Heritage Lifecare Limited (trading as Palms Lifecare)

A Report by the
Deputy Health and Disability Commissioner

(Case 19HDC00267)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to a woman who was being cared for at an aged-care facility. The woman had had a stroke, and she had swallowing difficulties (dysphagia) and was at risk of choking because of this. In the last weeks of her life, the woman also developed an ongoing cough. The Deputy Commissioner commented that given the woman's history of aspiration pneumonia after her stroke, and this being the suspected cause of her death, it was understandable that her husband had raised concern about how her cough and nutritional needs were managed.

Findings

2. The Deputy Commissioner found that Heritage Lifecare Limited, as the owner and operator of Palms Lifecare, had a responsibility to provide services with reasonable care and skill. This included an overall responsibility for the actions of its staff, and for having in place systems that supported the provision of appropriate care.

3. The Deputy Commissioner found that Heritage Lifecare Limited breached Right 4(1) of the Code because further assessment of the woman's dysphagia should have been undertaken after she developed an intermittent cough; the system for ordering sputum samples was problematic; a choking episode was not recorded in the clinical notes or followed up by staff; the woman's husband had to remind staff to provide suitable food and fluids; and observations were not taken in a consistent manner once the woman developed a more productive cough.

Recommendations

4. The Deputy Commissioner recommended that Heritage Lifecare Limited provide a written apology to the woman's husband; arrange training on documentation, incident reporting, requesting of sputum samples, and assessment of residents following a stroke; ensure that regular assessment of dysphagia is undertaken in residents who have suffered a stroke; review its processes for ensuring that residents always receive food and fluids appropriate to their assessed dietary needs; and consider how tests ordered by Palms Lifecare can be tracked more reliably.

5. The Deputy Commissioner also recommended that the GP who provided services to the woman at the rest home undertake a self-directed audit of his clinical records.

Names have been removed (except Heritage Lifecare Ltd/Palms Lifecare) 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.

Complaint and investigation

6. The Health and Disability Commissioner (HDC) received a complaint from Mr A about the services provided to his late wife, Mrs A, by Palms Lifecare. The following issue was identified for investigation:

- *Whether Heritage Lifecare Limited (trading as Palms Lifecare) provided Mrs A with an appropriate standard of care in Month4[1] and Month5 2019.*

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

8. The parties directly involved in the investigation were:

Mr A	Complainant/consumer's husband
Heritage Lifecare Limited	Provider

9. Further information was received from:

Mr B	Physiotherapist
Dr C	General practitioner (GP)
District Health Board	Provider
HealthCERT	

10. Also mentioned in this report:

RN D	Clinical Services Manager
RN E	Unit Coordinator

11. Independent expert advice was obtained from Registered Nurse (RN) Karole Hogarth (Appendix A), and in-house clinical advice was obtained from GP Dr David Maplesden (Appendix B).

Information gathered during investigation

Introduction

12. On 25 Month1, Mrs A (aged in her seventies) suffered a major stroke and was admitted to a public hospital. Previously she had lived at home with her husband, Mr A, but she was discharged to Palms Lifecare[2] on 14 Month2 because she required more care than Mr A

[1] Relevant months are referred to as Months 1–6 to protect privacy.
[2] Palms Lifecare is owned and operated by Heritage Lifecare Limited.

could provide at home. During her stay in hospital, Mrs A had been treated with antibiotics for aspiration pneumonia.[3]

13. Mr A complained to HDC about the care provided to Mrs A at Palms Lifecare. In particular, he raised concern about the management of a cough Mrs A developed in Month4, and that Mrs A was not provided with suitable food and fluids given her risk of choking after her stroke.

Food and fluid management and choking incident

14. Mrs A was reviewed by a speech and language therapist whilst in hospital. Her eating and drinking guidelines, which were provided to Palms Lifecare, stated that she was to have a minced moist diet[4] and mildly thickened[5] fluids. Mrs A's discharge summary from the hospital was slightly different, and stated that it was recommended that Mrs A have a soft dysphagic diet.[6] For both soft dysphagic and minced moist diets, raw vegetables were to be avoided.

15. The hospital discharge summary recommended following safe swallowing strategies, and advised caution to be taken around food items that could require thin fluids (eg, cereal and milk), because of Mrs A's risk of aspiration. The discharge summary also recommended that if Mrs A's diet were to be changed, a speech language therapist be involved in the process.

16. Clinical Services Manager RN D told HDC that Mr A visited Mrs A every day, and assisted her with most of her lunch and dinner-time meals, ensuring that she was given the correct type of diet and that the caregivers thickened her drinks.

17. On 21 Month2, Mr A raised concerns with a caregiver about the minced moist meal that was provided to Mrs A at lunch time, and requested that this be moulied (puréed). The next day, Mr A met with RN D to discuss Mrs A's meals. This led to a reassessment of Mrs A's swallowing being undertaken by RN D that day. The outcome was that Mrs A would be given a moulied diet because she found eating a minced diet very tiring, but a small minced meal would also be provided "for assessment during the week". Heritage Lifecare told HDC that a further review of this arrangement occurred on 8 Month3, and it was found that Mrs A was coping well with the minced moist diet, so that was continued.

18. Heritage Lifecare told HDC that on 16 Month4, Mr and Mrs A met with the Unit Coordinator, RN E, and at that time were "happy to continue with [a] minced moist diet and mild[ly] thickened fluids". Heritage Lifecare told HDC that at no point in time was Mrs A trialled on solid food.

[3] Pneumonia resulting from inhalation of foreign bodies (such as food particles).
[4] Very soft and moist food containing small lumps of about 0.5cm. This could include tender cooked vegetables that are easily mashed with a fork.
[5] Fluid runs freely off the spoon but leaves a mild coating on the spoon. Thicker than naturally thick fluids such as fruit nectars, but not as thick as a thick shake. Thickening powder was to be used to thicken fluids.
[6] Dysphagia refers to swallowing difficulties. Food for a soft dysphagic diet is to be naturally soft and require only gentle chewing. Some minced dishes could be on the menu if no suitable soft dishes were available.

Choking incident

19. Mr A told HDC that one lunchtime,[7] Mrs A was fed coarse vegetables, and started to cough and then choked. He stated in his complaint: "[I]f I had not been sitting with her and raised the alarm in no uncertain way, she would have died then." Mr A stated that Palms Lifecare staff managed to clear Mrs A's airway.

20. Mr A had arranged for a physiotherapist, Mr B, to provide private physiotherapy services to Mrs A at Palms Lifecare to assist in her recovery. Mr B's physiotherapy notes from 29 Month4 documented: "[Mr A] says [Mrs A] nearly choked yesterday on grated carrot during lunch. Helped to cough it up." Mr B stated to HDC: "[Mr A] did tell me that [Mrs A] had choked on some grated carrot and shredded cabbage in her lunch time meal the day before."

21. Mr B met with RN D on 12 Month5 to discuss Mrs A's future physiotherapy. He noted that "[RN D] had only just been informed of [Mrs A's] choking episode two weeks prior". RN D's recollection of the conversation is as follows:

> "[Mr B] asked me if I was aware that [Mrs A] had choked on some food. I stated that yes I was aware of her choking on some food earlier in [Month4].[8] [Mr B] stated that [Mr A] had told him that it was the week prior, I was not aware of any incidence of choking the week prior."

22. Heritage Lifecare told HDC: "[D]uring our investigation we could not find any evidence that Mrs A was fed coarse vegetables." Heritage Lifecare stated:

> "It is unclear to Heritage whether this incident of choking was actually witnessed by staff, and the fact it is not reported in the notes suggests that it was not. It is more likely that this event has been reported to [RN D] sometime after the event by [Mr A]."

23. Mr A told HDC: "The charge nurse was not informed of the incident until several days later and I suspect that I was the one to inform her."

24. The Palms Lifecare menu for 28 Month4 included pumpkin and beans as vegetables with lunch. However, Heritage Lifecare stated: "[I]t is not uncommon to substitute vegetables for another due to supply and demand."

25. Heritage Lifecare provided statements from six staff members who had been involved in Mrs A's care, and none could recall being advised of a choking incident. There is no mention of a choking incident anywhere in Mrs A's progress notes.

[7] Mr A did not specify the date of this incident.

[8] Further attempts by HDC to clarify the date of this incident with Heritage Lifecare and RN D were unsuccessful.

Further information regarding food and fluids

26. Mr A told HDC:

> "I always sat with [Mrs A] while she had her lunch, and quite often had to tell the people serving her meal, that the food being served was unsuitable for a person with severe stroke and swallowing difficulties. I was not always present when she had breakfast, but several times, when I was there, I had to tell staff that Weetbix in biscuit form was not acceptable, and had to be puréed."

27. Mr A also stated that he had to remind staff constantly when giving Mrs A drinks that they had to be thickened. He said: "At one stage I actually put a notice right on the table next to her bed, in bold capitals to that effect. They eventually put a notice on the wall above the table."

28. Mrs A had a food and fluid chart completed at Palms Lifecare for the first two weeks of her residence (14–27 Month2). This specified the requirements for a minced moist diet, and mildly thickened fluid. The level of thickness of fluid was not always recorded (eg, the terms "water" and "thickened water" were both used to describe Mrs A's fluid intake). A second fluid balance chart was used from 23–25 Month3. This consistently documented that thickened fluids were given. No food or fluid charts were in effect in Month4.

Management of cough

29. On the evening of 16 Month4, Mrs A developed a cough with green phlegm. A sputum sample was taken by RN E on 17 Month4. Mrs A was reviewed by GP Dr C on 22 Month4,[9] at which time the sputum sample results were available. Dr C documented, "unproductive cough continues — sputum culture normal", and considered that no treatment was required at that time.

30. A second sputum sample had been obtained by a registered nurse on 21 Month4, as it was thought that the first sample might have been insufficient to provide clear information. Palms Lifecare told HDC that the specimen results were considered non-urgent because Mrs A was asymptomatic. The results were not received at Palms Lifecare until 12 Month5 (discussed further below).

31. Dr C reviewed Mrs A again on 29 Month4. He documented, "unproductive cough continues — sputum result normal", and confirmed to HDC that this referred to the first sputum sample result, as that was the only one available at Palms Lifecare at the time. Mrs A agreed to try Gees Linctus cough mixture to relieve her cough.

32. Dr C told HDC that it is his usual practice to perform lung auscultations when examining any patient with a cough or symptoms involving the lungs. He stated:

[9] Palms Lifecare had an arrangement with the medical centre where one of the GPs would attend the facility three days per week. Dr C visited Palms Lifecare on Tuesdays.

> "I think it extremely likely that I performed lung auscultations on [Mrs A] on both the 22nd and 29th of [Month4] … and that no adverse findings were present, as I absolutely would have recorded any unusual findings in her medical notes."

33. Dr C said that RN E attended consultations with him, and she confirmed that it is his usual practice to perform lung auscultations during physical examinations. Dr C stated: "[RN E] would have reminded me had I forgotten to do so." Dr C also said that usually he would record if there were no abnormalities detected; however, this is not documented in the notes of 22 or 29 Month4.

34. Mrs A continued to experience a cough over the next two weeks, and cough syrup was given as required. On 11 Month5, a third sputum sample was taken and sent to the laboratory.[10] Heritage Lifecare advised that the third sample was taken because "[Mrs A] appeared to deteriorate and had a more productive cough". The progress notes record that Mr and Mrs A were happy to wait until the following day for Mrs A to see the doctor. A GP visit request form was completed for a routine review. This stated: "[M]ed[ical] review, chesty cough, review sputum result."

35. Dr C was at Palms Lifecare on 12 Month5 for his usual rounds. Heritage Lifecare said that Dr C reviewed Mrs A in person. However, Dr C said that he did not review Mrs A in person, and provided HDC with the doctor's list for that day, which has a tick next to Mrs A's name in the "non-contact consult" column.

36. The second sputum sample results were received at Palms Lifecare on 12 Month5 after RN E called the laboratory to follow these up. Dr C said that he had finished his clinical rounds when he was shown the results by RN E. Dr C reviewed the result, which showed evidence of a chest infection, and prescribed Mrs A antibiotics. He stated: "I had no reason to suspect at that time that her condition had changed from my previous examination of her."

37. On 12 Month5, a short-term care plan was implemented by the nursing staff for Mrs A's chest infection. The plan included: "[A]dminister medication as charted, position for comfort for better breathing, monitor cough and vital signs, if unwell refer to GP, rehydrate as tolerated."

Subsequent events

38. Mrs A deteriorated overnight and was taken by ambulance to the Emergency Department at the public hospital on the morning of 13 Month5. She was hypoxic and unresponsive on arrival. A chest X-ray showed shadowing in both lungs, with the most likely cause being infection and possible aspiration. Intravenous antibiotics were administered but, sadly, Mrs A died in the early afternoon. The hospital discharge summary noted the cause of death as aspiration pneumonia.

[10] The results, which became available later, did not show evidence of infection, but did show growth of respiratory flora.

39. The ambulance service's patient report form states: "[R]est home staff state [Mrs A] ?aspirated [two days] ago." The ED assessment also records this, and the hospital admission summary documents Mr A's concern that Mrs A had been trialled on solid foods, and that he was not convinced that all Mrs A's fluids were being thickened. Heritage Lifecare told HDC: "The current Care Home Manager cannot find any information in writing, relating to Palms staff informing [the ambulance service] of [Mrs A] aspirating 2 days prior."

40. Mrs A's vital signs were taken four times during the early hours of the morning on 13 Month5. These were documented in the progress notes, but her respiratory rate and heart rate were not recorded consistently.

Further information

Sputum sample results

41. Dr C explained that the sputum samples were ordered by registered nurses at Palms Lifecare, but that they would be under the authority of whichever GP was most recently present at Palms Lifecare. He said that usually the results were sent to the authorising GP's inbox at the medical centre and copied to Palms Lifecare by fax.

42. Dr C told HDC that the second sputum sample results of 21 Month4[11] were sent to the medical centre on 24 Month4. However, he also said that all Palms Lifecare results were also expected to be available at Palms Lifecare for the doctor's rounds, so they could be reviewed together with the full patient files. He would have expected these to be available at Palms Lifecare on Friday 25 Month4 (when another GP would have been attending Palms Lifecare).

43. Dr C said that he would have seen the results on the weekend of 26 Month4 when attending to administrative work, and "would have glanced at the result … and expected further management would have occurred". However, further management was not undertaken in the interim, because the results were not received by Palms Lifecare until 12 Month5.

Record-keeping

44. Dr C explained that in late 2018, Palms Lifecare switched its record-keeping system. During the change-over period, Dr C adopted the practice of writing brief handwritten notes during his rounds and having Palms Lifecare staff type them into the system. He stated: "As I adjusted to [the new system] my record keeping may not have been as complete as my usual practice."

Rest-home audit and corrective action plan

45. The DHB's Health of Older People team has worked closely with Palms Lifecare to ensure that corrective actions arising out of the HealthCERT (Ministry of Health) surveillance audit in 2019 were implemented.[12] In June 2020, the Health of Older People team confirmed that the corrective action plan had been completed. Palms Lifecare has a current three-year certification period, which will expire in August 2021. The facility will be required to undergo

[11] Which showed evidence of infection.

[12] These related to issues identified with Palms Lifecare's complaints process, staff performance appraisals, shift handover process, accurate recording of assessments, and detail in care plans.

a full certification audit to measure its compliance with the Health and Disability Services Standards prior to August 2021.

Responses to provisional opinion

46. Heritage Lifecare Limited, Dr C, and Mr A were given an opportunity to comment on relevant sections of the provisional opinion. Where appropriate, changes have been incorporated into the report.

47. Mr A reiterated his concerns about Mrs A's care at Palms Lifecare. In particular, he was concerned that he had to check that the food being served to his wife was suitable for her needs, and he was concerned that there was minimal follow-up of Mrs A's cough. Mr A stated:

> "I realise that my complaint and time spent in this investigation, will not bring my wife of 53 years back to me, but if my doing so, can help prevent a similar occurrence, then I would feel that it has been worthwhile."

48. Dr C confirmed that he agreed with the issues identified by my in-house clinical advisor, GP Dr David Maplesden (discussed below), and said that he would comply with my recommendation. Dr C submitted that his omissions were minor and did not warrant adverse comment. He stated: "I wish to reiterate my deepest sympathies [to Mr A] for the loss of his wife."

49. In response to the provisional opinion, Heritage Lifecare Limited made detailed submissions, which have been considered carefully. In summary:

- Heritage Lifecare Limited maintains that Dr C did review Mrs A in person on 12 Month5 and that the doctor's list cannot be relied upon. It considers that Dr C's consultation must have been performed and recorded inadequately.
- In respect of Mr A's statement that he had to remind staff to provide suitable foods to Mrs A, and instances of a further choking episode, Heritage Lifecare Limited considers that there is no evidence that these instances actually occurred. It also considers that the ambulance service patient report form, which references a further unreported aspiration episode in the days prior to Mrs A's transfer to hospital, cannot be relied upon.
- Heritage Lifecare Limited considers that Dr C or his practice were responsible for following up on the sputum sample result of 21 Month4.
- Heritage Lifecare Limited believes that any failure to take Mrs A's observations once she developed a more productive cough is the responsibility of the registered nurse, not Heritage Lifecare Limited.

50. Changes have been made to my opinion to reflect my consideration of Heritage Lifecare Limited's submissions.

Opinion: Heritage Lifecare Limited — breach

Management of Mrs A's condition

51. Mrs A had a history of stroke and swallowing difficulties (dysphagia) and consequently was at risk of aspiration pneumonia. She developed a cough with green phlegm, which was first noticed on 16 Month4.

52. My expert nursing advisor, RN Karole Hogarth, stated:

> "[Mrs A] had suffered a stroke resulting in dysphagia, had been seen by the dietician for a plan for her meals, and there were anecdotal indications of her choking and as in the Heritage Lifecare Nutrition and Hydration policy supplied 'choking is the 2nd most preventable death in aged care'. With this in mind, an 'intermittent cough' in someone with this history should have raised a flag for a Registered Nurse."

53. Given that red flag, RN Hogarth was concerned that there was no plan to assess Mrs A's dysphagia regularly in consultation with her family, and no robust assessment of Mrs A's dysphagia was undertaken once she developed the continuing cough.

54. RN Hogarth also suggested that given Mrs A's history of aspiration pneumonia and her continuing risk of this, it would have been useful for a chest assessment to have been undertaken. She did note, however, that in this setting it would not be routine practice. I acknowledge that the nursing team deferred chest assessments of Mrs A to Dr C. However, I consider that the nursing team would also have had the competence to carry them out, and could have done so proactively in these circumstances rather than leaving this basic and necessary assessment for the GP to carry out instead. I note RN Hogarth's comment that "[h]ealthcare is an interprofessional endeavour and deferring to the doctor without further discussion and collaboration does not result in positive health outcomes".

55. In my provisional opinion, I was critical that Palms Lifecare staff did not ensure that Mrs A was seen by Dr C in person on 12 Month5. Dr C stated that he did not review Mrs A in person on 12 Month5, but Heritage Lifecare stated that he did. In light of the conflicting accounts, I am unable to make a finding as to whether or not Dr C saw Mrs A in person that day. However, I am satisfied that nursing staff appropriately made efforts to organise a doctor's review.

Follow-up of sputum sample results

56. The system for ordering sputum samples at Palms Lifecare was that a nurse could order the test without input from a doctor, but the doctor would be listed as the person who ordered the test and accordingly received the results. In response to my provisional opinion, Heritage Lifecare submitted that it was the GP's responsibility to follow up the test results. However, the expectation was that the results would be copied to Palms Lifecare as well. This system was problematic, as the person ordering the test was not the same person receiving the results, and as results were meant to be sent to both the GP and Palms Lifecare, there was a lack of clarity about who would follow up on overdue test results.

57. The first sputum sample was ordered on 17 Month4, and Mrs A was not seen by a doctor until 22 Month4. My in-house clinical advisor, GP Dr David Maplesden, said that he would have expected the doctor to have been notified of Mrs A's respiratory symptoms, including any relevant history, before further tests (such as a sputum sample) were undertaken. Noting that Mrs A's cough symptom was apparently mild, and essentially her vital signs were normal on 17 Month4, he advised that it was reasonable to defer the doctor's review until the next scheduled visit, provided there was no deterioration in the interim. However, he is mildly critical of the decision to obtain a sputum sample before formal respiratory review was undertaken. I accept this advice and am critical that the system allowed for such samples to be requested before a review had occurred.

58. The second sputum sample was ordered on 21 Month4 by a Palms Lifecare nurse. While the result, which confirmed a chest infection, was sent to the medical centre on 24 Month4, it was not sent to Palms Lifecare, and was not followed up by Palms Lifecare staff until 12 Month5. RN Hogarth advised:

> "Certainly, the period of time for follow up of the result in this case was too long and delayed treatment for [Mrs A] especially as there was no improvement in her cough, her history of aspiration and the concerns of her family."

59. RN Hogarth considered that this was a moderate departure from accepted practice, and noted that the result should have been followed up prior to or when the third sample was ordered on 11 Month5. She said that it would be expected that a health professional would follow up within approximately three days of a sample being sent to a laboratory.

60. I accept RN Hogarth's advice. While I acknowledge that the result was sent to the medical centre, I do not consider it was acceptable that it was not followed up by Palms Lifecare until 12 Month5, particularly as its nursing staff ordered the test, and were aware that Mrs A's cough was continuing and her husband remained concerned, and they had not heard anything from the medical centre about the result. I would have expected Palms Lifecare staff to follow up on the test results when they had not been received at the facility within three days, and certainly by 11 Month5 when they decided to order a subsequent sputum sample and Mrs A was noted to have deteriorated and developed a more productive cough.

Choking episodes

61. Mr A reported that Mrs A choked on coarse vegetables one lunchtime, and that Palms Lifecare staff assisted in clearing Mrs A's airway. Mr A did not specify the date of this incident, but Mr B documented on 29 Month4 that Mr A told him that this had occurred the previous day. Mr A reported the choking event to RN D some time later, and Mr B brought it to RN D's attention on 12 Month5. There is no information in the clinical record or in statements from the staff about this incident, and Heritage Lifecare submitted in response to my provisional opinion that there is a lack of evidence that this incident actually occurred.

62. I reject Heritage Lifecare's submission. Given Mr A's recollection, which is supported by Mr B's contemporaneous clinical notes reflecting that this incident occurred on 28 Month4, I

find it is more likely than not that the choking episode referred to by Mr A did occur on 28 Month4. I am critical that this incident was not recorded or reported by any Palms Lifecare staff who were involved in assisting Mrs A at the time of the event, and also that it was not followed up on by RN D once she became aware of it weeks later. I note RN Hogarth's advice:

> "The choking event mentioned here should have been followed up following the discussion with the physiotherapist [Mr B], the fact that it was reported by another health professional even second hand, does require follow up."

63. To me, this culture of poor recording and reporting highlights that the system at Palms Lifecare did not support its staff to report such incidents openly.

64. When Mrs A was taken to hospital on 13 Month5, the ambulance report stated: "[R]est home staff state [Mrs A] aspirated 2/7 [two days] ago." There is no mention of an aspiration incident two days prior to [Mrs A's] transfer to hospital, either in her clinical records or in statements from staff members. While I acknowledge Heritage Lifecare Limited's submission in response to the provisional opinion that this report form cannot be relied upon, I agree with RN Hogarth's comment that "this does put the question whether there were some gaps in the nursing notes regarding [Mrs A's] dysphagia, cough and choking".

Suitability of food and fluids provided for Mrs A

65. Mrs A was assessed in hospital as requiring a minced moist diet and mildly thickened fluids. This was further assessed by RN D on 22 Month2, and Mrs A was to be given both moulied and minced moist meals. Palms Lifecare said that this arrangement was then reassessed on 8 Month3 and Mrs A was to continue on a minced moist diet.

66. RN Hogarth stated: "From the information given I would consider that there is no departure from accepted practice and care of [Mrs A]." She noted:

> "It would be unlikely that a patient with a [stroke] as described in [Mrs A] would have been challenged with anything that could not be mashed with a fork as recommend by the SLT. If this was the case and a patient was given grated carrot and shredded cabbage it would not be accepted practice."

67. I am satisfied that the assessment of Mrs A's dietary requirements was appropriate. However, a key part of Mr A's complaint is that, despite Mrs A's assessed needs, she was not given suitable food and fluids by Palms Lifecare staff. In particular, Mr A noted that Mrs A was given "coarse vegetables", which caused her to choke, and said that he had to remind staff not to give Mrs A Weet-Bix in biscuit form, and to thicken her fluids. Mr B documented on 29 Month4 that Mr A told him that Mrs A had choked on grated carrot the previous day. RN D also told HDC that Mr A visited Mrs A every day, "ensuring that she was given the correct type of diet and that the caregivers thickened her drinks". This degree of oversight was understandably onerous and a responsibility Mr A should not have had to carry.

68. Heritage Lifecare provided the menus for 28 Month4, which included pumpkin and beans at lunchtime, but also said that often vegetables are substituted. It stated that at no time was

Mrs A given solid food, and told HDC: "[D]uring our investigation we could not find any evidence that [Mrs A] was fed coarse vegetables."

69. I am unable to determine with certainty exactly what was fed to Mrs A for lunch on 28 Month4 or its texture. However, I do accept that there were occasions when Mr A had to remind staff to provide suitable food and thickened fluids to Mrs A. Therefore, I am critical of Palms Lifecare that Mr A had to do this. Mrs A should not have had to rely on her husband's advocacy to ensure that she received food and fluids that were suitable, given her assessed risk of aspiration. I would expect Palms Lifecare to have in place a system that meant that it could ensure that its residents received the diet and fluids that were appropriate for their assessed needs. This case highlights that it did not have a robust system.

Recording of observations

70. In Mrs A's case, I would have expected nursing staff to have implemented a short-term care plan when Mrs A developed a more productive cough on 11 Month5, in particular to record her baseline observations (heart rate, respiration rate, and temperature). This information would have helped to consolidate an overall picture of what was happening from one day to the next, and identify the extent of Mrs A's deterioration sooner. I acknowledge that a short-term care plan was commenced on 12 Month5 once it was confirmed that Mrs A had a chest infection, and this directed Mrs A's vital signs be monitored.

71. However, early on the morning of 13 Month5, Mrs A's observations were taken on four occasions but her heart rate and respiration rate were not documented consistently. RN Hogarth advised that this was a mild departure from accepted practice, and I accept this advice. To me, this suggests that the registered nursing staff may have been unfamiliar with monitoring and documentation requirements.

Conclusion

72. Given Mrs A's history of aspiration pneumonia after her stroke, and this being the suspected cause of her death, it is understandable that Mr A has concerns about how Mrs A's cough and nutritional needs were managed at Palms Lifecare. Heritage Lifecare Limited, as the owner and operator of Palms Lifecare, had a responsibility to provide services to Mrs A with reasonable care and skill. This included an overall responsibility for the actions of its staff, and for having in place systems that supported the provision of appropriate care. Considering all of the circumstances discussed above, I find that Heritage Lifecare Limited did not provide care to Mrs A with reasonable care and skill because:

a) In light of Mrs A's history of stroke and aspiration pneumonia, further assessment of Mrs A's dysphagia should have been undertaken after she developed an intermittent cough, and a chest assessment could have been undertaken by nursing staff rather than deferred to the GP.

b) The system for ordering sputum samples was problematic, and contributed to the result of the second sputum sample not being followed up by Palms Lifecare staff for two

weeks. The system also supported staff ordering sputum samples without first having a doctor's review.

c) A choking episode on 28 Month4 was not recorded in the clinical notes or followed up by Palms Lifecare staff.

d) Mr A had to remind Palms Lifecare staff to provide suitable food and fluids for Mrs A, highlighting that there was not a robust system for ensuring that Mrs A received the diet and fluids that were appropriate for her assessed needs.

e) Mrs A's observations were not taken in a consistent manner once she developed a more productive cough.

73. Cumulatively, I consider that the above failures by Heritage Lifecare Limited amount to a breach of Right 4(1) of the Code of Health and Disability Services Consumers' Rights.[13]

Opinion: Dr C — adverse comment

74. Dr C reviewed Mrs A on 22 and 29 Month4. On 12 Month5, Dr C prescribed Mrs A antibiotics in response to the result from the sputum sample of 21 Month4.

Sputum sample result

75. The sputum sample result of 21 Month4 was available at the medical centre on 24 Month4, and Dr C said that he would have seen it that weekend. My in-house clinical advisor, GP Dr David Maplesden, stated:

> "Under the circumstances I am mildly critical that [Dr C] recorded the sputum result as normal (referring to the specimen of 17 [Month4]) when he had seen the later abnormal result, but I think the delay in actioning the result is primarily a systems failure noting [Mrs A] was apparently not overtly unwell on 29 [Month4] and the expectation the result would have been reviewed by a GP on Friday 25 [Month4]."

76. I accept this advice. While on the face of it, it is concerning that Dr C would have seen the test result on the weekend of 26 Month4 and not acted upon it, I accept his explanation that he would have expected this to be actioned by a colleague on Friday 25 Month4. I also note that normally the results were available at Palms Lifecare, but on this occasion they were not available until 12 Month5. In my view, the system made it difficult for Dr C or other clinicians to track results readily and, accordingly, I can see how Dr C would have made the oversight of referring to the sputum culture result as normal on 29 Month4, because he was referring to the result of the 17 Month4 test, which was available at Palms Lifecare, rather than the subsequent result.

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

Documentation of assessments

77. Dr C told HDC that it is extremely likely that he performed lung auscultations when examining Mrs A on 22 and 29 Month4 because it was his usual practice to do so. He said that he absolutely would have recorded any unusual findings in Mrs A's medical notes. However, he did not make any record in Mrs A's clinical notes regarding unusual or normal findings. Dr C cites the change of record-keeping system at Palms Lifecare as a reason for his documentation being less complete than usual.

78. Dr Maplesden advised that assuming Dr C did auscultate Mrs A's lungs on these dates, he would be mildly critical that Dr C did not record the results. However, Dr Maplesden also stated:

> "In the absence of any significant auscultation findings or history of aspiration, and noting the normal and stable vital signs, observation and symptomatic management was probably reasonable."

79. I accept this advice. Given Dr C's explanation of his usual practice, and his reasoning for his documentation being less complete than usual, I also accept that it is more likely than not that Dr C did auscultate Mrs A's lungs during his consultations. While I am critical that Dr C did not record the results of the lung auscultations, I believe his management of Mrs A on 22 and 29 Month4 was reasonable. I also note Dr Maplesden's comment:

> "I think it was a reasonable expectation by [Dr C] that if there was any clinical concern regarding [Mrs A's] wellbeing on 12 Month5 or over the preceding two weeks, he or one of his colleagues providing GP services to [Palms Lifecare] would have been notified."

Changes made at Palms Lifecare

80. Heritage Lifecare advised that the following changes to its service at Palms Lifecare have occurred:

- Unit Coordinators have been reminded to be proactive in following up laboratory results within four working days of collection of specimens.
- A different GP now provides medical services at Palms Lifecare.
- Swallow and speech therapy consultants have been contracted to Palms Lifecare, and a food service has been providing all texture-modified dietary needs meals.
- A new Clinical Services Manager has been employed.
- There is now a templated laboratory test request form that has Palms Lifecare pre-printed in the "copy to" section of the form, to ensure that laboratory results are copied to Palms Lifecare.

Recommendations

81. I recommend that Heritage Lifecare Limited:

a) Provide a written apology to Mr A for the issues identified in this report. The apology should be sent to HDC, for forwarding to Mr A, within three weeks of the date of this report.

b) Arrange for training to be provided to Palms Lifecare staff on:

i. Assessment of residents post stroke and what the signs and symptoms of aspiration injury look like.

ii. Consistent documentation of observations.

iii. Incident reporting.

iv. Appropriate requesting of sputum samples (taking into account Dr Maplesden's comments).

c) Take steps to ensure that regular reassessment of dysphagia is undertaken in residents who have suffered a stroke or have other swallowing issues.

d) Review its processes for ensuring that residents always receive food and fluids that are appropriate for their assessed dietary needs.

e) Take further steps to determine why the results of the sputum sample of 21 Month4 were not faxed to Palms Lifecare, and consider whether any further changes to how tests ordered by Palms Lifecare staff can be more reliably tracked so that they are received at the facility in a timely manner.

f) Report back to HDC on the implementation of recommendations b) to e) within three months of the date of this report.

82. I recommend that within three months of the date of this report, Dr C undertake a self-directed audit of his clinical records, using the checklist from the Royal New Zealand College of General Practitioners.[14]

Follow-up actions

83. A copy of this report with details identifying the parties removed, except the experts who advised on this case and Heritage Lifecare Limited (trading as Palms Lifecare), will be sent to HealthCERT, the district health board and the Health Quality & Safety Commission, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

[14] https://www.rnzcgp.org.nz/gpdocs/New-website/Quality/Draftv1RecordReviewAUGUST2018.pdf.

Appendix A: Independent clinical advice to the Commissioner

The following expert advice was obtained from RN Karole Hogarth:

"1. Thank you for the request to provide clinical advice regarding the complaint from [Mr A] in relation to the care of [Mrs A] at Palms Lifecare.

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 1989. Upon registration I was appointed to a new graduate position at Waikato Hospital and worked in orthopaedics, surgical and post-natal wards for the first year. I then received a permanent position in the burns and plastics unit at Waikato Hospital. Following 2 years' experience in this environment I moved to Saudi Arabia in 1992 working as an RN in the Burn Unit in Dhahran. Upon completion of my contract I moved to England and worked as an RN for an agency providing nursing care in hospitals and community settings. I then moved into a permanent night shift position at BUPA Hull and East Riding, a private hospital in a small community in 1995. On return to New Zealand in 1998 I attended the University of Otago undertaking a combined degree in Zoology and Anatomy completing First Class honours in both in 2001. I worked as an RN in Dunedin at Redroofs Rest home as an RN and casual as a RN at Dunedin Public Hospital during this time. Following the completion of my undergraduate degree I was invited to enrol in a PhD which I did following a further year of travel where I worked as an RN for the Australia blood service in Sydney. While undertaking my PhD in 2004 I was appointed to an academic role 2 days a week at Otago Polytechnic teaching anatomy to Occupational Therapy students. I then expanded my teaching into Bioscience for Nursing and Midwifery students. My PhD research looked at the role of oxytocin in the development and progression of prostate diseases which I completed in the Anatomy Department at the University of Otago in 2009. I was then offered a full-time position in the School of Nursing at Otago Polytechnic where I am still currently employed as Acting Head of Programmes. …

3. The Commissioner has requested that I review the documentation provided and advise whether I consider the care provided to [Mrs A] at Palms Lifecare was reasonable in the circumstances and why.

With particular comment on:

a. Whether [Mrs A] was adequately monitored, assessed and referred from [Month4] onwards.

b. Whether there was adequate follow-up action taken regarding test results.

c. Whether the clinical documentation is of an acceptable standard.

Names have been removed (except Heritage Lifecare Ltd/Palms Lifecare) 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.

d. In the event [Mrs A] was fed 'grated carrot and shredded cabbage' would this constitute a departure from the standard of care?

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 complaint dated 14th [Month5].
2. Further information received from complainant dated 25th [Month5].
3. Palm Lifecare's response dated 28th [Month6] along with comment from [RN D], Clinical Nurse Manager dated 22nd [Month6].
4. Clinical records from Palms Lifecare covering the period from 14th [Month2] until 13th [Month5].
5. Comment from the DHB dated 19th [Month6] and clinical records from 13th [Month5].

5. Background

Following a stroke of the 25th [Month1], [Mrs A] was admitted to [the public hospital], while in hospital she also developed aspiration pneumonia.

[Mrs A] was discharged to the Palms Lifecare on 14th [Month2]. In [Month4] she developed an intermittent cough producing green phlegm, first documented by an RN on [17 Month4]. She was seen by a GP on [22 Month4], [29 Month4] and on [12 Month5]. On [13 Month5] she deteriorated and was admitted to [the public hospital]. She passed away on the same date, her cause of death was reported as aspiration pneumonia.

My comments are confined to the care provided by Palms Lifecare.

6. Whether [Mrs A] was adequately monitored, assessed and referred from [Month4] onwards.

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

It appears that from [Month4] to [13 Month5] that [Mrs A] had the usual standard of care that had been provided up to that date according to her notes. She began to exhibit a cough in the middle of [Month4], which is documented, and a sputum sample was requested on [15 Month4], collected, sent and a result of no significant

organisms received to Palms on [22 Month4]. The second sample collected however was not followed up in a timely fashion by Palms staff until [12 Month5] though there is some suggestion (unverified) that the result was sent to the GP on the [24 Month4].

There is little in the notes about how [Mrs A] was fed and her positioning during her meals. Given that a full upright position is recommend to reduce the risk of aspiration during meal and drinks it can only be surmised that this occurred. There is no regular mention of choking or gagging on food or fluids. There was no mention of a plan to regularly assess [Mrs A's] dysphagia in consultation with her family.

Observations were commenced on [Mrs A] once she began to deteriorate on the [12 Month5].

There is no noting of a chest assessment by an RN once [Mrs A] began to cough regularly in mid-[Month4]. Given her history of aspiration pneumonia and her continuing risk for this I would suggest that this would have been a useful assessment for the RN to undertake.

b. If there has been a departure from the standard of care or accepted practice, and how significant departure this is?

From the information given I would consider that there is a mild departure from accepted practice and care of [Mrs A]. This is really to do with the robustness of the assessment of [Mrs A's] dysphagia especially once she developed the continuing cough, this may or may not include chest assessment which in this setting would not be routine practice. The GP did review [Mrs A] and prescribed Gees Linctus and no further action at that time.

c. How would it be viewed by your peers?

I believe that my colleagues in practice and education would agree that the monitoring and assessment of [Mrs A] meets most acceptable standards from the information provided. Though a plan for further assessment of [Mrs A's] dysphagia would have been advised.

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

Some further in-service provided to RNs on the assessment of patients post CVA and what the signs and symptoms of aspiration injury may look like would be useful to enhance practice.

A plan for regular reassessment of dysphagia in patients post CVA or other dysfunctional swallowing issues would be advisable as part of care planning.

7. Whether there was adequate follow-up action taken regarding test results

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

If it is indicated that samples of body fluids are required for analysis, as in this case a culture and sensitivity the sample should be collected as soon as possible (depending on urgency). The results can be seen for many bacteria species within two days of commencing growth, but some may take five days or longer. It would be expected that a health professional would follow up within ~ three days of a sample being sent to a laboratory with full results sent from the laboratory once finalised. Whether antibiotics are indicated depends on the species and severity of symptoms as below per the ESR guidelines and would need to be communicated to the physician for prescription.

In most cases, prescribe antibiotics for bacterial infections if:

- Symptoms are significant or severe
- There is a high risk of complications
- The infection is not resolving or is unlikely to resolve

b. If there has been a departure from the standard of care or accepted practice, and how significant departure this is?

Following the sputum specimen being collected and sent to the laboratory it would be expected that a note be made to follow up in 48 hours by phoning the laboratory and if indicated passing this to the physician for antibiotics as needed (it is shown on the table from Palms Lifecare that the specimen collected on [21 Month4] was reported to the GP on [24 Month4], this is unverified). Certainly, the period of time for follow up of the result in this case was too long and delayed treatment for [Mrs A] especially as there was no improvement in her cough, her history of aspiration and the concerns of her family.

I would consider this a moderate degree of departure from standard care and accepted practice.

c. How would it be viewed by your peers?

I believe that my colleagues in practice and education would find the delay in follow up of the laboratory result was not acceptable. [Mrs A] was still exhibiting symptoms and the test had been ordered and cultured and only required a phone call to determine if treatment was necessary.

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

As indicated by the facility they have identified that this is an area where strengthening was needed to ensure that this does not occur again in the future.

The corrective action plan they have commenced was the pursuing of laboratory results by Unit Coordinators within four days of collection of specimens, this should include documentation and accountability for follow up. This is an acceptable change to practice.

8. Whether the clinical documentation is of an acceptable standard

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

There were some inconsistencies with the clinical documentation.

Diet

Speech language therapist on discharge from the care of [the public hospital] stated that [Mrs A] required a dysphagic diet and mild thickened fluids and that any change to this should be in discussion with an SLT following further assessment. In further documents from [the public hospital] it states minced moist diet and mildly thick fluids.

In response to [Mr A's] concerns, [RN D] initiated further assessment following admission to Palms Lifecare 22 [Month2] to further assess the swallowing of [Mrs A]. This assessment resulted in a plan for [Mrs A's] diet that meant she could eat the minced moist diet as tolerated as her swallow reflex was good and moulied diet if she was fatigued. A further assessment on the 8 [Month3] confirmed this plan. Mildly thickened fluids continued throughout. This is documented.

Sputum Samples

Requested	Sent to Lab	Report to GP	Report to Palms
15 [Month4]	18 [Month4]	21	21 [Month4]
21 [Month4]	21 [Month4]	24	12 [Month5]
11 [Month5]	11 [Month5]	14	26 [Month6]

As described in 7 above there were inconsistencies in the documentation of sputum samples. In the summary table provided by Palms Lifecare it shows that the sample taken on [21 Month4] was reported to the GP on [24 Month4] (unverified) and was not followed up by Palms until [12 Month5]. There was a cross over point where samples collected close together showed no significant growth in one and then heavy growth *Pseudomonas aeruginosa* and *Staphylococcus aureus* in the other. This may have caused some confusion but should have been followed up.

Observations

Noted that on the evening of [Mrs A's] deterioration that there were inconsistencies in the documentation of vital signs with not all HR and RR observations documented. It is however noted that [Mrs A] was afebrile with normal SaO_2 until the early hours of the morning of [13 Month5] when her saturations dropped considerably, and HR increased and at this point O_2 was administered via nasal prongs. The family was rung, and the Unit Coordinator notified but it does not state when the physician was notified on that morning in her notes, but she was seen.

b. If there has been a departure from the standard of care or accepted practice, and how significant departure this is?

Diet
From the information given I would consider that there is no departure from accepted practice and care of [Mrs A].

Sputum Samples
See above in 7.

Observations
From the information given I would consider that there is a mild departure from accepted practice and care of [Mrs A]. Observations were taken and documented but not consistently so. There was also no indication as to when the physician was notified.

c. How would it be viewed by your peers?

I believe my peers in practice and education would agree that there are some gaps in the documentation of [Mrs A's] care.

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

There is a need to have more cohesion within the documentation and notifications to ensure that follow ups are completed and actioned. Some retraining or supervision of staff to ensure that observations are documented correctly and that notification to a physician is made in a timely manner. As [Mrs A] was DNR this may have impacted on the notification timing.

9. In the event [Mrs A] was fed 'grated carrot and shredded cabbage' would this constitute a departure from the standard of care?

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

A patient who has had a significant stroke as in the case of [Mrs A] would need to be fully assessed by a Speech Language Therapist (SLT) to determine their swallow reflex, gag reflex, chewing, dentition, and fatigue levels. This assessment was completed post CVA while in hospital. As written by [a] SLT reassessment of this would be best undertaken with the supervision of an SLT. In such an assessment challenge a patient would be introduced to increased complexity of textures to determine their tolerance as was undertaken by [RN D]. Reassessment can be undertaken at any appropriate time during care especially if there are changes to the patient's condition.

It would be unlikely that a patient with a CVA as described in [Mrs A] would have been challenged with anything that could not be mashed with a fork as recommend

by the SLT. If this was the case and a patient was given grated carrot and shredded cabbage it would not be accepted practice.

b. If there has been a departure from the standard of care or accepted practice, and how significant departure this is?

If this were the case I would consider this a severe degree of departure from standard care and accepted practice due to its risk of compromise of the airway.

c. How would it be viewed by your peers?

I believe my peers in practice and education would agree that this would be a departure from the accepted standard of care and would be a significant risk to the patient.

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

Assessment of swallow reflex, gag reflex, chewing, dentition, and fatigue levels should be undertaken in discussion with a SLT or other suitably qualified person who can assess the risk to the patient.

References

Environmental Science and Research Ltd (ESR), Public Health Surveillance: www.surv.esr.cri.nz

Ministry of Health. 2010. New Zealand Clinical Guidelines for Stroke Management. Wellington: Ministry of Health.

Ministry of Health. 2016. Designated Auditing Agency Handbook: Ministry of Health Auditor Handbook (revised 2017). Wellington: Ministry of Health.

University of Auckland & Hutt Valley DHB. 2016. Risk Feeding Guidelines. https://flexiblelearning.auckland.ac.nz/speech-science-dysphagia-education-hub/6/files/riskfeedingguideline_post-endorsement.pdf"

The following further advice was received from RN Hogarth:

"Review of the letter, documents, and statements submitted by The Palms Heritage Lifecare in regard to the care of [Mrs A]. My comments are related to the responses and the documents supplied, the original file was not provided for this review.

In reply to the letter from [Heritage Lifecare] I have made comment on the responses numbered 2, 6, 7, 10, 15 plus a comment regarding the ambulance documentation.

2.

a. It appears that the timeline of sputum specimens being requested, taken, sent to the lab, reported and actioned has been determined.

b. The timeline indicates that there were gaps in the reporting and actioning of samples.

c. Agree with this summary and appreciate that time has passed, and that detail may have been forgotten. I do think that there were gaps in the assessment of [Mrs A's] cough. This was just one symptom and taken on its own could lead to the conclusion that [Mrs A] just had an 'intermittent cough'. This could have been further assessed and investigated in conjunction with her family. [Mrs A] had suffered a stroke resulting in dysphagia, had been seen by the dietician for a plan for her meals, and there were anecdotal indications of her choking and as in the Heritage Lifecare Nutrition and Hydration policy supplied 'choking is the 2nd most preventable death in aged care'. With this in mind an 'intermittent cough' in someone with this history should have raised a flag for a Registered Nurse. As per my original advice there was no mention of a plan to regularly assess [Mrs A's] dysphagia. In the Competencies for Registered Nurses there are indicators that need to be met to ensure patient safety and outcomes. There is indication that competencies 1.4 (indicator 4), 2.1 (indicator 3), 2.2 (indicator 1), 2.6 (indicator 2) and 4. 2 (indicators 1 and 2) could have been undertaken at a higher level in this case. Competency 4.2 indicator 2 states — collaborates, consults with, and provides accurate information to the client and other health professionals about the prescribed interventions or treatments.

   Healthcare is an interprofessional endeavour and deferring to the doctor without further discussion and collaboration does not result in positive health outcomes. I believe that improved communication and discussion amongst the GP and RN (and team) would have improved the outcome for [Mrs A].

6. I am reassured that there was no trialling of [Mrs A] on solid food.

7. Results from the previous sputum sample should have been followed up prior to or when this sample was ordered on [11 Month5].

10. The choking event mentioned here should have been followed up following the discussion with the physiotherapist [Mr B], the fact that it was reported by another health professional even second hand, does require follow up.

15. The changes to services are a positive step with the speech therapy consultant, coordination meetings weekly and the lab template changes. This shows that there have been proactive responses by the team.

The ambulance report that indicated they had been informed by The Palms staff that [Mrs A] had aspirated ~2 days prior to their callout is the most reliable source of evidence as this is documented. This does put the question whether there were some gaps in the nursing notes regarding [Mrs A's] dysphagia, cough and choking.

On review of the information provided by [Heritage Lifecare] I do not have any changes to make to my previous advice regarding the care of [Mrs A]. Therefore, I reiterate my advice from my review of this case as submitted on the 24th September 2019.

Associate Professor Karole Hogarth."

Appendix B: In-house clinical advice to the Commissioner

The following expert advice was obtained from GP Dr David Maplesden:

"1. Thank you for the request that I provide clinical advice in relation to the complaint from [Mr A] about the care provided to his late wife, [Mrs A], by [Dr C]. In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. I agree to follow the Commissioner's Guidelines for Independent Advisors. I have reviewed the information on file: complaint from [Mr A]; response from [Dr C] of [the medical centre] response from facility manager Palms Lifecare (PL); clinical and care notes PL; clinical notes [DHB]. **[Dr C] provided clarification of some issues in a response dated 4 February 2020. References to the response are in bold throughout this document.**

2. [Mr A] states his late wife, [Mrs A], died in [the public hospital] on 13 [Month5] as a result of pneumonia. [Mrs A] had suffered a stroke on 25 [Month1] with left hemiparesis and dysphasia. After a period in [the public hospital] she was transferred to PL about mid-[Month2]. [Mr A] states his wife developed a cough about a month before her death, possibly following an episode of choking on unsuitable food. He is concerned she was not given any treatment for her cough until the day before her admission to hospital with pneumonia.

3. [The public hospital] discharge summary dated 14 [Month2] records [Mrs A's] stroke history with secondary diagnoses (during her admission) of aspiration pneumonia and urinary tract infection. Past medical history included treatment for lymphoma in 2001 and 2008, atypical lung infection (mycobacterium) ?date, and splenectomy as a young adult with historical haematology service letters indicating [Mrs A] was probably not up to date with vaccinations recommended for patients with asplenia. The splenectomy history is significant in that patients with asplenia are *at risk for severe and overwhelming infections with encapsulated bacteria (eg Streptococcus pneumoniae) … key measures for preventing such infections include patient and family education, vaccination against encapsulated bacteria and influenza, and use of prophylactic antibiotics*[1].

4. The first reference in the clinical/care notes to possible respiratory infection is RN note dated 16 [Month4]: *Partner reported [Mrs A] expelled thick green phlegm, only reported once, please to monitor.* On 17 [Month4] RN notes include: *Intermittent cough and green phlegm coming out … put her name on doctors list for tomorrow.* A doctor visit request form was completed with vital signs recorded as: T 36.6, P 70, resps 18, BP 115/70, O2 sats room air 95%. There is reference to a scheduled GP review earlier on 17 [Month4] for charting of antifungal medication for a vaginitis, but it appears [the doctor] was not requested to review [Mrs A] again that day. RN notes later on 17 [Month4] include: *Collected sputum sample this pm … will attempt one more collection*

[1] Pasternack M. Prevention of infection in patients with impaired splenic function. Uptodate. Literature review current through October 2019. www.uptodate.com

as first one seemed scarce … [Mr A] *informed that staff will monitor [Mrs A] for significant changes until sputum result comes back, otherwise see GP if clinically needed.* On 19 [Month4] RN notes include: *Husband said … that [Mrs A] is still coughing — nil in distress, remained well and asymptomatic. Reassured of sputum sent for lab test last Friday …* **[Dr C] refers in his response to the organisation of medical services at PL. A team of GPs provided regular medical rounds and after-hours care but patients are not assigned to any one GP. Nursing staff select patients requiring review at the GP ward round and contact the on-call GP for any urgent advice. It appears there was no GP consultation until 22 [Month4] in relation to the symptoms recorded from 17 [Month4].**

5. On 20 [Month4] RN notes included: *… has had unproductive cough — nil fever noted 36.8 at 1400 hrs, RR 20, SpO2 98%, nil wheeze, not in distress … will monitor if needed to be relayed to GP on call, otherwise if well to monitor closely … still to collect sputum as prior one was scant …* [Mrs A] remained apparently stable and a further sputum sample was collected on 21 [Month4].

6. On 22 [Month4], [Mrs A] was reviewed by [Dr C] who noted: *Unproductive cough continues — sputum culture normal. Discussed with husband … and no treatment required.* Vital signs were BP 115/70, T 36.6, resps 18, O2 sats 95%. There is no reference to recent choking episode and no recorded respiratory examination. [Mrs A] was apparently stable and well over the next few days with another reference to respiratory symptoms on 29 [Month4] (RN notes) as: *… has phlegm cough, she stated 'cannot breathe' …* BP 110/65, P 72, resps 18, T 36.7, O2 sats 96%. GP review was arranged for later that day. [Dr C's] notes dated 29 [Month4] do not make any reference to the second sputum sample result (heavy growth of Staph aureus and Pseudomonas aeruginosa) but include: *Unproductive cough continues — sputum culture normal. Discussed with husband … and now keen to try Gees linctus cough mixture.* Gees Linctus was prescribed to use as required. There is no reference to respiratory assessment being undertaken, and it appears [Dr C] was not made aware of the abnormal sputum results on file. **See section 8 — the sputum sample results from 22 [Month4] were apparently not available until 12 [Month5] when a RN contacted the lab for the results. The cause for the delay in receipt of the results is not clear.**

6(a): Addendum 24 August 2020. [Dr C] provided a further response dated 5 August 2020. He notes the usual process for management of test results requested by PL staff on behalf of an attending GP is for a copy of that result to be faxed by [medical laboratory] to PL with a copy received electronically by the GP whose name appears on the request form. The GP 'requester' is usually the GP who most recently attended the facility. The results are reviewed daily by the GP attending PL that day who may be different to the 'requesting' GP. With respect to the sputum sample collected on 21 [Month4], results were received electronically at [Dr C's] surgery on 24 [Month4] (Thursday) and were seen by him when he was attending to administrative work on 26 [Month4] (Saturday). [Dr C] believed the results would have been faxed to PL as expected and reviewed by the GP visiting on 25 [Month4], or at latest Monday 29

[Month4] (when he attended [Mrs A]). However, it appears the results were not available at PL until requested on 12 [Month5] and when [Dr C] reviewed [Mrs A] on the afternoon of 29 [Month4] he failed to recall having viewed the abnormal results three days previously. Under the circumstances I am mildly critical that [Dr C] recorded the sputum result as normal (referring to the specimen of 17 [Month4]) when he had seen the later abnormal result, but I think the delay in actioning the result is primarily a systems failure noting [Mrs A] was apparently not overtly unwell on 29 [Month4] and the expectation the result would have been reviewed by a GP on Friday 25 [Month4]. I recommend the facility treat this incident as a significant event and determine why the result was not faxed to PL by [the medical laboratory] as expected and how tests ordered by PL staff can be more reliably tracked to determine they are received at the facility in a timely manner.

7. Care notes subsequently report [Mrs A's] ongoing cough symptoms and intermittent use of Gees Linctus. Notes include: 1 [Month5] *intermittent cough but not as much as before — nil in distress;* 5 [Month5] *still has chesty cough;* 6 [Month5] *ate her breakfast but with lunch she was coughing a lot;* 10 [Month5] *bad chest cough reported to RN.* On 11 [Month5] RN notes include: *chesty with productive cough. Sputum sample collected and sent to lab. Spoken with [Mrs A] and her husband and they are happy to wait until tomorrow to see the doctor.*

8. [Dr C] reviewed [Mrs A] on 12 [Month5]. Vital signs recorded by the nurse were: BP 110/65, T 36.4, P 68, resps 18, O2 sats 96%. [Dr C] recorded: *R/O chest infection — sputum showed Staph A and pseudomonas as of 21 [Month4] — to start on ciprofloxacin for 7 days.* Ciprofloxacin was charted. There is no record of respiratory assessment being undertaken. **[Dr C] clarifies the sequence of events on 12 [Month5]. He was not asked to see [Mrs A] and had completed his rounds and was doing paperwork when the RN rang the lab and obtained the result of [Mrs A's] sputum sample from 22 [Month4]. The result was presented to [Dr C] who prescribed ciprofloxacin based on the recorded sensitivities. [Dr C] states: *At the time of the 12th, the last time I had seen [Mrs A] had been two weeks previously (when the sample was taken) when she had presented well. I charted antibiotics on the 12th to be safe but had no reason to suspect at that time that her condition had changed from my previous examination of her. Had I been aware that her condition had changed I would have wanted to see her in person to see if any further action was required.* [Dr C] was under the impression [Mrs A] would be reviewed at the next available GP round if it was felt necessary.**

9. From the evening of 12 [Month5] there is reference to [Mrs A] being confused with increased cough. Vital signs at 0242hrs on 13 [Month5] were BP 125/70, P 76, T 36.7 and O2 sats 96%. However, [Mrs A] was noted to be increasingly unwell and at 0615hrs vital signs were BP 115/70, P 130, resps 18 O2 sats 80%. Oxygen was administered and [Mr A] informed with consent granted to transport [Mrs A] to [the public hospital] for review. [Mrs A] deteriorated prior to ambulance transfer with cyanosis noted at 0730hrs and vital signs then including T 38–38.8, resps 28 and O2 sats 75–80% on high flow oxygen.

10. Ambulance patient transfer form dated 13 [Month5] includes: *rest home staff state pt ?aspirated 2/7 ago. Pt has an intermittent SOB & cough since.* ED notes 0910hrs on 13 [Month5] include vital signs resps 24, O2 sats 74% on 15L oxygen, BP 93/54, T 38.6, P 79 and GCS 3/15. There were widespread expiratory crepitations and reduced air entry on lung auscultation. Chest X-ray showed likely focal consolidation in the right hilar area. [Mrs A] was prescribed empiric antibiotics and IV fluids but she deteriorated rapidly and died about 1230hrs that day.

11. Comments:

(i) It is unclear who authorized or recommended obtaining a sputum sample from [Mrs A] on 17 [Month4]. The result lists [a doctor] as requestor but I can find no reference in the notes to [this doctor] being consulted in regard to [Mrs A's] cough. One of New Zealand's largest community pathology service providers makes the following comments regarding community requests for sputum sample microbiology[2]: *Bacterial culture of sputum samples suffers from both poor sensitivity and specificity, leading to sub-optimal antimicrobial stewardship. Sputum samples on immunocompetent patients from the community who simply present with cough with no other complicating factors will not be accepted. International guidelines do not support the use of sputum cultures in non-hospitalised patients with acute bronchitis or mild community acquired pneumonia.* Another local publication[3] notes that if community acquired pneumonia is the suspected diagnosis, *chest x-ray, laboratory investigations (e.g. full blood count and CRP) or microbiological testing is not routinely required in a community-care setting.* BPAC also makes general recommendations regarding use of antibiotics in respiratory infections[4] including the following: *Most respiratory tract infections (RTIs) are of viral origin, rather than bacterial, and in either case, the infection is likely to be self-limiting and the negligible benefit of antibiotic treatment does not outweigh the potential harms … Antibiotics may be considered for people with a suspected or confirmed bacterial RTI who are at high risk of complications, e.g. those with immunosuppression, or in specific clinical scenarios, e.g. all cases of bacterial pneumonia, bilateral acute otitis media in children aged under two years.* In [Mrs A's] case, I believe that because of her history of splenectomy (making her immunocompromised) and increased risk of aspiration pneumonia (post-stroke), there might have been a lower than usual threshold for prescribing antibiotics if she showed any symptoms and signs of chest infection, and that sputum culture should not be used as the sole criterion for deciding whether or not antibiotics are required. I would certainly expect a respiratory assessment (including lung auscultation) to have been performed before considering the requirement for sputum samples. It is not clear whether it is facility policy to obtain sputum samples routinely in patients with new onset respiratory symptoms prior to GP assessment but if it is, such policy should be reviewed. **[Dr C] states RNs are given authority to request**

[2] https://www.pathlab.co.nz/static/microbiology-clinical-details-guide-22465322e1b796dc2708f4c15feec5a3.pdf Accessed 11 November 2019

[3] BPAC. The management of community acquired pneumonia. Best Practice Journal. 2012;Issue 45

[4] BPAC. Navigating uncertainty: managing respiratory tract infections. https://bpac.org.nz/2019/rti.aspx Accessed 11 November 2019

samples for testing and it was a RN who requested the sputum samples noted in this report. I recommend the facility undertake staff education (perhaps using a microbiologist from the local community laboratory) to ensure appropriate requesting of such samples.

(ii) In the situation described on 17 [Month4] I would expect the GP to have been notified of [Mrs A's] respiratory symptoms including any relevant history (such as preceding choking episode if this had been observed or reported) before further tests (such as sputum sample) were undertaken. Noting [Mrs A's] cough symptom was apparently mild and her vital signs were essentially normal on 17 [Month4], it was reasonable to defer GP review until the next scheduled visit provided there was no deterioration in the interim. However, I am mildly critical of the decision to obtain a sputum sample before formal respiratory review was undertaken.

(ii) [Mrs A's] cough persisted but she apparently remained well over the next few days. A further sputum sample was obtained on 21 [Month4] (again unclear who authorized this) prior to GP assessment and my comments above pertain to this action also. On 22 [Month4] [Mrs A] was reviewed by [Dr C] in relation to her cough (sputum results from 21 [Month4] not yet available, and results from 18 [Month4] showed normal respiratory flora only). [Dr C] advised that no treatment was required. There is no reference to [Dr C] being informed of a preceding choking episode, and [Mrs A's] vital signs remained satisfactory. However, there is no record of respiratory assessment (lung auscultation) documented. I would be mildly to moderately critical if [Dr C] did not auscultate [Mrs A's] lungs on this occasion, and mildly critical if he performed auscultation but did not record the result. I am unable to predict whether there would have been any respiratory findings at this point that might have altered [Dr C's] management decisions. If there had been a convincing history of recent aspiration, or presence of abnormal auscultation findings suggestive of lower respiratory infection, given [Mrs A's] asplenic status I believe prescribing of an appropriate antibiotic should have been considered. In the absence of any significant auscultation findings or history of aspiration, and noting the normal and stable vital signs, observation and symptomatic management was probably reasonable. **[Dr C] states: *I think it extremely likely that I performed lung auscultations on [Mrs A] on both the 22nd and 29th of [Month4] when I saw her physically, and that no adverse findings were present, as I absolutely would have recorded any unusual findings in her medical notes.* He notes it is his usual practice to record his examination findings but at the time of the events in question PL was transitioning from 1 Chart to Medimap and *As I adjusted to Medimap my record keeping may not have been as complete as is my usual practice.* Assuming [Dr C] did auscultate [Mrs A's] lungs on the dates in question, my comments regarding deficiency in documentation remain. [Dr C] states he was never advised that [Mrs A] had had a possible aspiration episode.**

(iii) It is unclear when the sputum result of 21 [Month4] was reported or whether [Dr C] received a copy of the result at his rooms. The tabulated timeline provided by PL suggests the result was sent to [Dr C] on 24 [Month4] but this has not been confirmed

by [Dr C]. The sputum result was potentially significant with heavy growth of Staph aureus and Pseudomonas — somewhat unusual pathogens for community acquired pneumonia and both pathogens can be found in the sputum of otherwise healthy individuals but can also be associated with acute and chronic lung infections. [Dr C] reviewed [Mrs A] on 29 [Month4] because of her ongoing cough symptom and noted *sputum culture normal.* Again there is no reference to lung auscultation and despite [Mrs A] having normal vital signs, I would be mildly to moderately critical if lung auscultation was not performed, and mildly critical if it was performed and not documented. **(see comments in section 11(ii) above which apply here, and comments in section 8 which clarify when sputum sample results were received).** On receipt of the sputum result, I would expect [Dr C] to have at least enquired after [Mrs A's] wellbeing, and given her immunocompromised status, to have considered antibiotic therapy if she remained symptomatic and particularly if she had any abnormal lung signs (assuming he received the result on 24 [Month4]). I would not regard the sputum result as normal (although the abnormalities might not have been significant in an otherwise well patient), and the usefulness of ordering the test in the first place is questioned if results are apparently ignored. On the other hand, [Mrs A] was observed to be well apart from her cough symptom (setting aside the issue of lung auscultation) and the sputum result needed to be regarded in this context (ie treat the patient, not the lab result) but also in the context of [Mrs A's] impaired immunity. Given the normal vital signs, assuming [Mrs A] remained well and had normal lung auscultation findings, it might have been reasonable to treat her symptomatically with Gees Linctus but with a low threshold for considering antibiotics promptly if there was any deterioration in her status. **Noting the sputum result from 22 [Month4] was not received until 12 [Month5], and [Dr C] was apparently not asked to review [Mrs A] on 12 [Month5] and was not advised there had been any change in [Mrs A's] condition or other cause for concern between 22 [Month4] and 12 [Month5], I think his management of [Mrs A] was adequate. I think it was a reasonable expectation by [Dr C] that if there was any clinical concern regarding [Mrs A's] wellbeing on 12 [Month5] or over the preceding two weeks, he or one of his colleagues providing GP services to PL would have been notified.**

(iv) [Mrs A's] cough persisted although her overall physical condition was apparently unchanged. I do not believe there was a clinical indication to obtain a third sputum sample on 11 [Month5] and I am mildly critical of this action. [Dr C] reviewed [Mrs A] on 12 [Month5] and vital signs were similar to those recorded previously. Again there is no record of lung auscultation and I would be moderately critical if this was not done, particularly as this was now the third occasion over three weeks on which [Dr C] had been asked to review [Mrs A's] respiratory symptoms and lung auscultation has not been recorded on any occasion. On this occasion reference is made to the potentially abnormal sputum result of 21 [Month4] implying it may not have been reviewed prior to this date (which would be cause for concern). Antibiotics were charted which I think was reasonable management. Given the stability of [Mrs A's] vital signs at this stage, I do not think acute hospital admission was indicated unless there had been clinical signs

suspicious for pneumonia (including abnormal lung auscultation findings), although I cannot exclude the possibility abnormal findings were present if lung auscultation had been performed. It appears [Mrs A's] general physical condition deteriorated from the evening of 12 [Month5], some hours after [Dr C's] review, with more rapid deterioration on the morning of 13 [Month5]. [Mrs A's] asplenia might have been relevant to this situation (possible overwhelming sepsis). I note the sputum sample from 11 [Month5] showed mixed organisms only, but this again illustrates the limited usefulness of this investigation and does not exclude bacterial lung infection as the source of [Mrs A's] sepsis and cause of her demise. **See previous comments clarifying there was no clinical assessment performed on 12 [Month5].**

(v) I recommend [Dr C] review the practice of ordering sputum samples as preliminary investigation in patients with new onset apparently mild respiratory symptoms. [Dr C] may like to clarify the situation regarding review of [Mrs A's] sputum results apparently received by him on 24 [Month4], and the absence of any lung auscultation findings recorded on the three occasions he reviewed [Mrs A] regarding her respiratory symptoms."