Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

# A Decision by the Deputy Health and Disability Commissioner

# (Case 21HDC00706)



## 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 A by Registered Midwife (RM) B during Ms A's pregnancy and labour in 2019–2020. On 27 Month2, following a period of labour, Ms A gave birth to her daughter via a category one Caesarean section.[1] The baby was born in poor condition and diagnosed with severe hypoxic ischaemic encephalopathy (HIE).[2] Sadly, her condition did not improve, and she passed away in hospital on 3 Month3.

3. On 26 March 2021, the Health and Disability Commissioner (HDC) received a referral from Te Tatau o te Whare Kahu|Midwifery Council enclosing a 'risk of harm report' from the Accident Compensation Corporation (ACC). The risk of harm report identified concerns with the care provided to Ms A by RM B that were believed to present a risk of harm to the public. Ms A agreed to the Commissioner assessing the care she received.

[1] A category one Caesarean section is the highest urgency, indicating that there may be immediate threat to the life of the mother or baby.
[2] HIE is brain injury caused by insufficient oxygen delivery to the brain. It is a serious birth complication that can cause severe developmental delay, lifelong disability and death.



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

4. The following issue was identified for investigation:

- *Whether registered midwife RM B provided Ms A with an appropriate standard of care.*

5. The parties directly involved in the investigation were:

| | |
|---|---|
| Ms A | Consumer |
| RM B | Midwife/provider |

6. Further information was received from:

| | |
|---|---|
| Te Whatu Ora | District healthcare provider |
| Te Tatau o te Whare Kahu\|Midwifery Council | Registration body |

## How matter arose

### Background

7. Ms A, in her thirties at the time, booked with RM B as her lead maternity carer (LMC). Ms A's baby was estimated to be 8 weeks and 5 days' gestation (8+5 weeks).[3] This was Ms A's first pregnancy. RM B was a self-employed LMC.

8. Ms A's pregnancy followed a normal course in the first two trimesters and the beginning of the third trimester. She had routine assessments, MSS1 screening[4] (low risk), a prescription of iron supplements for low iron stores, and screening for gestational diabetes (with normal results). Ultrasounds at 19+0 weeks and 27+6 weeks identified a low-lying placenta[5] and polyhydramnios,[6] respectively. However, subsequent ultrasounds showed that these issues had resolved. A static fundal height measurement[7] was noted at 28+5 and 30+6 weeks (both 32cm) but no concerns about this were noted. RM B recalled thinking that this was probably due to the polyhydramnios settling.

### Fetal growth surveillance

*Ultrasound scans*

9. At 36+0 weeks, an ultrasound report showed that there had been 'a mild decline in interval growth' from the previous scan, with the fetal abdominal circumference having decreased from the 29th percentile at 27+6 weeks to the 10th percentile at 36+0 weeks. The fetal head circumference was noted to be at the 52nd percentile. No specific comment was made about the discordance between the head circumference (52nd percentile) and the abdominal circumference (10th percentile). The estimated fetal weight was 2494g +/- 15%. The

[3] Calculated from the first day of Ms A's last menstrual period (LMP). Subsequent ultrasound scans showed a three-day difference in estimated gestational age. For consistency, this report uses the gestational age calculated from the LMP.
[4] Routine antenatal screening for Down syndrome and other conditions.
[5] If the edge of the placenta is less than 2cm from the cervix, this is known as a low-lying placenta.
[6] An excess of amniotic fluid around the baby during pregnancy.
[7] The fundal height is the measurement from the uppermost part of the fundus (the uppermost part of the uterus) to the top of the pubic bone (pubic symphysis). Fundal height measures the size of the woman's uterus and is used as an assessment of fetal growth.

reporting radiologist recommended that a follow-up growth scan be performed in two weeks' time.

10. On 24 Month1,[8] at 36+6 weeks, RM B and Ms A discussed the results of the 18 Month1 ultrasound scan, in particular the 'drop off in [fetal] growth'. The antenatal record documents:

> 'We reviewed her scan and blood results. The scan showed a small drop off in [abdominal circumference] growth with [amniotic fluid] and movements normal. Recommendation for rescan in two weeks … [Ms A] happy with baby's movements, she is only a tiny lady and thinks her baby should be small.'

11. RM B stated that she explained to Ms A that a small baby may be a compromised baby. RM B said she explained 'what this meant', including that Ms A's baby had been measuring in the 90th percentile at 27+6 weeks on a customised growth chart, compared to 'just below' the 50th percentile at 36+0 weeks. RM B stated that she recommended to Ms A that a further growth scan be undertaken in two weeks' time as there was indication that fetal growth might be slowing. RM B said that following this discussion, Ms A consented to a further growth scan. RM B said she did not consider that Ms A met the criteria for obstetric referral at this time.

12. On 3 Month2, at 38+2 weeks, a follow-up ultrasound noted 'satisfactory interval growth since the previous scan', with the abdominal circumference now measuring at the 13th percentile. The fetal head circumference was measuring at the 49th percentile. The estimated fetal weight was 2962g, +/- 15%, plotted at the 50th percentile on the customised growth chart. This was the last ultrasound of Ms A's pregnancy.

13. On 9 Month2, RM B and Ms A discussed the results of the 3 Month2 ultrasound scan. RM B noted in the antenatal record that the baby was 'growing well', with an estimated fetal weight of 3000g. Ms A reported that the 'baby [was] being very active'. Maternal and fetal observations were noted to be normal.

*Symphysis-fundal height measurements*

14. In addition to the above investigations, from 21+5 weeks onward RM B recorded Ms A's fundal height at each antenatal appointment[9] and plotted this on a customised growth chart ('GROW chart').[10] The explanatory notes on the GROW chart outline indications for when referrals for a growth scan should be arranged, including if 'consecutive measurements show SLOW or NO growth'.

[8] Relevant months are referred to as Months 1–3 to protect privacy.
[9] Approximately every four weeks in the second trimester, every two weeks in the third trimester, and every week from 40 weeks' gestation.
[10] A Gestation Related Optimal Weight chart is customised for the characteristics of each pregnancy.

15. In the final weeks of Ms A's pregnancy, the fundal height was recorded as follows:

- 9 Month2 (39+1 weeks): 38cm
- 16 Month2 (40+1 weeks): 38.5cm
- 22 Month2 (41+0 weeks): 38cm

16. RM B said that on 22 Month2 she noted that there had been no increase in the fundal height and discussed this with Ms A. In a response to the Midwifery Council,[11] RM B said that she was 'not overly concerned' about the static fundal height measurements, as throughout Ms A's pregnancy the fundal height measurement 'had not been indicative of actual growth'. Further, RM B said that she considered that the lack of change in the fundal height may have been explained by the fact that Ms A had emptied her bladder prior to measurement on 22 Month2, whereas her bladder had not been emptied prior to the previous five fundal height measurements, which may therefore have been 'skewed by a full bladder'. RM B explained that a full bladder can affect the fundal height by up to 2cm.

17. The antenatal record on 22 Month2 notes that Ms A '[d]eclined another scan'. There is no documentation of the discussion that led to this decision. RM B and Ms A gave differing accounts of what this discussion entailed.

*RM B's recollection*

18. In her response to the Midwifery Council, RM B acknowledged that her documentation in the antenatal notes does not reflect the discussion she had with Ms A recommending that a repeat growth scan be undertaken. RM B said that she offers all the women under her care a 'post-dates' scan to measure growth, amniotic fluid volume and presentation, as well as a CTG[12] and a membranes sweep.[13] She said she offered Ms A 'all of the above from a post-dates perspective', and that Ms A consented to a membranes sweep and CTG but declined another scan. RM B said that 'it may have been a financial reason why [Ms A] declined'.

19. RM B told HDC that she recommended a scan and explained to Ms A that 'it would provide greater reassurance of fetal wellbeing'. In her response to the Midwifery Council, RM B said she respected Ms A's right to decline the scan and 'did not press [Ms A] on her decision making'. RM B said she considered that Ms A was fully informed of the reasons for recommending a further growth scan as this had been discussed previously at the appointments at 36 and 38 weeks, and that Ms A was therefore able to make an informed decision.

[11] Following receipt of the ACC risk of harm report, the Midwifery Council asked RM B to respond to the concerns identified. RM B provided HDC with a copy of her response to the Midwifery Council as part of her response to the HDC investigation.

[12] Cardiotocography (CTG) is a technique for assessing fetal wellbeing in labour by monitoring the fetal heart rate and uterine contractions.

[13] A procedure to stimulate labour without administering medications. A digital examination of the cervix is performed, and the amniotic sac (membranes) are separated from the cervix in a sweeping motion.

20. Following events, a Midwifery Council-appointed reviewer[14] asked RM B whether she had specifically informed Ms A about the implications of static fundal height measurement. RM B said she had not.

*Ms A's recollection*

21. Ms A recalled the discussion about a further growth scan as follows:

> '[RM B] said that my baby was healthy enough and growing well so doing further [scans] [made] no sense and [was] just a waste of money. I followed her [recommendation] and I didn't decline any scan going against [RM B's recommendation].'

22. Ms A said that previously she had agreed to undertake each recommended ultrasound throughout her pregnancy, and 'had no problem for the last one as well'.

23. As noted above, Ms A did consent to a CTG on 22 Month2. The CTG was documented in the antenatal record to be 'overall normal'.[15] In a response to the Midwifery Council, RM B said that as the CTG was 'very reassuring' and Ms A reported good fetal movements, RM B 'did not voice an opinion that [Ms A] should have another scan'. The membrane sweep was unable to be performed.

24. RM B told the Midwifery Council that she did not consider that Ms A met the criteria for obstetric referral under the Ministry of Health referral guidelines[16] at this time. However, she acknowledged that the GROW chart guidelines expect a referral to be recommended 'in such circumstances'.

**Birth plan**

25. Ms A had expressed her preference to birth at the public hospital. However, COVID-19 measures influenced Ms A's birth plans.

26. On 31 Month1, at 37+6 weeks, Ms A expressed concerns about birthing at the public hospital as her husband would not be able to stay at the hospital after the birth because of the COVID-19 measures in place. At this time, the last ultrasound scan (on 18 Month1) had shown a decline in fetal interval growth and a follow-up scan had been scheduled (as discussed above). The antenatal record documents:

> 'We talked through plan B, if scan on Friday shows baby is growing steadily, then [Ms A] can cho[o]se to birth at [the maternity hospital][17] … [Discussed] assessing labour and

[14] Following receipt of RM B's response to the ACC risk of harm report, the Midwifery Council undertook a competence review of the care provided to Ms A and her baby. RM B provided a copy of the Midwifery Council case review as part of her response to the HDC investigation.

[15] Normal fetal heart rate findings in labour are considered to be when the fetal heart rate is between 110bpm and 160bpm, there is baseline variability of 6–25bpm, accelerations of 15bpm for 15 seconds and no decelerations from baseline (as per The RANZCOG Intrapartum Fetal Surveillance Clinical Guidelines 2019 (4th edition)).

[16] Discussed at paragraphs 60–61.

[17] A primary birthing unit staffed by nurses and midwives.

when [the public hospital] is appropriate and transfer needed. Will [discuss] place of birth after scan with partner.'

27. RM B said that if the upcoming scan showed satisfactory growth, then birthing at the maternity hospital would be a suitable choice for an uncomplicated pregnancy.

28. On 9 Month2, following the scan on 3 Month2, RM B and Ms A discussed the birth plan again. After noting that the baby appeared to be growing well, RM B documented that the plan was for Ms A to birth at the maternity hospital. RM B told HDC that as a low-risk pregnancy, opting to birth in a primary unit was suitable. She also said that it was her impression that Ms A 'fully understood the difference of a primary birthing unit to a hospital birth' as the public hospital had been her original choice for her birth.

29. On 22 Month2, at 41+0 weeks, Ms A met with RM B for assessment. The details of the appointment are outlined in paragraphs 16–24. A plan was discussed for induction of labour if labour had not commenced spontaneously by 26 Month2. At this appointment, RM B made a referral to the obstetric team at the public hospital for 'post dates induction of labour'. Under the heading 'Other relevant history', the referral noted: 'CTG at 41 weeks normal. [Cervix] long and closed.' RM B said that she attached a copy of the 38+2 weeks growth scan to the referral.

30. On 24 Month2 the public hospital confirmed that Ms A's induction had been scheduled for 28 Month2 at 41+6 weeks.

**Labour and birth**

31. In the early hours of 27 Month2, at 41+5 weeks, Ms A commenced labour spontaneously. She spent the morning at home, where she was assessed by RM B's covering midwife. No concerns about maternal or fetal wellbeing were noted. The covering midwife handed care back to RM B at 9am.

32. RM B told HDC that she visited Ms A at her home at 11.30am. An entry in the clinical notes at 1.30pm documents this visit and assessment retrospectively. Ms A was noted to have been distressed and tired. Contractions were three minutes apart 'but short'. On examination, her cervix was found to be 2–3cm dilated and fully effaced.[18] The fetal heart rate was recorded at 150bpm.

33. Ms A and RM B met at the maternity hospital at around 1.30pm. On arrival, maternal observations were within normal range[19] with the fetal heart rate at 140–170bpm. Pain relief was discussed and 50mg of pethidine[20] was administered to Ms A intramuscularly.

[18] Cervical effacement is when the cervix softens, thins, and shortens in preparation for labour and delivery.
[19] Maternal observations: blood pressure 102/60mmHg; pulse 84bpm; oxygen saturation 97%; temperature 37.2°C; respiratory rate 16 breaths per minute.
[20] Pethidine is an opioid pain-relief medication.

34. Labour progressed over the next few hours, with the fetal heart rate recorded approximately every 30 minutes, ranging from 120bpm to 165bpm.[21] At 2pm contractions were documented as two to three minutes apart, lasting 40–60 seconds. At 2.30pm an ectopic fetal heartbeat[22] was heard, but when re-checked at 2.48pm no ectopic heartbeat was noted. At 2.45pm contractions were documented as three minutes apart and strong. There are no other entries documenting the frequency of contractions.

35. At 4pm a vaginal examination showed Ms A's cervix to be 8cm dilated. The membranes ruptured spontaneously during the examination and thick meconium-stained liquor[23] was present.

36. In response to the provisional decision, RM B said that at the presentation of thick meconium liquor, her first action was intermittent auscultation with Doppler,[24] and she noted fetal bradycardia. There is no documentation of this in the clinical notes. RM B said that following this she immediately started CTG monitoring.

37. The CTG trace shows that CTG monitoring was commenced at 4.05pm. RM B reviewed the CTG and documented in the clinical notes: '[Fetal] bradycardia[25] noted, then [fetal heart rate] back to 122bpm.' In response to the provisional decision, RM B noted that the CTG trace showed a further fetal heart rate deceleration at 4.07pm.

38. At 4.10pm RM B requested assistance from the core midwives. RM B documented in the clinical notes that the CTG was 'reassuring'. At 4.14pm RM B consulted with the public hospital and requested emergency retrieval of Ms A because of fetal distress. The clinical record documents that Ms A was moved onto her left side.

39. A timeline of events provided by Te Whatu Ora notes that during the 4.14pm telephone call RM B spoke to an obstetric registrar and a hospital midwife coordinator and reported the CTG as 'reassuring', counter to the fetal distress she was also referencing.

40. In response to the provisional decision, RM B said that she requested emergency retrieval due to the findings of fetal bradycardia noted on Doppler auscultation and a deceleration on CTG. RM B stated that she reported both these findings to the registrar at the public hospital, in addition to thick meconium liquor. RM B provided a copy of the public hospital retrieval midwife RM C's notes, written in retrospect, which document: '[4.15pm]: Asked to attend retrieval to the local hospital for [fetal distress] [at] 6cm dilated [with] thick [meconium] liquor.' RM B said that this confirms that she did report fetal distress to the [public hospital] registrar when she requested transfer.

[21] Fetal heart rate recordings were: 2pm: 155bpm; 2.30pm: 120–165bpm; 2.40pm: 144–162bpm; 3.15pm: 128bpm.
[22] An ectopic heartbeat is an 'extra' beat of the heart, causing an irregular fetal heart rhythm.
[23] Meconium is the earliest stool passed by a newborn baby. The presence of meconium in amniotic fluid (liquor) increases the risk of fetal compromise (as per the RANZCOG Intrapartum Fetal Surveillance Clinical Guidelines 2019 (4th edition)).
[24] A Doppler monitor is a handheld device used to detect the fetal heartbeat.
[25] Slower than normal heart rate.

41. At 4.20pm the fetal heart rate was 123bpm with decelerations present with contractions. The public hospital informed RM B that a helicopter was due to arrive at the local hospital[26] at 5pm to transfer Ms A to the public hospital in the main centre.

42. Whilst awaiting transfer, RM B took blood samples for a 'group and hold'[27] and a complete blood count and inserted a urinary catheter in anticipation of Ms A likely requiring an emergency Caesarean section at the public hospital. Ms A was noted to be 'very pushy', but RM B advised her not to push as her cervix was not yet fully dilated.

43. In response to the provisional decision, RM B said:

> 'From 16.10[pm] to 16.20[pm] the CTG trace showed some reassuring features however … In hindsight, the use of these words was an error. While the baseline and variability were within normal parameters, I mentioned on several occasions decelerations which did not make the CTG reassuring. It was written in error in a highly tense situation, however, my clinical actions in organising urgent retrieval, [indwelling urinary catheter], group and hold in prep for [emergency Caesarean section], are evidence that I appropriately assessed the clinical picture, but documented at one point incorrectly.'

*Transfer to public hospital*

44. In her response to this complaint, RM B raised concerns that the usual retrieval process was not followed as the helicopter 'decided to land in the park' and the ambulance crew brought the public hospital midwife to the maternity hospital. RM B noted: '[T]his is most unusual and wasted precious time in the transfer.'

45. An Adverse Event Review (AER)[28] conducted by Te Whatu Ora states: 'Retrieval from the maternity hospital maternity is a two-step process with helicopter and ambulance.' The usual process is for an ambulance to collect the patient from the maternity hospital and take the patient to the local hospital, where the helicopter lands to collect the patient for transfer to the public hospital.

46. The AER report stated that '[t]he situation where a patient requires urgent retrieval from a remote rural unit always takes time,' and noted that, in this case, the retrieval was complicated by the usual team being unavailable on another retrieval.

47. A timeline in the AER report shows that a retrieval helicopter departed the public hospital at 4.40pm. At 4.45pm, an ambulance was dispatched from a town approximately 30 minutes' drive from the maternity hospital as the local ambulance was not available. The timeline states that at 5.10pm the ambulance arrived at the maternity hospital and the helicopter was overhead. As the ambulance had not yet collected Ms A, the helicopter crew

[26] The local hospital is approximately nine minutes' drive from the maternity hospital.
[27] A sample taken to allow compatible blood to be provided rapidly should a transfusion be required.
[28] The AER used the London Protocol and included information from interviews with Ms A, RM B, the public hospital midwife and coordinator, maternity hospital staff, and the obstetric registrar. The AER report concluded: 'The underlying cause of the adverse outcome appears to be fetal distress with associated thick meconium at a location remote from secondary care.' No care delivery problems or deviations were identified.

decided to land the helicopter in the park to 'speed up the transfer' as the park is closer to the maternity hospital.

48. The AER timeline states that the ambulance departed the maternity hospital with Ms A at 5.30pm. An entry in the clinical notes by RM B at 5.40pm states:

> '[RM C] from [the public hospital] handover at [the maternity hospital]. [Ms A] still pushy [and] thick mec[onium] liquor. Decel[erations] with contractions. [Ms A's husband] to make way down in car.'

49. Ms A was taken by ambulance to the helicopter, which departed at 5.45pm.

50. Ms A arrived at the public hospital at approximately 6.15pm. Following examination by an obstetric registrar, Ms A was taken to the operating theatre for a category one Caesarean section. The baby was born at 6.36pm in very poor condition (Apgar scores: 0 at 1 minute, 0 at 5 minutes, 0 at 10 minutes).[29] She weighed 3100g. Full resuscitation was commenced and severe HIE was diagnosed. The baby was transferred to the Neonatal Intensive Care Unit (NICU).[30] Sadly, her condition did not improve, and she passed away in hospital when life-support measures were withdrawn.

**ACC notification of risk of harm**

51. The basis of the ACC risk of harm report was 'failure to recognise and respond to static fetal growth in the last [five] weeks of pregnancy which resulted in perinatal [HIE] and death'.

52. ACC's external midwifery advisor considered that an urgent ultrasound and/or obstetric review was indicated at the antenatal appointment on 22 Month2 at 41+0 weeks. She said that RM B should have had a raised suspicion of fetal growth restriction due to the earlier ultrasound scans showing a drop in the abdominal circumference at 36+0 weeks and an abdominal circumference around the 13th percentile at 38+2 weeks. The advisor considered that RM B should have acted on this suspicion at the 22 Month2 appointment when the fundal height measurements at 39+1, 40+1 and 41+0 weeks indicated static fetal growth.

53. The advisor acknowledged that the antenatal notes indicate that Ms A declined a scan at this appointment. However, the advisor also noted that there is no documentation of what information was shared or if the significance of the static growth was recognised and discussed.

[29] The Apgar score is a clinical indicator used to evaluate the condition of a newborn infant shortly after birth (usually at 1 minute and 5 minutes after birth). The score is based on a rating of 0, 1, or 2 for each of the five characteristics of colour, heart rate, response to stimulation of the sole of the foot, muscle tone, and respiration, with 10 being a perfect score.

[30] Te Whatu Ora's AER found the NICU care to have been 'exemplary'.

54. The advisor also noted:

> 'The estimated fetal weight at the 36-week [ultrasound] was just under 3000g, on the 50th centile. At birth, [the baby] weighed 3100g, closer to the 10th centile, indicating almost no growth in the final 5 weeks of pregnancy.'

55. In a response to the Midwifery Council, RM B said:

> 'I do not consider it reasonable for ACC to suggest [estimated fetal weight] on the scan at 36 weeks can fairly be compared to the actual birth weight and to then conclude "almost no growth in the final 5 weeks of pregnancy". I further disagree there was any failure to properly recognise/understand the growth chart drop off at 41 weeks or prior.'

56. RM B also noted that the baby's birth weight of 3100g is in the 17.7th percentile on a customised growth chart for Ms A. RM B also said that she had 'several conversations' with the consultant neonatologist leading the baby's care in the week following her birth, and at no time was it mentioned that the baby was a growth-restricted baby.

**Responses to provisional decision**

*Ms A*

57. Ms A was given the opportunity to respond to the 'How matter arose' and 'Relevant standards' sections of the provisional decision. Ms A advised that owing to personal circumstances, she did not feel able to comment. She advised that she was comfortable with the investigation being finalised without her comment.

*RM B*

58. RM B was given the opportunity to respond to the provisional decision, and her comments have been incorporated into this report where appropriate. RM B said that she accepted the provisional decision, subject to her comments outlined at paragraphs 35–43. She accepted the recommendations. RM B provided a written apology to Ms A and this has been forwarded to Ms A with this report.

59. RM B also provided evidence of completion of the College of Midwives' workshop 'Dotting I's and crossing T's: Midwives and Record Keeping' in October 2022, and of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) fetal surveillance education programme (FSEP) in November 2022.

## Relevant standards

60. RM B was required to provide Ms A with services that complied with the Ministry of Health 'Guidelines for Consultation with Obstetric and Related Medical Services' (referral

guidelines).[31] The referral guidelines provide the criteria and pathways for referring pregnant women for consultations with other clinicians.

61. Table 2 of the referral guidelines sets out a list of conditions and criteria that fall into the four categories for referral: primary,[32] consultation,[33] transfer,[34] and emergency.[35] Under the category '[Intrauterine growth restriction]/small for gestational age', Table 2 sets out that obstetric consultation is required where (emphasis added):

> 'Estimated fetal weight (EFW) [is less than the] 10th percentile on a customised growth chart, or abdominal circumference (AC) [is less than the] 5th percentile on ultrasound, OR *discordancy of abdominal circumference with other growth parameters*, [in the presence of] normal liquor.'

## Comments from Midwifery Council

62. As noted, following these events the Midwifery Council undertook a competence review of RM B's care of Ms A. Following discussion with RM B as part of the competence review, the Midwifery Council reviewer noted the following:

- The reviewer asked RM B whether Ms A could have made an informed decision at the 41+0 week visit about whether to undergo a growth scan if RM B had not shared any concerns over the static fundal height. RM B agreed that she could not.
- The reviewer and RM B discussed that if the concerns about static fundal height had been explained to Ms A in recommending a growth scan at the 41+0 week visit, then it may have been accepted, and if there had been some concerns around growth, then birthing at the public hospital would have been advised. RM B acknowledged that this may have resulted in the use of a CTG at an earlier stage, as Ms A would have been seen to have risk factors.
- RM B accepted that her rationale of 'pregnant women, like all competent adults, have the right to refuse medical treatment' and if they 'decline a recommended pathway of care, I respect and uphold her autonomy and dignity' were, in this case, not relevant as she had not provided Ms A with the right information to be able to give informed refusal.

[31] Ministry of Health. 2012. *Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines).* Wellington: Ministry of Health.
[32] Referral to a primary health provider is indicated (eg, to a general practitioner, physiotherapist, maternal mental health services).
[33] The LMC must recommend to the woman that a consultation with a specialist is warranted.
[34] The LMC must recommend to the woman that the responsibility for her care be transferred to a specialist.
[35] An emergency necessitates the immediate transfer of clinical responsibility to the most appropriate practitioner available.

63. The Midwifery Council reviewer concluded:

> 'By not recommending a scan specifically for growth and not giving [Ms A] the information she needed to make an informed decision, the opportunity to detect a risk factor that may have reduced [the baby's] ability to cope with labour was missed.'

## Opinion: RM B — breach

### Introduction

64. I acknowledge the distress and grief experienced by Ms A and her family as a result of the events described in this complaint. Ms A was pregnant with her first baby, and she relied on her LMC to identify and explain potential concerns about the baby's wellbeing and recommend obstetric consultation appropriately in accordance with relevant guidelines. Unfortunately, it appears that this did not occur and, as a result, crucial opportunities were missed to identify and manage concerns about the baby's wellbeing. I extend my deepest condolences to Ms A and her family for the tragic loss of their daughter.

### Monitoring of fetal growth

65. To aid in my assessment of Ms A's care, I obtained advice from my in-house midwifery advisor, RM Nicholette Emerson.

*Ultrasound scans*

66. RM Emerson advised that RM B's antenatal care of Ms A was in keeping with accepted midwifery practice in that she arranged a follow-up ultrasound when slowing of fetal growth was identified at 36+0 weeks. RM Emerson noted that subsequently RM B was reassured by the follow-up scan at 38+2 weeks, which identified that there had been 'satisfactory interval growth since the previous scan'.

67. However, RM Emerson noted that the ultrasound scan at 36+0 weeks and the follow-up ultrasound scan at 38+2 weeks both showed 'significant discordancy' between the fetal head circumference and the abdominal circumference. At 36+0 weeks, the head circumference was in the 52$^{nd}$ percentile and the abdominal circumference was in the 10$^{th}$ percentile. At 38+2 weeks, the head circumference was in the 49$^{th}$ percentile and the abdominal circumference was in the 13$^{th}$ percentile. RM Emerson explained that as per the Ministry of Health referral guidelines in place at the time,[36] this discordancy warranted obstetric referral for a suspected small for gestational age (SGA) condition.

68. RM Emerson referred to the New Zealand Fetal Medicine Network's publication 'Guideline for the management of suspected small for gestational age singleton pregnancies and infants after 34 weeks' gestation (2014)', which notes that the abdominal circumference is usually the first fetal measurement to become reduced in SGA. The guideline provides a list of situations in which suboptimal fetal growth is suspected, including:

[36] Current guidelines (2023) no longer include discordancy but do include monitoring of the abdominal circumference.

'— Discrepancy between head and abdominal circumferences (e.g. HC 75th centile and AC 20th centile which suggests wasting)

— AC is [greater than] the 5th centile but is crossing centiles by [more than] 30th centile e.g. reduction from 50th centile to 20th centile'

69. RM Emerson noted that the abdominal circumference had declined from the 29th percentile at the earlier scan at 27+6 weeks to the 13th percentile at 38+2 weeks but stated that this alone did not meet the threshold for obstetric referral.

70. RM Emerson concluded that while it was appropriate to arrange a follow-up scan at 36+0 weeks, a referral to, or at least a discussion with, an obstetrician should have been undertaken at the very latest following the ultrasound scan at 38+2 weeks. RM Emerson advised that not recognising the markers of a potentially growth-restricted baby at 38+2 weeks, and subsequently failing to follow up or refer appropriately, is a moderate departure from accepted midwifery practice.

71. I accept RM Emerson's advice. I am critical that RM B did not recognise the significance of the discordancy between the fetal head and abdominal circumferences in both the 36+0 and 38+2 weeks scans and, as a result, failed to recommend obstetric consultation for suspected SGA following the 38+2 weeks scan.

*Fundal height measurements*

72. Between 39+1 weeks and 41+0 weeks there was no change in the recorded fundal height measurements. RM B said that she was 'not overly concerned' about the static fundal height as she considered that this may have been due to the difference between measuring with a full bladder compared to an empty bladder.

73. In light of the concerns about fetal growth identified at 36+0 weeks, I consider that RM B should have had a heightened awareness of the possibility that the static fundal height indicated further growth concerns. Accordingly, I do not consider it was reasonable for RM B to dismiss the static fundal height measurements as being due to Ms A's bladder volume without further investigations, particularly in light of Ms A's plan to birth in a remote primary birthing unit.

74. RM Emerson advised that if Ms A's pregnancy had been a low-risk pregnancy, then the option of birthing at a primary unit would have been appropriate, taking into account Ms A's wishes and concerns in the context of COVID-19 measures. However, RM Emerson considered that Ms A did not have a low-risk pregnancy and noted that this does not appear to have been recognised by RM B. RM Emerson advised that given the markers of fetal growth restriction, particularly in a post-dates pregnancy with the associated vulnerability, accepted midwifery practice would have been for Ms A's labour to be managed in hospital with continuous fetal monitoring under obstetric review. RM Emerson said that in failing to recognise the static fetal growth and not referring in this regard, the opportunity for an obstetric plan and continuous fetal heart rate monitoring from the commencement of labour in a secondary/tertiary unit was lost. RM Emerson advised that this represents a moderate departure from accepted midwifery practice.

75. I accept RM Emerson's advice. I am critical that RM B did not recognise the significance of the static fundal height and, as a result, did not recommend appropriate obstetric referral in accordance with accepted midwifery practice.

76. RM Emerson also noted that when RM B made the referral for a post-dates induction of labour at 41+0 weeks' gestation, there was no documentation alerting the referral recipient of static fetal growth or previous scans. I acknowledge that RM B said that she attached with the referral a copy of the 38+2 weeks growth scan. As noted above, I consider that by 41+0 weeks there was indication for obstetric referral owing to fetal growth concerns. However, failing this, in my view RM B should have highlighted in her referral for induction of labour that there had been growth concerns earlier in the pregnancy and that there had been no increase in the fundal height for the past two weeks.

**Recommendation for growth scan at 41+0 weeks**

77. There is conflicting evidence about what information RM B provided to Ms A at the 41+0 weeks antenatal appointment, regarding whether to undergo a further growth scan at this stage.

78. In her response to the Midwifery Council, RM B said that she *offered* Ms A a growth scan 'from a post-dates perspective', as she does with all women under her care. In a subsequent response to HDC, RM B said that she *recommended* that Ms A undergo a further growth scan to 'provide greater reassurance of fetal wellbeing'.

79. On the other hand, Ms A said that RM B did not recommend a further growth scan and in fact told her that a growth scan '[made] no sense and [was] just a waste of money'.

80. Based on the information before me, I accept that RM B told Ms A at the 41+0 weeks appointment that she could choose to undergo a further growth scan. However, owing to the differing accounts and the lack of comprehensive documentation, I am unable to determine with reasonable certainty what information RM B gave Ms A about the reasons for or against undertaking the growth scan at this stage.

81. Nevertheless, it is clear that RM B did not specifically inform Ms A about the implications of a static fundal height.

82. I acknowledge that RM B was not concerned by the static fundal height (and I have noted my concerns about this). However, I note that the GROW chart specifically states that referrals for a growth scan should be arranged where consecutive measurements show 'SLOW or NO growth'. In light of this, I consider that even if RM B attributed the static measurements to Ms A's bladder volume, she should nevertheless have explained the potential implications of a static fundal height to Ms A, to enable her to make an informed decision about whether to undergo a further growth scan. In light of growth concerns identified at 36+0 weeks and the subsequent identification of static fundal height, I do not consider it was sufficient, as per RM B's account, to offer Ms A a growth scan in the ordinary course of a post-dates pregnancy or to advise only that the purpose of a growth scan would be to 'provide greater reassurance of fetal wellbeing'.

83. In my view, a reasonable consumer in Ms A's circumstances would expect to be told in a sufficiently clear manner that there had been no change to the fundal height in the past two weeks, and similarly, to receive an appropriately detailed explanation that this could indicate concerns with fetal growth, particularly in the context of identified growth concerns at 36+0 weeks. I am critical that this was not done, and I consider that without this explanation Ms A did not have the information required to make an informed choice at 41+0 weeks about whether to undergo a further growth scan.

**Interpretation of CTG trace**

84. There were two instances during RM B's care of Ms A when CTG monitoring was commenced and reviewed.

85. First, a CTG was taken at the 41+0 weeks appointment on 22 Month2, which RM B documented as 'overall normal'.

86. RM Emerson reviewed the CTG trace. She advised that while the CTG does contain the 'expected components' from a CTG, she also noted that the baseline fetal heart rate dropped by approximately 20bpm right before the CTG was discontinued. RM Emerson acknowledged that this may have proved to be normal, but she considers that in the context of a post-dates growth-restricted baby it would have been prudent to continue the CTG for longer to clarify the clinical picture.

87. A second CTG was commenced on 27 Month2 during Ms A's labour, following the rupture of membranes and the identification of thick meconium-stained liquor. After noting fetal bradycardia followed by a return to baseline of 122bpm, at 4.10pm RM B documented: 'CTG reassuring.' The timeline provided by Te Whatu Ora states that RM B subsequently reported the CTG as 'reassuring' to an obstetric registrar and midwife coordinator during the telephone call at 4.14pm when RM B requested emergency retrieval of Ms A.

88. In response to the provisional decision, RM B said that she did report the finding of fetal bradycardia to the obstetric registrar at the public hospital, in addition to thick meconium liquor, when she requested emergency retrieval. RM B referred to retrieval midwife RM C's notes, which state that she was asked to attend for '[fetal distress] [at] 6cm dilated [with] thick [meconium-stained] liquor'. RM B said that this shows that she did report fetal distress to the public hospital registrar when she requested transfer.

89. On review of the information, I do not doubt that RM B reported fetal distress when she requested retrieval. Clearly this was the reason for requesting retrieval, and therefore I consider it more likely than not that RM B reported this to the obstetric registrar. Based on RM C's documented notes, I also accept that RM B reported the presence of thick meconium-stained liquor.

90. However, reporting fetal distress is not the same as reporting fetal bradycardia specifically, as there are other signs that may indicate fetal distress (including other abnormal fetal heart rate patterns and the presence of meconium in the liquor).[37] I acknowledge that RM B

[37] As per the RANZCOG Intrapartum Fetal Surveillance Clinical Guidelines 2019 (4th edition).

recognised fetal bradycardia and documented this in the clinical records. However, as she also documented that the CTG was 'reassuring' and the public hospital obstetric registrar and midwife coordinator recall RM B advising that the CTG was reassuring, I consider it more likely than not that RM B did report the CTG to be reassuring, as well as reporting fetal distress.

91. RM Emerson reviewed the CTG trace of 27 Month2. She advised that the CTG is demonstrative of fetal distress. RM Emerson explained:

> 'There are decelerations present with contractions which are likely to represent cord compression. The decelerations become more prolonged throughout the CTG … [I]n my opinion prolonged decelerations of fetal heart rate in response to a contraction (in the context of not being fully dilated, thick meconium, static growth in a post-dates pregnancy) is not reassuring.'

92. RM Emerson noted that following the recognition of meconium in the liquor, the CTG was attached in conjunction with an emergency call for help and arrangement of transfer to hospital. She advised that in this context there was little more that could have been done in response to the CTG.

93. I accept RM Emerson's advice about the CTG results on 22 and 27 Month2. I am critical that on 22 Month2 RM B discontinued the CTG at a point where the fetal heart rate had dropped by 20bpm, particularly when she was aware that the fundal height had not increased in the past two weeks, and she appears to have relied on her interpretation of the CTG as being 'overall normal' in her reasoning for not 'voicing an opinion' that a further growth scan should have been undertaken.

94. Further, I am critical that RM B documented and reported that the CTG trace on 27 Month2 was 'reassuring', despite apparently recognising that the CTG was indicative of fetal distress. While I acknowledge RM Emerson's advice that nothing further could have been done at that stage, I consider that provision of accurate information between care providers is essential to quality patient care. It is therefore very concerning that RM B did not document and report the CTG results accurately to the hospital staff in the context of requesting emergency assistance, to enable them to make appropriate decisions, prepare accordingly, and recommend appropriate management of Ms A in the interim.

**Care during labour**

95. As noted above, I accept RM Emerson's advice that accepted midwifery practice would have been for Ms A's labour to be managed in hospital with continuous fetal monitoring under obstetric review. I have nevertheless considered the care provided by RM B during labour at the maternity hospital.

96. On 27 Month2 Ms A met with RM B at the maternity hospital at around 1.30pm. Labour progressed over the next few hours. The fetal heart rate was recorded approximately every 30 minutes, ranging from 120bpm to 165bpm. At 4pm, Ms A's membranes ruptured spontaneously with examination, and thick meconium-stained liquor was noted. A CTG was

commenced at 4.06pm and emergency retrieval was requested from the public hospital at 4.14pm. Ms A was moved onto her left side.

97. RM Emerson advised that RM B's actions in seeking immediate help and transfer in response to the identification of meconium-stained liquor were in keeping with accepted midwifery practice. I accept this advice. Apart from RM B's interpretation of the CTG as 'reassuring', I consider that RM B's response to indications of fetal distress during labour was timely and appropriate.

**Conclusion**

98. RM B was Ms A's LMC and responsible for her care until Ms A was transferred to the public hospital on 27 Month2. I am critical of RM B's failure to:

- Recognise the significance of the discordancy between the fetal head and abdominal circumferences in both the 36+0 and 38+2 weeks scans, and, as a result, fail to arrange obstetric consultation for suspected SGA following the 38+2 weeks scan;
- Recognise the significance of the static fundal height and, as a result, fail to recommend appropriate obstetric referral;
- Document the content of the discussion with Ms A at the 41+0 weeks appointment about the recommendation for a growth scan;
- Document in the referral for induction at 41+0 weeks the growth concerns that had been noted in earlier scans and the static fundal height;
- Continue the CTG at 41+0 weeks when the fetal heart rate dropped by 20bpm; and
- Accurately document and report the CTG during labour on 27 Month2.

99. On this basis, in my view RM B failed to provide services to Ms A with reasonable care and skill, and, accordingly, RM B breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[38]

100. Further, I am critical that RM B did not explain the implications of static fundal height to Ms A at the 41+0 weeks appointment on 22 Month2. I consider that in failing to do so, RM B did not provide Ms A with the information that a reasonable consumer in Ms A's circumstances needed to make an informed choice about whether to undergo a further growth scan. On this basis, in my view, RM B also breached Right 6(2) of the Code.[39]

[38] Right 4(1) states: 'Every consumer has the right to have services provided with reasonable care and skill.'
[39] Right 6(2) states: 'Before making a choice or giving consent, every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, needs to make an informed choice or give informed consent.'

## Changes made since events

101. RM B completed the Perinatal Institute's Growth Assessment Protocol (GAP)[40] e-learning training. Among RM B's learnings were that the fundal height should be measured every 2–3 weeks from 36 weeks onward (not weekly) and that it is important to ensure that the woman has voided her bladder prior to measurement.

102. Following the events, the Midwifery Council undertook a competence review of RM B's care of Ms A. As a result of the review, RM B engaged in a competence programme as prescribed under section 40 of the Health Practitioners Competence Assurance Act 2003. The competence programme required RM B to complete documentation education and a FSEP.

103. RM B completed the RANZCOG FSEP and the College of Midwives' documentation education 'Dotting I's and crossing T's: Midwives and Record Keeping'.

104. RM B also said that she has made the following changes to her practice:

- In addition to obstetric referral where necessary, she offers serial growth scans for smokers and women with a BMI above 35, and she will strongly emphasise the need for an ultrasound scan when static fundal height is noted.
- She now provides verbal and written information to women regarding growth and fetal movements. The written information includes the following:

> 'Measuring growth in low risk pregnancies
>
> Serial measurement of [fundal height] is recommended as a simple, inexpensive, first level, screening tool. From 24 weeks onwards, during your palpation, as well as listening to the fetal heart rate and assessing your baby's position, I will measure from the top of your uterus (the fundus) to the top of your pubic bone with a tape measure. The measurement should be approximately in line with your weeks of gestation (i.e. 28cm at 28 weeks gestation) and every measurement thereafter should note growth. If I was concerned there was too much or too little growth then a growth scan will be requested and a referral made as necessary for obstetric input.'

## Recommendations

105. Considering the changes already made, I recommend that RM B:

a) Complete a 2023/2024 Fetal Surveillance Education programme. Evidence of completion is to be provided to HDC by 30 April 2024;

[40] The Growth Assessment Protocol is an international programme that aims to improve safety in maternity care and outcome of pregnancy, including perinatal mortality and morbidity, with the predominant focus on improving antenatal recognition of pregnancies at risk due to fetal growth restriction.
See https://www.perinatal.org.uk/GAP/NZ.

b) Complete a Growth Assessment Protocol workshop or e-learning training (noting the 2023 change to guidelines). Evidence of completion is to be provided to HDC by 30 April 2024;

c) Complete the College of Midwives' workshop 'Dotting the I's in a digital age: Record keeping for midwives' (a 2022 update to the previous workshop 'Dotting I's and crossing T's'). Evidence of completion is to be provided to HDC by 30 April 2024; and

d) Undertake an audit of her antenatal records to identify the last 10 consumers in which the woman declined a recommended pathway of care, to assess whether the documentation comprehensively captures the discussion of the woman's condition and the options, risks, benefits, recommendations, and any other information required for the woman to make an informed choice. A summary of findings with any corrective actions to be implemented is to be provided to HDC by 30 April 2024.

## Follow-up actions

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

107. A copy of this report with details identifying the parties removed, except the advisor on this case, will be sent to the Midwifery Council of New Zealand and the New Zealand College of Midwives, and they will be advised of RM B's name.

108. A copy of this report with details identifying the parties removed, except the advisor on this case, will be sent to Te Whatu Ora, ACC, and the Perinatal & Maternal Mortality Review Committee, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

## Appendix A: In-house midwifery advice to Commissioner

The following advice was obtained from RM Nicholette Emerson:

'CLINICAL ADVICE — MIDWIFERY

CONSUMER: [Ms A]

PROVIDER: LMC [RM B]

FILE NUMBER: C21HDC00706

DATE: 20 May 2023

1. Thank you for the request that I provide clinical advice in relation to the complaint from [Ms A] via Midwifery Council about the care provided by LMC [RM B]. 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: Documents provided

   - [Hospital] clinical notes for both [Ms A] and her baby
   - Triage form for post dates
   - Te Whatu Ora ([the public hospital]) Admission front sheet
   - Medical Certificate for [Ms A]
   - [RM B] Response and clinical notes including, scans, GROW chart, referral for counselling (for [Ms A]), medication chart, text conversations
   - Midwifery Council Case Review
   - Letter from [RM B] to Midwifery Council 21 Jan 2021
   - NZCOM letter to HDC 6 April 2022

3. **Background**: [Ms A] was in her first pregnancy and booked with LMC [RM B] at 8 weeks and 5 days gestation. The pregnancy progressed normally for the first two trimesters however a slowing of fetal growth was identified in the third trimester. [RM B] felt reassured of fetal growth following a scan at 38 weeks gestation. The pregnancy continued till 41 weeks and 5 days when spontaneous labour commenced. Thick meconium was identified in labour and an emergency transfer to the public hospital took place. [The baby] was born by emergency caesarean in poor condition and sadly was removed from life support and died …

**Advice Request**: We would be grateful for your advice on the following:

1. Whether the antenatal care provided to [Ms A] was reasonable and appropriate.
2. Whether all appropriate investigations/scans/referrals were recommended/ arranged. In particular, please advise whether obstetric referral to assess concerns about fetal growth was indicated at any point, and if so, when this should have occurred.

3. Whether the assessment of [Ms A's] pregnancy as "low risk" was appropriate, and whether it should have been recommended that [Ms A] birth in hospital rather than a primary birthing unit.
4. Please comment on the adequacy of the information provided by [RM B] to [Ms A] on 22 [Month2] regarding the recommendation for an ultrasound scan and the implications of static fetal growth.
5. Whether [RM B's] interpretation of 1) the CTG scan on 22 [Month2] and 2) of the CTG scan on 27 [Month2], was reasonable and appropriate.
6. Whether the midwifery care provided by [RM B] to [Ms A] during labour on 27 [Month2] was reasonable and appropriate, up until care was transferred to [Te Whatu Ora].
7. Any other issues you consider warrant comment.

**1. Whether the antenatal care provided to [Ms A] was reasonable and appropriate.**

[Ms A] was booked with [RM B] at 8 weeks and 5 days gestation. Previous to this meeting, [Ms A] had an appointment with the GP who had ordered the first antenatal blood tests and commenced [Ms A] on folic acid and iodine. No significant obstetric or medical or surgery history is recorded. [Ms A's] pregnancy followed a normal course with a reassuring scan at 28 weeks following a previously low lying placenta. Iron was prescribed for low ferritin (iron stores).

In the third trimester the fundal height was recorded at 32cm at both 28+5 weeks gestation and 30 weeks and 6 days gestation. Birth place discussion at 30 weeks record [Ms A's] wish to birth at [the public hospital]. 36 weeks + 6 days gestation, a decline in the fetal abdominal circumference (AC) is discussed and rescanning is scheduled for 38 weeks gestation. Good fetal movements are documented.

37 weeks and 6 days gestation Covid influences birth plans because husband is unable to stay at the public hospital. Discussion is recorded regarding the potential influence of an upcoming growth scan on birth place plans.

38 weeks and 5 days gestation, good interval growth is reported on the scan however the discordancy between the head circumference (HC) and the AC remained. This would have been an opportunity in line with the referral guidelines to refer for suspected small for gestational age (SGA) if not already done so (guidelines discussed in detail question 2 and 4 below).

41 weeks gestation a further scan was declined according to documentation. There is no documentation regarding the discussion regarding the decline of a further scan (discussed in detail in Question 4 below).

41 weeks baseline fall before discontinuation of CTG (discussed in question 5 below) 41+5 labour commences.

There is evidence of comprehensive discussion in the antenatal notes and appropriate actions taken in response to low ferritin, low lying placenta, screening for gestational diabetes and routine assessments. The antenatal care is in keeping with accepted midwifery practice in scanning for slowing of fetal growth and initial follow up. At 38 weeks and 5 days gestation [RM B] is reassured by the scan and does not appear to identify the discordancy between the fetal head circumference (HC) and the abdominal circumference (AC). Further, the drop in AC since 28 weeks gestation is not identified. The lack of recognition of a potentially growth restricted baby at 38 weeks and 5 days gestation, and subsequently no follow up or referral is identified as a moderate departure from accepted midwifery practice. Details are discussed in question 2 &4.

2. **Whether all appropriate investigations/scans/referrals were recommended/ arranged. In particular, please advise whether obstetric referral to assess concerns about fetal growth was indicated at any point, and if so, when this should have occurred.**

Question 2 is answered under question 4 below.

3. **Whether the assessment of [Ms A's] pregnancy as "low risk" was appropriate, and whether it should have been recommended that [Ms A] birth in hospital rather than a primary birthing unit.**

Following the investigations outlined above, [RM B] considered that [Ms A] was low risk and was reassured by the growth scan at 38 weeks gestation. Previous conversations regarding place of birth were documented in the clinical notes at 30 weeks gestation and 37+6 weeks gestation. [Ms A] had requested to birth at [the public hospital] however the lack of availability and affordability of accommodation for her partner had an influence on the decision that [the maternity hospital] would be a suitable place to birth. The decision making at the time was influenced by rules around partners staying in [the public hospital] in [the context of COVID-19 restrictions].

a) If it is accepted that [Ms A] was considered to be low risk with reassuring growth at 38 weeks gestation, then there does not appear to be a departure from accepted Midwifery practice in a change of location to a primary unit to birth. The decision and change of plan occurred following two documented discussions and has considered [Ms A] and her partner's wishes in the context of a COVID lockdown.

b) If it is accepted that [RM B] had not identified the fetal growth discordancy or recognised the need for referral and continuous monitoring in labour, believing that the pregnancy was low risk, then this represents a moderate departure from accepted midwifery practice.

4. **Please comment on the adequacy of the information provided by [RM B] to [Ms A] on 22 [Month2] regarding the recommendation for an ultrasound scan and the implications of static fetal growth. (Question 2) Whether all appropriate investigations/scans/referrals were recommended/arranged. In particular, please**

**advise whether obstetric referral to assess concerns about fetal growth was indicated at any point, and if so, when this should have occurred.**

On 22 [Month2] [Ms A] was seen in clinic by [RM B] for a postdate assessment. [Ms A] was 41 weeks gestation. It is documented that a stretch and sweep and CTG were offered. The documentation states that [Ms A] had declined a further scan. [Ms A] (27 March 2023) reports that she declined the further scan on the basis that [RM B] was reassured about fetal growth and further scanning was "*a waste of money*". [Ms A] states that she had not declined previous scans and would not have declined if she was aware of any concerns. Details of the discussion and recommendations are not documented.

In her complaint response, [RM B] states that she was not overly concerned about static fundal height growth and cites a full bladder previously as possibly affecting measurements of fundal height.

[RM B] further cites the pathway of care when recommendations to women/birthing persons are not followed. She discusses the referral guidelines in reference to the static fundal growth, stating that a consultation should take place *if the estimated fetal weight (EFW) is below the 10$^{th}$ centile or discordancy of abdominal circumference below the 5$^{th}$ centile, with normal amniotic fluid on customised growth chart.*

[RM B's] interpretation of the guidelines only partially quotes the entire recommendation and does not appear to be in keeping with accepted midwifery practice at that time (2020). The full guideline states

**Consultation with Obstetric and related Medical Services (referral guidelines) 2012 page 25 line 4011** *Estimated fetal weight (EFW) < 10$^{th}$ percentile on customised growth chart, or abdominal circumference (AC), 5$^{th}$ percentile on ultrasound,* **OR discordancy of AC with other growth parameters, normal liquor. (The recommendation is Obstetric consultation.)**

Review of [Ms A's] scans at 36weeks + 3 days report the fetal Head Circumference (HC) on the 52$^{nd}$ centile and the abdominal circumference (AC) on the 10$^{th}$ centile demonstrating significant discordancy. In accordance with the guideline at that time, an obstetric referral was warranted.

The scan at 38 weeks gestation reports the HC on the 49$^{th}$ centile and the AC on the 13$^{th}$ centile again demonstrating significant discordancy. In accordance with the guideline at that time, an obstetric referral was warranted. Additionally, the AC has declined from the 29$^{th}$ centile at 28 weeks gestation to the 13$^{th}$ centile (03 [Month2]).

**The GUIDELINE FOR THE MANAGEMENT OF SUSPECTED SMALL FOR GESTATIONAL AGE SINGLETON PREGNANCIES AND INFANTS AFTER 34 WEEKS' GESTATION (2014)** New Zealand Fetal Medicine Network states

The definition of Small for gestational age (SGA) includes. *a fetus with estimated fetal weight or abdominal circumference crossing centiles on serial scans or with a major discrepancy between head and abdominal circumference may also be growth restricted but may or may not meet the criteria for SGA. The abdominal circumference (AC) is usually the first fetal measurement to become reduced in SGA. Suboptimal fetal growth is suspected when: The abdominal circumference on the population (ASUM) scan chart is > 5th centile but is crossing centiles by > 30th centile e.g. reduction from 50th centile to 20th centile. A change in AC of one third reduction in EFW percentile.*

In summary

- Significant discordancy of the HC and AC was apparent on the scans at 36+3 and 38 weeks gestation. This discordancy met the threshold for Obstetric referral. The AC was declining from the earlier scan at 28 weeks gestation, however had not met the threshold for referral alone.
- Whilst it was appropriate to rescan following the scan at 36+3, a referral (or at least a discussion) with an Obstetrician would have been in keeping with accepted midwifery practice at the very latest, following the subsequent scan at 38 weeks gestation.
- When the post-dates obstetric referral was made for an induction of labour at 41 weeks gestation (22 [Month2]), there is no documentation alerting the referral recipient of static fetal growth or previous scans.

[RM B] not recognising the markers of a potentially SGA baby in the scan reports coupled with a static fundal height and therefore not referring, represents a moderate departure from accepted midwifery practice at that time.

Note: Current guidelines (2023) no longer include discordancy but do include monitoring of the AC.

**5. Whether [RM B's] interpretation of 1) the CTG scan on 22 [Month2] and 2) of the CTG scan on 27 [Month2], was reasonable and appropriate.**

CTG 22 [Month2] [RM B] comments *I accept that my documentation at 41 weeks does not reflect the conversation I had with [Ms A] recommending she have a repeat growth scan at 41 weeks. [Ms A] declined another scan but agreed to have a CTG to monitor fetal well-being. The CTG was very reassuring as well as [Ms A's] report of fetal movements.*

Whilst the CTG does contain the following expected components from a CTG:

- Baseline within normal range (110–160) beats per minute
- Variability of greater than five beats per minute (<5 bpm)
- Accelerations 6–25bpm
- No decelerations

It is noted that the baseline dropped by approximately 20 beats per minute before the CTG was removed. This may have proved normal, however in the context of a post-date growth restricted baby, in my opinion it would have been prudent to keep the CTG in place for longer to clarify the clinical picture.

**CTG 27 [Month2]**

The CTG on 27 [Month2] is demonstrative of fetal distress. There are decelerations present with contractions which are likely to represent cord compression. The decelerations become more prolonged throughout the CTG. The CTG was attached following the recognition of meconium liquor in conjunction with an emergency call for help and arrangement of transfer to [the public hospital]. In the context there was little more that could be done in regards to the CTG. [Ms A] was moved into left lateral position which may have been beneficial.

It is worth noting though that according to the Adverse events timeline, the CTG is reported by [RM B] to the Obstetrician and charge midwife (prior to transfer) as reassuring at 4.16pm, however in my opinion prolonged deceleration of fetal heart rate in response to a contraction (in the context of not being fully dilated, thick meconium, static growth in a post-dates pregnancy) is not reassuring.

I note that [RM B] has since attended a Fetal Surveillance Education Programme (2021).

**6. Whether the midwifery care provided by [RM B] to [Ms A] during labour on 27 [Month2] was reasonable and appropriate, up until care was transferred to [the public hospital].**

On 27 [Month2] at 41 weeks and 5 days gestation [Ms A] spontaneously commenced labour (2am). [Ms A] made contact at 4am and spoke to [the midwife] who was covering for [RM B]. Good fetal movements are reported. [Ms A] was assessed and left at home to establish in labour with family support. Care was handed back to [RM B] at 9am on 27 [Month2]. There is no further clinical documentation until arrival at the primary birthing unit however there is text evidence of discussion prior to arrival at the unit and it is understood that assessment took place at 11.30am.

At 1.30pm [Ms A] met [RM B] at [the maternity hospital]. Following maternal observations in the normal range and a fetal heart rate 140bpm–170bpm (normal range 110–160bpm) pain relief was discussed. 50mg of pethidine was given intramuscularly.

At 4pm, a vaginal examination to assess progress took place. The findings were 8cm dilation. The membranes spontaneously ruptured with the examination and thick meconium was present. Help was immediately sought and transfer was arranged to [the public hospital] via helicopter, these actions were in keeping with accepted midwifery practice. A CTG was commenced, and recorded fetal bradycardia (very low fetal heart rate) with contractions (in response to contractions).

On arrival to [the public hospital] an emergency caesarean section took place. [Ms A's] baby daughter was born in extremely poor condition. Resuscitation took place and Severe Hypoxic ischemic encephalopathy (HIE) was confirmed.

[The baby] was removed from life support on 3 [Month3] and sadly she died at 3.56pm.

On review of the notes, it would appear that [Ms A's] labour was managed as low risk, however static growth on fundal height measurement (as recorded in clinical notes)

9 [Month2] 39 weeks and 1 day was 38cm
16 [Month2] 40 weeks and 1 day was 38.5cm
22 [Month2] 41 weeks 38cm

No scan had been ordered past 38 weeks to assess growth or liquor volume and the referral for an induction of labour 22 [Month2] did not mention static growth.

On review of the labour, the midwifery care was in keeping with accepted practice for a low risk pregnancy. In [RM B] not recognising [the baby's] static growth and not referring in this regard, the opportunity for an obstetric plan and continuously monitoring of fetal heart rate from the commencement of labour in a secondary/ tertiary unit has been lost.

The care in labour was appropriate for a low risk pregnancy however [Ms A] did not have a low risk pregnancy and this does not appear to be recognised. The lack of recognition of fetal growth restriction, particularly in a post-dates pregnancy, and the associated vulnerability; and therefore the care provided in the context, represents a moderate departure from accepted midwifery practice. In summary, in keeping with accepted Midwifery practice, the appropriate place for the labour to be managed was [the public hospital] with continuous fetal monitoring under Obstetric overview.

**7. Any other issues you consider warrant comment.**

The issues of documentation, CTG assessment and further understanding of fetal growth assessment have been addressed by [RM B] following her Midwifery Council review.

- [RM B] has completed Fetal Surveillance Education programme (2021). I would recommend this is completed on line annually.
- [RM B] has completed the GAP training (2020) however I would recommend if not already done so, this is repeated as guidelines have changed again recently (2023)
- The College of Midwives documentation workshop has been completed.

There is demonstration of [RM B's] care and concern, including referral for postnatal counselling for [Ms A]. The routine aspects of care have been undertaken and scanning occurred following the identification of reduced fetal growth. Sadly, the identification of the need to refer and to birth in a secondary/tertiary unit (under obstetric

supervision and care plan) has been missed following the growth scan at 38 weeks. It is impossible to say retrospectively whether this would have changed the outcome.

Finally, I wish [Ms A] and her partner the best for the future and extend my sincere sadness for the loss of their precious baby daughter. I hope this report has answered some of their remaining questions.

Nicholette Emerson, BHSc, PG Dip-Midwifery
**Midwifery Advisor**
Health and Disability Commissioner'