Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

A Decision by the Deputy Health and Disability Commissioner

(Case 20HDC00505)

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Introduction

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

2. The report discusses the care provided to Ms B by registered midwife (RM) A and a public hospital (the DHB/Te Whatu Ora).[1]

3. Ms B (aged in her thirties at the time of events) was pregnant with her first baby.

[1] On 1 July 2022, the Pae Ora (Healthy Futures) Act 2022 came into force, which disestablished all district health boards. Their functions and liabilities were merged into Te Whatu Ora|Health New Zealand. All references in this report to the district health board now refer to Te Whatu Ora.

Names have been removed (except the advisors) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

4. Ms B had a history of anxiety, and a maternal family history of diabetes. Ms B was a smoker, and her partner was HIV positive.

5. Ms B's antenatal care was provided by her lead maternity carer[2] (LMC), RM A, and obstetrics secondary care services[3] were provided by Te Whatu Ora.

6. On 18 Month7,[4] at 38 + 1 weeks' gestation, Baby B was born by emergency Caesarean section[5] because of fetal distress. Baby B was born in a poor condition. He was pale and the Apgar scores[6] were recorded as two at one minute, seven at five minutes, and seven at 10 minutes. At around six minutes of age, Baby B had an episode of apnoea[7] and required ventilation breaths until approximately eight and a half minutes of age, when regular respiration was established and inspired oxygen was able to be reduced.

7. Baby B was admitted to the Special Care Baby Unit because of the resuscitation, ongoing low tone, and abnormal cord gases.[8] He was passively cooled[9] from admission because of the risk of hypoxic-ischaemic encephalopathy[10] (HIE). A capillary blood gas test[11] was done, which showed a raised lactate.[12]

8. Baby B was accepted for Brainz[13] monitoring (continuous aEGG[14] monitoring), and possibly therapeutic hypothermia,[15] and was transferred to the Neonatal[16] Intensive Care Unit at another hospital.

9. On Day 10 of life, Baby B underwent an MRI,[17] which was normal. There was no evidence of significant hypoxic insult,[18] but a follow-up study was recommended at 18 months of age if there were any strong neuro-developmental[19] concerns.

[2] LMC care is a primary care service.
[3] Additional care from obstetric or other specialist services.
[4] Relevant months are referred to as Months 1–7 to protect privacy.
[5] Delivery of a baby through surgical incisions in the abdomen and uterus.
[6] A test performed on a baby after birth. Each category is scored with 0, 1, or 2, depending on the observed condition. The one-minute score determines how well the baby tolerated the birthing process, and the five-minute score tells the healthcare provider how well the baby is doing outside the mother's womb.
[7] Temporary cessation of breathing.
[8] Umbilical cord blood gas helps to detect whether a baby suffered a birth injury during delivery.
[9] External heat sources withheld, and frequent monitoring of the baby's temperature.
[10] A brain injury secondary to a lack of oxygen delivery to the brain.
[11] A test used to measure how much oxygen and carbon dioxide are in the blood.
[12] An increase in lactate production is usually caused by impaired tissue oxygenation.
[13] A screening device that monitors electrical signals from each hemisphere of the brain.
[14] Amplitude integrated electroencephalogram — a test that measures the electrical activity in the brain using small metal discs attached to the scalp.
[15] Cooling has been recognised as an effective intervention to decrease adverse neuro-developmental outcomes following HIE.
[16] A newborn infant.
[17] Magnetic resonance imaging — a technique used in radiology to form detailed pictures of areas inside the body.
[18] Brain injury due to a lack of oxygen.
[19] Disorders in the early development of the brain.

10. A treatment injury claim was lodged with the Accident Compensation Corporation (ACC). ACC obtained independent advice from a registered midwife, who identified a number of shortcomings in the antenatal midwifery care provided by RM A. ACC referred the matter to the Midwifery Council, who then referred the matter to HDC.

11. The treatment injury claim for neonatal HIE was approved by ACC.

12. Subsequently, Baby B was seen by a physiotherapist from the Child Development Service.

13. On 14 November 2019, the physiotherapist observed that Baby B was alert and settled. He was walking independently and was making progress with his gross and fine motor skills. The physiotherapist noted that Ms B remained concerned about Baby B's delay in language and communication skills. The physiotherapist's plan was to continue with advice on activities to try at home, and to continue with intervention aimed at vocalisation and early communication skills.

14. The following issues were identified for investigation:

- *Whether RM A provided Ms B with an appropriate standard of care during Month1 to Month7 2017 (inclusive).*
- *Whether the district health board provided Ms B with an appropriate standard of care during Month6 to Month7 2017 (inclusive).*

Background

RM A's practice

15. RM A was the LMC midwife who provided antenatal care to Ms B.

16. At the time of events, RM A was a self-employed midwife who worked as part of a midwifery practice in the region. Within the team of midwives, RM A mainly worked in partnership with one of the other midwives for practice support and time off.

17. RM A booked her own clients and held her own clinical records. The midwives did not always have access to each other's clinical records when providing cover for each other.

Opinion: RM A — breach

18. First, I acknowledge the distress that these events have caused Ms B and her whānau.

19. To determine whether the care provided by RM A was reasonable, I considered the advice of my in-house midwifery advisor, RM Nicholette Emerson.

20. I have concerns about the antenatal care RM A provided to Ms B. I have undertaken a thorough assessment of the information gathered, and I consider that RM A breached Right 6(1)(b), Right 4(1), and Right 4(2) of the Code of Health and Disability Services Consumers' Rights (the Code). The reasons for my decision are set out below.

Information provided

Information in relation to elevated BMI

21. Ms B had her booking visit with RM A on 18 Month1, at 11 weeks and 6 days' gestation.

22. Ms B weighed 108kg at the booking visit, which means that her body mass index[20] (BMI) was 40.7. RM A recorded Ms B's weight in the booking summary, but not her BMI.

23. At the booking visit, RM A referred Ms B for specialist care or transfer because of her elevated BMI, but Ms B declined to accept the referral.

24. RM A stated that she discussed referral with Ms B thoroughly at the booking visit, but she did not document what she discussed about her reasons for referral.

25. RM A stated:

> 'Upon reflection of this case, I fully appreciate that under the Referral Guidelines, when a woman declines a referral, it is my duty to advise her that I am required to consult with another practitioner (midwife or specialist) concerning her condition as it may affect the health of herself or her baby. I should then relay the information I receive back to the woman and recommend again, if that is the case, that a consultation is warranted. I am reading the Section 88 Referral Guidelines again as a result of this case and will follow this practice in future.'

Midwifery Council's report

26. On 18 September 2020, the Midwifery Council undertook a competence review of RM A in relation to the events. The Midwifery Council completed a report dated 9 October 2020 (the Midwifery Council's report), which stated:

> 'Several omissions of care did not reflect safe and effective care at the time of this case eg: … no ongoing maternal weight … There was no evidence to reflect conversations were revisited re high BMI and recommended referral to specialist services or any discussion about lifestyle changes.'

My opinion

27. The Ministry of Health published *Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines)* in 2012 (see Appendix C**: Ministry of Health's *Referral Guidelines***). The *Referral Guidelines* recommend a transfer of clinical responsibility for women with a BMI of over 40. As Ms B's BMI was over 40, clinical responsibility should have been transferred to secondary care services.

28. Although RM A said that she attempted to refer Ms B to secondary care services because of her elevated BMI, there is no evidence of what RM A discussed with Ms B about the reasons for the referral. There is also no evidence that RM A discussed with Ms B the risks associated with an elevated BMI.

[20] In pregnancy, BMI is calculated using the height and weight measured at the first antenatal consultation.

29. Ms B told HDC that she has no recollection of any discussions with RM A about the referral, or the risks associated with her BMI.

30. RM Emerson advised that if Ms B was not advised of the midwifery obligation to refer her to secondary care services (as set out in the *Referral Guidelines*), or the clinical reasons for the referral, this would be a moderate departure from midwifery practice.

31. I accept RM Emerson's advice. The *Referral Guidelines* state that if a woman declines a referral, the LMC should explain to the woman the need to discuss her care with another provider.

32. Because of the lack of detail in the clinical documentation, I am unable to determine what RM A discussed with Ms B about the reasons for a referral, and whether she explained to Ms B the need to discuss her care with another provider. As commented on by RM Emerson, it appears that Ms B declined the referral without fully understanding why a referral had been recommended and the risks of declining.

33. As RM A decided to continue care, in accordance with the *Referral Guidelines* she should have continued to make recommendations to Ms B for safe maternity care, including further attempts at referral. As set out in the *Referral Guidelines*, RM A should also have engaged other practitioners as appropriate for professional support, and she should have continued to document all discussions and decisions.

34. There is no evidence to suggest that RM A made any further attempts at a referral, or that she had any further discussions with Ms B about the need for a referral, after the initial referral had been declined.

35. In my view, RM A did not provide Ms B with the information she was entitled to receive under the *Referral Guidelines*, after the initial referral had been declined by Ms B. I consider that this was information that a reasonable consumer in Ms B's circumstances could expect to receive.

36. I note the changes RM A has made to her practice since the events, and as stated in the Midwifery Council report, RM A 'now ensures women understand the significance of antenatal issues that may adversely affect the health and safety of themselves or their babies'.

Gestational diabetes testing — no breach

Testing and diagnosis

37. On 19 Month1, one day after the booking visit, RM A ordered screening for diabetes. Ms B's HbA1c was normal.[21]

[21] 38mmol/mol. The normal range is below 40mmol/mol.

38. On 14 Month5, at 28 weeks + 6 days' gestation, RM A arranged a glucose challenge test (also called a polycose test[22]), which is a screening test for diabetes. On 1 Month6, the results[23] indicated the need for a full oral glucose tolerance test (OGTT) to exclude gestational diabetes.

39. On 5 Month6, RM A provided Ms B with a laboratory form for an OGTT, but Ms B delayed completing the OGTT until 21 Month6.

40. RM A acknowledged the delay in the OGTT being completed. She stated: '[O]n reflection, I absolutely should have requested [an] OGTT instead of a polycose.'

My opinion

41. RM Emerson advised that the initial diabetes care provided by RM A was in keeping with accepted midwifery practice, although the glucose challenge was not the most appropriate test because this is a screening test and is not definitive.

42. RM Emerson advised that the diabetes risk was established (considering Ms B's ethnicity, BMI, and family history of diabetes), and therefore an OGTT would have been the appropriate test. Nevertheless, RM Emerson considered that this was appropriate care as RM A acted within the Ministry of Health's guideline on *Screening, Diagnosis and Management of Gestational Diabetes in New Zealand* (see Appendix D**: Ministry of Health's Gestational Diabetes Guidelines**), by first offering a glucose challenge.

43. I accept this advice and am not critical of the care provided by RM A in relation to screening and testing for gestational diabetes.

Referral to secondary care services

Referral for partner's HIV status

44. On 1 Month2, RM A made a referral to Te Whatu Ora's secondary care services because Ms B's partner was HIV positive.

45. Ms B's height and weight were recorded on the referral form, but the form made no reference to Ms B's BMI.

46. The referral was declined by Te Whatu Ora on the same day because Ms B herself was not HIV positive.

Referral for gestational diabetes

47. On 21 Month6, at 34 weeks + 1 day's gestation, Ms B completed the OGTT and the results were positive for gestational diabetes.[24]

[22] A test that measures how well the body can process sugar.
[23] 8mmol/L. A value of equal to or greater than 7.8mmol/L, after a 50g challenge of glucose, indicates the need for a full oral glucose tolerance test to exclude gestational diabetes.
[24] The fasting blood glucose level was 7.1, and the blood glucose level after two hours of drinking the glucose solution was 6.3. A normal fasting blood glucose level is between 4 and 5.4, and a normal blood glucose level after two hours of drinking the glucose solution is up to 7.8.

48. RM A referred Ms B to secondary care services on the same day. The referral contained details of the results of the OGTT and Ms B's estimated due date, but it contained no details of Ms B's ethnicity, BMI, or her family history of diabetes.

49. The referral request was reviewed by Te Whatu Ora on 28 Month6 and processed on 29 Month6.

50. Ms B was seen by the diabetes nurse on 3 Month7. On 11 Month7, she was seen by the multidisciplinary team, including medical staff from Obstetrics and Gynaecology and Endocrinology.

My opinion

51. RM Emerson advised that both of the referrals on 1 Month2 and 21 Month6 were timely but lacked adequate information.

52. The referral on 1 Month2 (for Ms B's partner's HIV status) did not contain Ms B's BMI, and the referral on 21 Month6 (for gestational diabetes) did not contain the risk factors, such as Ms B's ethnicity, BMI, and family history of diabetes. RM Emerson advised:

> 'In my opinion there is a mild to moderate departure from midwifery practice in not highlighting risk factors for gestational diabetes in the referral form considering the late gestation and the imminent [public holiday].'

53. I accept RM Emerson's advice. The New Zealand College of Midwives (NZCOM) *Midwives Handbook for Practice* provides guidelines for midwifery standards of practice. Standard four states:

> 'The midwife maintains purposeful, ongoing, updated records and makes them available to the woman and other relevant persons.'

54. I am critical of the lack of information contained in the referral form on 1 Month2, and that RM A did not highlight the risk factors on the referral form on 21 Month6. This was information that should have been made available when Ms B was referred to secondary care services.

Fetal growth assessment

Fetal growth measurements

55. On 14 Month3, at 20 weeks + 1 day's gestation, Ms B underwent a morphology scan.[25] A fetal anatomy assessment of the heart and lower limbs could not be completed due to the low fetal position. The fetal growth was normal, but a follow-up scan was recommended within two to three weeks to complete the assessment.

56. On 22 Month3, at 21 weeks + 2 days' gestation, Ms B underwent a follow-up scan. Normal cardiac and limb movements were noted, and the fetal growth was normal.

[25] A routine antenatal ultrasound to assess the baby's size and organs.

57. Throughout the pregnancy, Ms B did not undergo any formal growth scans. No customised growth chart was completed by RM A, and the fundal height was not measured and recorded in centimeters.

58. RM A said that she used abdominal palpation along with a Baeyertz fundal height tape measure[26] to assess fetal growth. She stated that although Ms B had a high BMI, her baby was 'easy to palpate[27]'. She said that Ms B 'always measured appropriately for gestation by all midwives [who saw] her'.

59. RM A said that once a woman has been diagnosed with gestational diabetes, regular growth scans are ordered routinely and done through Te Whatu Ora's antenatal clinic. RM A stated that unfortunately, this did not occur in Ms B's case because of the delay in the OGTT being completed by Ms B, and the delays in the referral being processed by Te Whatu Ora and Ms B receiving an appointment.

Midwifery Council's report

60. The Midwifery Council's report stated:

> 'Several omissions of care did not reflect safe and effective care at the time of this case eg: no fundal height measurements, absence of customised GROW chart … no discussion regarding growth ultrasound scans.'

My opinion

61. RM Emerson advised that there are inaccuracies with fundal height measurement in obese women, and that a BMI of over 40 makes accurate palpation difficult. RM Emerson said that a customised growth chart should have been completed from 24 to 28 weeks' gestation.

62. Further, RM Emerson advised that serial growth scans should have been completed at 30 to 32 weeks' gestation, or earlier if clinically indicated.

63. RM Emerson commented that the use of the Baeyertz tape for fundal height measurement is not recommended in New Zealand due to its population of diverse ethnicities.

64. RM Emerson concluded that overall, the fetal growth assessment and monitoring was not in keeping with accepted midwifery practice. She considered this to be a moderate departure from accepted practice.

65. I accept RM Emerson's advice.

66. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) published a statement in March 2013 on 'Management of Obesity in Pregnancy' (RANZCOG Guidelines) (attached as Appendix E**: RANZCOG Guidelines**). The New Zealand Maternal Fetal Medicine Network published a guideline to achieve a more consistent approach to management of small for gestational age (SGA) singleton

[26] A fundal height measuring tape developed by an obstetrician and gynaecologist, Dr John Baeyertz.
[27] Examine by touch.

pregnancies and infants in New Zealand (SGA Guidelines) (attached as Appendix F**: SGA Guidelines**).

67. Ms B's BMI was over 40, which was considered obese, as per the RANZCOG Guidelines.

68. Both the RANZCOG Guidelines and the SGA Guidelines state that pregnant women with obesity should be offered additional serial ultrasounds for fetal growth. I am concerned that RM A failed to recognise the risks associated with Ms B's elevated BMI, and the need to arrange serial ultrasounds for fetal growth.

69. In addition, I am concerned that the fundal height was not measured and recorded in centimeters, and that RM A failed to complete a customised growth chart. This was not appropriate care. This Office has previously criticised midwives for failing to measure the fundal height in centimeters.[28]

70. It was important to assess fetal growth adequately, particularly in the context of Ms B's increased BMI, and the risks of potential fetal growth restriction.

71. I also note RM Emerson's comments that the method used by RM A to assess fetal growth was inadequate.

Documentation

72. RM A provided HDC with copies of the information packs that were provided to Ms B. The information packs include brochures from Quitline (which offers support designed to help pregnant woman to quit smoking), the Ministry of Health's 'Eating for Healthy Pregnant Women' and 'Your Pregnancy'. The latter also included information about diet[29] and smoking during pregnancy.[30]

73. RM A stated that she provides all women with comprehensive information packs at the booking visit, and that the 'contents of these packs are discussed throughout the pregnancy and revisited often'.

74. RM A noted in the care plan that she had a 'healthy pregnancy' discussion with Ms B. The clinical records list the subject matters discussed (including 'tests and screening', 'self care', 'nutrition and exercise in pregnancy', 'smoking cessation', and 'alcohol and drugs'), but contain no further detail as to what RM A discussed with Ms B in relation to any of these matters.

75. The Midwifery Council's report stated that '[a]bbreviations used in the antenatal record did not provide evidence of any discussions between the LMC and the woman'.

[28] See Opinions 19HDC00333 and 19HDC01789.
[29] 'Eating well and doing moderate physical activity during pregnancy are important for you and your baby …'
[30] 'Smoking during pregnancy affects the baby's growth and will mean more likelihood of health problems …'

76. RM A told HDC:

> 'I regret that discussions had with [Ms B] regarding the risk of increased BMI, such as IUGR, gestational diabetes, pre-eclampsia were not documented … I am very disappointed at my documentation when using the paper notes and acknowledge that several discussions were never documented.'

77. RM A accepted that her documentation was 'well below standard' and apologised for the lack of information documented.

My opinion

78. RM Emerson advised that while RM A's documentation contains the essential clinical components, it offers no insight or narrative into the discussions with Ms B, or the information provided to Ms B. RM Emerson considered this to be a moderate departure from accepted midwifery standards.

79. I accept RM Emerson's advice and am critical that RM A did not document a number of her discussions with Ms B.

80. Competency 2.16 of the Midwifery Council of New Zealand Competencies for Entry to the Register of Midwives states:

> 'The midwife provides accurate and timely written progress notes and relevant documented evidence of all decisions made and midwifery care offered and provided.'

81. The *Referral Guidelines* state that in the event that a woman declines a referral, consultation, or transfer of clinical responsibility, the LMC should document in the care plan the process, the discussions, the recommendations given, and the decisions made, and the woman's response. The *Referral Guidelines* also state that if the LMC decides to continue care, she should continue to document all discussions and decisions.

82. RM A failed to document her discussions with Ms B, and her documentation lacked detail. Her documentation did not meet the standards set by the Midwifery Council of New Zealand, or the *Referral Guidelines*.

83. The importance of record-keeping cannot be overstated.

84. I note that RM A has attended training on documentation (NZCOM's 'Dotting I's & Crossing T's: Midwives and Record Keeping'), as recommended by RM Emerson.

Conclusion

Information

85. Right 6(1)(b) of the Code states that every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including an explanation of the options available, including an assessment of the expected risks, side effects, benefits, and costs of each option.

86. RM A failed to provide Ms B with the information that she was entitled to receive under the *Referral Guidelines*. This was information that a reasonable consumer in Ms B's circumstances would expect to receive. Accordingly, I find that RM A breached Right 6(1)(b) of the Code.

Standard of care

87. Right 4(1) of the Code states that every consumer has the right to have services provided with reasonable care and skill.

88. I find that RM A failed to provide services to Ms B with reasonable care and skill, in breach of Right 4(1) of the Code, by:

- failing to assess fetal growth adequately; and
- failing to include all the relevant information in the referrals to secondary care services on 1 Month2 and 21 Month6.

Documentation

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

90. RM A failed to document her discussions with Ms B, the decisions made, and the midwifery care offered and provided. Accordingly, I find that RM A breached Right 4(2) of the Code.

Opinion: Te Whatu Ora — adverse comment

91. To determine whether the care provided by Te Whatu Ora was reasonable, I considered the advice of an independent obstetrician and gynaecologist, Dr John Short.

Timeliness of referral being processed — other comment

92. On 21 Month6, RM A referred Ms B to secondary care services for a positive OGTT, diagnostic of gestational diabetes.

93. The referral request was reviewed by Te Whatu Ora on 28 Month6 and processed on 29 Month6.

94. On 3 Month7, Ms B was seen by the diabetes nurse and was provided with a testing kit to commence monitoring of her blood sugar levels.

95. On 11 Month7, at 37 weeks + 1 day's gestation, Ms B was reviewed by an Obstetrics and Gynaecology registrar, who noted that Ms B had not had any growth scans done, even though her BMI was over 40.[31]

[31] The statement published by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 'Management of Obesity in Pregnancy' (March 2013), notes that pregnant women with obesity should be offered additional serial ultrasounds for fetal growth.

96. The registrar arranged an urgent growth scan, as well as daily monitoring of Ms B's blood sugar. The registrar's plan was to see Ms B again the following week to review her blood sugar levels and fetal growth, and to create a plan for the remainder of the pregnancy.

97. On the same day (11 Month7), Ms B was reviewed by a physician and endocrinologist[32] at the Diabetes Clinic.

98. The physician and endocrinologist noted that Ms B had a problem with using the testing kit to monitor her blood sugar levels but hoped to get the testing underway. The physician and endocrinologist documented: 'At this late stage of the pregnancy we are trying to institute home blood glucose monitoring, to see the dietitian and early review in a week.'

99. Te Whatu Ora said that all referrals to the Obstetric Diabetes Clinic are accepted and seen as 'Urgent', and that women are seen at the Diabetes Clinic 'within 0–5 days from time of referral for their first appointment'. Te Whatu Ora stated:

> 'The pregnant ladies when diagnosed with diabetes are always seen as urgent. The patients are contacted by the diabetic nurse and a blood sugar testing kit is [sent] out such that they can attend with their blood sugar levels for 7–10 days as that helps the Endocrinologist to plan further management. So, given the Public holidays around [the time] etc., the appointment after 6 "working days" is considered to be reasonable.'

100. Ms B went into spontaneous labour on 18 Month7, before she could return to the Diabetes Clinic and before a growth scan could be completed.

My opinion

101. Dr Short advised that the time frame for Ms B to be seen following the referral on 21 Month6 was reasonable. He advised that this was particularly so considering the time of year and the impact of public holidays on services.

102. Dr Short noted that Ms B did not have an ultrasound scan of the baby on 11 Month7. He said that ideally, an ultrasound scan would have been done to coincide with her appointment on 11 Month7. This would have enabled a more comprehensive assessment in view of Ms B's diagnosis with gestational diabetes and her raised BMI.

103. Te Whatu Ora said that given the volume of women and the need for prompt assessment, an urgent ultrasound and report ahead of clinic is unable to be undertaken.

104. Te Whatu Ora stated that a 'blanket rule' of requesting an ultrasound prior to a woman's review would delay their first appointment significantly, and therefore increase clinical risk. Te Whatu Ora explained that while an ultrasound report at initial appointments for women attending the Diabetes Clinic would be ideal, it is not imperative for a comprehensive initial clinical assessment.

[32] A specialty that involves the diagnosis and treatment of diseases and conditions associated with hormones, including diabetes.

105. Te Whatu Ora told HDC that triage and associated outpatient booking processes are in place, and in cases where an obstetric ultrasound is required ahead of a clinical appointment, this is requested.

106. Te Whatu Ora told HDC that unfortunately, the availability of obstetric sonographers continues to be an issue for the region and throughout New Zealand. Te Whatu Ora said that it has been working through various mitigating strategies across the district to improve access for secondary scans and, currently, it ensures that all urgent referrals for obstetric scans are triaged and prioritised on the basis of their clinical urgency.

107. I accept Dr Short's advice that the time frame for Ms B to be seen following the referral on 21 Month6 was reasonable.

108. I note Te Whatu Ora's comments in relation to the ultrasound requests. I am satisfied that there are adequate systems in place for an ultrasound to be requested ahead of a clinical appointment, when necessary.

Labour and birth — adverse comment

109. Overnight on 18 Month7, RM C was the back-up midwife for RM A.

110. At 2.15am, RM C received a call from Ms B. Ms B reported that she was unsure whether she was having Braxton Hicks contractions[33] or real labour contractions,[34] which were occurring every four minutes.

111. RM C noted that Ms B was coping well with the pain, and that the baby was reported to be moving well. RM C offered Ms B the option of an assessment, or to have a bath and to contact her if the contractions became stronger and closer together. Ms B decided to stay at home and to have a bath, as she was coping well at that point.

112. At 4.00am, Ms B contacted RM C as her contractions had become stronger, and they planned to meet at the Delivery Suite.

113. Ms B arrived at the Delivery Suite at 4.40am, and a CTG[35] was started at 4.45am.

114. At 5.05am, RM C paged the senior house officer to assess the abnormal CTG trace. RM C stated that she then left the trace on for 20 minutes as 'one needs some trace to correctly diagnose tachycardia and reduced variability and to inform the Doctors before seeking guidance'.

[33] Also referred to as false contractions. Contractions are irregular, do not get stronger or closer together, and do not lead to birth.
[34] Contractions due to labour tend to be regular and to get closer together and stronger.
[35] Cardiotocography is a technique used to monitor the fetal heart rate and uterine contractions.

115. RM C stated that at 5.30am, she asked for an urgent review of the abnormal CTG. At this point, Dr D,[36] a locum consultant, was conducting an instrumental birth and was unable to attend Ms B until 6.25am.

116. Dr D reviewed Ms B at 6.25am and considered that the CTG had improved between 5.30am and 6.25am. He stated that at the time of his assessment, his interpretation of the CTG was that although it had concerning features and needed ongoing monitoring, there had been 'marked improvement/return to normal CTG over the previous hour'. Dr D said that there was no indication for an emergency Caesarean section at that point.

117. Dr D stated that the improvement in CTG reassured him that the fetus was non-hypoxic at the time of his assessment, and therefore fetal blood sampling was not warranted.

118. At 7.45am, care of Ms B was handed over from RM C to RM E.

119. The on-call Obstetrics and Gynaecology consultant, Dr F, reported to the Delivery Suite at 7.55am before his shift started at 8.00am. Dr F was also booked for a full day of elective surgeries.

120. Dr F stated that RM E asked him to attach a fetal scalp electrode[37] (FSE) for Ms B as she had been unable to do so after two attempts.

121. Dr F said that the CTG (that had been started on Ms B's arrival at the Delivery Suite) showed fetal tachycardia, reduced variability, and complex variable decelerations until 7.40am. He stated that there was no trace available between 7.40am and his review at 7.55am because of loss of contact and the midwife's attempts at attaching an FSE.

122. Dr F said that he recognised that the CTG was abnormal but considered that as Ms B's cervix was 8cm dilated and there was no provision of fetal blood sampling in the unit, he needed a clear trace for 20 minutes to make the critical decision regarding delivery.

123. Dr F said that he advised the midwife that the CTG needed to be reviewed by the senior registrar, Dr G, within 20 minutes. Dr F stated that he then 'rushed' to examine another patient who needed an emergency Caesarean section.

124. As Dr F was the on-call consultant, he was also expected to be at the handover with his team. Dr F said that he had a 'very brief' handover and asked Dr G to reassess Ms B as he had been called to the theatre to start the gynaecology surgeries.

125. Dr G assessed Ms B at 8.25am, at which point the CTG showed no improvement. Dr G discussed the findings with Dr F on the phone. Dr F agreed with Dr G's assessment and the decision to call for an emergency Caesarean section.

126. Dr F did not document his assessments of Ms B in the clinical records. He stated:

[36] Dr D is no longer employed by the hospital.
[37] An internal monitoring system that measures the fetal heart rate.

> 'While I accept that the responsibility to fully document the assessment was mine and mine alone, there are a number of relevant factors that need to be taken into account. I was both on call for the day for which the handover started at 0800 hrs as well as booked in for a full day of operating. It was an extremely busy Delivery Suite and I only had a very short amount of time to spend with [Ms B].
>
> Based on this unfortunate case and other incidents, on-call Consultants at [the DHB] are no longer expected to perform any other duties. Proper documentation has also been impressed upon us all. Since this incident ACMMs (Associate Clinical Midwifery Managers) have been allocated on every shift on floor in the Delivery Suite as important members of the team …'

127. Te Whatu Ora acknowledged the pressure Dr F[38] was under on the morning of 18 Month7.

Te Whatu Ora's review

128. Te Whatu Ora undertook a review of the events and identified the following key issues:

- The senior medical officer (SMO) on call for the Delivery Suite (Dr F) was allocated to the gynaecology surgical list.
- The SMO (Dr F) placed the FSE, but there is no documentation of the CTG.
- There was no clear guideline on the appropriate time frame to review an abnormal CTG.
- There was no designated senior core midwife on night duty.

My opinion

129. Dr Short advised that overall, he was satisfied that Ms B received care of an appropriate standard at the public hospital on 18 Month7. However, Dr Short expressed concern that Dr F had multiple commitments. Dr Short advised:

> '[Dr F] was clearly under pressure, having multiple commitments at the same time (reviewing the patient, attending handover and going to theatre) which is a systems issue and obviously less than satisfactory. Due to these competing demands he failed to make his own notes at the time, although in the circumstances this is understandable and whilst not ideal it would be harsh to be overly critical …'

130. I accept Dr Short's advice. I agree that it is unsatisfactory for a senior medial officer with responsibility for the Delivery Suite to be performing elective surgery simultaneously.

131. I hold Te Whatu Ora accountable for the shortcomings in care on 18 Month7 and direct my adverse comment at the system and organisational failures that placed Dr F in such a pressured position on the day.

[38] Dr F is no longer employed by the hospital.

132. I note the changes that have been made by Te Whatu Ora since the events, including that SMOs rostered on duty or on call in the Delivery Suite no longer have any other elective commitments.

Responses to provisional opinion

Ms B

133. Ms B was given an opportunity to respond to the 'information gathered' sections of my provisional opinion.

134. Ms B did not wish to provide any comment.

RM A

135. RM A was given an opportunity to respond to the sections of my provisional opinion that relate to the care she provided.

136. RM A advised that she accepts my provisional opinion.

Te Whatu Ora

137. Te Whatu Ora was given an opportunity to respond to the sections of my provisional opinion that relate to the care it provided. Te Whatu Ora's comments have been incorporated into this opinion where relevant and appropriate.

138. Te Whatu Ora advised that it accepts the information gathered during the investigation and the preliminary conclusions.

Further information

RM A

139. RM A told HDC:

> 'I am deeply saddened that [Baby B] has come to harm while under my care. I would never intentionally cause any harm to any woman or her baby and think of both mum and baby often. I have had the pleasure of seeing both in the community and continue to have lifelong relationships with the family that I have known for so long. I wish [Ms B] and [Baby B] all the best and sincerely apologise for any part I may have played in this outcome.'

Te Whatu Ora

140. Te Whatu Ora sincerely apologised for the emotional distress and impact that the maternity experience at the public hospital had, and continues to have, on Ms B and her whānau.

Changes made since events

RM A

141. The Midwifery Council's report noted:

> '[RM A] has made significant positive changes in her practice and now includes narrative documentation with all antenatal visits as evident by documentation brought to her competence review.'

142. In July 2018, following these events, RM A's practice changed to a team LMC model in order to practise in a more sustainable manner. Since the formation of the new practice, all midwives have access to the full electronic records of all women who are booked in their practice.

143. RM A told HDC that her practice now uses new software, and that her documentation has improved as a result of this case. RM A said that now when a referral is made, all relevant information is automatically generated through the system. She said that this includes a growth chart, bloods, and scans for each woman, as well as a history and any concerns expressed by a woman.

144. RM A stated that there are now full antenatal narrative notes of each visit, and that the fundal height measurements are automatically populated into a customised growth chart for every woman. She said that comprehensive care plans are documented, and that women have access to these records at any time via a client portal.

145. RM A noted that her practice of assessing fundal height has changed, and she now uses the NZCOM Practice Guidance document — Assessment and Promotion of Fetal Wellbeing during Pregnancy 2021. RM A said that as per these guidelines, she now measures fundal height from 26 to 28 weeks' gestation, but no more than two- to three-weekly, and it is recorded in centimetres in the woman's customised growth chart and in the antenatal notes.

146. RM A said that she will recommend growth scans if growth issues are shown on the growth chart, if there is slower static growth, or if fundal height is not increasing as expected. RM A stated that growth scans are recommended from 28 weeks' gestation for women with an increased BMI.

147. RM A said that she now has ongoing discussions with women about healthy eating and exercise in pregnancy.

148. RM A told HDC that her practice has now changed regarding women who have increased BMI. She said that an HbA1c is now done at booking, and an OGTT is recommended between 14 to 16 weeks' gestation, and again at 28 weeks' gestation.

149. RM A told HDC that she has read the *Referral Guidelines* as a result of this case. She said that upon reflection, she appreciates that when a woman declines a referral, it is her duty to advise the woman that she is required to consult with another practitioner (a midwife or

specialist) concerning the woman's condition, as it may affect the health of the woman or the baby.

150. RM A said that if a woman declines a referral, this is now documented and revisited at the next antenatal visit. She said that if the woman still declines the referral at the next antenatal visit, she has another discussion with the woman regarding the risks associated with the woman's condition, which is also documented. RM A stated that this is then discussed at a weekly group meeting. She said that she also has an informal discussion with an obstetrician and gynaecologist, which is then documented and discussed with the woman at the next visit. RM A said that she now ensures that women understand all possible risks associated with their condition.

151. RM A has completed several courses to improve her practice, including:

- RANZCOG's Fetal Surveillance education program (on 6 March 2020);
- Perinatal Institute Growth Assessment Protocol (GAP) training (on 22 May 2019); and
- NZCOM's 'Dotting I's & Crossing T's: Midwives and Record Keeping' (on 11 May 2021).

Te Whatu Ora

152. Te Whatu Ora told HDC that the recommendations from the independent external review, along with its internal investigation of events, have resulted in significant improvements to its systems, practice, staffing and equipment.

153. The Midwifery Council's report also noted that significant improvement in communication and processes has occurred at the public hospital since the events, including 'having two SMOs available to ensure appropriate access to specialist care in times of high acuity or requiring a second opinion, rostering of an ACM on shifts, obstetric registrar's carrying a mobile phone for 24/7 access and transparency around escalation policy at [the DHB]'.

154. Te Whatu Ora stated that all recommendations contained in its report have been complied with, including:

- All SMOs rostered on duty or on call in the delivery suite have no other elective commitments. Te Whatu Ora told HDC that since the SMOs are now doing only acute cover, the SMOs are now readily available as and when clinically needed.
- Its policies 'Escalation Plan for Consultant Cover' and 'RMO Supervision in Obstetrics and Gynaecology' have been widely circulated following its review of events, and it has developed a 'Maternity Service Escalation Plan'. Te Whatu Ora told HDC that there was no shortage of staffing in relation to the care provided to Ms B, indicating that the 'Maternity Service Escalation Plan' would not have been activated.
- A Delivery Suite Associate Clinical Midwifery Manager (ACMM) role is in place for 24 hours per day (implemented in October 2019).

155. Te Whatu Ora told HDC that funding and access for pregnant women to wider and free availability of ultrasound in the community is part of ongoing discussions between the

National Maternity Monitoring Group, the Ministry of Health, and the expert Maternity Ultrasound Advisory Group.

156. Te Whatu Ora also told HDC that there has been a focus on improving care in the Women's Health service, and significant financial investment, including increasing SMO and resident medical officer (RMO) staffing in Obstetrics and Gynaecology.

157. Te Whatu Ora said that since January 2019, SMO staffing has increased by 1.60 full-time equivalent (FTE), and the number of areas covered by SMOs on duty has decreased. Te Whatu Ora said that RMOs are rostered on and are on site 24 hours per day, and the RMO was increased from 4.3 FTE in January 2019 to 8.06 FTE in January 2022.

158. Te Whatu Ora said that in addition to these changes, midwifery leadership has been enhanced with the appointment of a Director of Midwifery 1.0 FTE, increased establishment for Charge Midwife Managers, and Associate Charge Midwives in place 24 hours per day.

159. Te Whatu Ora stated that robust clinical escalation processes are currently in place and being applied, which support maternity staff in obtaining additional resources and guidance when necessary.

160. Te Whatu Ora told HDC that at the time of events, the DHB had the facility to undertake fetal blood sampling, and this facility continues to be provided.

Recommendations

161. Having considered the changes made by RM A since events, I recommend that RM A:

a) Provide a written apology to Ms B for the deficiencies in care outlined in this report. The apology is to be sent to HDC, for forwarding to Ms B, within three weeks of the date of this report.

b) Undertake further training on the identification of antenatal risk factors, including antenatal assessments, management of obesity in pregnancy, and management of suspected small for gestational age pregnancies. Evidence of this is to be provided to HDC within six months of the date of this report.

162. With reference to the various recommendations referred to in paragraphs 152 and 154, Te Whatu Ora is to report back to HDC, within three months of the date of this opinion, on the effectiveness of the changes introduced, including the level of staff compliance with the maternity service escalation plan, and the occurrence of any similar incidents over the six-month period 1 July to 31 December 2022.

Follow-up actions

163. A copy of this report with details identifying the parties removed, except the advisors on this case, will be sent to the Midwifery Council of New Zealand, and it will be advised of RM A's name in the cover letter.

164. A copy of this report with details identifying the parties removed, except the advisors on this case, will be sent to Te Whatu Ora|Health New Zealand, Te Kāreti o Nga Kaiwhakawhanau Ki Aotearoa|New Zealand College of Midwives, and Te Tāhū Hauora|Health Quality & Safety Commission and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: In-house clinical advice to Commissioner

The following in-house advice was obtained from RM Nicholette Emerson:

'**CLINICAL ADVICE — MIDWIFERY**

CONSUMER : [Ms B]

PROVIDER : LMC midwives [RM A], [RM E], [RM C] and [the DHB]

FILE NUMBER : C20HDC00505

DATE : 28 January 2021

1. Thank you for the request that I provide clinical advice in relation to the complaint about the midwifery care provided by [the DHB], LMC Midwives [RM A] and [RM C] and [RM E]. 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.

2. I have reviewed the documentation on file: [RM A's] response 14 August 2020, Statement from [RM C] 12 November 2020, Statement from [RM E] 14 August 2020, [the DHB's] response 9 September 2020 including comment from Dr …, [Dr D's] Response 27 August 2020, [Dr F's] response 2 September 2020, Statement from [Dr G] 11 August 2020, Statement made to ACC, Clinical records received from [RM A], [RM C], [RM E], [the DHB].

3. **Background:** [Ms B] booked with LMC [RM A]. This was her first pregnancy at age 30. Of note was a high BMI of 40.6, current smoking and a HIV positive partner. Anxiety was included in her history. Family history included diabetes. During her pregnancy [Ms B] was referred for an obstetric opinion as her partner was HIV positive. The referral did not include [Ms B's] BMI. [Ms B] was eventually seen in an obstetric clinic following a positive pregnancy diabetes test. An urgent fetal scan was organised however [Ms B] went into spontaneous labour prior to attending the scan. The CTG was reported as abnormal at labour onset and eventually an emergency caesarean was performed. [Baby B] was small for gestation and required neonatal care for Hypoxic Ischemic Encephalopathy (HIE).

4. **Advice Request:** I have been asked to advise whether the Midwifery care provided by [RM A], [RM C], [RM E] and [the DHB] midwives to [Ms B] was reasonable in the circumstances. In particular, I have been asked to comment on

    1) The management of [Ms B's] gestational diabetes, including the adequacy/ timeliness of diabetes screening.
    2) Whether the documentation around [Ms B's] BMI, and discussion of referral was reasonable.
    3) Whether the actions taken by [RM A] to manage [Ms B's] care, following [Ms B's] apparent declining of a referral for BMI was reasonable.
    4) The documentation of care and the planning of discussions.

5) Whether the assessment and monitoring of fetal growth was adequate/ appropriate.
6) Whether the referrals made to obstetric care were timely and contained adequate information.
7) The monitoring of fetal movements.
8) Whether the care provided by [RM C] during labour was adequate/appropriate, including timeliness of obtaining obstetric review
9) Whether the care provided by [RM E] during labour was adequate/appropriate, including timeliness of obtaining obstetric review.
10) Postnatal care — Whether the postnatal care provided by [RM A] was adequate/appropriate.
11) Whether the postnatal care provided by the hospital midwives was adequate/ appropriate.
12) Any other matters in this case that are considered a departure from accepted practice.

1) The management of [Ms B's] gestational diabetes, including the adequacy/ timeliness of diabetes screening.

[Ms B] booked with [RM A] on 18 [Month1] at 11 weeks and 6 days gestation.

[RM A], in her complaint response, disagrees with the ACC report which states that no diabetes screening was undertaken at booking.

Contemporaneous midwifery notes and lab results reviewed in the documentation, provide evidence that the standard diabetes screening at booking was ordered and undertaken 18 [Month1]. The resulting glycated haemoglobin (HbA1c) dated 19 [Month1] was normal at 38mmol/mol. This result required no further action at that time.

This is in keeping with *The NZ national guidelines for screening, diagnosis and treatment of diabetes in pregnancy (2014–current).*

The guideline states that women should be offered a routine HbA1c with booking bloods; and indicates no action, at that time, if the HbA1c is below 41 mmol/mol. *(page 4 of the MOH quick reference guide).*

A further diabetes screen should be offered again at 24–28 weeks gestation.

[Ms B] had existing risk factors for gestational diabetes ([ethnicity], Obesity, Family history of diabetes). An oral glucose tolerance test (OGTT, sometimes referred to as a GTT) in my opinion was the appropriate test to offer [Ms B] at the later 24–28 week gestation.

On 1 [Month6] a screening test for diabetes (polycose, also referred to as a glucose challenge) resulted in a positive result. This test is not definitive for gestational diabetes

therefore the recommendation is to follow up with a definitive oral glucose tolerance test OGTT.

On 5 [Month6] a form was given to [Ms B] at 30 weeks and 6 days gestation for an OGTT.

On 19 [Month6] at 32 weeks and 6 days gestation the contemporaneous clinical notes record "away".

On 21 [Month6] both the results of the OGTT and the Midwifery referral for obstetric/ diabetes opinion are recorded in contemporaneous clinical notes. The result of the OGTT on 21 [Month6] was positive for gestational diabetes (due to the high fasting result of 7.1mmol/mol).

On 28 [Month6] at 35 weeks gestation, contemporaneous clinical notes record "*referred secondary care last week for ↑ GTT. Still waiting for an appointment".*

On 3 [Month7] [Ms B] saw the diabetes nurse and commenced testing her blood sugar levels.

On 11 [Month7] [Ms B] was seen at the diabetes clinic at 37 weeks and 1 day gestation with a resulting plan of an urgent fetal growth scan and further maternal blood sugar testing.

Spontaneous labour occurred prior to [Ms B] returning to the diabetes clinic, or attending a scan.

In forming an opinion on the management of the midwifery diabetes care I have considered the following.

- Booking bloods ordered by [RM A] included a HbA1c. The result was normal. No further midwifery action was required at that point.
- In the presence of risk factors for diabetes (Ethnicity, BMI, Family History) in my opinion a glucose challenge was not the most appropriate test as this is a screening test and is not definitive. The diabetes risk was established so the appropriate test at onset was the OGTT. That said, in accordance with the flow chart for diabetes in pregnancy (page 5 of the quick reference guide from the Ministry of Health. (2014) *Screening, Diagnosis and Management of Gestational Diabetes in New Zealand, clinical guideline to practice*) [Ms B] had a booking HbA1c of below ≤ 40mmol/mol therefore it is understandable that a glucose challenge was offered in the first instance as directed by the flow chart, and in [RM A] doing so, did not depart from accepted practice.
- The glucose challenge undertaken on 1 [Month6] was positive.
- Following the positive glucose challenge, a form was given to [Ms B] for an OGTT at 30 weeks gestation on 5 [Month6]. The test was not completed until over two weeks later on 21 [Month6].

- Results were definitive for gestational diabetes on 21 [Month6] and the same day midwifery referral to secondary (Obstetric/diabetes) services occurred.
- A second follow up referral was received on 28 [Month6].
- On 3 [Month7] [Ms B] was seen by the diabetes nurse and commenced testing her blood sugars.
- [Ms B] was seen in an Obstetric clinic on 11 [Month7].
- Spontaneous labour occurred prior to further obstetric follow up appointment and scan.

In summary, in my opinion the initial diabetes care provided by [RM A] was in keeping with accepted midwifery practice. Delaying definitive results by offering a glucose challenge prior to the OGTT was not ideal however [RM A] has acted within the referral guidelines so has not departed from accepted practice. I note that there was a two week delay between receiving the OGTT form and [Ms B] undertaking the test. Further delays may have been compounded by the [public holiday] and a midwifery referral that did not highlight BMI and family history. In my opinion there is a **mild to moderate departure** from midwifery practice in not highlighting risk factors for gestational diabetes in the referral form considering the late gestation and the imminent [public holiday].

2&3) Whether the documentation around [Ms B's] BMI, and discussion of referral was reasonable. Whether the actions taken by [RM A] to manage [Ms B's] care, following [Ms B's] apparent declining of a referral for BMI was reasonable.

Booking documentation on 18 [Month1] at 11 weeks and 6 days gestation records that a discussion has taken place regarding [Ms B's] raised BMI and referral has been declined.

In her complaint response [RM A] acknowledges she should have mentioned her obligation to refer and why, and will do so in the future.

A referral to secondary services was sent at booking regarding [Ms B's] partner's HIV status, the referral contained height and weight but no BMI. This referral was not deemed urgent as [Ms B] was HIV negative and used necessary precautions to prevent HIV transmission to herself and baby.

In forming an opinion on the above I have considered the following

- Referral for increased BMI was documented as offered at booking.
- In a midwifery context, Parker (2017) points to the social stigmatisation of fatness in Western society as a risk factor for disengagement. Participants in Parker's study "described their dread of being weighed during antenatal visits and felt the number on the scales often eclipsed the ability of maternity carers to view them as a whole".
- The partnership that underpins NZ midwifery facilitates a woman in determining how she chooses to participate in her care.

I have further considered:

- An informed choice about care requires an in-depth discussion about why the referral is being offered, the risk factors associated with the condition and the midwifery obligation to revisit the discussion as care progresses. In my opinion, there is a professional expectation that this conversation would be comprehensively documented (as outlined in documentation question 4 below).
- [RM A] states in her complaint response that BMI was mentioned several times however this is not documented in contemporaneous clinical notes.
- [Ms B] had a BMI of >40 at booking. Under the *Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines, page 29, line 4017)* transfer to secondary care was required. That said, secondary care may elect to negotiate to maintain shared care with a community midwife as secondary service capacity may prevent acceptance of referral. This does not, in my opinion, mitigate the necessary in-depth documented conversation with [Ms B] about concerns and midwifery obligations to refer.

In her complaint response [RM A] acknowledges that *she should have mentioned obligation to refer and why, and will do so in the future,* in my opinion it would appear that [Ms B] declining the referral occurred without full understanding of why the referral was being recommended.

A) **If** it is accepted that a **discussion** took place at booking, **BMI** was verbally revisited on several occasions and [Ms B] declined referral then in my opinion there is **no departure** from accepted Midwifery practice however there is a **moderate departure** from accepted midwifery **documentation**.

B) **If** it is accepted that there is a documented offer of referral at the booking visit without discussion of midwifery obligation to meet MOH guideline, clinical reason clarifying why referral was being advised, then in my opinion this is a **moderate departure** from **both** accepted **Midwifery practice and Midwifery documentation**.

4) The documentation of care and the planning of discussions.

The documentation reviewed is limited and does not offer narrative or insight into the specifics of conversations between [RM A] and [Ms B]. The documentation does however record all antenatal visits and clinical evaluation, referrals, clinical letters, lab and scan results. In addition there is documentation recording (dated) planning discussion covering the expected components of care.

Midwifery Council publication on documentation (March 2018) states

Professional documentation includes • Detailed assessments and clinical findings. • Discussions of care and information provided with the woman. • Discussions and consultations with health professionals, including care plans. • Evidence of informed choice and consent. • Care decisions with rationale. • Any medication or treatment

prescribed. • All administrative requirements eg dates, time, identifying information. • Name and designation of health professionals consulted and/or referred to. • Any referrals. Documentation should occur at the time that care is provided. Notes written in retrospect should be identified as such.

I note that this publication is dated 2018, shortly following the case reviewed however it has been included as a guideline of expected midwifery professional standards.

[RM A] has acknowledged in her complaint response that the documentation is not comprehensive and she has

1. Changed her practice to use "expect" software. This software includes customised growth charts and [RM A] reflects that as a result, her documentation has much improved and now includes full narrative notes.
2. [RM A] has indicated in her complaint response that she is willing to undertake a Midwifery Council approved documentation course.

In my opinion the midwifery documentation reviewed has **moderately departed** from accepted standards as it contains the essential clinical components **but offers no insight or narrative regarding discussions and information shared**. "Dotting I's and crossing T's" facilitated by the New Zealand College of Midwives (NZCOM) would be a suitable Midwifery Council approved course for [RM A] to attend as it meets current legislative and professional requirements for midwifery documentation.

5) Whether the assessment and monitoring of fetal growth was adequate/ appropriate.

[Ms B] booked at 11 weeks and 6 days gestation on 18 [Month1]. Her BMI was 40.6.

In the context of an increased BMI, accepted midwifery practice would initiate the arrangement of serial growth scans at 30–32 weeks gestation or earlier if clinically indicated. A customised growth chart would be generated and plotted from 24–28 weeks gestation as fundal measurement alone is considered inaccurate in the context of increased BMI. Fundal height measurement by tape commences at 24 weeks gestation.

In her complaint response [RM A] states that she used a bayertz tape for fundal height measurement. The bayertz fundal height tape was developed in Whanganui in 1982 for a cohort of IVF pregnancies with sure dates.

I have asked the opinion from a NZ expert on GAP training (case content anonymised).

She has advised that *the current (GAP) teaching strongly advises against use of the Bayertz tape. The reason is that when the tape was developed in 1982 that the clients were of a similar ethnicity (European) and lighter than many of our clients today. Therefore they cannot be recommended in our highly diverse ethnicities and*

predominantly heavier population, knowing that ethnicity, parity and BMI affect fetal growth potential.

Growth Assessment Protocol (GAP) training is undertaken by all obstetric disciplines in NZ. The intention is to standardise technique for the measurement of fundal height. Another component of GAP training is the use of customised growth charts. NZ Midwifery Council includes attainment of GAP training as a competency to be achieved by midwives from overseas registering in NZ.

[RM A] states in her complaint response that *[Ms B] although she had a large BMI her baby was easy to palpate, she always measured appropriate for gestation by all midwives that had seen her.* Mc Cowan et al. (2018) found inaccuracy with fundal height measurement in obese women; noting that the prevalence of reduced fetal growth in obese women makes accuracy in fundal height measurement of increased importance.

The NZ guideline for the management of suspected small for gestational age singleton pregnancies and infants after 34 weeks gestation [SGA, MFMN], 2014) are in agreement; stating BMI > 35 as a risk factor and indicator for consideration of serial growth scans from 30–32 weeks gestation if not clinically indicated prior.

Cowan et al. study (2019) (as cited by Lawes & Jones., 2019) agree that in New Zealand with high obesity and a multi ethnic population, detection of SGA was increased by 4 times following GAP implementation. The [SGA, MFM], 2014) guidelines suggest that (customised) GROW charts can significantly increase detection of SGA. [Ms B's] baby [Baby B] was born on the 9th centile. The 10th centile and below meet the criteria for small for gestational age (SGA) and referral to secondary care.

A customised growth chart was not generated by [RM A] for this pregnancy.

In summary, in my opinion the **growth assessment and monitoring** was not in keeping with current accepted midwifery practice and represents a **moderate departure** for the following reasons.

- A BMI of 40.6 is acknowledged to make accurate palpation difficult.
- A Bayertz tape is no longer recommended as an accurate measurement tape by GAP for the reasons outlined above
- =D (equal to dates) is used in [RM A's] clinical notes with no centimetre recording. The use of centimetres is important for assessing a fetal growth trajectory and plotting a growth chart.
- A customised growth chart was not used.
- Serial growth scans were not instigated and it would have been reasonable to consider them in the context of a BMI of 40.6.
- [RM A] acknowledges in her complaint response that a decreased birth weight is associated with smoking however smoking cessation is reported to have been offered and declined.

If [RM A] has not yet attended GAP training following [Ms B's] pregnancy I recommend that she does so to update her practice in line with current accepted midwifery practice. This training is currently offered regularly via zoom. I note in her complaint response that [RM A] now uses customised growth charts in her practice as a result of this complaint.

6) Whether the referrals made to obstetric care were timely and contained adequate information.

The referrals are as follows

Initially a referral was sent to secondary services at booking (18 [Month1]) regarding HIV status of [Ms B's] partner. This referral did not contain [Ms B's] BMI.

A referral was sent for the positive diabetes result in a timely manner (the day the result was received) however the referral did not outline risk factors of BMI, … ethnicity and family history of diabetes.

In my opinion **both referrals were timely** however **lacked inadequate information** so **mild to moderately depart** from accepted practice.

7) The monitoring of fetal movements.

Based on the clinical notes supplied, in my opinion the monitoring of fetal movements is in keeping with accepted midwifery practice. I note however that the documented use of "GFMs" (good fetal movements) is a subjective term and current practice favours questioning whether the fetal movements are consistent with the usual pattern. This is thought to encourage maternal awareness of her baby's individual pattern noting and acting on any deviations.

The clinical practice guideline for the care of women with Decreased Fetal Movements 2016 (Perinatal Society of Australia and New Zealand) states

Defining decreased fetal movements and maternal perception of fetal activity.

Recommendation A: All pregnant women should be routinely provided with verbal and written information regarding normal fetal movements during the antenatal period. This information should include a description of the changing patterns of movements as the fetus develops, normal wake/sleep cycles and factors which may modify the mothers perception of fetal movements, such as high BMI and placental position.

Information regarding the monitoring of fetal movement patterns has been supplied by [RM A] as part of an information package reviewed. Documentation verifies that fetal movements are discussed at each appointment.

[RM C]

8) Whether the care provided by [RM C] during labour was adequate/appropriate, including timeliness of obtaining obstetric review

Following review of [RM C's] clinical notes in my opinion the care provided was adequate and appropriate in [Ms B's] labour and does not depart from accepted Midwifery practice for the following reasons

- Admission to hospital occurred at 4.40am and a raised fetal heart rate was noted at 170 beats per minute (normal baseline 110–160bpm). Assessment of progress, drawing bloods, change of maternal position and IV fluids were commenced. These are accepted midwifery assessments and measures prior to Obstetric consultation.
- [RM C] reports requesting Obstetrician review on 4 occasions between 5.10am and 6.25am. In this period fetal heart decelerations, reduced variability and persistent increased fetal heart rate are noted. Due to competing clinical demands and a registrar pager not in use, obstetric attendance occurred at 6.25am.
- The Obstetrician noted that the fetal heart rate had settled to 155bpm after the IV fluids. The Obstetric plan was to continue with the labour and arrange an epidural for [Ms B].
- Epidural procedure is time consuming, arranging an anesthetist (paged at 6.25am, arrived at 6.40am), preparing a sterile area, placing of an epidural and initial observations for 20 minutes after epidural is placed (7.20–7.40am). It is worthy of note that the fetal heart cannot be monitored by the CTG during the placing of an epidural as this would compromise the sterile field. CTG recommenced at 7.20am.
- Midwifery care was transferred to [RM E] at 7.45am.

There is some debate regarding access to obstetric availability between 5.05am and 6.25am however the obstetric decision was documented at 6.25am to continue with the labour and to arrange an epidural.

[RM E]

9) Whether the care provided by [RM E] during labour was adequate/appropriate, including timeliness of obtaining obstetric review.

At 7.45am following handover, reduced variability and decelerations are noted to be persistent by [RM E]. With consent from [Ms B] an artificial rupture of membranes (breaking the waters) is performed. This, along with a further vaginal examination provides information regarding whether progress has been made and whether meconium is present in the amniotic fluid (meconium can be an indicator of fetal distress). A fetal scalp electrode was placed by the Obstetrician at 8.20am advising he would reassess following morning handover. At 8.25am medication (ranitidine) was given to [Ms B] by [RM E] in preparation for an anticipated caesarean. [RM E] went to find the Obstetric registrar as she remained concerned about features of the CTG. The registrar was in attendance at 8.35am and following consultation with the Senior Medical Consultant (Obstetric Consultant) by phone, the decision for a caesarean was made. At 8.45am [Ms B] transferred from the Birthing suite to the theatre. In my opinion the care provided by [RM E] was in keeping with accepted midwifery practice with no departures.

[RM A]

10) Postnatal care — Whether the postnatal care provided by [RM A] was adequate/appropriate.

The care documented in clinical notes, in my opinion appears to be in keeping with accepted midwifery practice with 6 visits postnatally following discharge from [the DHB] on 31 [Month7].

The 6 postnatal visits extend from 1 February until discharge on 18 February 2018 and [Ms B] was also seen in the diabetes clinic on 2 February. Documentation is sparse, however it does cover postnatal clinical care. Documentation standards have been discussed in question 4 above. In my opinion, based on the available documentation the midwifery care in the postnatal period provided by [RM A] meets accepted Midwifery standards.

11) Whether the postnatal care provided by the hospital midwives was adequate/ appropriate.

On review of the clinical notes, postnatal hospital midwifery care appears to be in keeping with accepted midwifery practice with no departures identified. I note however, that [Ms B] declined a readmission to hospital for her wound infection on 21 [Month7]. Dr … has recorded a discussion in his clinical letter stating that [Ms B] is very tearful and traumatised and does not want to be admitted due to previous experience on the postnatal ward.

I have not seen [Ms B's] complaint so am unable to address her specific concerns and I am unable to identify whether the concerns are related specifically to the midwifery care received. I will willingly revisit my opinion if further detail of concerns can be supplied. I acknowledge that [Ms B] feeling tearful and traumatised by the care received should not be left unaddressed as this may present an opportunity for staff education and reflection; furthermore, any remaining concerns could potentially impact on [Ms B's] future willingness to seek clinical advice and support.

13) Any other matters in this case that are considered a departure from accepted practice.

There are no other matters in this case that I consider a departure from accepted Midwifery practice.

Summary

I have been asked to review and provide advice on the above. Regarding the monitoring of fetal growth and regarding documentation, in my opinion there are **moderate departures** from accepted midwifery practice.

[RM A] has reflected and has expressed a willingness to update her practice. The following are suggestions that may be considered if not already addressed.

Attendance to and maintenance of GAP training.

Attendance to NZCOM "Dotting I's and Crossing T's" documentation workshop

Revision of

New Zealand Maternal Fetal Medicine Network. (2014) *Guideline for the management of suspected small for gestational age singleton pregnancies and infants after 34 weeks' gestation*.

Ministry of Health. (2014) *Screening, Diagnosis and Management of Gestational Diabetes in New Zealand, clinical guideline to practice*.

Ministry of Health*. Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines).*

The clinical practice guideline for the care of women with Decreased Fetal Movements 2019 (Perinatal Society of Australia and New Zealand).

References

Ministry of Health. (2014) *Screening, Diagnosis and Management of Gestational Diabetes in New Zealand, clinical guideline to practice*

Ministry of Health*. Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines)*

New Zealand Maternal Fetal Medicine Network. (2014) *Guideline for the management of suspected small for gestational age singleton pregnancies and infants after 34 weeks' gestation*.

McCowan, L., Figueras, F., & Anderson, N. (2017). Evidence-based national guidelines for the management of suspected fetal growth restriction: Comparison, consensus, and controversy. *American Journal of Obstetrics & Gynecology, 218*(2), S855–S868. https://doi.org/10.1016/j.ajog.2017.12.004

Parker, G., (2017) Shamed into health? Fat pregnant women's views on obesity management strategies in maternity care. *Women's Studies Journal. 31*(1) 22–33.

The clinical practice guideline for the care of women with Decreased Fetal Movements 2016 (Perinatal Society of Australia and New Zealand).'

Appendix B: Independent clinical advice to Commissioner

The following independent advice was obtained from obstetrician and gynaecologist Dr John Short:

'2nd February 2021

Re: Complaint [Dr D], [Dr F], [the DHB] (ref C20HDC00505)

I have been asked to provide advice in this case (C20HDC00505). I have read and agree to follow the Commissioner's guidelines for independent advisors. I can confirm there is no conflict of interest.

I am a specialist Obstetrician and Gynaecologist, vocationally registered in New Zealand since 2007. I have worked as a senior medical officer in Obstetrics and Gynaecology at Christchurch Women's Hospital since 2006.

I have been provided with relevant documents, including the consumer complaint, hospital records and reports from the clinicians involved. I have been asked to comment specifically on the following:

Antenatal care

1. Whether it was reasonable to decline [Ms B's] referral dated 31 [Month1].
2. The timeliness of [Ms B] receiving an obstetric service appointment following the referral dated 21 [Month6].
3. The care provided to [Ms B] on 11 [Month7] at [the public hospital].

Care during labour

4. Whether the care provided by [Dr D] was adequate/appropriate.
5. Whether the care provided by [Dr F] was adequate/appropriate.
6. The timeliness of the intervention during labour, based on the information available at the time.
7. Whether the staffing/resourcing levels at [the DHB] were adequate.
8. Any other matters in this case that you consider amount to a departure from accepted practice.

Background

[Ms B] was primigravida in 2017 and receiving care from her LMC midwife. Antenatally, she was referred to the Obstetrics Secondary Care Service at [the public hospital] twice and reviewed once in the obstetrics clinic (at 37+1 weeks gestation). The first referral was 1st [Month2] and was declined. The reason for referral was that [Ms B's] partner is HIV positive. This was not considered an indication for her to be seen at the clinic and advice was provided. The second referral was for a positive Glucose Tolerance Test,

diagnostic of gestational diabetes and was received on 28th [Month6]. She was seen by the diabetes nurse on 3rd [Month7] and by the multidisciplinary team, including medical staff from obstetrics and endocrinology, on 11 [Month7].

On 18 [Month7], [Ms B] went into spontaneous labour (38+1 weeks gestation). She was admitted to [the public hospital] around 4.40am. She was reviewed by two obstetric consultants over the following four hours due to CTG concerns. Around 8.30am the obstetric registrar reviewed [Ms B] who noted that she had had an abnormal CTG and arranged an emergency caesarean section. [Baby B] was born in poor condition. Cord pH was 7.15 (arterial) and 7.18 (venous) indicating a mild acidosis secondary to hypoxia. A hypoxic ischaemic encephalopathy was diagnosed and [Baby B] was transferred to [another] Hospital for ongoing care.

It is noteworthy that this review has come about following the report for an ACC treatment Injury, rather than by direct consumer complaint. It appears that the conclusions of the ACC expert adviser were somewhat critical of the care received particularly in relation to management of the CTG. Interestingly, the expert reached these conclusions without actually seeing the CTG herself. Instead, the conclusions were based on the description of the CTG in the case notes.

Comments

In response to the Commissioner's questions:

Antenatal care

1. Whether it was reasonable to decline [Ms B's] referral dated 31 [Month1].

   Yes, it was reasonable to decline this referral. There was no value in her being seen for the stated reason for the referral.

2. The timeliness of [Ms B] receiving an obstetric service appointment following the referral dated 21 [Month6].

   In my opinion the timeframe was reasonable, especially when one considers the time of year and the impact of public holidays etc on services.

3. The care provided to [Ms B] on 11 [Month7] at [the public hospital].

   The care provided on 11th [Month7] was acceptable. However, it is noted that she did not have an ultrasound scan of the baby. This was arranged for a later date with further clinic follow up. Ideally an ultrasound scan would have been done to coincide with her appointment on 11th [Month7] to enable a more comprehensive assessment in view of the GDM and her raised BMI. The significance of this omission is debateable.

Care during labour

4. Whether the care provided by [Dr D] was adequate/appropriate.

   [Dr D] reviewed [Ms B] at approximately 0620. The midwife had sought an obstetric review earlier due to CTG concerns but the Drs had been busy with another birth. The CTG had been abnormal between about 5am and 5.45am. However it had improved significantly by the time [Dr D] was present to review. [Ms B] was distressed with pain and wanted an epidural. [Dr D] agreed to this being done and I agree that was a reasonable decision. The improvement in the CTG was such that no immediate intervention was required at that time. It does not appear that [Dr D] had any further direct involvement in her care although he remained available. Therefore, I conclude that the care provided by [Dr D] was appropriate.

5. Whether the care provided by [Dr F] was adequate/appropriate.

   [Dr F] took over from [Dr D]. He was first consulted at approximately 0745 due to further concerns over the CTG. The CTG was frankly abnormal from approximately 0720 after the epidural was sited. He reviewed the trace at 0755, performed a vaginal examination and placed a fetal scalp electrode (FSE) to obtain a more reliable tracing (there is significant loss of contact between 0740 and 0805). [Dr F] was significantly pressured as he was required for the obstetric handover and to start a surgical operating list at 0830. After placing the FSE, [Dr F] made the plan for [Dr G] (registrar covering that day and reporting to him) to review the CTG in 20 minutes. [Dr G] reviewed the CTG at 0825. It had deteriorated further and immediate delivery by caesarean section was arranged.

   Overall, I am satisfied that the care provided was appropriate. Whilst it would have been reasonable to go straight to caesarean section at 0805, prior to application of the FSE, it was also reasonable to wait a short period of time for a more reliable tracing to be available. The time interval between placement of FSE and decision for caesarean section is 20 minutes at most. [Dr F] was clearly under pressure, having multiple commitments at the same time (reviewing the patient, attending handover and going to theatre) which is a systems issue and obviously less than satisfactory. Due to these competing demands he failed to make his own notes at the time, although in the circumstances this is understandable and whilst not ideal it would be harsh to be overly critical.

6. The timeliness of the intervention during labour, based on the information available at the time.

   The intervention of caesarean section was reasonably well timed. In my opinion intervention was indicated from about 0805 at the very earliest. The interval between this time and the time of actual intervention (20 minutes) is not significant in my opinion.

7. Whether the staffing/resourcing levels at [the DHB] were adequate.

   I cannot comment on the staffing levels at the time. It is unsatisfactory that a senior medical officer with responsibility for birthing suite should also be performing elective surgery at the same time, although I understand this no longer occurs at [the DHB]. Although it is unlikely to have contributed to the outcome, I also note that facilities for fetal blood sampling were unavailable at [the DHB] at the time of this case. If this is still the case, then [the DHB] should consider obtaining the facilities to make this test available. This would reduce the obstetric team's reliance on CTG interpretation, which is inherently fraught with problems, as their sole tool to assess fetal wellbeing in labour and caesarean section as their only option for intervention in the event of an abnormal CTG.

8. Any other matters in this case that you consider amount to a departure from accepted practice.

   I am somewhat concerned as to how this case came to the attention of the HDC. I understand that the consumer herself did not complain but this review resulted from concerns expressed by an expert reviewer for ACC. The conclusions of this review were reached without the CTG being reviewed by the expert. Since the whole case rests on the interpretation of the CTG I find this situation to be highly questionable.

Conclusion

Overall, despite the suboptimal outcome, I am satisfied that [Ms B] received care of an appropriate standard at [the public hospital] on 11th [Month7] and 18th [Month7]. I am pleased that [the DHB] has since rectified the situation of the Obstetric SMO being on call whilst also performing elective surgery.

As an aside (and not relevant to the outcome of this case), I would recommend that [the DHB] review their outpatient booking processes to ensure patients who require obstetric ultrasound can have this arranged in a manner that reports are available at the time of clinic appointments and that consideration be given to obtain facilities to perform fetal blood sampling during labour.

I hope you find this report helpful and please contact me if you require further information.

Yours Sincerely,

John Short'

Appendix C: Ministry of Health's *Referral Guidelines*

The *Referral Guidelines* provide a list of conditions for which an LMC should advise or recommend to a pregnant woman that a referral, consultation, or transfer of clinical responsibility take place.

The *Referral Guidelines* recommend a consultation for women with a BMI of more than 35, and a transfer of clinical responsibility for women with a BMI of more than 40.

The *Referral Guidelines* state that the LMC must recommend to the woman that the responsibility for her care be transferred to a specialist given that her pregnancy, labour, birth, or the baby, is or may be affected by the condition.

The *Referral Guidelines* state that if a woman chooses not to be referred or not to consult with a specialist, the LMC may be left operating outside their experience or scope of practice, and/or may feel that they cannot provide the level of care the woman needs for her safety and the safety of the baby. The *Referral Guidelines* state:

> 'In the event that a woman declines a referral, consultation or transfer of clinical responsibility, the LMC should:
>
> - advise the woman of the recommended care, including evidence for that care
> - explain to the woman the LMC's need to consider discussing her case with at least one of the following … another midwife, GPO[1] or GP, an appropriate specialist, an experienced colleague/mentor
> - share the outcomes of the discussion and any resulting advice with the woman
> - document in the care plan the process, the discussions, recommendations given and decisions made, and the woman's response …
>
> If the LMC decides to continue care, she or he should:
>
> - continue making recommendations to the woman for safe maternity care, including further attempts at referral
> - engage other practitioners as appropriate for professional support (eg, secondary obstetric service, other midwives)
> - continue to document all discussions and decisions.'

[1] General practitioner obstetrician.

Appendix D: Ministry of Health's Gestational Diabetes Guidelines

In 2014, the Ministry of Health published a clinical practice guideline on Screening, Diagnosis and Management of Gestational Diabetes in New Zealand (Gestational Diabetes Guidelines).

The Gestational Diabetes Guidelines state that all pregnant women should be offered a routine resulting glycated haemoglobin (HbA1c[2]) with booking bloods. If the results are normal, no action is required.

The Gestational Diabetes Guidelines state that at 24 to 28 weeks' gestation:

> '[A]ll women not previously diagnosed with diabetes who are at high risk of gestational diabetes (HbA1c of 41–49 mmol/mol) should be offered the diagnostic two-hour, 75 g oral glucose tolearance test … All other women should be offered screening for gestational diabetes using the one-hour, 50 g, oral glucose challenge test known as the polycose test.'

[2] Measures the amount of glucose (a type of sugar) that has built up in the body.

Appendix E: RANZCOG Guidelines

The RANZCOG Guidelines state that pregnant women with obesity should be offered additional serial ultrasounds for fetal growth. The RANZCOG Guidelines state that women with obesity have increased risk of fetal growth restriction and despite its limitations, ultrasound may provide a more accurate assessment of fetal growth than clinical assessment.

Appendix F: SGA Guidelines

The SGA Guidelines recommend that women in whom it is not possible to reliably measure fundal height (e.g. BMI > 35), should be referred for ultrasound assessment of growth. The SGA Guidelines state that when it is not possible to assess fetal growth clinically, growth scans may be considered at 30 to 32 weeks, and at 36 to 38 weeks to enable serial assessment of growth.

The SGA Guidelines also recommend that when an ultrasound is performed, the estimated fetal weight is plotted on a growth chart.