Midwife, Ms B

Midwife, Ms C

A Report by the

Health and Disability Commissioner

(Case 14HDC00088)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. Mrs A was pregnant with her first child. Mrs A engaged a community-based self-employed midwife, Ms B, as her Lead Maternity Carer (LMC). Ms B worked as part of a midwifery group.

2. Mrs A's pregnancy progressed normally and Baby A was born by instrumental delivery, in good condition, weighing 4.602kg. In the immediate postnatal period Baby A was noted to have a good latch and he breastfed well. However, he had unstable blood sugar levels (BSLs) and was given expressed breast milk and formula top-ups to manage this.

3. On day two postnatally (Day 2)[1], Baby A was considered to be stable and was discharged to the care of Ms B.

4. Ms B saw Mrs A and Baby A at home on Day 3 and Day 5. On Day 5, Ms B weighed Baby A and noted that he weighed 3830g, a 770g weight loss since birth (16.7%). Ms B noted that this weight loss was "excessive" and carried out a full assessment of Baby A, but did not identify any other issues of concern. Ms B put in place a plan for regular feeding and to re-weigh Baby A in three to four days' time. Ms B then contacted a senior colleague, midwife Ms C, who agreed with Ms B's plan. Ms B then left on planned leave.

5. On Day 8, Ms B contacted her back-up midwife, Ms D, to ask her to re-weigh Baby A that day. However, Ms D said that she was on leave until Day 9. Ms B said that she then contacted Ms C and asked her to re-weigh Baby A in Ms D's absence.

6. At 11.16am on Day 8, Ms C telephoned Mrs A and asked her how Baby A was doing. Ms C was reassured that Baby A was well, and made a plan for Ms D to visit later in the week.

7. On Day 9, Ms D returned from leave. On Day 10, Ms C provided a handover to Ms D advising that Baby A was well and that Ms D should visit Mrs A on Day 11 or 12. Ms D subsequently arranged to see Mrs A on Day 11. However, at 5.15pm on Day 10, Mrs A telephoned Ms D expressing concern that Baby A was lethargic and difficult to feed. Ms D spoke to the on-call paediatrician and arranged for Baby A to be assessed at the hospital.

8. Baby A was later assessed by the on-call paediatrician and noted to be 3.5kg (a 22% weight loss since birth). Baby A was admitted to the neonatal intensive care unit (NICU) and found to have severe dehydration, hypernatraemia, and intracranial haemorrhage. Sadly, Baby A died a few days later.

Decision

9. By failing to recommend a consultation with a specialist when Baby A was noted to have had a greater than 10% weight loss, and putting in place an inadequate plan to manage and re-check Baby A, Ms B failed to provide services to Baby A with

[1] Relevant dates are referred to as the day postnatally (eg Day 2), to protect privacy.

reasonable care and skill and, accordingly, breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[2]

10. By failing to assess Baby A in person and re-weigh him on Day 8, relying instead on the information provided by Mrs A over the telephone, and by failing to provide timely handover to Ms D, Ms C failed to provide Baby A with services with reasonable care and skill and, accordingly, breached Right 4(1) of the Code.

11. Criticism is made of Ms D's failure to follow up with Baby A and Mrs A in a timely manner.

12. Criticism is also made of the district health board's (the DHB's) failure to ensure that staff were aware of the recommended management for a neonate with unstable BSLs.

Complaint and investigation

13. The Commissioner received a complaint about the services provided to Mrs A and her son, Baby A. The following issues were identified for investigation:

- *The appropriateness of the care provided to Baby A by Ms B.*
- *The appropriateness of the care provided to Mrs A by Ms B.*
- *The appropriateness of the care provided to Baby A by Ms C.*
- *The appropriateness of the care provided to Mrs A by Ms C.*

14. An investigation was commenced on 4 December 2014.

15. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
Ms B	Provider/midwife
Ms C	Provider/midwife
Ms D	Provider/midwife
District Health Board	Provider

16. Independent expert advice was obtained from a midwife, Elizabeth Jull (**Appendix A**).

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

Information gathered during investigation

Background

17. Mrs A was pregnant with her first child.

18. Mrs A engaged a community-based midwife, Ms B, as her lead maternity carer (LMC).

Ms B

19. Ms B recently graduated with a Bachelor of Midwifery, and has worked as a self-employed community-based midwife since that time. Ms B works as part of a larger group of midwives (the midwife group) made up of several midwives. At the time of these events, Ms B worked in partnership with another self-employed community-based midwife working with the group, Ms C. Ms B said that Ms C was her permanent back-up midwife, covering her clients when she was on leave.

Ms C

20. Ms C has been a registered practising midwife for nearly 20 years, and previously had practised as a nurse for approximately 20 years. Ms C has worked as a self-employed community-based midwife for approximately 14 years.

Ms D

21. Ms D is another midwife working for the midwife group. Ms D does not normally work in partnership with Ms B, but an arrangement was made between Ms D and Ms B over the holiday period to cover each other's postnatal clients (discussed further below).

Back-up arrangements

22. Ms B told HDC that she was going on planned leave from 5pm on Day 5, and had arranged for Ms C to provide back-up cover for all her clients from this time until 8am on Day 8. Ms B had arranged for Ms D, who she believed would be returning from her own leave, to provide back-up cover for her two postnatal clients after Day 8. Ms C was to continue to provide cover for the remainder of Ms B's clients.

23. Ms D agrees that she had arranged to provide cover for Ms B's postnatal clients over this period, but said that her plan was to return to work on Day 9, not Day 8. Ms D said that she documented this in the Office leave calendar, on the notice board of their Office, and had advised her clients, as well as the colleague who was covering the rest of her caseload.

24. Ms B told HDC that she cannot recall Ms D ever telling her that she would not be returning until Day 9. Ms B said that had she known this she would have arranged alternative cover, given it was likely that Mrs A would be early in her postnatal period at that time.

Antenatal care

25. Mrs A was seen by Ms B regularly throughout the antenatal period, and all the standard testing was carried out.

26. During the first appointment with Mrs A, Ms B noted that Mrs A had a body mass index (BMI)[3] of 44, and appropriately referred her to the obstetrics team at the public hospital for assessment.

27. Ms B also noted that Mrs A had a family history of diabetes and, in light of this, planned to send her for early glucose tolerance testing (GTT) at 20 weeks' gestation, and arranged HbA1c testing.[4]

28. Ms B also referred Mrs A to a dietitian to discuss weight gain in pregnancy, but Mrs A chose not to attend this appointment.

29. Mrs A's pregnancy progressed uneventfully until approximately 36 weeks' gestation, when she underwent an ultrasound scan to assess the fetal growth and well-being, and the baby was identified to be in the 96th percentile for size.

30. At 36+3 weeks' gestation, Ms B discussed this result with Mrs A and made a further referral to the obstetric team at the public hospital. Ms B also arranged for a further GTT and HbA1c test. The faxed referral form notes the previous GTT result of 5.6mmol/L,[5] and that Mrs A's current weight was 110.1kg (with an 8kg gain during pregnancy).

31. Mrs A was seen by the obstetric team, who were happy for Mrs A's pregnancy to continue past her due date provided everything remained normal, with the plan to consider an induction of labour at 10 days post dates.

Labour and delivery

32. Mrs A went into labour at approximately 41 weeks' gestation. She remained in the early labour stage for over 24 hours.

33. Approximately 24 hours after she went into labour, at 8am, Mrs A presented to the Delivery Unit, having been in established labour since approximately six o'clock that morning. Mrs A continued to labour throughout the day and, at 1pm, her uterine membranes ruptured, with clear, non-offensive liquor noted.

34. At 3.28pm, a syntocinon infusion was commenced owing to failure to progress. At 7pm, Mrs A was noted to be tachycardic,[6] with a pulse of 130 beats per minute (bpm), and fluids were increased. At 8.30pm, Mrs A was noted still to be tachycardic, with a temperature of 38.3°C. Fluids were increased and antibiotics commenced, with the plan to trial an instrumental delivery in theatre.

35. Subsequently, Mrs A was transferred to theatre and, at 9.35pm, Baby A was born in good condition. He weighed 4.602kg (above the 95th percentile). At 11.30pm, Baby A

[3] The BMI is a value derived from the weight and height of an individual. A BMI of over 30 is classified as obese.
[4] A blood test for diabetes.
[5] Less than 7.8mmol/L is considered normal.
[6] A rapid heart rate.

was noted to have a normal temperature of 37.4°C,[7] and to have "breastfed beautifully but took a while for him to latch". He had passed meconium but no urine.

36. The DHB protocol required that babies with a birthweight greater than 4.5kg have blood sugar level (BSL) monitoring due to the increased risk of hypoglycaemia.[8]

37. The DHB's Neonatal Unit Handbook in place at the time of these events required a BSL to be checked prior to the baby's second feed, and not before two hours of age. If the BSL was less than 2.6mmol/L, the next due feed should be given, and then the BSL rechecked within one hour. If the BSL continued to be low, milk mixture top-up should be given with the next feed, and the BSL rechecked within one hour. The handbook states: "BSLs can be stopped after there have been 3 BSLs > 2.6mmol/L and ideally >3.0 and the feeding regime is stable without additional tubes or topups." This information was also displayed in a poster in the postnatal area. However, the poster recommended the BSL to be measured when the baby was three hours of age, and did not specify the need for the BSL to be stable without the need for additional top-ups. It simply stated: "3 consecutive BSL of ≥ 2.6mmol/L are required prior to discontinuing these recordings."

Baby A

38. At 1.30am the following day (day 1), Mrs A and Baby A were transferred to the ward. At 3.15am, Baby A was noted to have a temperature of 37.1°C and to have breastfed and settled in his cot.

39. At 7.30am, Baby A was noted to have a BSL of 2.9mmol/L. He was pink and alert.

40. At 11.30am, Baby A was noted to have a BSL of 2.4mmol/L. He had had a good feed with 1ml expressed breast milk (EBM) given. Further BSLs at 12.40pm and 2.10pm were 2.7mmol/L and 2.6mmol/L respectively. Mrs A was breastfeeding immediately after the BSL was taken.

41. At 6pm, Ms B carried out an assessment. She noted that Baby A was being given EBM due to his low BSL reading.

42. At 5pm, before a feed, Baby A's BSL was 2.2mmol/L. Baby A was breastfed and then given 1.8ml of EBM. At 6.45pm, Baby A's BSL was 2.6mmol/L. At 9.05pm, Baby A's BSL was 2.4mmol/L, and he was breastfed and then given 8ml of formula.

43. At 10.05pm, Baby A's BSL was 2.9mmol/L, and it was noted that he needed "2 more good BSL's".

44. Baby A continued to be fed regularly with formula top-ups. His BSLs continued to be monitored and remained stable above 2.6mmol/L.

45. At 8.45am the next day (day 2), it is documented that Baby A had had three consecutive BSLs above 2.6mmol/L, and that BSLs were therefore discontinued. At

[7] Normal temperature for a newborn baby ranges between 36.6°C and 37.2°C.
[8] Low blood sugar. Hypoglycaemia is defined as a blood glucose below 2.6mmol/L.

9.30am, following a conversation with the Neonatal Intensive Care Unit (NICU) registrar, Baby A was noted to be stable, and was discharged from hospital. A hospital midwife contacted Ms B to advise her of Baby A's discharge. Ms B documented in the midwifery records: "[Baby A] has stable BSLs. Fit for D/C [discharge]."

46. On Day 3, Ms B visited Mrs A and Baby A at home. Ms B documented that Mrs A's breasts were comfortable, but that she had a little grazing on her left nipple and was using a lanolin cream. Ms B documented that Mrs A was "happy with latch once on". Ms B documented that Baby A was breastfeeding well and frequently, with "audible swallow heard". She noted that Baby A's colour was "good, slightly jaundiced", that his stools were changing from meconium colour to yellow, and that a small amount of blood was noted in the last nappy. Ms B noted that Baby A had had an unsettled night, and that she had advised Mrs A that this was normal.

47. Ms B carried out the newborn metabolic screening test.[9] She advised HDC that Baby A bled easily and was "reactive and vigorous in that he cried".

48. Mrs A had kept the nappy with blood in it to show to Ms B. Ms B said that she sighted the nappy and noted a baby pea sized orange mark, which she considered was most likely urates.[10] Ms B said that she explained this to Mrs A and advised her that she needed to continue to feed frequently.

49. Ms B planned to visit again on Day 5.

Day 5

50. On Day 5, Ms B visited Mrs A again. During this consultation, Ms B noted that Baby A weighed 3830g, a 770g loss since birth (16.7% weight loss).

51. The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services (the Referral Guidelines) (2012)[11] provide that, in a case of "Dehydration or > 10% weight loss since birth" the LMC "must recommend to the woman … that a consultation with a specialist is warranted". Ms B did not recommend to Mrs A that a consultation with a specialist was warranted owing to Baby A's weight loss.

52. Ms B carried out a "top to toe" check of Baby A, noting that his sclera[12] were yellow and his skin was a little dry, for which she recommended almond or olive oil. She also noted that his stools were "transitional", and he had a "good urinary output".

[9] The newborn metabolic screening test, also known as the heel prick or Guthrie test, is a routine test performed on newborn infants to screen for rare, serious metabolic diseases.
[10] A concentration of calcium and urate in the urine, which can be an indication of dehydration.
[11] These guidelines provide LMCs with information about the categories of referral, referral pathways, and criteria on which LMCs should advise women that a referral is warranted. The guidelines, previously appended to the Section 88 Maternity Services Notice 2002, are to be used in conjunction with the Primary Maternity Services Notice 2007.
[12] The white part of the eye.

53. Ms B told HDC that she assessed Baby A's stools as being transitional because Mrs A had advised that they had changed colour. Mrs A had also said that Baby A was having lots of wet nappies and that his urine was clear with no more urates noted.

54. Ms B said that she felt for Baby A's fontanelle, which was open and not sunken or protruding, and she noted that Baby A's heart and lung sounds were normal, he had good tone and head control, his eyes were fixing, and he was responding to sounds. This part of the assessment is not documented.

55. Ms B noted that Mrs A's breasts were "comfortable" and "filling", and that she had no nipple trauma. In a retrospective record made on Day 17, Ms B documented that she had observed Mrs A feeding Baby A, and felt that he had a good latch, and that she had heard audible swallows, indicating that he was getting some milk. Ms B said that she felt that Mrs A had a good breastfeeding technique, but gave her some advice regarding her hold. Ms B said that she explained her findings to Mrs A.

56. Ms B told HDC that as the weight recorded was the first weigh on her scales, it would be considered a baseline measurement. She was aware that the weight loss was "excessive", and she advised Mrs A of this and told her that they needed a plan to increase Baby A's weight. However, Ms B stated: "At no point following a thorough clinical examination did I consider [Baby A] was unwell."

57. Ms B documented that her plan was for Mrs A to breastfeed Baby A frequently, not letting him go more than three hours between feeds, with formula top-ups of 20–30ml after each feed, and to re-weigh Baby A in three to four days' time. Ms B told HDC that she confirmed that Mrs A had the appropriate formula and bottles in the house, and told her that she needed to commence this plan immediately. Ms B said that Mrs A "understood that I wanted this to continue until [Baby A] was back to his birth weight", and that her back-up midwife, Ms D, would re-weigh Baby A on Day 8, "given [Ms B's] concern".

58. Ms B told HDC that Mrs A asked whether she needed to express breast milk as well. Ms B said she advised Mrs A that this would be good if she had time, because it would help with her milk supply, but that her primary concern was that she feed and top up these feeds with formula.

59. Ms B said that she explained to Mrs A the signs of a dehydrated baby, including "sleepy and/or difficult to rouse, refusal to feed, anuria (no wet nappies), sunken fontanelle or if she felt [Baby A] was unwell". Ms B said that Mrs A knew to call the back-up midwife, Ms C, over the weekend if she had any concerns. Ms B also said that she told Mrs A that she might consider a paediatric referral due to the weight loss, but that she would consult Ms C in relation to this, given that there were no other signs of dehydration. Ms B said that Mrs A was happy with this plan. The only record of this discussion is a retrospective record documented by Ms B at 8.30am on Day 17, which states:

> "Full discussion [with Mrs A] about increased weight loss. In the absence of other clinical indications the aforementioned plan was devised with full understanding that if [Baby A] were to become sleepy, refused to feed, sunken fontanelle or dry

nappies [Mrs A] would call [Ms C] (back-up) or straight to doctors. [Discussed with Mrs A] that I may call paeds and get back to her."

60. Mrs A told HDC that she recalls that Ms B was concerned about Baby A's weight loss, so she put in place the plan for regular feeding and top-ups. Mrs A said that Ms B talked to her about referring Baby A to a paediatrician, but said that when she had done this in the past in similar situations it was unnecessary. Mrs A recalls that Ms B said that she would discuss this with a senior colleague. Mrs A told HDC that she was happy with this plan because she had already been seen by so many people she did not want to have to take Baby A to another person if it was unnecessary.

61. Mrs A said that she was aware of what to look out for in an unwell baby, such as the baby being lethargic and not waking for feeds. She is not sure, but thinks that Ms B discussed this with her during this appointment. Mrs A said that she understood that Ms B would be going on leave, and that a back-up midwife was available if she had any concerns, and that someone would be contacting her with an ongoing plan to re-weigh Baby A.

Ms B's discussion with Ms C

62. Ms B said that she contacted Ms C by telephone at approximately 3.30pm on Day 5 and outlined her concerns about Baby A's weight loss, advising her that Baby A had had a 770g (16.7%) weight loss since birth, but was demonstrating no other signs of dehydration. Ms B outlined her plan for regular feeding and to re-weigh Baby A, and asked for advice as to whether she should refer Baby A to a paediatrician.

63. Ms B said that Ms C advised her that the plan she had put in place was adequate, that she would have done the same, and that a referral to a paediatrician was unnecessary at that stage. Ms B said that she accepted Ms C's advice. Ms B documented in her diary on Day 5 that at 3.27pm she had made a telephone call to Ms C and discussed her plan for Mrs A to breastfeed three hourly with formula top-ups.

64. Ms B said that she gave a "full handover" to Ms C, as she (Ms B) was going on leave and Ms C would be covering her clients over the next two days until Ms D returned from leave.

65. Ms C agrees that Ms B contacted her and told her that according to her latest weigh, which she noted was the first weigh on her scales, Baby A had experienced approximately a 16% weight loss since birth. Ms C said that she checked what plan Ms B had put in place and confirmed that she had carried out a full baby check and that Baby A was showing no other signs of dehydration, and that the plan was for Ms D to re-weigh Baby A on Day 8. In relation to Ms B's request for advice regarding whether Baby A should be referred to a specialist, Ms C stated: "I said if it were me I would not refer at this stage as I would use my first weigh on my scales as a baseline. I advised that her [Ms B's] plan she had in place was a good one." Ms C said that she told Ms B that if she felt happier contacting a paediatrician then "this was also fine".

66. In her statement to the Coroner, Ms C stated:

> "In my experience [of] over 20 years as a midwife, the plan that [Ms B] was proposing to put in place was entirely consistent with paediatric advice upon referral by me in similar circumstances. The paediatric advice was consistently to give 3 hourly feeds and top-ups if required and re-weigh. If there was less than satisfactory weight gain the baby was to then be transferred in."

Day 8

67. According to Ms B's documentation,[13] at 8.55am on Day 8, she telephoned Ms D to discuss the need to weigh Baby A. Ms B left a message for Ms D because she did not answer her telephone.

68. At 9.30am, Ms D sent a text message to Ms B advising her that she was still on leave and would not be returning until late that evening, and asked if there were any urgent matters that required attention.

69. At 9.32am, Ms B replied to Ms D's text message advising that she was concerned about Baby A's 16.7% weight loss and wanted him to be re-weighed. At 9.34am, Ms B documented that she had advised Ms D that she would request that Ms C do it that day.

70. At 9.53am, Ms B documented that she had telephoned Ms C and left a message for her asking her to re-weigh Baby A "today" as Ms D was unavailable.

71. At 10am, Ms B spoke to Ms C by telephone. Ms B told HDC that she advised Ms C that Ms D was not back until late that evening, and asked if Ms C could "check in on [Mrs A] and re-weigh [Baby A]". Ms B said that Ms C agreed to do so, and asked for Mrs A's telephone number. In her statement to the Coroner, Ms C said that during this telephone conversation with Ms B she said that she "would telephone [Mrs A] to see how she was getting on".

72. At 10.06am, Ms B sent a text message to Ms C with Mrs A's telephone number.

Ms C contacts Mrs A

73. At 11.16am, Ms C telephoned Mrs A. Ms C said that she introduced herself and asked Mrs A how she was feeling and how the feeding of Baby A was going. Ms C stated that, in response, Mrs A "said that she was pleased the feeding was going much better. She stated that he initially fussed at the breast, but once latched — he had a good latch and fed well." Ms C said that she questioned Mrs A further about whether she could hear Baby A swallow, whether he woke for feeds, how many wet nappies he was having, and the colour of his stools.

74. Ms C said that Mrs A told her that she could hear Baby A swallowing when he fed, that Baby A was waking himself for feeds, that he was having plenty of wet nappies, and that his stools were yellow.

[13] On Day 11, Ms B made a retrospective record of her communications on Day 8 in her diary. Then, as noted above, on Day 17 she re-documented her account in Mrs A's midwifery records.

75. Ms C stated: "The description by [Mrs A] reassured me that baby's feeding and output was satisfactory. I advised [Mrs A] that she would not be able to have a visit with [Ms D] until [Day 10 or11] and asked whether she wanted to wait until then or whether she wanted me to visit that morning." Ms C said that Mrs A was happy to wait for Ms D to visit, and that she advised Mrs A that if she had any concerns in the interim to contact her.

76. Ms C provided a documented record of her conversation with Mrs A, which is recorded on a blank page of a diary dated Day 8. There is no date or time documented on the entry. It states:

> "[Phone] call to [Mrs A].
>
> [Mrs A] well. Pleased re feeding going much better
>
> Audible swallows. He does fuss initially. Though latches well & feeds well. Feeds better now stopped top ups.
>
> Having wet [nappies] and yellow stools.
>
> Advised [Mrs A] [Ms D] unable to visit until [Day 10 or 11] this week. But could see her this am. [Mrs A] was happy to wait for [Ms D] to come. Advised to contact me in the meantime if any concerns."

77. In contrast, Mrs A said that when Ms C called her on Day 8, initially they spoke about her episiotomy tear and how it was healing. Mrs A said that Ms C then asked her how Baby A was going. Mrs A said that she told Ms C that she thought Baby A was doing "ok", and that she had dropped the top-up bottle feeds because Baby A was not feeding well off the breast after a bottle feed, but that he seemed to be feeding off the breast "ok".

78. Mrs A said that she told Ms C that Baby A seemed to be a lazy feeder, letting the milk drip into his mouth rather than sucking, which is why she dropped the bottle. Mrs A agrees that she told Ms C that Baby A was "weeing and pooing", but said that she did not say that Baby A was having yellow stools. Mrs A does not recall discussing the colour of Baby A's stools at that time. She recalls that Ms C then told her that Ms D would visit her later in the week. Mrs A recalls that the conversation was very brief.

Day 9

79. On Day 9, Ms D returned from leave.

Day 10

80. In her retrospective record documented in the midwifery records, Ms B stated that on Day 10 she sent a text message to Ms D advising her that "[Ms C] had seen [Mrs A] on [Day 8] & that she'd need a visit on [Day 11/12] this week as originally planned".

81. Ms D told HDC that at approximately 11am on Day 10 she had a discussion with Ms C regarding Mrs A. Ms D said that Ms C told her that she had spoken to Mrs A on Day 8 and that Ms C had told her that Baby A was feeding well at the breast, was no longer requiring top-up formula feeds, and had good urine output with yellow stools. Ms D said that Ms C said that she had offered to visit Mrs A but that Mrs A was

happy to wait for Ms D to visit her in a few days' time. Ms D said that it was her plan to contact Mrs A later that day to arrange a visit.

82. At approximately 3pm, Mrs A sent a text message to Ms D asking if she could visit her that day. Ms D said that she responded to Mrs A's text message advising her that Ms B had requested that she visit her later that week. Ms D said that Mrs A responded advising that she had expected a visit that day as Ms C had not visited her on Day 8. Ms D said that she offered to see Mrs A later that day at her clinic rooms or to visit her at home the following day. Ms D said that Mrs A planned to come into her clinic rooms the following day at 12.30pm. Ms D said that Mrs A did not mention any concerns with Baby A during this text message exchange.

83. Mrs A told HDC that she sent the text message to Ms D because Ms B had told her that Baby A needed to be re-weighed, and that this had still not occurred. Mrs A said that she was not concerned about Baby A at that stage, but thought that he needed to be weighed as this was part of Ms B's plan. Mrs A agreed to come into the clinic the following day to see Ms D, because this fitted in with Baby A's sleeping schedule.

Deterioration

84. At 5.15pm on Day 10, Mrs A telephoned Ms D. Ms D said that Mrs A was concerned that Baby A was lethargic and difficult to feed. Mrs A told her that Baby A had fed frequently overnight and that morning, and had then slept for almost six hours. Ms D questioned whether Mrs A had checked Baby A's temperature, and asked what his urine output was like. Ms D said that Mrs A told her that Baby A's temperature was 36.3°C, but she was unsure about Baby A's urine output because her husband had been changing Baby A's nappies. Ms D said that while she was speaking to Mrs A, Baby A passed some urine, which Mrs A reported to be pinkish. Ms D said that she then questioned Mrs and Mr A further, and they thought that Baby A had had possibly one or two wet nappies in the past 24 hours. Ms D questioned Mrs A about her milk supply, and Mrs A told her that she was able to express 60ml off each breast after a feed using a breast pump.

85. Ms D advised Mrs A that they would probably need to take Baby A to hospital for an assessment, as she thought that he might be dehydrated. Ms D suggested that Mrs A try to feed Baby A a bottle of expressed breast milk, and said that she would call back to see how this went.

86. Mrs A told HDC that when she contacted Ms D she was still not too concerned about Baby A, but thought that someone should weigh him to check that he was well.

87. Ms D said that at 5.45pm Mrs A sent her a text message to say that Baby A was drinking the bottle of milk but remained lethargic. Ms D responded saying that she was on her way home and would contact the hospital when she arrived, and advised Mr and Mrs A to be ready to go to the hospital.

88. At approximately 6.30pm, Ms D spoke to the on-call paediatric registrar and arranged for Baby A to go to the Children's Acute Assessment Unit. Ms D then called Mrs A and advised her where to go.

Admission to hospital

89. Mr and Mrs A took Baby A to the public hospital and, at 7.45pm, Baby A underwent a nursing assessment and an urgent clinical assessment was requested. At approximately 10pm, Baby A was reviewed by the on-call registrar. The registrar carried out a full assessment, noting Baby A's history and that in the last 72 hours he had had "less wet nappies" and in the last 24 hours only one wet nappy, and that urates were noted. The registrar documented that Baby A had been unable to be woken from 11.45am until 8pm, and that when he did wake he had a high pitched scream.

90. On examination, Baby A was noted to be 3.5kg, a 22% weight loss since birth, and his heart rate was 200bpm when upset and 100bpm when settled. His blood pressure was 105/60mmHg,[14] temperature 37.4°C, and his respiratory rate was noted to be shallow and around 30 breaths per minute. His oxygen saturation was 99%, and his BSL was 4.1mmol/L. He was noted to be "grey emaciated +++ loose skin" with acrocyanosis[15] of his hands and feet. He had increased tone, and his eyes were not fixing. His fontanelle was noted to be sunken, and the sutures were overlapping and a small cephalohematome[16] was noted.

91. The registrar's impression was that Baby A was an unwell baby, and that his "feeding history [was] not in keeping with [his] degree of weight loss so [there was] likely something else in addition like sepsis".

92. Baby A then began to demonstrate seizure activity and was transferred to NICU. On admission to NICU, Baby A was noted to have severe dehydration, hypernatraemia,[17] and intracranial haemorrhage with evidence of basal ganglia damage. Management included seizure control and correction of the dehydration and hypernatraemia.

93. Subsequently, an MRI revealed severe neurological insult. Mr and Mrs A decided to withdraw active care and Baby A was extubated and started on morphine for palliative care. Sadly, a few days later, Baby A died.

Comment from Mrs A

94. Mrs A told HDC that as a first-time mother she was unsure about everything, and was reliant on professionals telling her what was wrong and what to do about it. She said she thought that Baby A was well and feeding "ok", but that she had nothing to compare it with. Mrs A said that she does not want this to happen to anyone else.

Comment from Ms B

95. Ms B commented that she consulted a "very senior and experienced colleague who agreed with the plan until a review of weight on [Day 8]". However, Ms B said that she has since integrated the learnings of this case into her practice and that, on

[14] Blood pressure in a newborn can vary, but a systolic of > 90mmHg and a diastolic of > 60mmHg is generally considered normal.
[15] Blue colour.
[16] A haemorrhage of blood between the skull and periosteum (membrane that covers the outer surface of all bones).
[17] Elevated sodium levels in the blood.

reflection, and as a result of this case, in a similar situation she would recommend that a referral was warranted in accordance with the Referral Guidelines.

96. Ms B has undergone a competence review carried out by the Midwifery Council of New Zealand as a result of this incident. The Council identified concerns with Ms B's competence, and ordered her to practise under supervision, undertaking monthly case reviews with her supervisor. She was also ordered to undertake further training in relation to care of the newborn, including assessment and identification of the sick neonate.

Comment from Ms C

97. Ms C told HDC that, on reflection, when Ms B contacted her on Day 5 to discuss Baby A she should have recommended that Ms B act in accordance with the Referral Guidelines.

98. Furthermore, in relation to her discussion with Mrs A on Day 8, Ms C said that she should not have given Mrs A the option of a visit, "but been more proactive and just advised that [she] would come and weigh [Baby A]".

99. Following notification of this incident, the Midwifery Council of New Zealand decided to carry out a case review, concentrating on Ms C's usual practice in relation to decision-making, weight loss in the neonate, the Referral Guidelines, practice management, and midwifery scope of practice. Following completion of the case review, Ms C was required to attend a PHARMAC workshop on neonatal care and consider other workshops relevant to newborn care. The Council decided to take no further action in relation to Ms C's competence.

Comment from Ms D

100. Ms D told HDC: "In retrospect I agree that the practice arrangements were ineffective and hand over was poor. It had been a busy time and an effective verbal hand over did not occur. On reflection I should have requested a verbal hand over and should have contacted both clients on [Day 9] to arrange an appointment or spoke[n] with [Ms C] to see whether she had completed the visit on [Day 8]."

101. Ms D engaged in a Voluntary Competence Programme set by the Midwifery Council of New Zealand, which involved her providing written reflection on the relevant aspects of this case, including back-up cover and arrangements, Referral Guidelines relating to weight loss in the neonate, and decision-making and care.

102. The Midwifery Council of New Zealand was satisfied with Ms D's reflections, and decided that no further action was required.

The midwife group

103. Following this incident, the midwife group reviewed its back-up cover arrangements. Ms C told HDC that it now has both written and verbal handover, and a list of all women due, and any postnatal women needing care.

Opinion

Introduction

104. Baby A was born by instrumental delivery. He was born in good condition, weighing 4.602kg. In the immediate postnatal period, Baby A was noted to have a good latch and he breastfed well. However, he had unstable BSLs and was given expressed breast milk and formula top-ups in an attempt to manage this.

105. On day two postnatally, Baby A was considered to be stable, and was discharged to the care of Ms B. However, by day five postnatally Baby A had lost 16.7% of his bodyweight. This report considers the adequacy of the care that was provided to Baby A and Mrs A.

Opinion: Ms B — Breach

Antenatal period and labour

106. Mrs A engaged a community-based self-employed midwife, Ms B, as her LMC. Ms B provided LMC care to Mrs A throughout her antenatal period and labour. There are no concerns about the care provided by Ms B during that time.

Postnatal period

107. Following Baby A's birth, Ms B continued to provide LMC care. Ms B was aware that Baby A had unstable BSLs in the immediate postnatal period prior to his discharge from hospital.

108. On Day 3 postnatally, Ms B visited Mrs A and Baby A at home. Ms B noted that Mrs A's breasts were comfortable, that she had a small graze on her left nipple, and that she was "happy with [Baby A's] latch once on". Ms B noted that Baby A had had an unsettled night, which she told Mrs A was normal. Ms B noted that Baby A's colour was "good, slightly jaundiced", that his stools were changing colour, and that some blood had been noted in his last nappy. Ms B sighted the nappy, noting a baby pea sized orange mark, which she considered was most likely urates. Ms B said that she explained this to Mrs A and advised her to continue to breastfeed regularly. Ms B observed Mrs A breastfeeding Baby A and noted an "audible swallow". Ms B planned to visit Mrs A again in two days' time, on Day 5.

Ms B's plan

109. On Day 5, Ms B visited Mrs A and Baby A as planned. At this consultation Ms B weighed Baby A, noting that he had lost 770g since birth (a 16.7% weight loss). Ms B carried out an assessment of Baby A, documenting that his sclera were yellow and his skin was a little dry. She considered that Baby A's fontanelle was open and not sunken or protruding, that his heart sounds were normal, he had good tone and head control, and his eyes were fixing and he was responding to sounds, although this part of the assessment is not documented. Ms B said that Mrs A told her that Baby A was having lots of wet nappies and that his urine was clear, with no more urates noted. Ms

B documented that Baby A's stools were "transitional" and he had a "good urinary output", but did not specify how she made this assessment. She also documented that Mrs A's breasts were "comfortable" and "filling".

110. Ms B stated: "At no point following a thorough examination did I consider [Baby A] was unwell." She said that as this was the first weigh on her scales, she considered it to be a baseline measurement and, following her assessment, she noted no other signs of dehydration. However, she said that she was aware that the weight loss was "excessive", and put in place a plan to increase Baby A's weight. Ms B documented in a retrospective record made on Day 17 that she observed Mrs A feeding Baby A, and considered that Baby A had a good latch with audible swallows. However, this is not recorded in the contemporaneous clinical records. I also note the advice of my midwifery expert, Elizabeth Jull, that as part of her assessment of Baby A, Ms B should have questioned Mrs A as to how often she was feeding Baby A, and how many wet nappies he had had over a 24-hour period. Although Ms B said that Mrs A told her that Baby A had had lots of wet nappies, the number of wet nappies is not documented. Had this been done, it may have helped her form a more accurate picture of Baby A's feeding and output at that time.

111. Ms B's plan to increase Baby A's weight was for him to receive frequent breastfeeds, not letting him go for longer than three hours between feeds, with 20–30ml milk mixture top-ups, and to re-weigh him in three to four days' time.

112. Mrs A recalls Ms B being concerned about Baby A's weight loss, and said that Ms B talked to her about referring Baby A to a paediatrician, but said that when she had done this in the past in similar situations it had been unnecessary. Mrs A was happy not to have to see another person if it was not necessary. She was aware that Ms B would be going on leave, and that her back-up midwife was available if she had any concerns.

113. Ms B then contacted Ms C by telephone and discussed with her Baby A's presentation and her proposed plan. Ms B said that Ms C told her that her plan was adequate and that she would have done the same. Ms B accepted Ms C's advice.

114. The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services (the Referral Guidelines) provide that in a case of "Dehydration or > 10% weight loss since birth" the LMC:

> "must recommend to the woman … that a consultation with a specialist is warranted given that her pregnancy, labour, birth or puerperium (or the baby) is or may be affected by the condition.
>
> Where a consultation occurs, the decision regarding ongoing clinical roles/responsibilities must involve a three way discussion between the specialist, the Lead Maternity Carer and the woman concerned. This should include discussion on any need for and timing of specialist review.
>
> The specialist will not automatically assume responsibility for ongoing care. This will depend on the clinical situation and the wishes of the individual woman. …"

115. The Referral Guidelines also state:

> "Practitioners are responsible for appropriately documenting their decisions, including any variation from the Referral Guidelines or other guidelines, and the circumstances of any such variation."

116. The Midwives' Standards of Practice published in the Midwives Handbook for Practice (2008) states that the midwife:

> "Identifies deviations from the normal and after consultation with the woman, consults and refers as appropriate."

117. As noted by Ms Jull, Ms B was clearly thoughtful about her decision not to follow the Referral Guidelines. Ms B put in place a plan to increase Baby A's weight, and discussed this, and her decision not to refer Baby A to a specialist, with Mrs A. Mrs A was happy with the plan. Ms B also contacted Ms C, a senior colleague, who agreed with Ms B's plan. Ms Jull advised that it is common practice for a midwife to consult another midwife before referring to a specialist. Taking these factors into account, Ms Jull considered Ms B's decision not to follow the Referral Guidelines to be a "mild departure" from accepted standards.

118. In the circumstances of a baby losing more than 10% of his or her birthweight, the Referral Guidelines require the LMC to recommend consultation. The Referral Guidelines are meaningless if they are not consistently, and appropriately, applied. Ms B has not documented any reasoning behind why she chose not to comply with the Referral Guidelines in this case. Accordingly, while I acknowledge Ms Jull's advice, given the clear requirements of the Referral Guidelines, and the extent of Baby A's weight loss (which Ms B was aware was "excessive"), my expectation would be that Ms B would have recommended to Mrs A that a consultation with a specialist was warranted. In my opinion, it was unsafe for Ms B to assume that a specialist would consider a referral in these circumstances to be unnecessary. Ms B's decision not to follow the Referral Guidelines was not justified and, in the circumstances, Ms B should have recommended to Mrs A that a consultation with a specialist was warranted. By failing to do so, Ms B failed to exercise reasonable care and skill.

119. Furthermore, I note that Ms Jull considered that Ms B's plan to increase Baby A's weight was very brief, and inadequate in a number of areas. Ms Jull advised that while the plan for regular breastfeeds with milk mixture top-ups is "reasonable", she notes that Ms B did not advise Mrs A to express breast milk to help stimulate the milk supply. In addition, Ms Jull considered that the plan to re-assess in three to four days' time was "not appropriate care" for a baby who had lost such a significant amount of weight. Ms Jull advised that, in the circumstances, a midwife should have telephoned, or carried out a visit, within 48 hours, to check how many wet nappies the baby had had over the previous 24 hours. Ms Jull also advised that a discussion regarding the mother's diet would have been appropriate. I accept Ms Jull's advice regarding the inadequacy of Ms B's plan to increase Baby A's weight.

Request to re-weigh

120. Ms B's plan was for Baby A to be re-weighed by her back-up midwife, Ms D, in three to four days' time, as Ms B was to be on leave at that time.

121. On Day 8, Ms B telephoned Ms D to check that she would be re-weighing Baby A according to her plan. However, Ms D advised that she was not back from leave until the following day. Accordingly, Ms B contacted Ms C to ask her to assist. In a retrospective record documented by Ms B in her diary on Day 11 (and on Day 17 in the midwifery records), Ms B recorded that she spoke to Ms C and asked her to "check in on [Mrs A] and re-weigh Baby A". Ms C told HDC that she agreed to "telephone [Mrs A] to see how she was getting on". Although Ms B's documentation was written retrospectively, I accept that as it was her previously documented plan to have Baby A re-weighed on Day 8, and she was sufficiently concerned to contact the back-up midwife while on leave, it is more likely than not that Ms B understood that Ms C would go to see Baby A, rather than simply telephoning Mrs A, which is something that Ms B could have done herself.

Conclusion

122. I have concerns about Ms B's decision not to recommend to Mrs A that a consultation with a specialist was warranted given the extent of Baby A's weight loss, which Ms B herself accepts was "excessive". I acknowledge that Ms B discussed her assessment and plan with Ms C, a senior colleague, who agreed with her plan. However, this plan departed from the Referral Guidelines, which required the LMC, in the circumstances of a greater than 10% weight loss, to recommend consultation with a specialist. In my opinion, Ms B's decision to depart from the Referral Guidelines in these circumstances was not justified.

123. Furthermore, while Ms B was sufficiently concerned to consult a senior colleague and put in place a plan to increase Baby A's weight, the plan was inadequate. In particular, Baby A should have been reassessed within 48 hours, rather than waiting three to four days. In addition, Mrs A should have been advised to express milk to stimulate her milk supply, and her diet should also have been discussed.

124. In my opinion, when Ms B identified Baby A's weight loss on Day 5, she should have discussed the situation with Mrs A and recommended a referral to a paediatrician. While I note that Ms B discussed the situation with Ms C, and put in place a plan for management, the plan was inadequate. I conclude that by failing to recommend consultation with a specialist when Baby A was noted to have had a greater than 10% weight loss, and putting in place an inadequate plan to manage and re-check Baby A, Ms B failed to provide services to Baby A with reasonable care and skill and breached Right 4(1) of the Code.

Opinion: Ms C

Advice provided to Ms B — Adverse comment

125. On Day 5, Ms B contacted Ms C, a senior colleague, to discuss her plan for Baby A (three-hourly feeds with top-ups, and to be re-weighed in three to four days' time), because Ms B had identified a 16.7% weight loss. Ms C's advice to Ms B was that Ms B's decision not to refer to a specialist was reasonable and in line with what she would do in a similar situation. Ms C said that she told Ms B that the plan she had put in place was a "good one".

126. As previously noted, the Referral Guidelines state that in a situation where there has been a greater than 10% weight loss, consultation with a specialist must be recommended. I note the advice of Ms Jull:

> "It would have been reasonable and appropriate to have advised [Ms B] to consult a Paediatrician as the weight loss was over 10% and to reweigh within a shorter time frame."

127. It is concerning that Ms C supported Ms B's decision to depart from the requirements of the Referral Guidelines. As discussed previously, the requirement is for the Referral Guidelines to be followed unless there is a documented reason for any variation. The Referral Guidelines are meaningless if they are not consistently, and appropriately, applied. Given the clear requirements of the Referral Guidelines, and the extent of Baby A's weight loss, my expectation would be that consultation with a specialist would be warranted. In my opinion, the failure to recommend consultation to Mrs A was inadequate. Furthermore, I note Ms Jull's advice that Ms B's plan to increase Baby A's weight and to re-weigh him in three to four days' time was also inadequate. In my opinion, Ms C should have identified these inadequacies and advised Ms B first, that she should recommend consultation with a specialist, and, secondly, that she needed to check in with Mrs A and Baby A within 48 hours. While in these circumstances Ms C was not providing services directly to Baby A or Mrs A, I am critical of Ms C's advice to Ms B in this case.

Standard of care — Breach

Actions of Day 8

128. On Day 8, when Ms B discovered that Ms D was still on leave (and so could not re-weigh Baby A as per the plan), Ms B contacted Ms C by telephone and asked whether she could do it. In her retrospective record, Ms B recorded that she spoke to Ms C and asked her to "check in on [Mrs A] and re-weigh [Baby A]". Ms C told HDC that she agreed to "telephone [Mrs A] to see how she was getting on". Although Ms B's documentation was written retrospectively, I accept that, as it was her previously documented plan to have Baby A re-weighed on Day 8, and she was sufficiently concerned to contact the back-up midwife while on leave, it is more likely than not that Ms B understood that Ms C would go to see Baby A, rather than simply telephoning Mrs A, which is something that Ms B could have done herself. At 11.16am, Ms C telephoned Mrs A.

129. Ms C questioned Mrs A about how she was feeling and how the feeding of Baby A was going. Mrs A told her that Baby A was feeding well, that initially he fussed at the breast, but that once latched he fed well. Ms C said that Mrs A told her that Baby A was waking for feeds, that she could hear him swallow, that he was having plenty of wet nappies, and that his stools were yellow. Ms C stated: "The description by [Mrs A] reassured me that baby's feeding and output was satisfactory." Ms C said that she offered Mrs A the option of her visiting that morning or waiting until Day 10 or 11 for Ms D to visit. Ms C said that Mrs A was happy to wait for Ms D later in the week.

130. In contrast, Mrs A told HDC that Ms C questioned her mainly about how she was and how her tear was healing. Mrs A said that Ms C did ask her about how Baby A was, and she told Ms C that she thought he was going "ok". Mrs A said that she told Ms C that she had stopped the bottle top-up feeds as Baby A seemed to be feeding off the breast, but that he was a lazy feeder, letting the milk drip into his mouth rather than sucking. Mrs A said she told Ms C that Baby A was "weeing and pooing", but she never discussed the colour of his stools. Mrs A recalls the conversation being very brief.

131. Ms C has provided a documented summary of her discussion with Mrs A, which is recorded on a blank page of a diary dated Day 8. The entry is undated and untimed. It states:

> "[Telephone] call to [Mrs A].
>
> [Mrs A] well. Pleased re feeding going much better
>
> Audible swallows. He does fuss initially. Though latches well & feeds well. Feeds better now stopped top ups.
>
> Having wet [nappies] and yellow stools.
>
> Advised [Mrs A] [Ms D] unable to visit until [Day 10 or 11] this week. But could see her this am. [Mrs A] was happy to wait for [Ms D] to come. Advised to contact me in the meantime if any concerns."

132. Mrs A's and Ms C's recollections of the telephone conversation differ, particularly in relation to the discussion about Baby A's feeding. However, regardless of when Ms C made this entry, and the details of what was discussed, I have concerns about Ms C's decision to rely on a telephone conversation, rather than to assess Baby A in person and re-weigh him, particularly taking into account the fact that Ms C was fully aware of Baby A's history, having provided advice to Ms B on Day 5. I note Ms Jull's advice:

> "It is not possible to make a thorough and full assessment over the phone and particularly when the mother is inexperienced. This was [Mrs A's] first time mothering, she had nothing to compare [Baby A's] progress and the option of a visit in three day's time, meant [Mrs A] would not have been seen for potentially 6 days. This is not reasonable."

133. I agree with Ms Jull. I am concerned at Ms C's actions which, in my opinion, demonstrate very poor judgement. Ms C was fully informed of Baby A's weight loss and Ms B's plan for him to be re-weighed on Day 8, yet she decided to rely on information provided over the telephone by a first-time mother to satisfy herself of Baby A's progress. A visit would have allowed Ms C to assess Baby A personally and to re-weigh him. In my opinion, by failing to assess Baby A in person and re-weigh him, Ms C failed to provide services to Baby A with reasonable care and skill. I note Ms Jull's advice that this was a moderate departure from accepted practice.

Handover to Ms D

134. On Day 9, Ms D returned from leave. Ms D told HDC that at approximately 11am on Day 10 Ms C had a discussion with her, during which she provided a handover, advising that she had checked in with Mrs A, that Baby A was feeding well at the breast, was not requiring top-up feeds, and had a good urine output and yellow stools.

135. I am concerned that having made the decision not to re-weigh Baby A on Day 8, Ms C waited until Day 10 to provide a handover to Ms D. I note Ms Jull's advice that, in these circumstances, "it would have been reasonable practice for [Ms C] to contact [Ms D] to let her know that she had not been to re weigh [Baby A] as requested by [Ms B]". I consider that Ms C's failure to provide a timely handover was a failure to provide services with reasonable care and skill.

Conclusion

136. Overall, I have a number of concerns about Ms C's actions in this case. When Ms B contacted her on Day 8 and asked her to re-weigh Baby A in Ms D's absence, it was inappropriate for Ms C to rely on a telephone conversation with Mrs A to satisfy herself that Baby A was progressing well. Appropriate action would have been to visit and to re-weigh and assess Baby A herself. Furthermore, having made the decision not to re-weigh Baby A, Ms C needed to provide a handover to Ms D in a timely manner, rather than waiting until Day 10. I conclude that Ms C failed to provide Baby A with services with reasonable care and skill breached Right 4(1) of the Code by failing to:

a) assess Baby A in person and re-weigh him on Day 8, relying instead on the information provided by Mrs A over the telephone; and

b) provide timely handover to Ms D.

Opinion: Ms D — Adverse comment

137. Ms D returned from leave on Day 9. Having been in text message correspondence with Ms B on Day 8, Ms D was aware that Ms B was concerned about having Baby A re-weighed because of his 16.7% weight loss. On Day 10, Ms D received a handover from Ms C, during which she was advised that while Ms C was happy with Baby A's progress she had not re-weighed Baby A on Day 8 as Ms B had planned. Ms D told HDC that she planned to follow up with Mrs A after her clinic on Day 10 to make an

appointment to see Baby A. At 3pm, Mrs A contacted Ms D to ask when she would be coming to re-weigh Baby A, in light of the fact that he had not been re-weighed on Day 8 as planned. Ms D said that she arranged to see Mrs A and Baby A the following day at her clinic rooms.

138. I have some concerns about Ms D's decision not to arrange to see Mrs A and Baby A sooner. Ms D was aware of the extent of the weight loss from her previous contact with Ms B. Ms D was also aware that Ms B's plan to re-weigh Baby A on Day 8 had not been carried out. However, I acknowledge that Ms C provided Ms D with reassurance that Baby A was feeding well and there were no concerns.

139. Although I am critical of Ms D's actions in this case, I consider that she was in a difficult position of assuming responsibility for Mrs A's and Baby A's care with limited background knowledge and mixed messages regarding the need to re-weigh Baby A.

Opinion: The district health board — Adverse comment

Blood sugar level management

140. At birth, Baby A weighed 4.6kg. In accordance with the DHB's Neonatal Unit Handbook, Baby A's BSLs were monitored.

141. The Neonatal Unit Handbook recommends that BSL monitoring is commenced after the second feed, not before two hours of age. Baby A's first BSL was not carried out until the following morning at 7.30am, and was normal.

142. While the initial BSL was normal it was noted to be low. Baby A was accordingly given EBM with a subsequent improvement in his BSL. At 5pm, Baby A had a further low BSL and was again given EBM with good effect. At 8.45pm, Baby A had a further low BSL and was given formula. Baby A continued to be given formula top-ups after each feed. His BSLs continued to be monitored and remained stable above 2.6mmol/L. Following three consecutive normal readings, midwifery staff noted that Baby A was stable and BSL monitoring was discontinued.

143. While the Neonatal Unit Handbook states that the requirement is for three consecutive BSLs ≥ 2.6mmol/L with a stable feeding regimen, "without additional tubes or topups", before monitoring is ceased, the poster that was displayed in the postnatal ward did not specify the need for the BSLs to be stable without additional top-up feeds. It simply stated: "3 consecutive BSL of ≥ 2.6mmol/L are required prior to discontinuing these recordings."

144. Generally, staff appear to have been diligent in the management of Baby A's BSLs, and acted in accordance with the guidance that was readily accessible on the ward. However, had staff been aware of the additional requirements outlined in the Neonatal Unit Handbook, it is possible that management of Baby A would have differed. I am critical that the guidance information available to staff was inconsistent.

145. I note that the flow chart accessible to staff on the postnatal ward has since been updated, making clear the requirement for three consecutive BSLs to be stable without the need for additional formula top-ups. I consider this an appropriate change to ensure that staff are better informed about the management of low BSLs in the neonate.

Recommendations

Ms B

146. In accordance with the recommendations of the provisional opinion, Ms B has agreed to:

a) apologise to Mr and Mrs A for her failings in this case. The apology is to be sent to this Office within three weeks of the date of this report, for forwarding to Mr and Mrs A;

b) reflect on her failings in this case and provide a written report to HDC on her reflections and the changes to her practice she has instigated as a result of this case; and

c) provide evidence of training she has undertaken following the recommendations of the Midwifery Council of New Zealand competence review in relation to care of the newborn, including assessment and identification of the sick neonate.

147. Ms B should provide evidence to this Office, within three months of the date of this report, confirming her compliance with the recommendations of this report.

Ms C

148. In accordance with the recommendations of the provisional opinion, Ms C has:

a) provided evidence of training she has undertaken following the recommendations of the Midwifery Council of New Zealand case review in relation to care of the newborn.

In addition, Ms C has agreed to:

b) apologise to Mr and Mrs A for her failings in this case. The apology is to be sent to this Office within three weeks of the date of this report, for forwarding to Mr and Mrs A; and

c) reflect on her failings in this case and provide a written report to HDC on her reflections and the changes to her practice she has instigated as a result of this case.

149. Ms C should provide evidence to this Office, within three months of the date of this report, confirming her compliance with the recommendations of this report.

Ms D

150. I recommend that Ms D provide a written apology to Mr and Mrs A for her failings in this case. The apology should be provided to this Office, within three weeks of the date of this report, for forwarding to Mr and Mrs A.

Midwifery Council of New Zealand

151. I recommend that the Midwifery Council of New Zealand reinforce to all midwives the importance of consistently and appropriately applying the Referral Guidelines.

Follow-up actions

152. a) A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Midwifery Council of New Zealand and the DHB, and they will be advised of the names of Ms B and Ms C.

b) A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the New Zealand College of Midwives.

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

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

Appendix A — Independent midwifery advice to the Commissioner

The following expert advice was obtained from midwife Elizabeth Jull:

"I have read and agree to follow the guidelines for Independent Advisors.

I graduated as a Midwife in 1979 and have worked as a Lead Maternity Carer/self-employed midwife for 22 years. I have a small LMC caseload, work as a locum midwife and on a casual basis as a core midwife in a small rural primary maternity unit.

I am also a midwife reviewer on a Midwifery Standards Review Committee.

I have also been appointed by the Midwifery Council as a member of a few professional conduct committees, 2009–2013.

I do not have any conflict of interest.

Complaint.

I have been asked to provide midwifery advice to you, the Health and Disability Commissioner regarding the standard of midwifery care provided by [Ms B], [Ms D] and [Ms C] to [Baby A].

I have read the following information sent to me prior to writing this advice.

A copy of the complaint from [the] Director of Midwifery, [the DHB].

Clinical notes for [Baby A], [the DHB], including the newborn record, clinical notes, breast feeding record and supplementary feeding chart.

MMPO (Maternity and Midwifery Provider Organisation) notes for [Baby A] and his mother [Mrs A].

Responses to the complaint by Midwives: [Ms B], [Ms D] and [Ms C].

I have used the New Zealand College of Midwives Handbook for Practice, updated in 2008, as a guide and basis for this advice.

[Here Ms Jull inserted the summary of facts provided to her. This has been deleted for the sake of brevity.]

Expert Advice required.

[Ms B].
1. The adequacy and appropriateness of the care and advice [Ms B] provided to [Mrs A] following the postnatal appointment of [Day 5], in particular:

a. [Ms B's] decision not to refer [Baby A] to a paediatrician.
b. The adequacy of the plan [Ms B] put in place.

2. The adequacy and appropriateness of [Ms B's] actions on [Day 8]. Please provide your advice in the alternative. For example:

a. The adequacy and appropriateness of [Ms B's] actions if HDC accepts that [Ms B] requested that [Ms C] 'check in on [Mrs A] and request a re-weigh of [Baby A]'.

b. The adequacy and appropriateness of [Ms B's] actions if HDC accepts that [Ms B] asked [Ms C] to contact [Mrs A] but not specifically to re-weigh [Baby A].

A. [Ms B's] decision not to refer [Baby A] to a paediatrician.

[Ms B]. [Day 5].

[Ms B] visited and performed the first week check for [Baby A]. This included a weigh of the baby. [Ms B] was concerned about the large weight loss, 16.7%, and sought advice from a senior colleague.

Midwives often consult with another Midwife when they have concerns about someone they are caring for.

Documentation from the midwifery notes indicated that [Baby A] had a 'good urinary output and transitional stools'.

[Ms B] also documents that [Mrs A's] breasts were 'comfortable, filling'.

This indicates that the breast milk supply is establishing well.

The midwifery notes written on [Day 5] do not mention how often [Baby A] was breast feeding or how many wet nappies he had over a 24 hour period.

'Stools transitional' indicates that the bowel motions were changing from dark meconium to a brownish colour. This could indicate that the breast milk supply was slow to establish as often the bowel motions are a yellow colour by day 5.

The decision not to follow the referral guidelines and consult with a paediatrician is a mild departure from accepted practice however [Ms B] did show concern and consulted with a senior midwife and put a plan of follow up care in place.

Standard Six. NZCOM Standards of Midwifery Practice.
Midwifery actions are prioritised and implemented appropriately with no midwifery action or omission placing the woman at risk.

Identifies deviations from the normal and after discussion with the woman consults and refers as appropriate.

Consideration was given to consulting with a Paediatrician by [Ms B], in line with the referral guidelines. (2012)

Code 8014. Dehydration or weight loss more than 10% since birth.
Guidelines for Consultation (Referral Guidelines) provide Lead Maternity Carers with a list of conditions and the referral categories.

Services Following Birth — Baby.

8014. Dehydration or more than 10% weight loss since birth.

Referral category = consultation.

Process notes for referral to a specialist for consultation.

Conditions listed in the Consultation referral category are those for which the LMC (Lead Maternity Carer) must recommend to the woman (or parents in the case of the baby) that a consultation with a specialist is warranted given that the baby may be affected by the condition.

A weight loss since birth of 10% or more is a criteria to recommend a consultation.

1 B. The adequacy of the plan [Ms B] put in place.

The plan documented in the midwifery notes is brief.

BF (breast feed) no more than 3 hourly with mm (milk mixture) top-ups 20–30mls.

Re weigh in 3–4 days.

[Ms B] has documented in the midwifery notes that '[Ms D] will visit'.

This indicates that [Ms B] contacted [Ms D] with a view to re-weigh [Baby A]. The follow up weigh was an important part of the plan which would be acceptable practice.

The plan to feed baby frequently (3 hourly and top up with milk mixture) is reasonable, there is however no documentation in [Mrs A's] maternity notes of a discussion to express the breasts to encourage the breast milk supply before or after breast feeds, this can help to stimulate the milk supply.

To not reassess a baby for 3–4 days when he has lost this large an amount of weight is not appropriate care.

It would be reasonable practice for a midwife to ring or visit within 48 hours to check how many wet nappies the baby had over 24 hours, this gives an indication as to whether the baby is getting an adequate milk supply.

There is also no documentation regarding diet, it would be accepted practice to discuss this with women when there is a concern about a baby's weight loss.

Standard Six.
Ensures assessment is ongoing and modifies the midwifery plan accordingly.

Identifies deviations from the normal and after consultation with the woman, consults and refers as appropriate.

Standard Five.
Midwifery care is planned with the woman.

Demonstrates in the midwifery care plan an analysis of the information gained from the woman.

[Ms B] has documented that [Baby A] has a 'good urinary output' but does not say how many wet nappies he has had in the last 24 hours. This information is important when discussing a plan with women.

The plan put in place was reasonable if a baby is making reasonable progress however [Baby A] had a significant weight loss and I think the plan was not detailed enough.

This would be viewed as a mild departure from accepted practice.

2a. The adequacy and appropriateness of [Ms B's] actions if HDC accepts that [Ms B] requested that [Ms C] 'check in on [Mrs A] and request a re-weigh of [Baby A]'. ([Day 8])

It was appropriate that [Ms B] contacted and asked [Ms C] to weigh [Baby A] on [Day 8] as this was the plan she had made and discussed with [Ms C] on [Day 5]. [Ms B] had expected [Ms D] to weigh baby on [Day 8] but when she was made aware that [Ms D] was not back from leave she contacted [Ms C] and asked her to visit and re-weigh [Baby A].

This was reasonable and appropriate action to ask for assistance from [Ms C]. [Ms B] had discussed her plan of care with [Ms C] on [Day 5] and [Ms B] was putting her care plan into action. Midwives often ask colleagues for assistance, especially when they are on leave or if they are busy and unable to visit.

2 b. The adequacy and appropriateness of [Ms B's] actions if HDC accepts that [Ms B] asked [Ms C] to contact [Mrs A] but not specifically to re-weigh [Baby A].

[Ms B] and [Ms D] were both on annual leave on [Day 8]. [Ms B] had gone to the effort of contacting [Ms D] whilst on leave herself to alert [Ms D] to the fact that [Baby A] had lost 16.7% of weight. When [Ms B] realised that [Ms D] had not returned from leave, [Ms B] rang and left a message on [Ms C's] phone.

If [Ms B] did not specifically ask for [Ms C] to visit and reweigh [Baby A] this is a moderate departure from accepted practice.

[Ms C].
The adequacy and appropriateness of the care and advice [Ms C] gave [Ms B] when [Ms B] contacted her on [Day 5] regarding [Baby A's] weight loss.

[Day 5]. [Ms C] was consulted by [Ms B] regarding the large weight loss [Baby A] had in his first week of life. After this discussion with [Ms C], [Ms B] put a plan of care into place for [Baby A]. This plan was discussed with [Mrs A] who knew that she could contact the midwives if she had any concerns re [Baby A].

It is common practice for midwives to consult with another midwife before referring to a specialist. [Ms C] used her past experience when offering her advice to [Ms B]. In her letter to HDC [Ms C] says that she did say to [Ms B] that she could consult with a Paediatrician if she wanted to. As the senior colleague, [Ms B] would have readily accepted her advice and not consult further.

It would have been reasonable and appropriate to have advised [Ms B] to consult a Paediatrician as the weight loss was over 10% and to reweigh within a shorter time frame.

This is a mild departure from accepted practice.

4. The adequacy and appropriateness of [Ms C's] actions on [Day 8]. In particular, [Ms C's] decision not to re-weigh [Baby A]. Please provide your advice in the alternative, for example:

a. The adequacy and appropriateness of [Ms C's] actions if HDC accepts [Ms C's] version of events. In particular, that she was reassured by [Mrs A] that [Baby A] was latching and feeding well with audible swallows, and that he was having lots of wet nappies and yellow stools.

[Day 8]. 09.53hrs

[Ms C] received a request from [Ms B] by phone requesting her to re-weigh [Baby A] (on [Day 8]) as [Ms D] was still on leave. [Ms C] agreed and took [Mrs A's] phone number.

[Ms C] rang [Mrs A] and was reassured by her conversation that all was well with [Baby A].

[Baby A] was ostensibly waking for feeds and was not needing formula top ups now. [Baby A] was passing frequent wet nappies and now had yellow stools. (This indicates that [Baby A] was feeding well and alertly.) After the discussion with [Mrs A], [Ms C] offered to visit [Baby A] on [Day 8] or else she could wait until [Day 10 or 11] for [Ms D] to visit on her return from leave.

[Mrs A] stated that she would wait until [Ms D] returned from leave for [Baby A] to be re-weighed.

[Ms C's] decision not to visit [Mrs A] was because [Ms C] felt reassured after the discussion she had with [Mrs A] by phone, suggesting that [Baby A] was making

good and normal progress. [Ms C] made this decision on past experience, that if a baby is passing frequent wet nappies and has yellow stools that they are well hydrated and making normal progress.

It would have been reasonable practice for [Ms C] to visit and re-weigh [Baby A] on [Day 8], according to the plan put in place. It is not possible to make a thorough and full assessment over the phone and particularly when the mother is inexperienced. This was [Mrs A's] first time mothering, she had nothing with which to compare [Baby A's] progress and the option of a visit in three days' time, meant [Mrs A] would not have been seen for potentially 6 days. This is not reasonable care.

It is common practice for back up midwives to ring and make an appointment to see women and enquire how they and their babies are progressing.

According to the entry in [Ms C's] diary it sounds like she has asked all the appropriate questions regarding [Baby A's] wellbeing, however it is not possible to assess a baby's weight or progress over the phone. It would be reasonable care for midwives to visit and reassess a baby within 2–3 days after any weight loss.

Not visiting and re-weighing [Baby A] would be a moderate departure from accepted practice.

Standard Six.
Midwifery actions are prioritised and implemented appropriately with no midwifery action or omission placing the woman at risk.

4b.
The adequacy and appropriateness of [Ms C's] actions if HDC accepts [Mrs A's] recollections that she told [Ms C] that [Baby A] was a lazy feeder and would let the milk drip out of his mouth, that they never discussed the colour of [Baby A's] stools, and that she never offered to come and weigh [Baby A].

[Ms C] documents in her diary the conversation she had with [Mrs A] on [Day 8].

> '[Mrs A] well, pleased re feeding going much better now and audible swallows.
>
> He does fuss initially, though latches well and feeds well. Feeds better now, has stopped top-ups. Having wet naps and yellow stools.'

There appears to be some conflict with the information discussed between [Ms C] and [Mrs A] by phone on [Day 8].

In contrast to the statement of [Ms C], [Mrs A] said that when [Ms C] called her on [Day 8] they initially spoke about her wound and how it was healing. [Mrs A] said that [Ms C] then asked her how [Baby A] was going. [Mrs A] said that she told [Ms C] that she thought that [Baby A] was doing ok. She told [Ms C] that she

had dropped the top-up bottle feeds because [Baby A] was not feeding well off the breast after a bottle feed and he seemed to be feeding off the breast ok.

[Mrs A] said that she told [Ms C] that [Baby A] seemed to be a lazy feeder, letting the milk drip out of his mouth rather than sucking. She told [Ms C] that [Baby A] was weeing and pooing but that she never said that [Baby A] was having yellow stools because at that stage [Baby A] was still passing dark meconium stools. [Mrs A] said that she does not recall ever discussing the colour of [Baby A's] stools. [Mrs A] recalls that the conversation with [Ms C] was very quick.

Standard Six. NZCOM Midwives Handbook for Practice.
Ensures assessment is on-going and modifies the midwifery plan accordingly.

Plans midwifery actions on the basis of current and reliable knowledge and in accordance with Acts, Regulations and relevant policies.

Accepting [Mrs A's] statement, a failure to visit combined with the information given that [Baby A] was feeding poorly and not discussing the colour of stools this represents a moderate departure from accepted standards of practice.

As I mentioned earlier in my report, it is not possible to do a thorough assessment of a baby over the phone. It would be appropriate practice for midwives to visit and re-weigh a baby when it had sustained a weight loss.

5. The Adequacy of [Ms C's] handover to [Ms D] on [Day 9].

[Ms C] was made aware that [Ms D] was not available for post-natal visits on the morning of [Day 8] when she spoke to [Ms B].

There is no documentation regarding any conversation initiated between [Ms C] and [Ms D] regarding a handover of care on [Day 9].

Reasonable practice would have been for [Ms C] to have contacted [Ms D] on [Day 9] and to explain that she had not visited [Mrs A] on [Day 8].

[Ms C] indicated in her correspondence with HDC that she did not cover [Ms D's] practice, however she had been contacted by [Ms B] on [Day 8] so was aware that [Ms D] was not returning from leave until [Day 9]. [Ms D] was returning from leave on [Day 9] but would have assumed that [Ms C] had re-weighed [Baby A] after her discussion with [Ms B] on the phone on [Day 8].

[Ms B] documents retrospectively in her diary [Day 11], that she texted [Ms D] on [Day 10] to say that [Ms C] had checked in with [Mrs A] and to see her on [Day 11 or 12].

This is a mild departure from expected practice. If a Midwife has covered another Midwife's workload in their absence it is reasonable practice to ring and notify that midwife of the work they have done. In this case it would have been reasonable practice for [Ms C] to contact [Ms D] to let her know that she had not

been to re-weigh [Baby A] as requested by [Ms B]. [Ms D] was organised by [Ms B] to care for her post natal women in her absence.

[Ms D].

6. The adequacy and appropriateness of [Ms D's] actions on [Day 10].

a. Following [Mrs A's] text message at 3pm asking when she would be coming to weigh [Baby A].

[Ms D] returned from leave and commenced work on [Day 9].

[Ms D] had communication with [Ms B] on [Day 8] when [Ms B] had texted and asked [Ms D] requesting her to visit [Mrs A] on [Day 8] to re-weigh her baby as [Baby A] had a weight loss of 16.7%.

[Ms D] responded that she was unable to visit [Mrs A] on [Day 8] as she was still on leave and that she would be unable to do any home visits until [Day 10] as she had full ante-natal clinics on [Day 9].

At 11am on [Day 10] [Ms D] had a discussion with [Ms C]. [Ms C] stated that she had not seen [Mrs A] but had had a discussion with her by phone and felt happy that [Baby A] was making good progress as he was not having top-ups of formula milk and his output was satisfactory. Lots of wet nappies and yellow stools.

[Ms D] documents in her letter to HDC that she planned to phone [Mrs A] after her clinic [Day 10] to make an appointment to see her and [Baby A].

[Mrs A] contacted [Ms D] by text at about 3pm to ask if she was coming to visit her and [Baby A] that day as [Baby A] had not been weighed as planned earlier in the week. After discussion ([Ms D] documents in her letter to HDC that [Mrs A] did not mention she had any concerns about [Baby A]) it was agreed that [Ms D] would see [Mrs A] and [Baby A] at 12.30 pm at the Midwife clinic on [Day 11].

I find it difficult to understand why [Ms D] did not arrange to visit [Mrs A] on [Day 10] when she found out that [Baby A] had not been weighed or visited as planned earlier in the week. [Ms D] decided not to visit [Mrs A] and in so doing did not follow the care plan put in place by [Ms B]. The reassurance from [Ms C] that all was progressing well with [Baby A] would have influenced [Ms D's] decision not to visit. [Ms D] also received a text from [Ms B] on [Day 10] to say that [Ms C] had checked in with [Mrs A] and for her to visit [Mrs A] on [Day 11 or 12]

It would have been appropriate for [Ms D] to have contacted [Ms C] on her return from leave on [Day 9] so that she could receive an update of any progress with [Mrs A], especially as she was aware that [Baby A] had lost 16.7% of weight. It appears from reading the letter written by [Ms D] that she assumed that [Mrs A] had been visited by [Ms C] on [Day 8].

This would be seen as a mild departure from accepted practice. It is usual practice for midwives returning from leave to complete a handover of clients with the midwives who have been covering their caseloads so they can get an update.

6 b.
Following [Mrs A's] telephone call to [Ms D] at 5.15pm in which she advised that [Baby A] was lethargic and not feeding.

[Mrs A] telephoned [Ms D] at 5.15 pm expressing concern that [Baby A] was lethargic and difficult to feed. [Mrs A] told [Ms D] that [Baby A] had fed frequently overnight and that morning and had then slept almost six hours. [Ms D] questioned [Mrs A] about [Baby A's] temperature and urine output. The questioning was reasonable as it gave a larger picture. The decision made to send [Mrs A] and [Baby A] directly to hospital was appropriate. Time was of the essence and I presume it was quicker for [Ms D] to send [Baby A] to hospital for an assessment promptly rather than delay the process by [Ms D] first visiting them at home.

7. Other Comments.

[Ms D] says in her letter to HDC that a note was left on her desk from [Ms B] saying that both the post-natal women were doing well and would not need a visit until later in the week. I presume this note was written before [Ms B] visited [Mrs A] on [Day 5].

[Ms D] did have a conversation with [Ms C] at 11am on [Day 10], she had been back from leave for over 24 hours by then but at this stage was not aware that [Baby A] had not been weighed.

It appears that [Ms D] did not communicate with [Ms C] on her return from leave on the evening of [Day 9].

Summary.

There appear to be many communication issues in this case.

When midwives take leave it is common practice to discuss their caseload with the midwife covering their practice and to check with the midwife on their return.

Assessments cannot be done thoroughly over the phone. It was important that [Baby A] was reweighed as outlined in the care plan [Ms B] had put in place. Instead an assumption was made by [Ms C] over the phone that [Baby A] was making good progress.

In her letter to HDC dated 8/1/2015, [Ms B] has indicated that she has been practising under supervision and is also planning on completing further education in the care of the newborn, including and identifying a sick neonate.

[Ms C] acknowledges that in hindsight she should have advised [Ms B] to consult regarding [Baby A's] large weight loss and that she has worked within section 88 guidelines since this case.

[Ms C] has also acknowledged that she should have insisted on visiting [Mrs A] on [Day 8] to re-weigh [Baby A].

Back up arrangements between midwives have been tightened and handovers are now verbal and written.

[Ms C] has reflected thoroughly on his case and has willingly undergone a case review directed by the Midwifery Council.

[Ms D] has agreed (documented in her letter to HDC 8/1/2015) that the practice arrangements were ineffective and hand over was poor. [Ms D] acknowledges that it was a very busy time and that a verbal handover did not occur. [Ms D] also acknowledges that she should have contacted [Ms C] on her return to work and also the post-natal clients she was to visit.

[Ms D] has engaged (2014) in a voluntary competence programme set by the midwifery council of NZ which involved her providing a written reflection on the relevant aspects of this case including back up and hand over arrangements and responsibilities, section 88 guidelines, weight loss in the neonate and decision making and care.

These midwives have reflected well on this case and are making changes to their practice to enhance communication and ensure continuity of care in the future.

This is a pro-active response to this case and is commendable.

I wish to extend my deepest sympathy to [Mr and Mrs A] and their families.

References.

NZCOM Midwives Handbook for Practice 2008.

Guidelines for Consultation with Obstetric and Related Medical Services.

Referral Guidelines Ministry of Health 2012."