside the heart, resulting in reduced blood flow.
[3] A condition in which the heart's function as a pump is inadequate to meet the body's needs.
[4] A condition characterised by an excess of sugar in the blood, resulting from impaired insulin utilisation and the body's inability to compensate with increased insulin production.
[5] A procedure to relieve angina symptoms and improve blood flow to the heart muscle.
[6] Death of living tissue.
[7] Abnormal redness of the skin owing to capillary congestion (inflammation).

9. On 1 March 2017, Care Alliance Limited sold the rest home to a new owner. The two companies share no connection. HDC sought further information from the Director of Care Alliance Limited, who advised that he held no relevant information about the rest home because he no longer had possession of his laptop where the information was stored, nor was the information stored elsewhere.

Findings

10. Care Alliance Limited was found to have breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code) because it failed to provide services to Ms A with reasonable care and skill with regard to her wound care, documentation and assessment, reporting processes, oversight of her overall condition, pain management, and GP and specialist referral.

11. The Deputy Commissioner was also highly critical that Care Alliance Limited did not have important information relevant to Ms A's care securely stored or backed up so that it could be accessed as required.

Recommendations

12. It was recommended that Care Alliance Limited provide a written apology to Ms A's family.

13. It was further recommended that the rest home's current owners provide evidence of (a) relevant changes it has implemented since these events, (b) training for rest home staff in relevant areas, (c) development of relevant guidelines, and (d) an audit regarding accurate completion of wounds care plans and incident forms.

Complaint and investigation

14. The Health and Disability Commissioner (HDC) received a complaint from Mrs B about the services provided to Ms A by the rest home. The following issue was identified for investigation:

- *Whether Care Alliance Limited provided Ms A with an appropriate standard of care between Month2 and Month8 (inclusive).*

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

16. The parties directly involved in the investigation were:

Mrs B	Consumer's daughter
Care Alliance Limited	Provider

17. Further information was received from:

Office of the Coroner	
Dr C	General practitioner (GP), the medical centre
Dr D	GP, the medical centre
District Health Board (DHB)	
RN E	Registered nurse (RN), DHB2
Ministry of Health	

Also mentioned in this report:

RN F	Facility manager
RN G	Facility manager
Mr H	Director

18. Independent expert advice was obtained from RN Rachel Parmee (Appendix A).

Information gathered during investigation

Introduction

Ms A

19. Ms A, aged 71 years at the time of events, was initially admitted to the rest home on 11 Month2 following an InterRAI assessment at Hospital 1 that concluded that she required long-term hospital-level care.

20. Ms A had a background of severe peripheral vascular disease (PVD), congestive heart failure (CHF), and Type 2 diabetes. She had had a left below-knee amputation in 2013, and an angioplasty in 2015.

21. At the rest home, Ms A required full assistance with all activities of daily living and personal cares, including washing, chair transfers, bed mobilisation, and toileting. She was considered competent for making decisions about her own health care.

22. Ms A was a resident at the rest home until 28 Month8, when she became unresponsive and was transferred to Hospital 2. Her hospital records show that she was admitted with deteriorating chronic leg and sacral wounds, necrosis at her left leg amputation site, and two sacral pressure sores with significant erythema. Ms A died as a result of sepsis secondary to infected ulcers.

The rest home

23. The rest home[8] is contracted by DHB2 to provide hospital and rest-home-level care. The rest home had received a two-year certification from the Ministry of Health in 2014, and at the time of these events the facility had 52 beds.

24. The senior management included a Business Manager, Facility Manager, and Quality Manager. Its clinical and care employees involved in the direct care of residents included healthcare assistants, enrolled nurses, and registered nurses. The rest home also utilised a support team of health professionals, which included doctors, a dietitian, a podiatrist, and external consultants.

25. RN F was the Facility Manager at the time of these events, and was responsible for the care and management of all residents and nurses at the rest home. RN F resigned in 2016, and RN G became the new Facility Manager. Care Alliance Limited's Director, Mr H, told HDC that the registered nurses at the rest home who attended to Ms A all resigned within three months of RN F's resignation. They could not be reached for comment. However, prior to her resignation, RN F completed an internal investigation into the care provided to Ms A at the rest home.[9]

26. In 2017, Care Alliance Limited sold the rest home to another company. The two companies share no connection. HDC sought further information from Mr H, who advised that he no longer holds relevant information about the facility, as he no longer has possession of the laptop where the information was stored, and he stated that the information was not stored elsewhere.

Medical centre

27. A medical centre was contracted by the rest home to provide primary medical care services, which included two routine visits to the facility by a GP each week, and additional visits for any acute concerns. Two GPs from the medical centre, Dr C and Dr D, reviewed Ms A on seven occasions between 4 Month6 and 25 Month8.

Pre-admission to the rest home

28. Ms A had been admitted to Hospital 1 from her home on 13 Month1 with right leg cellulitis. This resolved with antibiotic treatment. An InterRAI assessment completed at Hospital 1 on 8 Month2 identified Ms A as having very high care needs. She required a wheelchair to mobilise, and had ulcers on her right lower leg and sacrum. Ms A was discharged to the rest home, and her discharge summary from Hospital 1 noted the following diagnoses: lower respiratory tract infection, urinary tract infection, right leg cellulitis,[10] deconditioning, CHF exacerbation, and dysphagia[11] secondary to Candida.[12] Her

[8] At the time of events, the rest home was owned and operated by Care Alliance Limited.
[9] Also see paragraph 96.
[10] Subcutaneous inflammation of connective tissue.
[11] Difficulty in swallowing.
[12] Any of a genus of parasitic fungi that resemble yeasts that occur especially in the mouth, vagina, and intestinal tract.

medical history included the following co-morbidities: PVD with right lower leg cellulitis, chronic ulcers on her right foot, a left below-knee amputation in 2013, atrial fibrillation,[13] CHF, Type 2 diabetes, polycythaemia,[14] hyperlipidaemia,[15] and hypertension.[16]

29. Hospital 1 clinical notes from 21 Month1 state that Ms A would require surgical review if her right leg ulcers did not improve, and its discharge plan to the rest home included the recommendation that Ms A have ongoing podiatry input.

Scope of investigation

30. While I am aware that a number of concerns were raised regarding Ms A's care, the scope of this investigation focuses on issues regarding the management of her wounds, referral to specialists in respect of wound care, management of her pain, and general podiatry care. Inadequate management of Ms A's care and wounds by rest home staff led to her being transferred to Hospital 2. On arrival at Hospital 2, Ms A's wounds were noted to be in very poor condition, and the skin between her toes indicated a poor standard of hygiene.

31. The constraints in information available from Care Alliance Limited, including the lack of information regarding individual staff who cared for Ms A, has hindered my ability to investigate all aspects of the care provided. Therefore, I acknowledge that other aspects of Ms A's care may well have contributed to her significant health issues prior to her death.

Admission to the rest home

32. Ms A was admitted to the rest home on 11 Month2.

33. In a joint statement,[17] the rest home and the medical centre told HDC that at the time of her admission, Ms A presented with "a pressure ulcer on her sacrum; a non-healed surgical wound on the stump of her amputated leg (present for three years); and several ulcers in the distal[18] areas of her intact leg".

34. Ms A had multiple existing ulcers on her right foot when she was admitted to the rest home, and during her time at the rest home she developed five further wounds. Rest home staff documented these wounds in wound care plans and continuous wound assessment charts (CWACs).

[13] An irregular, rapid heart rate that can cause symptoms such as heart palpitations, fatigue, and shortness of breath.
[14] A condition marked by an abnormal increase in the number of circulating red blood cells.
[15] The presence of excess fat or lipids in the blood.
[16] Abnormally high blood pressure and especially arterial blood pressure.
[17] All future references to this joint statement from the rest home and the medical centre will be attributed to the rest home.
[18] Situated away from a central point of the body.

Wound 1 (multiple ulcers on right foot)

35. On 13 Month2, a registered nurse documented in a wound care plan that Ms A had multiple chronic venous ulcers on her right foot. These ulcers were present when Ms A was admitted to the rest home. The nurse recorded the dimensions of the ulcers as 0.5–4cm x 0.5–3.5cm x 0.1cm,[19] and noted that they appeared "dry", "scaly", and "oedematous".[20] A dressing was applied to manage the cellulitis and exudate, but no photograph of the ulcers was taken.

36. On 12 Month7, the CWAC for this wound recorded that the wound measured 0.5cm x 0.5cm x 1mm, and that the skin was dry and fragile, and additional observations were "— oedematous — odour (++) — no pain — exudate noted".

37. On 14 Month7, it was recorded in the CWAC that the measurements and observations of the wound remained the same as on 12 Month7, with the exception of "pain (++)".

38. Between 19 and 27 Month7, the CWAC records consistent dimensions of 3cm x 2cm x 2mm, with observations of "— sloughy wound bed — moderate exudate — oedematous surrounding skin — pain (++)", and "odourous (++)".

39. Between 13 and 22 Month8, nurses recorded five further reviews in the CWAC, and noted wound dimensions of 3cm x 2cm x 2–3mm, with moderate exudate, "pain (++) … odour (++)", and that Ms A experienced pain during the dressing change.

40. On 16 Month8, Ms A was seen by Dr D. She noted that Ms A was "non-compliant [and] removes the dressings", and that she had a "typical combination [of] venous/arterial ulcers on dorsum [right] foot and toes". Dr D referred Ms A to a wound care nurse specialist. The referral letter stated:

> "[Staff are] struggling with mixed arterial/venous/diabetic ulcers on her [right] foot … [Ms A] removes her dressings regularly. These areas have been swabbed today."

41. There is no behaviour chart evident that documented that Ms A removed her dressings regularly.

42. On 23 Month8, it was recorded in the CWAC that Ms A's middle toe was "maggot infested and necrotic — odour (+++)", and that she had "pain upon dressing". There is no evidence that this was escalated for review.

43. On 25 Month8, Ms A was reviewed by Dr C, as she was "feeling unwell". He noted as part of this review that Ms A would not allow him to review her foot ulcers. He recorded: "Nurses will ring me if [foot ulcers] are infected when dressings changed."

44. The dressing was changed by the night duty staff, who noted: "0130H Wound dressing done: nil infection noted, wound dry though odour present."

[19] Length x width x depth.
[20] An abnormal accumulation of fluid beneath the skin.

45. The CWAC records that photographs of this wound were taken on five occasions between 8 and 23 Month8, and in a review of Ms A's care following her death, the Facility Manager at the time, RN F, stated that the photographs were unclear and did not show the full area of the foot.

Wound 2 (ulcer on right shin)

46. On 4 Month7, a wound care plan was commenced for a venous ulcer on Ms A's right shin, which was the second wound noted. It was labelled incorrectly as Wound 3. The CWAC for this wound documented that the skin was fragile and oedematous. It was also noted that the ulcer was "moderate", that "clear to light yellowish discharge" was present, and that it did not cause Ms A pain. A dressing was applied, but no photograph of the wound was taken.

47. Between 12 and 21 Month7, nurses reviewed the wound on four occasions, and the CWAC documented that Ms A had "clear fluid discharges", a "granulating wound bed", "nil pain", and an "oedematous leg".

48. On 22 Month7, the CWAC for this wound records that Ms A had a "macerated wound margin", and that her pain level was "+".

49. Between 23 Month7 and 2 Month8, the CWAC documented the presence of a macerated wound bed, discharging clear fluid, pain and swelling.

50. On 8 Month8, it was recorded in the CWAC that Wound 2 was sloughy and granulating in parts, and that pain and odour were present. The 11 Month8 CWAC entry recorded a similar condition but with pain and odour both "+++".

51. On 13 Month8, the clinical notes state that Ms A "removed the dressing on her right shin and covered the wound with tissue paper". In four wound reviews between 13 and 23 Month8 the CWAC noted: "— sloughy [with] granulating parts — macerated wound edge — moderate exudate noted — odour (++) — dry and swollen skin."

52. On 27 Month8, the CWAC records that there were no significant wound changes noted from the previous four reviews, and a photograph was taken. In her review of care following Ms A's death, RN F stated that it was evident from the photograph taken on this day that the assessment was incorrect.

Wound 3 (wound on left leg stump)

53. On 19 Month7, a nurse recorded in the clinical notes that Ms A's left leg stump was leaking fluid. On 22 Month7, a new wound care plan was commenced for a "macerated wound" on Ms A's left leg stump. The wound's dimensions were noted as 2cm x 2cm x superficial. A dressing was applied.

54. Between 23 and 28 Month7, the CWAC for this wound recorded that clear fluid was seeping from the wound, it had a granulating wound bed, and it was "oedematous (+)" with "pain (+)".

55. On 29 Month7, the CWAC for this wound recorded that the wound bed was necrotic,[21] with moderate exudate and "redness [and] swelling present". A photograph of the wound was taken. The next entry in the CWAC occurred two weeks later.

56. On 2 Month8, Dr D reviewed this wound and prescribed saline soaks, flucloxacillin,[22] and daily dressing changes.

57. On 9 Month8, a nurse documented in the clinical notes regarding this wound: "Left leg (stump) infested with maggots — kept clean by washing properly. Please keep wounds clean."

58. Between 14 and 16 Month8, the CWAC for this wound documented three reviews and noted that it was necrotic in some parts, the surrounding skin was swollen, and that pain and odour were "+++".

59. As noted above in relation to Wound 1, on 16 Month8, Ms A was seen by Dr D, who noted that Ms A would remove her dressings and was non-compliant. Dr D recorded that her stump was inflamed and malodorous, "but [did not] look overtly infected", and referred Ms A to a wound care nurse specialist.

60. Between 17 and 26 Month8, three further reviews of Wound 3 documented in the CWAC noted a necrotic wound bed, the continued presence of pain and odour, and swollen surrounding skin. The CWAC recorded that in the final review, wound odour was "++++".

61. On 26 Month8, a nurse also recorded in the clinical notes that a wound dressing had been performed and that Dr C had been contacted regarding Ms A's leg. The rest home told HDC that the nurse reported that the wound looked infected. The nurse documented: "[Dr C] will chart her something for her wound leg." The rest home further told HDC that an antibiotic was prescribed, which Ms A initially refused to take but "was reported to have had some subsequent doses".

62. In relation to this wound, RN F acknowledged in her review of Ms A's care that "following an examination of the photographs available, it is evident extensive necrosis was present".

Wound 4 (lesion on right thigh) and Wound 5 (pressure wound on right sacral area)

63. On 19 Month7, a nurse recorded in the clinical notes that a wound on Ms A's right upper leg was leaking fluid. On 29 Month7, a nurse recorded the presence of a "skin lesion on [right] thigh" (Wound 4), and that an incident form had been completed. A wound care plan was also started for Wound 4, although it was labelled incorrectly as Wound 5. The care plan stated that the wound measured 2cm x 2cm x 1mm, and the CWAC recorded "— open wound … reddish wound bed — fragile, dry and red surrounding skin — pain (+)". No photograph was taken, and there are no further notes regarding Wound 4.

[21] Relating to necrosis — death of living tissue.
[22] An antibiotic.

64. On 2 Month8, a wound care plan was commenced for a wound on Ms A's right sacral area. It is noted that this was documented as Wound 5, although the wound on Ms A's right thigh had already been given this classification by staff at the rest home. The care plan stated that the wound was "[ungradable] as eschar[23] did not come off", and measured 2.5cm x 2cm x 1mm. The plan recorded instructions to soak with PNSS,[24] and noted the dressing products to be used. The wound was described as painful and odorous, with moderate exudate, a defined margin, and fragile surrounding skin. No photograph of the wound was taken.

65. On the same day, Dr D reviewed Ms A regarding the pressure wound on her right sacral area and recorded that it was infected with "pus ongoing with an adherent eschar". Dr D prescribed saline soaks, flucloxacillin,[25] and daily dressing changes.

66. On 9 Month8, Dr D reviewed Ms A again and noted that the wound on her sacral pressure area was "looking much better", and prescribed weekly Comfeel[26] dressing.

67. Between 3 and 26 Month8, the CWAC recorded 10 reviews of the right sacral area, and noted moderate exudate, odour, pain levels from "+" to "++", and "surrounding skin intact". The final two reviews on 18 and 26 Month8 also recorded a "red granulating wound bed". In total there were 11 CWAC entries for this wound, and photographs were taken only on 3, 14, and 16 Month8. In her review of Ms A's care, RN F stated that there was no escalation or referral noted in the care plan.

Wound 6 (pressure sore on left lateral aspect of upper left leg)

68. On 9 Month8, a nurse commenced a wound care plan for a pressure sore on the "[left] lateral aspect of [Ms A's] upper left leg". The CWAC documented wound dimensions of 4cm x 3cm x superficial, reddened skin, "skin not yet broken", and that a protective dressing was applied. The notes state that an incident report form was completed regarding this wound.

69. On 17 Month8, the CWAC records that the wound had increased to 6cm x 5cm x 1mm, and that it remained this size for the rest of Ms A's time at the rest home. A nurse reviewed the wound again the next day and noted "mild to moderate discharge", and on 26 Month8 the CWAC records "red area, broken skin noted … + odour & + discharge — fragile surrounding skin". This was not escalated for review, and no medical input was obtained. No photographs of the wound were taken after 17 Month8.

Wound swab — 21 Month8

70. The rest home told HDC that wound swabs taken on 21 Month8 showed minimal growth[27] on one swab site, and a light growth of Staphylococcus[28] on another. The rest home said

[23] A scab.
[24] Plain normal saline solution.
[25] An antibiotic.
[26] Comfeel dressing can be used in the management of wounds such as pressure ulcers, superficial burns, postoperative wounds, and skin abrasions.

that this did not raise cause for concern among staff in the absence of clinical signs for treatable infection. It is not documented which wounds the swabs were taken from.

Wound care specialist review

71. On 22 Month8, Ms A was seen by a DHB2 wound care specialist, RN E, following the above-noted referral on 16 Month8 from Dr D owing to concerns regarding Ms A's multiple ulcers on her right foot and the macerated wound on her left leg stump (Wounds 1 and 3 as outlined above). RN E told HDC that a staff member remained with her and Ms A for the entire visit. The staff member informed her that staff were having difficulty keeping Ms A's dressings in place, and RN E said that she noted the importance of not removing the dressings, and also discussed Ms A's general condition, including the following:

- Food intake, food preferences, and what protein and vitamins were in Ms A's diet.
- Whether the patient was being showered or washed in bed, and how often.
- Her level of mobility.

72. RN E recorded that she applied Aquacel[29] dressing for "heavy exudate management" on Ms A's right lower leg wounds, and also applied dressing to Ms A's foot and toe wounds, which were noted to have "minimal exudate". RN E applied Cuticerin[30] and Melolin[31] dressings to Ms A's left stump wound, secured with Softban.[32] RN E noted that the dressing "ha[d] been staying intact", and recommended that the wound dressings be changed on alternate days. RN E applied Tubinet[33] and Hypafix[34] tape over the wound products so that the dressing would be less easy for Ms A to remove, and stated that Ms A did not complain of pain during the visit. RN E's notes do not record that she administered pain relief to Ms A prior to the wound dressing change. RN E told HDC that after the wound care had been completed, Ms A appeared comfortable and was not interfering with the dressings. RN E further stated that the staff member appeared to understand her wound care recommendations, and added: "I would not always check patient pressure areas because I expect patient skin integrity to be done by staff during their daily patient cares."

[27] HDC has not been provided with the laboratory results from these swabs.
[28] A type of bacteria.
[29] Used for the management of wounds as a barrier to bacterial penetration of the dressing to help reduce infection.
[30] A low-adherent gauze dressing imbued with Cuticerin ointment. Indicated for use on superficial exuding wounds and suitable at sites where dressings need frequent changes.
[31] Melolin can be used to dress dry sutured wounds, superficial cuts and abrasions, or exuding lesions.
[32] Padding that provides soft cushioning and protection for wounds and absorbs sweat and exudate to reduce the risk of skin irritation.
[33] A protective tubular bandage that supports frequent dressing changes.
[34] Used for the retention of dressing, e.g., large postoperative wound dressings and gauze.

Summary of wound care

73. The clinical notes for Month7 and Month8, as outlined above, make frequent reference to Ms A's wounds being malodorous during dressing changes, with varying degrees of exudate. A care plan for pressure injury prevention was not put in place until 2 Month8. There is no documentation to show that there was ongoing assessment of Ms A's wounds as a whole, and there is a lack of escalation of care.

74. The documentation shows that Ms A experienced considerable pain during wound reviews and procedures relating to them. However, although the nursing notes mention that Ms A was given pain relief for her leg pain as required, there is no evidence that any form of pain relief was offered to Ms A prior to her dressings being changed.

Other aspects of care

75. On 27 Month2 — 16 days after Ms A's admission to the rest home — a document entitled Long Term Care Plans (LTCPs)[35] provided detailed instructions for the management of the following issues:

- "Potential for [high] blood pressure related to hypertension"[36]
- "Pain (Phantom) related to Left below knee amputation"[37]
- "Risk of Aspiration related to dysphagia secondary to risk of aspiration"[38]
- "Increase[d] blood sugar related to Type 2 [diabetes mellitus]"[39]
- "Risk for Constipation related to poor mobility secondary to Below Knee Amputation"[40]
- "Medication Administration"[41]

76. While there was an LTCP in place for Ms A's phantom pain, it is noted that there was no specific care plan in place for managing pain associated with her wounds.

77. A further document entitled Activities of Daily Living Plan completed on 30 Month2 stated that a podiatrist would cut Ms A's toenails, and, in line with Ms A's previous discharge summary from Hospital 1, that on-going podiatrist review would be arranged. There is no record of Ms A being reviewed by a podiatrist during her time at the rest home.

[35] The Age-Related Residential Care Services Agreement provides that within 21 days of admission, a long-term care plan informed by the InterRAI assessment is to be developed, documented, and evaluated by a registered nurse.
[36] LTCP goal: "To maintain [blood pressure] within individually acceptable range" and "prevent/minimize cardiovascular and systemic complications".
[37] LTCP goal: "Relieve the symptoms of pain" and "effectively manage pain, to assist in maintaining a good quality of life".
[38] LTCP goal: "To reduce the risk of aspiration" and "to maintain healthy, balanced diet".
[39] LTCP goal: "Effectively manage and control blood sugars."
[40] LTCP goal: "To maintain a normal bowel pattern."
[41] LTCP goal: "To ensure the safe administration of medication and assist with resident's compliance."

78. During Month5 and Month6, Ms A's notes from the rest home record that she was seen by a dietician. In Month5 she was considered to be malnourished owing to low calorie intake and food preferences. On 21 Month6, a dietician reviewed Ms A again, and noted that she "ha[d] been eating well", and recommended that she continue taking Fortisip.

79. In Month5, and in Month6 and Month7, it was noted that Ms A had several small boils. In Month6, the first of these (recorded in Month5) was reviewed by Dr C, who noted that it had resolved. A painful boil was also noted on 23 Month7, and it was documented that staff were to cleanse it with chlorhexidine[42] twice daily and monitor it.

80. On 5 Month7, Dr C attended the rest home for the usual rounds. He was asked to review Ms A owing to concerns about a blister on her right shin. Dr C examined Ms A and prescribed furosemide.[43]

81. On 16 Month7, Dr C reviewed Ms A and recorded his plan to reduce her furosemide dose to 40g.

82. On 27 Month7, a nurse noted that Ms A had "[c]omplained of discomfort in her amputated limb", and that she was given OxyNorm[44] for pain relief.

83. On 12 Month8, a nurse recorded that Ms A's "[right] labia majora appear[ed] to be swollen", and noted that it required monitoring. There is no evidence that this was escalated for review.

84. On 19 Month8, a nurse recorded that Ms A reported "severe lower limb pain: '10/10' on pain scale", and that a "painkiller[45] [was] given with good effect".

85. Ms A was also being reviewed by an external diabetes team during her time at the rest home. It is noted that on 24 Month8, a dietician recorded that Ms A was "not eating or drinking much", and that she did not like the Diasip[46] supplement. The dietician recommended a zinc supplement to assist with wound healing. Nursing notes also document, "no oral intake/meals today", and that Ms A had refused some of her medication. There is no behaviour chart evident to document refusal of medications.

Deterioration and admission to hospital

86. On 25 Month8, Ms A was reviewed by Dr C because she was "feeling unwell". On examination, Dr C noted that Ms A was alert and eating, that "she [did not] want [him] to look at [the foot ulcers]", and that Ms A "[d]enie[d] any other symptoms". The following

[42] An antibacterial compound used as a local antiseptic and disinfectant.
[43] A diuretic, which helps the body to get rid of extra salt (sodium) and water.
[44] A brand name for the opioid medication oxycodone, which is used to relieve moderate to severe acute or chronic pain.
[45] The painkiller used is not noted in that entry, but earlier that day a nurse had recorded: "[Regular] Oxycontin given for pain." OxyContin is a brand name for oxycodone.
[46] An oral nutritional supplement for the dietary management of diabetes mellitus.

day, a nurse recorded that Ms A had "very low oral intake" and that she "[r]efused to have her afternoon meds and her supplement".

87. On 27 Month8, Ms A was noted to be "weak but … responding". A nurse told the Facility Manager, RN F, about this observation, and RN F asked that Dr C be contacted if Ms A's condition deteriorated. The nurse recorded in the clinical notes that she had talked to Ms A "about her refusal to eat and to take medication", and that Ms A had then stated: "I am tired and I want to give up." The nurse also documented, "Antibiotic[47] course supposed to start this morning," and that Ms A had refused to take the antibiotics "despite health teachings". An infection report was completed.

88. On 28 Month8, a nurse recorded that dressings had not been changed because the wound dressing kit was not available, and that Ms A was eating only small amounts. The antibiotic course for her leg wounds was commenced, and at 4.30pm it was documented that Ms A had become unresponsive. She was given oxygen at "2–3 Lpm"[48] and an ambulance was called.

89. Ms A was transferred to hospital and admitted at 5.55pm.

90. On arrival at the Emergency Department (ED) at Hospital 2, Ms A was taken into the resuscitation area. She was hypotensive,[49] with her blood pressure recorded as 60/40mmHg.[50] At 7pm, the hospital nursing staff assessed Ms A and reported that she had had "[w]orsening chronic leg [and] sacral wounds in recent weeks, and [a decreased level of consciousness for the] past 24 hours". The medical records also state that she had "necrosis of [the left below-knee amputation site], foul smelling purulent[51] [discharge]++ [and] 2x sacral pressure sores [with] significant erythema". She was diagnosed with sepsis secondary to infected ulcers.

91. The following day, a nurse recorded: "[Left below-knee amputation] — necrotic stump extending over knee, [no] exudate noted, malodorous, maggots present." It was noted that maggots were also found in Ms A's right foot wounds, and that all of Ms A's right toes had necrotic tissue, with "lots of thick 'cottage cheese' like skin between, under [and] around toes". The nurse also documented: "When irrigating x4 large maggots were washed out of toes. Very strong offensive odour from foot wound."

Further information

The rest home

92. Contrary to what has been identified in Ms A's medical notes, the rest home told HDC that "none of the people who attended [Ms A] ever noted maggots in the wounds".

[47] Antibiotic not specified.
[48] Litres per minute.
[49] Having abnormally low blood pressure.
[50] A blood pressure of between 90/60 and 120/80mmHg is considered normal. Less than 90/60mmHg is abnormally low.
[51] Consisting of pus.

93. In her review of Ms A's care, RN F stated that there had been "an excessive number of flies in the building", and that despite the rest home's efforts to eliminate them, it had been unable to do so.

94. The rest home told HDC that, in its view, the notes and recollections of all healthcare professionals who attended to Ms A — including various nurses, Dr C and Dr D, and the external wound care specialist — do not show that her wounds had been deteriorating prior to her hospital admission. The rest home stated that Ms A's ulcers were present when she was first admitted to the rest home, and fluctuated in severity during her time there, but had been stable for months. The rest home said that up until 28 Month8 when Ms A became unresponsive, its records do not indicate signs of an acute illness that required hospital admission. The rest home also noted that Dr D and RN E had reviewed Ms A within the eight days prior to her admission.

95. The rest home further stated that as the surgical team looking after Ms A before she was transferred to the rest home did not offer any management of a surgical nature, it had no reason to think that vascular intervention would have been of benefit to her. The rest home also noted that past vascular procedures had not improved her ulcers, and that Ms A's deconditioned state meant that she would not have been a good candidate for an anaesthetic.

DHB2

96. In response to DHB2's request that the rest home undertake an investigation of the care provided to Ms A, the rest home identified the following issues:

- Accuracy of documentation and photographic evidence for Ms A's pressure injuries to her sacrum.
- Accuracy of documentation compared with photographic evidence of maggots.
- Discrepancies in documentation of Ms A's shin ulcer deterioration as shown by photographs.
- Accuracy of documentation of foot ulcers and gangrenous toes in light of insufficient photographic evidence.
- Failure to update care plan or notify medical officer of deterioration of left thigh pressure injuries.

97. DHB2 then undertook a review of the rest home's internal investigation. DHB2 found the following:

- There was insufficient assessment and documentation to provide a clear picture of Ms A's needs.
- In the days leading up to Ms A's admission to Hospital 2, her health had started to decline, but during that time "there was no coordination of her service delivery and her needs were being managed separately instead of looking at the situation as a whole".

98. DHB2 recommended that the rest home implement a number of quality improvement initiatives, such as to "review wound management policy and procedure including when to escalate and refer to specialist services", and to "ensure wounds are photographed on admission and on a weekly basis to monitor changes".

99. On 11 January 2018, HealthCERT[52] told HDC that the rest home, under its new management, had completed all corrective actions relating to these events.

Changes made since these events

100. The rest home advised that it has taken further corrective action with its wound documentation procedures, including:

- All wounds are now tracked from admission with colour photographs.
- A standard wound measurement technique is applied to calculate the wound surface, margins, area, and depth via photographed measurements.
- Wounds are re-photographed each time dressings are changed.
- There is a new wound care document in which wounds are described in detail and kept in a file with the corresponding photographs.

101. The rest home also stated:

> "This and other improvements in documentation have been developed in close collaboration with [two district health boards]. [The rest home's] policy and procedures were signed off by the DHBs on the 2nd of December 2016."

Responses to provisional opinion

102. Mrs B, Care Alliance Limited's Director Mr H, and the new owner were given the opportunity to comment on the relevant parts of my provisional opinion.

103. Mrs B did not provide any further comment.

104. Mr H stated that the loss of much of the information as referred to in the report, and his inability to make contact with the staff members involved following the sale of the rest home, means that he is not in a position to dispute the proposed findings. He told HDC that consequently he acknowledges the findings and has no further comment to make.

105. The new owner stated that it had no comment to make in response to the provisional opinion.

[52] HealthCERT is responsible for ensuring that hospitals, rest homes, residential disability care facilities, and fertility providers provide safe and reasonable levels of service for consumers, as required under the Health and Disability Service (Safety) Act 2001.

Relevant standards

106. Guidelines from the New Zealand Wound Care Society (NZWCS), 2015, state that referral for specialist input is indicated when:

- Ulcers have not healed within three months.
- There is recurring ulceration.
- Ulcers are infected and antibiotic resistant.
- Ulcers are causing uncontrolled pain.
- Peripheral arterial disease is indicated by an ABPI[53] less that 0.8.

107. The Waterlow pressure ulcer risk assessment and prevention policy identifies three "at risk" categories for the development of pressure ulcers:

- A score of 10–14 indicates "at risk".
- A score of 15–19 indicates "high risk".
- A score of 20 and above indicates "very high risk".

Opinion: Care Alliance Limited — breach

Introduction

108. On admission to the rest home, Ms A had high and complex needs that predisposed her to wounds, and it was critically important that staff were attentive to her needs and responded accordingly. It is evident from Ms A's subsequent presentation at DHB2 some six months later that this had not occurred, and her wounds had been allowed to progress to such a degree that they were significantly infected. Further, it is concerning that Ms A would have experienced significant pain as her condition deteriorated, which could have been avoided had her pain been managed more effectively. It is also likely that Ms A would have been more compliant with her wound management had she been administered pain relief prior to dressing changes, and would have been more comfortable during wound management cares.

109. Care Alliance Limited was charged with the care of Ms A over this period. The staff had a responsibility to ensure that Ms A was as comfortable as possible. She was entitled to a good standard of care, and it is evident that this did not occur. As noted above, upon commencement of the investigation into the care provided to Ms A, HDC sought relevant information from Care Alliance Limited. However, the Director of Care Alliance Limited

[53] Ankle-brachial pressure index — a way of detecting peripheral artery disease in the lower limbs. An ABPI of less that 0.9 may indicate some arterial disease.

said that he was unable to provide a substantial response to HDC as he is no longer in possession of the item where relevant information was stored. Accordingly, this report has had to be based on an "incomplete" suite of information provided by other parties involved in Ms A's care, including responses by the medical centre and the rest home to the Coroner and HDC, the clinical records that could be provided from the rest home, DHB2, and DHB1, and information from the Ministry of Health regarding the rest home.

110. As stated previously, Ms A had multiple complex and chronic conditions that would have contributed to her state of ill health and general well-being. I have not investigated other aspects of Ms A's care, owing to the limitations in the information available to me.

Wound management

111. Ms A suffered from chronic ulcers on her sacrum, right foot, and several areas of her right leg, and had an unhealed stump wound on her left leg. These wounds were present when Ms A was admitted to the rest home.

112. An InterRAI assessment completed prior to Ms A's admission to the rest home noted that she had very high care needs.

113. While long-term care plans for some of the issues Ms A presented with were developed 16 days after admission, these did not include detailed instructions for management of her wounds.

114. During her time at the rest home, Ms A went on to develop further wounds. It appears that at times Ms A interfered with the dressings on her ulcers. In the weeks prior to her admission to Hospital 2, Ms A's clinical notes make frequent reference to her wounds being malodorous during dressing changes, and their tendency to exudate to varying degrees. However, no care plan for pressure injury prevention was put in place for Ms A until 2 Month8, some six months after her initial admission.

115. Ms A was reviewed by doctors from the medical centre on four occasions between 2 and 25 Month8, and a wound specialist reviewed her on 22 Month8, prior to her transfer to Hospital 2 on 28 Month8.

116. My expert advisor, RN Rachel Parmee, advised that following admission to the rest home, staff should have followed up on Ms A's InterRAI assessment by undertaking an initial long-term care facility assessment to assist with planning Ms A's care appropriately. This is particularly notable in relation to her wound management.

117. RN Parmee advised that there was a systemic failure of communication between those responsible for Ms A's care (i.e., caregivers, nursing staff, GPs, and specialists). RN Parmee said that there appeared to be "a lack of responsibility taken for the overall progress of Ms A's overall condition and the consequent effect of the appearance of new wounds and deterioration of all wounds".

118. RN Parmee noted:

> "Given [Ms A's] very high level of risk for pressure areas (related to her disease processes, immobility, poor insight and poor nutrition) standard practice would be to follow the Waterlow guidelines for very high risk pressure areas and document daily the effectiveness of these measures."

119. RN Parmee advised that when a new wound is identified, it would be standard practice to record a description, commence a care plan, complete an incident form, and notify the nurse manager and GP. She said that "[f]ailure for a wound to heal within a two month time frame or any wound deterioration would usually trigger referral to a GP", and that any wound deterioration would also be cause for immediate GP referral. She further noted that Hospital 2's description of the skin between Ms A's toes indicated a poor standard of hygiene.

120. RN Parmee further advised:

> "Documentation fails to provide any indication of ongoing assessment of the wounds and escalation of care. It describes the wounds in terms of size, appearance, odour and pain but no photographs … or referral to GP or specialist care. Incident forms are mentioned (29 [Month7] and 09 [Month8]) but do not appear to have been completed consistently or include referral to GP [for] new wounds. … there were 5 documented new wounds with no related referral to the GP."

121. RN Parmee noted:

> "[A]t the time of [Ms A's] admission to [the rest home] policies were not being followed in terms of accurate documentation of observations and assessments. There was a need for staff education in terms of mandatory reporting and escalation of concerns around deterioration of wounds. There also appeared to be little understanding of the need to document and act on challenging behaviours."

122. RN Parmee advised that it appears that the rest home departed significantly from accepted practice in the care provided to Ms A. RN Parmee told HDC:

> "The apparent lack of accurate documentation and reporting processes between those providing care at all levels appears to have led to a situation where [Ms A's] care was less than adequate and is reflected in the state of her wounds on admission to [Hospital 2]."

123. I note that Ms A's wounds were chronic, and that she had conditions that limited their ability to heal, and that she is noted to have been regularly non-compliant with recommended treatment and wound dressings. However, I accept RN Parmee's advice and am highly critical that the communication and co-operation between staff about Ms A's wounds was inadequate, and that staff failed to seek GP consultation adequately when indicated during Ms A's time at the rest home. I consider the lack of monitoring and

oversight of the wounds and management of high-risk pressure areas to have been sub-optimal, and insufficient for Ms A's needs.

124. I am critical that rest home staff failed to assess and manage Ms A's wounds adequately. It appears that the problem was systemic, owing to the fact that there was an apparent absence of clear policies and procedures for staff to follow, with multiple individuals consistently failing to manage Ms A's wounds appropriately.

Referral for specialist wound care

125. On 11 Month2, Ms A was transferred from Hospital 1 to the rest home for hospital-level care. The Hospital 1 clinical notes state that the rest home was to request surgical review if the right leg ulcers did not improve.

126. The rest home stated that all of the ulcers Ms A presented with at Hospital 2 (in Month8) were present on her arrival at the rest home, and that they had not been deteriorating prior to her hospital admission, and no maggots were seen in Ms A's wounds while she was a rest home resident. The rest home told HDC that Ms A had not been referred to a vascular surgeon, as past surgical care had been unsuccessful and her deconditioned state rendered her unsuitable for such treatment.

127. This contradicts the information in the medical notes supplied by the rest home. On 13 Month2, the clinical notes record that Wound 1 (ulcers on the right foot) measured 0.5cm x 0.5cm x 1mm, the skin was dry and fragile, and additional observations were "— oedematous — odour (++) — no pain — exudate noted". Between 13 and 22 Month8, the Wound 1 CWAC recorded five further reviews, and noted increased wound dimensions of 3cm x 2cm x 2–3mm, moderate exudate, "pain (++) … odour(++)", and it was noted that Ms A experienced pain during her dressing change. Additionally, on 4 Month7, the notes record that Wound 2 (ulcer on the right shin) had fragile and oedematous skin but was not causing Ms A pain. However, on 8 Month8 it was documented that Wound 3 was sloughy and granulating in parts, with pain and odour. RN F's review of Ms A's care further noted that it was clear from the photograph of Wound 2 taken on 27 Month8 that the assessment of Wound 2 that day, which stated that there were no significant changes, was incorrect.

128. Maggots were recorded as being present in Ms A's wounds twice during her time at the rest home. On 9 Month8, a nurse documented in the clinical notes: "Wound dressing done. Left leg (stump) infested with maggots — kept clean by washing properly. Please keep wounds clean." On 23 Month8, it was recorded that Ms A's middle toe was "maggot infested and necrotic — odour (+++)", and that she had "pain upon dressing".

129. RN Parmee advised that the standard of practice would be to follow the discharge plan from the referring institution and to seek advice from vascular specialists if the existing foot wounds deteriorated.

130. RN Parmee told HDC that Ms A's history of a below-knee amputation and an angioplasty indicated clearly that she had severe PVD, and in accordance with the NZWCS Guidelines (2015), a referral to the specialists who undertook Ms A's past procedures and measurements would have been accepted practice. In addition, RN Parmee advised that a referral to a wound care nurse specialist is appropriate for day-to-day wound management, but that the lack of referral to manage the underlying disease processes causing the deterioration of Ms A's wounds is a highly significant departure from accepted practice.

131. I accept this advice and am critical that staff failed to undertake a specialist referral in light of Ms A's chronic wounds and in accordance with NZWCS guidelines and Hospital 1's clinical notes.

Referral to podiatry service

132. Ms A's discharge summary from Hospital 1 stated that Ms A required ongoing podiatry input.

133. The care plan completed shortly after Ms A's admission to the rest home directed staff to arrange a podiatric review. RN Parmee noted that it was recorded in the care plan that a podiatrist would cut Ms A's toenails, which is accepted practice for patients with diabetes. There is no record of Ms A being reviewed by a podiatrist during her time at the rest home. Based on the evidence available to me, I consider that podiatric review did not occur.

134. RN Parmee advised that the standard of practice would be to follow the discharge plan from the referring institution, and that it was planned for Ms A to receive ongoing podiatry input.

135. I accept this advice and am critical that staff did not adhere to the discharge plan and arrange podiatry follow-up.

Pain management

136. There was no specific care plan in place for Ms A's pain management. Rest home staff used a "+" sign as a measurement of pain in the CWAC documentation. The nursing notes mention that Ms A was given pain relief for her leg pain as required.

137. RN Parmee told HDC that the rest home's notes do not record that any form of pain relief was offered prior to Ms A's wound dressings being performed, although considerable pain is mentioned in the assessment of several of her wounds. RN Parmee said that accepted practice is to offer pain relief before a procedure known to be painful to the patient via a method appropriate to the patient, with its effectiveness measured and recorded for future use. She stated that "the measurement of pain should be in the form of a scale that can be applied and interpreted consistently such as a numerical scale".

138. RN Parmee advised:

> "Repeated reports of pain during a procedure and no evidence of attempts to alleviate the potential pain is a highly significant departure from accepted practice. This reflects failure to follow through with action following assessment."

139. RN Parmee told HDC that this failing would have contributed to Ms A's recorded lack of co-operation with wound dressings.

140. I am highly critical that the management of Ms A's pain was significantly below the accepted practice. It is of serious concern that Ms A was not given pain relief prior to wound dressings despite it being clear that this was required. I am also critical that Ms A's pain was not measured in a way that could be interpreted consistently between staff, and that it would not have been clear whether her pain was increasing between cares.

Conclusion

141. As noted above, the lack of information provided to HDC by Care Alliance Limited has posed a significant challenge to finding all the facts of this case. Care Alliance Limited did not have important information relevant to Ms A's care securely stored or backed up so that it could be accessed as required, and I am highly critical that Care Alliance Limited was unable to provide HDC with the required information relating to the care of Ms A.

142. During her time at the rest home, Ms A had multiple complex and chronic conditions. The rest home failed to provide services to Ms A with reasonable care and skill with regard to her wound care, documentation and assessment, reporting processes, oversight of her overall condition, pain management, and GP and specialist referral as appropriate. As a consequence, Ms A did not receive appropriate assessment and care of numerous wounds, or appropriate management of her pain. Accordingly, I find that the rest home failed to provide Ms A with an appropriate standard of care and breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights.[54]

143. I note that from December 2016, the rest home completed actions recommended by DHB2 for quality improvement, and that therefore some appropriate corrective measures have been undertaken to prevent a similar occurrence in future.

144. RN Parmee advised that the actions taken as a result of the comprehensive care review by the rest home following these events are satisfactory, notably the review of documentation accuracy, reporting and escalation processes, and adherence to policies. In addition, the rest home implemented training in the appropriate use of photographs, documentation of new wounds, mandatory reporting, and reporting of challenging behaviour.

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

Recommendations

145. I recommend that Care Alliance Limited provide a written apology to Ms A's family. The apology is to be sent to HDC within four weeks of the date of this report.

146. I recommend that the rest home:

a) Provide evidence that the recommendations set out in DHB2's review have been implemented, and report on any further changes that occurred following the implementation of those recommendations, within two months of the date of this report.

b) Provide evidence, within three months of the date of this report, that it is currently compliant with the Health and Disability Services Standards, with particular reference to the following:

i. Training for staff on the management of wounds and pressure areas, in accordance with NZWCS guidelines or another appropriate policy tool.

ii. Training for staff on the appropriate administration of pain relief, including documentation of effectiveness.

iii. Development of care plan guidelines for pain management, including assessment, planned interventions, ongoing evaluations of pain relief efficacy, and triggers for referral.

c) Provide evidence that wound care plans and incident forms are completed accurately and consistently, and report back to HDC on the results of its audit within five months of the date of this report.

Follow-up actions

147. A copy of this report will be sent to the Coroner.

148. A copy of this report with details identifying the parties removed, except the expert who advised on this case and Care Alliance Limited, will be sent to the Health Quality & Safety Commission, the Ministry of Health, and DHB2.

149. A copy of this report with details identifying the parties removed, except the expert who advised on this case and Care Alliance Limited, will be sent to the Privacy Commissioner, owing to Care Alliance Limited's failure to store and retain consumer information securely.

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

151. All of the parties above will be informed of the change in ownership from Care Alliance Limited to the new owner in 2017.

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

Appendix A: Independent advice to the Commissioner

The following expert advice was obtained from RN Rachel Parmee:

"1. Thank you for the request that I provide clinical advice in relation to the complaint from [the Coroner] about the care provided to the late [Ms A] at [the rest home]. In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

2. I registered as a nurse in 1985. Upon registration I worked as a RN in the Haematology ward at Christchurch Hospital. This included care of acutely ill elderly patients. In 1986 I engaged in study for a Diploma in Social Sciences (Nursing) and worked 2 nights a week in the Oncology Ward at Palmerston North Hospital. On return to Christchurch in 1986 I worked as a staff nurse in the Ear, Nose and Throat Ward and became Charge Nurse of that ward from 1987 through to 1992. I then moved to Dunedin and worked as a senior lecturer at Otago Polytechnic during the development of the Bachelor of Nursing programme. I completed my Master of Nursing at Victoria University in 1998. My thesis studied patient education and chronic illness. In 1999 I was appointed Charge Nurse of the Children's Unit at Dunedin Hospital. I returned to Otago Polytechnic in 2001 and was appointed Principal Lecturer and Programme Manager of the Postgraduate Programme in 2003. In 2005 through to 2006 I worked as a sole charge Practice Nurse in a local General Practice. In 2008–2010 I worked as Co-ordinator of Education Programmes for Southlink Health. In 2011 I moved to Christchurch where I worked as an RN in the Hospital wings of 2 large Residential Villages and a senior lecturer at Christchurch Polytechnic specialising in care of the elderly. In 2013, upon return to Dunedin, I worked as a Clinical Co-ordinator at Dunedin Hospital. In 2014 I worked as an Academic Advisor at Otago Polytechnic. In 2015 I worked as Nurse Manager at a local Rest Home. My current role is co-ordinating courses in the Enrolled Nurse programme at Otago Polytechnic. I am currently a member of the Nursing Council of New Zealand's Professional Conduct Committee.

3. The Commissioner has requested that I review the documentation provided and advise whether I consider the care provided to [Ms A] by [the rest home] was reasonable in the circumstances, and why with particular comment on:

1. The timeliness of the advice obtained by [rest home] nursing staff.
2. The adequacy of [Ms A's] wound management by [rest home] nursing staff.
3. Any other matters in this case that I consider warrant comment.

For each question I am asked to advise:

a. What is the standard of care/accepted practice?
b. If there has been a departure from the standard of care or accepted practice, how significant a departure do I consider this to be?

c. How would it be viewed by peers?
d. Recommendations for improvement that may help to prevent a similar occurrence in future.

4. In preparing this report I have reviewed the documentation on file:

1. Letter of referral from [the Coroner] dated 8 September 2016.
2. [The rest home], [Dr C] and [Dr D's] response dated 9 November 2016.
3. [The rest home's] further response dated 16 February 2017.
4. Clinical records from [DHB1] from 28 [Month1] to 11 [Month2].
5. Clinical records from [DHB2] from [Month8].

I have included a time line of events extracted from these documents for the reader's reference (Appendix A).

5. Background

On 11 [Month2], [Ms A] was transferred from [Hospital 1] to [the rest home] for hospital level care.

An Inter-Rai assessment completed on 8 [Month2], identified her as having very high care needs, requiring a wheelchair to mobilise, having had a below knee amputation in 2013 due to peripheral vascular disease, having ulcers on her right lower leg and sacrum. [Ms A's] discharge summary reported the following diagnoses: lower respiratory tract infection, urinary tract infection, right leg cellulitis, deconditioning, exacerbation of congestive heart failure and dysphagia secondary to diet. [Ms A] also had a number of co-morbidities; peripheral vascular disease with right lower leg cellulitis, chronic ulcers on her right foot, a below left knee amputation in 2013, atrial fibrillation, congestive heart failure, type 2 diabetes, polycythaemia, hyperlipidaemia and hypertension.

Clinical documentation indicates that [Ms A] suffered from chronic ulcers on her right leg and foot along with a pressure area on her buttocks. Her stump wound had never healed. These skin issues were present when [Ms A] was transferred to [the rest home]. Approximately seven months after her transfer, on 28 [Month8], [Ms A] was transferred to [Hospital 2] when [rest home] staff noticed a sudden deterioration in her general condition. [Ms A] was diagnosed with shock secondary to sepsis. The source of the sepsis was most likely her chronic ulcers. [Ms A] was administered IV antibiotics and fluid resuscitation. The treatment was subsequently replaced with palliative care. [Ms A] died [a short time later].

[Ms A] suffered from long-term ulcers on her sacrum, the stump of her amputated left leg and several areas of her right intact leg. It appears [Ms A] tended to interfere with the dressings of these ulcers. Her son also mentioned to [Hospital 2] staff that his mother often shunned conventional medical treatments.

In the weeks prior to her admission to [Hospital 2], [Ms A's] clinical notes make frequent reference to wounds being malodorous during dressing changes and their

tendency to exudate to varying degrees. [Ms A] was seen by GP, [Dr D] of [the medical centre], on 2 [Month8]. [Dr D] noted signs of infection of [Ms A's] sacral and stump wounds. A course of Flucloxacillin was prescribed along with intensified wound cares.

[Ms A] was reviewed on 9 [Month8], the notes of which suggest the wounds were looking better. She was again reviewed by [Dr D] on 16 [Month8] at which time [Dr D] recorded that her stump wound did not look 'overly infected' and the wounds on her foot were sloughy. [Dr D] noted that [Ms A] had been interfering with her dressings. [Ms A] was referred to [DHB2] that day, as [rest home] staff were struggling to manage her wounds. [Ms A] was triaged, assessed and treated by the District Nursing Service. She was discharged on 22 [Month8].

[Ms A's] wounds were reviewed by a specialist nurse on 22 [Month8], as ordered by [Dr D]. On 25 [Month8], [Ms A] was assessed by [Dr C] of [the medical centre]. He notes that [Ms A] appeared alert and eating but would not let him look at her foot ulcers which she indicated were the problem. [Dr C] noted that nursing staff would contact him if the wounds were showing signs of infection when the dressings were changed. In the early hours of 26 [Month8], the dressings were changed and nursing staff noted that the wounds did not show signs of infection other than odour. Later that day [Dr C] was contacted and Augmentin was prescribed. It is unclear what information was relayed to [Dr C] at this time.

On 27 [Month8], [Ms A] was described as 'weak but responsive'. The following day, she was reportedly tolerating minimal food and fluids and required assistance with feeding. By 4.30pm she had become unresponsive and was transferred by ambulance to [Hospital 2].

6. Review of documents and comment

1) The timeliness of the advice obtained by [rest home] nursing staff

In my opinion there is no question that some of [Ms A's] wounds were chronic and present on admission to [the rest home]. She had several co-morbidities which contributed to difficult wound healing: severe peripheral vascular disease, Type 2 Diabetes, poor nutritional status and immobility.

I note that during her time at [Hospital 1] (12 [Month1] to 12 [Month2]) she had one wound and two pressure areas namely:

1) Right foot: ulcers to R) dorsal area and ulcers to toes 1–4
2) Unbroken pressure area on L) buttock protected with Duoderm
3) Unbroken pressure to sacral area treated with Cavalon cream

She was admitted with R) leg cellulitis which resolved with antibiotic treatment during her stay at [Hospital 1].

She received frequent input from a multi-disciplinary team including physiotherapist, dietician, podiatrist, nurses and medical staff.

During the 31 days she was at [Hospital 1] she received treatment from the podiatrist a total of 6 times with a discharge recommendation for community follow up.

Her Waterlow Pressure ulcer risk was assessed as 'very high risk'. She was nursed on an air mattress and had a pressure cushion on her wheelchair. She also had daily skin checks and was administered Entonox (nitrous oxide) as pain relief prior to dressings.

The surgical registrar stated that she required surgical review if the R) leg ulcers did not improve (21 [Month1]).

During her time at [the rest home] (13 [Month2]–01 [Month9]) [Ms A] went on to develop further wounds and the status of her wounds deteriorated considerably during her last weeks at [the rest home]. The documented new wounds were:

1) Venous ulcer R) shin (04 [Month7]) which progressed from margins of 1cm x1cm x 1mm to 9cm x 6cm x unidentifiable depth and from painless, odour free to Pain +++ and odour +++ with a necrotic wound bed (14 [Month8]) (Labelled Wound 3 in wound care notes).
2) Macerated wound L) stump (22 [Month7]) which progressed from 2cm X 2cm X superficial depth with no pain through to a necrotic wound with moderate exudate with redness and swelling (29 [Month7]). There were no further records for this wound. (Labelled wound 4 in wound care notes). This wound was described as infested with maggots (09 [Month8]) and an incident form completed (Not included in notes available).
3) R) Thigh medial aspect 2cm x 2cm x superficial open wound with reddish wound bed and pain + (29 [Month7]).
4) R sacral pressure area 3cm X 2 cm with ungradable depth pressure area due to eschar (dark dead skin) with moderate exudate pain ++ and odour ++ (02 [Month8]) (Labelled Wound 5 in wound care notes).
5) L) Lateral aspect of the R) upper leg 4cm x 3cm x superficial depth. Reddened unbroken skin (09 [Month8]) progressing to 6 cm X 5 cm x 1mm. Reddish wound bed with broken skin with mild to moderate discharge odour ++ and pain ++ (17 [Month8]) (also labelled wound 5 in wound care notes).

The existing multiple foot ulcers were described as having moderate exudate with redness around the wounds with odour +++ and pain ++++. On 23 [Month8] the middle toe was described as infested with maggots.

During this time GPs were called by nursing staff for review of wounds on the following occasions:

03 [Month6] — noted no cellulitis present

09 [Month6] — R) lumbar boil

05 [Month7] — Blister R) shin

02 [Month8] — Infected R) sacral pressure area (refer to 3) above) and broken wound L) stump (refer to 2) above)

09 [Month8] — Review sacral pressure area

16 [Month8] — Referral to District Nurse (? Wound care nurse) about ulcers on R) foot and stump wound

The District nurse reviewed the wounds and suggested less expensive dressings because the GP referral stated that [Ms A] was removing her dressings.

[Ms A] is noted to have been reviewed by the Dietitian on 3 occasions. She was considered malnourished with her low calorie intake and food preferences. She was prescribed dietary supplements (Fortisip). A request for zinc supplements to assist wound healing does not appear to have been followed through by the GP.

There is no reference to any Podiatry follow up or referral to vascular specialists during [Ms A's] time at [the rest home].

It is documented that [Ms A] was cared for on an air mattress.

There is no evidence that [Ms A] was offered pain relief prior to dressings being performed. It is documented that she was given Oxynorm for pain relief when she requested it for leg pain.

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

The accepted standard of practice would firstly be to follow the discharge plan from the referring institution, in this case [Hospital 1]. The plan was for ongoing podiatry input which it is assumed was in conjunction with assessment made by medical staff. It was also planned to seek advice from vascular specialists if the existing foot wounds deteriorated.

In [Ms A's] notes from [the rest home] there is no mention of any follow up with podiatrist or referral to vascular surgeon during her time with them. The care plan completed on [Ms A's] admission to [the rest home] stipulated that a Podiatrist would cut her toenails. This is accepted practice for patients such as [Ms A] who suffered from Diabetes. There is no record that this occurred.

Guidelines from the New Zealand Wound Care Society (2015) for referral to specialist input (including vascular surgeons and podiatrists) include ulcers that have not healed within 3 months, recurring ulceration, antibiotic resistant infected ulcers, ulcers causing uncontrolled pain. The guidelines also mention peripheral arterial disease indicated by an ABPI less than 0.8. ABPI is a measurement of blood flow which is used to measure the severity of peripheral vascular disease. While there is no documentation of these measurements being taken, [Ms A's] history of Below Knee Amputation (2013) and Angioplasty (2015) clearly indicate that she had severe peripheral vascular disease and specialist input which would have included these measurements. Referral to the specialists who undertook these procedures would have been accepted practice.

In their joint response (09/11/16) [Dr C] and [Dr D] and [RN G] (Facility Manager [following RN F's resignation]) state that all ulcers [Ms A] ultimately died with were present on admission to [the rest home], namely a pressure ulcer on her sacrum, a non-healed surgical wound on the stump of her L) leg and several ulcers in the distal area of her intact leg. They state that she was not referred to a vascular surgeon because of previous surgical intervention (i.e. amputation on her left leg and angioplasty) had not improved her ulcers. They also refer to her deconditioned state on admission making her an unlikely candidate for anaesthetic. They also note that there was no evidence of deterioration in her ulcers prior to her admission to [Hospital 2].

While this may have been the case it does not exclude specialist consultation for the ongoing care of [Ms A]. Referral to a wound care specialist nurse is appropriate for day to day wound management but the underlying causes of the wounds and treatment of these also needed to be considered.

They go on to state that maggots were not seen in [Ms A's] wounds while she was resident at [the rest home] and the possibility that fly strike occurred during her time at [Hospital 2].

b. If there has been a departure from the standard of care or accepted practice, how significant a departure do I consider this to be?

The lack of referral to manage the underlying disease processes causing the deterioration of [Ms A's] wounds is a highly significant departure from accepted practice. While I accept that a long-term care facility does not have immediate on-site access to specialist care, referrals for advice on care and treatment could and should have been made. In my opinion [Ms A] should have received the same level of specialist input she had while in the acute care setting.

c. How would it be viewed by peers?

I believe my peers in both the acute and aged care settings would agree that the deterioration in [Ms A's] wounds would have warranted consultation and input from specialist colleagues**.** Observation and documentation of wound status needed to be accompanied by an appropriate plan to address the underlying causes with a view to alleviating pain and ongoing deterioration.

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

- In order to prevent a similar occurrence there needs to be an Institutional Wound Care Policy developed with input from Medical and Nursing staff. This policy needs to include standards for: Pressure Area care such as those listed in the Waterlow Pressure Risk Assessment tool
- Leg Ulcer assessment and treatment (See example Appendix B)
- Documentation of wounds including photographs, standardised wound descriptions and review of effectiveness of interventions
- The process for escalating concerns about wounds to the in house GP including documentation on Incident Forms and review of interventions
- Timeline for referral of pressure areas and wounds for specialist advice

- Pain relief required prior to wound dressings

There also needs to be formal education for all Registered Nurses on induction with regular updates on Wound policies and procedures, including the consistent use of Incident forms, referral to GPs and photography of wounds.

I noted in a further response from [Dr C] (16/02/17) it is stated that [the rest home] has updated its wound documentation with the use of colour photographs on admission and at each wound change, a standardised wound measurement tool and a wound care document in which the wound is described in detail and filed with corresponding photographs.

2) The adequacy of [Ms A's] wound management by [rest home] nursing staff.
There appear to be significant discrepancies between the description of [Ms A's] wounds on admission to [Hospital 2] (28 [Month8]) and the descriptions in the progress notes and wound assessments completed at [the rest home]. Without the evidence of photographs and consistency of wound descriptions it is difficult to ascertain the degree of discrepancy.

The state of [Ms A's] wounds on admission to [Hospital 2] (29 [Month8]) clearly indicate inadequate wound care and hygiene. The significant indicators of this include:

i) Buttock wound tracking from vagina to wound on R) buttock with large amount of yellow/green thick pus oozing when pressure applied. Buttock wound also oozing dark brown exudate.
ii) Large dark bruise on R) sacrum. L) Sacrum skin broken with serous exudate.
iii) L) thigh wound saturated with serous exudate
iv) Skin tears on both arms
v) R) shin wound necrotic with sticky yellow slough
vi) R) Toes had necrotic tissue on top of big toe and tips of first 4 toes. Lots of thick 'cottage cheese like old skin between under and around toes. 4 large maggots washed out of toes. Very strong offensive odour from foot wound.'
vii) L) Leg stump. Large area of necrotic tissue. Shower of small white maggots from wound when washed. Very strong offensive odour from the wound.

My impression is that the deterioration of [Ms A's] wounds did not result from inadequate wound care at a local level (i.e. the type and regularity of dressings) but rather from a systemic level in terms of communication between those responsible for her care (i.e. caregivers, Registered Nurses, Nurse Managers, GPs and specialists). This communication includes both documentation and consultation as discussed above. There appears to be a lack of responsibility taken for the overall progress of [Ms A's] overall condition and the consequent effect of the appearance of new wounds and deterioration of all wounds.

Documentation fails to provide any indication of ongoing assessment of the wounds and escalation of care. It describes the wounds in terms of size, appearance, odour

and pain but no photographs, interventions for pain management or referral to GP or specialist care.

Incident forms are mentioned (29 [Month7] and 09 [Month8]) but do not appear to have been completed consistently or include referral to GP of new wounds. As described earlier there were 5 documented new wounds with no related referral to the GP.

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

Given [Ms A's] very high level of risk for pressure areas (related to her disease processes, immobility, poor insight and poor nutrition) standard practice would be to follow the Waterlow guidelines for very high risk of pressure areas and document daily the effectiveness of these measures.

Along with description and a care plan for each new wound it would be standard practice to complete an incident form which includes notification of the nurse manager and GP. Failure for a wound to heal within a two month time frame would usually trigger referral to a GP. Any deterioration of a wound (e.g. increased odour, ooze and pain) would trigger immediate referral to a GP.

Hygiene care of any client, particularly one with Diabetes would include care of the skin between the toes. The [Hospital 2] description indicates a poor standard of care.

b. If there has been a departure from the standard of care or accepted practice, how significant a departure do I consider this to be?

I believe there has been a very significant departure from accepted practice in terms of providing consistent care to [Ms A]. The apparent lack of accurate documentation and reporting processes between those providing care at all levels appears to have led to a situation where [Ms A's] care was less than adequate and is reflected in the state of her wounds on admission to [Hospital 2].

c. How would it be viewed by peers?

My peers in the aged care and acute settings would agree that the state of [Ms A's] wounds on admission to [Hospital 2] would reflect inadequate wound and hygiene care resulting from poor communication between staff and inadequate response to the deteriorating condition of [Ms A's] wounds.

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

- The recommendation for an institutional wound care policy with associated education on its application discussed above also applies here
- Regular (3–6 monthly) audits of documentation to ensure that Wound care plans and incident forms are completed accurately and consistently with stipulation of required improvements as needed
- A standardised process for documentation in integrated progress notes which includes changes to status of wounds
- A central point for RNs to record matters that need to be referred to GPs and the outcome of the referral

4) Any other matters in this case that I consider warrant comment

Although alluded to earlier I would like to make specific mention of the management of [Ms A's] pain. During her time at [Hospital 1] [Ms A] was given Entonox prior to her wound dressings to help manage the pain during the procedure. As stated earlier there is no mention in the notes from [the rest home] that any form of pain relief was offered prior to her dressings. I note that considerable pain is mentioned in the assessment of several of her wounds. I also note the use of + as a measurement of pain in the wound assessment documentation and no specific Careplan for pain management. The nursing notes mention that [Ms A] was given Oxynorm for her leg pain as required.

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

Accepted practice in any care setting would be to offer pain relief prior to any procedure which is known to be painful for the patient. The effectiveness of the pain relief must be measured and recorded for use in future episodes of care. The method of pain relief needs to be appropriate for the patient and may be in the form of non-pharmacological methods. The appropriate method should be decided on in consultation with the patient.

The measurement of pain should be in the form of a scale that can be applied and interpreted consistently such as a numerical scale.

b. If there has been a departure from the standard of care or accepted practice, how significant a departure do I consider this to be?

Repeated reports of pain during a procedure and no evidence of attempts to alleviate the potential pain is a highly significant departure from accepted practice. This reflects failure to follow through with action following assessment.

c. How would it be viewed by peers?

My peers would consider this a significant departure from accepted practice and would be aware of the effect of pain during a procedure would have on a patient's ability to cope with the procedure. This would also contribute to [Ms A's] alleged lack of co-operation with wound dressings.

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

My recommendations include a clearly documented care plan for pain management including assessment, planned interventions, ongoing evaluations of the effectiveness of pain relief and triggers for further consultation to GP and pain management specialists.

A standardised recognised pain assessment tool should be used such as a numerical pain assessment tool.

Appendix A

Timeline based on Documentation in Nursing notes, GP consultations and progress of [Ms A's] wounds

[Hospital 1] Notes

Date	Nursing Notes	Medical Notes	Podiatry Notes
12 [Month1]	Waterlow — 25 — V high risk bundle		
13 [Month1]	Daily skin checks Air Mattress in situ Pressure cushion wheelchair For Entonox prior to dressings	R) leg cellulitis Low threshold for vascular IV Cefoxitin and Metronidazole vis PICC line	Ulcers to R) dorsal area Ulcers 1–4 toes dry eschar sloughy with thick biofilm Debrided dorsal ulcer — granulation tissue and 1,2,3 toes — eschar still present Dressings prescribed and for dressings every 2 days PAC for R) foot
14 [Month1]	Duoderm to PA on L) buttock Cavalon to sacral area		
18 [Month1]			Further debridement Areas improved and healing Dressings reviewed
20 [Month1]		R) leg cellulitis Healing ulcers (arterial)	No improvement noted Dorsal ulcer sloughy non-viable tissue
21 [Month1]		R) leg cellulitis resolved Abs completed R) leg ulcers/ischaemic areas resolving with ongoing podiatrist input Very slow improvement. Requires surgical review if not improving	
23 [Month1]	Waterlow — 31		
24 [Month1]	Weight loss 3 kg R) LL pain		
25 [Month1]	Seen by wound care nurse specialist —	Toes have necrotic areas at tips and necrotic	

	apparently much improved from when last saw. At pt. request all areas dressed with escharsorb, cuticerin gauze and secured with crepe	ulcer over toe Severe PVD	
28 [Month1]		PICC line removed	Slight improvement with eschar reducing
30 [Month1]	Waterlow — 29 High Falls Risk Skin on sacrum red excoriated		
04 [Month2]	Fortisip prescribed		
06 [Month2]	Waterlow — 31		
07 [Month2]		No peripheral oedema Erythema L) stump Sacrum — no broken skin	Slight improvement to ulcers with granulation tissue increasing R) dorsum more granulation tissue and decrease in size
09 [Month2]		Gynae review — ? Warrants gynae investigation ? bleeding secondary to Dabigatran 10/09 refused gynae examination wanted no treatment	
11 [Month2]	R leg cellulitis PA sacrum stage 2 + Hx — Cellulitis R) leg 2009 — — severe cellulitis in 2005 with sepsis requiring HDU admission Ongoing pain in both legs Dressings — R) foot, R) shin, R) big toe Needs regular PACs Oxynorm for pain given prn (at least twice daily) — from medication admin chart	DX note <u>PMHx</u> 1) Peripheral Vascular Disease with R) lower leg cellulitis Angioplasty to Right SFA Popliteal and PT [2015] 2) Below knee amputation L) Feb 2013 — phantom limb pain <u>Progress</u> Cellulitis R lower leg and R) leg ulcers Commenced on Flucloxacillin Podiatry input ongoing — improvement very slow and gradual	Little improvement Will follow up at Podiatry MSC clinic in coming weeks for R) foot

[The rest home]

Date	Nursing notes	Medical notes	Wound One	Wound Three	Wound Four	Wound 5	Wound 6
13 [Month2]			R) foot multiple chronic venous ulcers 0.5–4 cm X0.5–3.5 cmx 0.1mm Oedematous dry scaly No photo PRN dressings for cellulitis and exudate				
23 [Month5]	**Dietitian** Taking Fortisip Small amounts food						
28 [Month5]	Small boil noted on sacral area						
03 [Month6]	Small boil noted on R) lumbar region Pus-filled rash noted on R) upper body — cream applied	Nursing note — Seen by Dr — nil cellulitis —dressing applied					
09 [Month6]		Acute visit R) lumbar area boil resolved Rash/redness on lower back lumbar area No cellulitis Dressings only					
11 [Month6]	**Diabetes appt** Wound dressing to						

	be changed every other day For follow up review (nursing note)						
	Dietitian Eating well Ensure plus Fortisip continue						
04 [Month7]				Venous Ulcer R) shin 1cmx1cmx1mm Skin fragile and oedematous Jelonet Interpose and crepe bandage Moderate yellowish discharge No pain No photo			
05 [Month7]		Routine visit (Asked by nurse to review blister R) shin — not mentioned) Increased oedema R) leg —prescribed increased furosemide					
12 [Month7]			0.5cmx0.5cmx1mm1 Oedematous	[12–21 Month7] Clear fluid granulating			

			Odour ++ No pain Exudate noted Dry fragile skin	wound bed No pain oedematous leg			
14 [Month7]			0.5cmx0.5cmx1mm Oedematous Odour ++ Pain ++ Moderate exudate Dry fragile skin				
16 [Month7]		Furosemide didn't work Reduce back					
19 [Month7]	L) leg stump leaking fluid R) upper leg wound leaking large amounts of fluid		[19–27 Month7] 3cmX2cmx2mm Sloughy wound bed Moderate exudate Oedematous Pain ++ No heat or redness				
22 [Month7]				Macerated wound margin Pain +	Macerated wound L) stump Present 2–3 days 2cmx2cm x superficial Jelonet, Interpose and crepe bandage		

23 [Month7]	Noted painful boil on R) buttocks. Cleanse with Chlorhexidine BD			23 [Month7] – 02 [Month8] Macerated wound bed Discharging clear fluid Pain ++ Swelling++	[23–28 Month7] Clear fluid Wound bed granulating Oedema + Pain +		
24 [Month7]	Boil not ruptured						
27 [Month7]	Complained of pain in her amputated limb. Pain relief given						
29 [Month7]	Photo taken of wound on stump taken Skin lesion on R) thigh noted — Careplan started — Incident form completed		29 [Month7]–22 [Month8] 3cmX2cmx 2–3mm Moderate exudate Redness around wound and skin Odour +++ Pain +++		2cm X2cm Necrotic wound bed Moderate exudate Redness and swelling present Photograph taken	Also labelled 5 R) Thigh Medial aspect 2cmX2cm x superficial Open wound Reddish wound bed Fragile, dry, red surrounding skin Pain + No photograph No further notes	
02 [Month8]		Infected pressure area R) sacral area. Pus ongoing with adherent eschar Prescribed			No further records until 14 [Month8]	R) Sacral Area Ungradable pressure area as eschar did not come off	

		Flucloxicillin Jelonet Intrasite daily Saline soaks to eschar daily — Same for broken wound L) stump				2.5 cm X 2cm X 1 mm PNSS soak Jelonet (Changed to Allevyn 18 [Month8]) Gauze and Tegaderm No photograph Moderate wound exudate Defined wound margin Pain + Odour + Surrounding skin fragile	
02 [Month8]						[3–26 Month8] 3cmX2cm x1mm Moderate exudate Odour ++ Pain ++ Red granulating wound bed Surrounding skin intact	
08 [Month8]				3cmX3cm x1–2mm Granulating and slough present Pain +++			

				Odour +++			
09 [Month8]	Wound dressing done L) stump infested with maggots Developed Grade 1 pressure area sore located on L) lateral aspect of L) leg. Incident form completed	Sacral pressure area much better. Weekly Comfeel dressing					L) lateral aspect of the upper R) leg 4cmX3cm x superficial Reddened skin Skin not broken yet Protective dressing applied
12 [Month8]	R) labia majora appears to be swollen						
13 [Month8]	[Ms A] removed dressing on right shin and replaced with tissue paper						
14 [Month8]				14 [Month8]–26 [Month8] 9cmX6cm X unable to identify depth Necrotic wound bed areas Odour +++ Pain +++ Surrounding skin red and fragile			
16 [Month8]		Referral to wound care nurse specialist Struggling with					

		mixed arterial/venous/ diabetic ulcers on R) foot and non-healing wound post L) BK amputation (2013) Wounds swabbed today [Ms A] removes her dressings regularly					
16 [Month8]		Review of L) knee stump and R) foot ulcers Pt non-compliant and removes dressings Typical combination of venous/arterial ulcers on dorsum R) foot and toes — oedema ++ sloughy Swab to exclude significant infection Thick layer of paraffin gauze and redress L) stump inflamed and malodourous but doesn't look infected Thick layer paraffin					

		gauze Refer wound care specialist					
17 [Month8]							[17–26 Month8] 6cmX5cm x1mm Reddish wound bed Broken skin Mild to moderate discharge Odour ++ Pain ++ Fragile surrounding skin Jelonet, cuticerin Gauze Crepe bandage
19 [Month8]	Lower limb pain 10/10						
22 [Month8]	District Nurse Suggested change to dressing related to high cost of current dressings Aquacel for heavy exudate Allevyn to foot and toe wounds — minimal exudate Stump — cuticerin,		Middle toe maggot infested and necrotic Odour+++				

	melanonin secured with softban — has been staying intact						
24 [Month8]	No oral intake today **Dietitian** Not eating or drinking much Does not like Diasip Consider Zinc supplement to assist wound healing						
25 [Month8]		(Nurse request for Zinc supplements —no mention) Doesn't want me to look at wounds Nurses will call me if infected					
26 [Month8]	Very low oral intake GP contacted re leg — Said will chart something — did not specify						
27 [Month8]	Weak but responding Manager informed —ordered to ring or email GP if condition worsens Antibiotics for wounds supposed to start but pt. refused Infection report filed						

28 [Month8]	Dressing not done as dressing kit not available Eating v small amounts						
01 [Month9]	Transferred to [Hospital 2] 0500						

[Hospital 2] Notes

Date	Medical	Nursing
28 [Month8]	Admission note PMHx includes 2015 Angioplasty for PVD Chronic arterial ulcers due to PVD Dr […] Letter to coroner: Referring Dr reported worsening chronic leg and sacral wounds in recent weeks On admission had Necrosis of Left below knee amputation site, foul smelling purulent discharge ++ 2x sacral pressure sores with significant erythema Blood cultures Vascular surgical registrar Large sacral ulcer seems deep On left residual limb gangrene up to mid-thigh R) leg ulcer dorsum of foot Gangrenous 1st and 3rd toes Gangrenous ulcers mid anterior leg Due to extent of bilateral gangrene and sacral wounds surgical intervention not pursued Nurse findings re wounds	*Wound care notes and description of wounds* Described in report above

Appendix B

Leg Ulcer Assessment Form The New Zealand Wound Care Society 2015

Leg Ulcer Assessment Form

This form has been developed by the NZWCS www.nzwcs.org.nz and is to be used in conjunction with the Australian and NZ Clinical Practice Guideline for Prevention and Management of Venous Leg Ulcers http://www.awma.com.au/publications/2011_awma_vlug.pdf The NZWCS does not take any responsibility for any outcomes through using this form. The form is for competent healthcare professionals (HCPs) trained in leg ulcer assessment and does not replace the HCPs clinical judgement in each individual case.

Surname:
First name:
Preferred name:
NHI No: DOB:
Address: Telephone:
Email:
ACC Number:
Injury Date:
Department:
Name of Assessor:
Date: Assessor Role:

Ethnic group:
NOK &
Telephone:
Occupation:

GP &
Telephone:
Referred by:
Specialists involved in care:

HISTORY — Clinical, Pain & Leg Ulcer

Patient visit expectations:
Current community & family support:
Presenting problem & ulcer/s location:
* Consider specialist referral if past history skin/wound malignancy

Current Ulcer History
Presenting ulcer is recurrent: Y / N
Duration of current ulcer:
How leg ulcer occurred:
*Consider spontaneous, trauma, eczema, not wearing compression hosiery

Past Ulcer History
Past history of ulcers: Y / N
Approx. time to heal: **circle** <6wks / 6–12wks / >12wks
Time since last ulcer: < 12wks / 12wks–6months / >6 months

Previous leg ulcer treatments / compression hosiery adherence:
Gait assessment:
*Consider client walks normally striking heel to toe / shuffles / mobilises independently or uses an aid
Nutrition:
*Discuss daily food / fluid intake. Consider BMI and using a validated nutritional

assessment tool e.g. MNA
Medications:
*Consider drugs that may affect healing: Immunosuppressants, Cytotoxics, Anti-rheumatics, Nicotine, Corticosteroids, NSAIDs
*Consider alternative therapies used
Known allergies / sensitivities:
*Consider drug, food, latex, creams, wound care products
Alcohol type / amount:
Recreational drug type / amount:
Smoking history:
Identified quality of life (QOL) including psychosocial issues: e.g.: spiritual, cultural beliefs, odour, pain, exudate, lack of sleep, reduced mobility affecting physical function, depression, anxiety, social situation, affecting employment, ADLs, domestic violence
Pain:
*Consider use of a validated QOL assessment tool per guidelines. *Consider pain questions: Provokes what causes it, what makes it better?, Quality description of the pain, Radiates localised, moves?, Severity on a scale of 1–10, Time when did it start, how long it lasts?

References

New Zealand Wound Care Society (2015) Leg Ulcer Assessment Form https://www.nzwcs.org.nz/about-us/lower-limb-ulcers/85-leg-ulcer-assessment-form

Waterlow, J (2005) The Waterlow Pressure Ulcer Prevention Manual https://www.judy-waterlow.co.uk/the-waterlow-manual.htm"

RN Parmee provided the following further expert advice on 5 April 2019:

"Thank you for the opportunity to provide further advice in relation to case 16HDC01437 for which I provided an initial report on 8th June 2017.

I have been provided the following information to review:

1. My initial expert advice report on [the rest home] dated 8 June 2017.
2. Documents obtained since my initial advice:
   a. [Rest home] policies in place at the time of the events, and developed since that time.
   b. [Rest home] photographs of [Ms A's] wounds from 22 [Month7] to 26 [Month8], inclusive.
   c. Correspondence from [the rest home] to [DHB2] relating to the care of [Ms A].
   d. Statements from wound care specialist [RN E], who attended to [Ms A] on 22 [Month8].

Background

On 11th [Month2], [Ms A] was transferred from [Hospital 1] to [the rest home] for hospital level care.

An Inter-Rai assessment completed on 8 [Month2], identified her as having very high care needs, requiring a wheelchair to mobilise, having had a below knee amputation in 2013 due to peripheral vascular disease, having ulcers on her right lower leg and sacrum. [Ms A] also had a number of co-morbidities; peripheral vascular disease with right lower leg cellulitis, chronic ulcers on her right foot, a below left knee amputation in 2013, atrial fibrillation, congestive heart failure, type 2 diabetes, polycythaemia, hyperlipidaemia and hypertension.

Clinical documentation indicates that [Ms A] suffered from chronic ulcers on her right leg and foot along with a pressure area on her buttocks. Her stump wound had never healed. These skin issues were present when [Ms A] was transferred to [the rest home]. Approximately seven months after her transfer, on 28 [Month8], [Ms A] was transferred to [Hospital 2] when [rest home] staff noticed a sudden deterioration in her general condition. [Ms A] was diagnosed with shock secondary to sepsis. The source of the sepsis was most likely her chronic ulcers. [Ms A] was administered IV antibiotics and fluid resuscitation. The treatment was subsequently replaced with palliative care. [Ms A] died [a short time later].

Expert Advice Requested

I am asked to review the documentation (listed above) and in particular comment on:

1. *Whether the additional clinical records and information provided has changed my opinion on the appropriateness of care provided.*
2. *The adequacy of [the rest home] policies in place at the time of the events, and the adequacy of provided policies which were not in place at the time.*
3. *Any other matters in this case that I consider warrant comment.*

1. The additional clinical records and information provided

The additional information provided includes:

- Home Care Inter Rai assessment completed 8th [Month1].
- Policies and procedure documents dated 2013.
- Documents reviewed in 2017 (after [Ms A's] discharge from [the rest home]).
- Correspondence with the DHB from [RN F] (Manager, [the rest home]) including the Skin integrity policy (reviewed Nov 2015), photographs of [Ms A's] wounds, evidence of in-service education and Quick Fix Quality Improvement activity around escalation of wound photographs and a letter from GP [Dr C]
- Statement by [RN E] (District Nurse)

The InterRAI assessment was a Home Care assessment completed prior to [Ms A's] admission to [the rest home]. This should have been followed up with an initial LTCF (long term care facility) assessment on admission to assist with appropriately planning [Ms A's] care.

[RN F], in her statement, acknowledges that she was unable to refute identified shortcomings in terms of:

1) Accuracy of documentation of [Ms A's] pressure injuries to her sacrum in terms of both description and photographic evidence.

2) Accuracy of documentation compared with photographic evidence of the extreme necrosis, presence of maggots.
3) The discrepancies in documentation of the deterioration of [Ms A's] shin ulcer as evidenced by photographs.
4) Accuracy of documentation of return of foot ulcers and gangrenous toes in the light of insufficient photographic evidence.
5) Failure to update care plan or notify medical officer of deterioration of left thigh pressure injuries.
6) Lack of documentation of vaginal discharge prior to [Ms A's] admission to hospital.

This information, along with that provided by the District Nurse, [RN E], and GP [Dr C], does not change my opinion on the appropriateness of the care provided to [Ms A].

I am, however, satisfied that [RN F], as Manager, subsequently conducted a comprehensive review of the factors which led to the shortcomings identified and implemented strategies to prevent a recurrence of the situation. In particular there has been a review of documentation accuracy, reporting and escalation processes and adherence to policies. Training in the appropriate use of photographs, new wound documentation, mandatory reporting, legibility of documentation and reporting of challenging behaviour has been implemented.

2. The adequacy of [rest home] policies in place at the time of the events, and the adequacy of provided policies not in place at the time.

It was apparent from both my initial report and the information provided by [RN F] that at the time of [Ms A's] admission to [the rest home] policies were not being followed in terms of accurate documentation of observations and assessments. There was a need for staff education in terms of mandatory reporting and escalation of concerns around deterioration of wounds. There also appeared to be little understanding of the need to document and act on challenging behaviours.

I am satisfied that the policies that were in place in 2016 and those reviewed in 2017 were adequate. The issue was clearly the lack of knowledge and or ability of staff to implement these policies.

There appeared to be little understanding of the need for accurate documentation of wound assessments and the importance of developing robust care plans based on consistent, reliable assessment. Further to this there appeared to be little understanding of the need to evaluate care and subsequently escalate concerns.

Rachel Parmee"