Midwife, Ms B

District Health Board

A Report by the

Health and Disability Commissioner

(Case 16HDC00188)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. In 2015, Mrs A became pregnant with her first child. She engaged a midwife, Ms B, as her Lead Maternity Carer (LMC).

2. Mrs A had previously undergone high-frequency surgery on her cervix, and had a history of urinary tract infections (UTIs). The *Guidelines for Consultation with Obstetric and Medical Related Services* (the *Referral Guidelines*) require an LMC to recommend to a woman that a referral for a consultation with a specialist is warranted if the woman has had cervical surgery without a subsequent term vaginal birth. There is no evidence that Ms B made such a recommendation.

3. Ms B advised Mrs A that as her pregnancy was normal and low risk, she could have her baby at home, and transfer to hospital only should anything go wrong. Mrs A's estimated date of delivery (EDD) according to her last menstrual period (LMP) was 24 Month5.[1] An ultrasound scan carried out when Mrs A was 13+3 weeks' gestation estimated her EDD as 21 Month5.

4. Ms B used landmarks to measure fetal growth, rather than measuring the fundal height.[2] Mrs A's pregnancy progressed uneventfully.

5. On 28 Month5, when Mrs A was 41 weeks' gestation by scan, she had an appointment with Ms B, who told Mrs A that the process was to wait until two weeks past her EDD, and then have a scan to assess whether her labour needed to be induced.

6. The *Referral Guidelines* require that the LMC recommend to the woman that a referral for a consultation with a specialist is warranted "in a timely manner for planned induction by 42 weeks". Mrs A said that she was never offered the option of consulting a specialist.

7. On 4 Month6, Mrs A began to experience contractions. She contacted Ms B by text and telephone. Ms B did not come to assess her, and said that someone would come in the morning.

8. At 6am on 5 Month6, midwife Ms G arrived at Mrs A's house to carry out an assessment. Ms G documented that contractions were coming at a rate of two every 10 minutes and lasting 60 seconds, and that the fetal heart rate (FHR) was 155 beats per minute (bpm). Mrs A's blood pressure (BP) was raised at 138/98mmHg. Ms G informed Ms B of her assessment findings and then left.

9. At 7.15am, Ms B arrived. She noted that Mrs A was experiencing "regular strong contractions" and was "breathing through quietly". Ms B performed observations and a urinalysis, which showed "protein ++".

[1] Relevant months are referred to as Months 1–7.

[2] The distance between the pubic bone and the top of the uterus.

10. At 10am, Ms B performed a further assessment. She documented that Mrs A's cervix was fully effaced and 8–9cm dilated, the contractions had become "spaced out", and that she recommended that Mrs A try to get some sleep. Ms B noted: "[A]way to do a visit or two. Be back at 12. Call if needed sooner." Ms B then left.

11. Shortly before 11.45am, Mrs A contacted Ms B and said that her contractions had become more regular and strong again. Ms B then returned.

12. Mrs A's labour progressed slowly. At 3pm, Ms B decided to transfer Mrs A to Hospital 1 for a CTG[3] and assessment by another midwife. The results of the CTG were reassuring. Mrs A's BP was 143/96mmHg, and a urinalysis showed protein 2+.

13. At 4.30pm, Ms B contacted Dr C, the on-call obstetric registrar at Hospital 2, to discuss transfer. Dr C recalls that Ms B said that she was concerned because she had a term primiparous[4] woman who was 9cm dilated, but had not progressed in the last hour. Dr C said that Ms B told her that it was difficult to ascertain the current vaginal examination findings, it was unclear whether the membranes were intact, and that the FHR (fetal heart rate) monitoring was normal.

14. Dr C advised that Mrs A should be transferred to secondary care. The ambulance left Hospital 1 at 6pm and arrived at Hospital 2 at approximately 8.30pm. Dr C and the on-call senior medical officer (SMO), Dr D, assessed Mrs A and found the baby lying in an occiput posterior position. Dr D's plan was to insert an epidural and then attempt to rotate the baby manually with a possible vacuum delivery. Ms B left to return to Hospital 1 in the ambulance.

15. At approximately 9.15pm an emergency occurred, requiring Dr D, Dr C, and the anaesthetic registrar, Dr H, to attend theatre to undertake an emergency Caesarean section. At 10.40pm, the core midwife administered Mrs A 25mg pethidine for pain relief.

16. At around midnight, Dr H returned to the obstetric ward, reviewed Mrs A's history and blood results, and sited the epidural.

17. The CTG was recommenced at 12.12am, and the FHR was monitored continuously until the birth.

18. At 12.20am, Dr D was present. The baby was manipulated manually to an occiput anterior position. The FHR had decelerations during the rotation, but returned to the normal range between the decelerations. During the fetal bradycardia, intravenous fluids were increased, Mrs A was placed on her left-hand side, and BP recordings were performed at five-minute intervals.

[3] Cardiotocography (CTG) is a technical means of recording the fetal heartbeat and the uterine contractions during pregnancy. The machine used to perform the monitoring is called a cardiotocograph.
[4] Primiparous — pregnant for the first time.

19. Dr D decided to do an operative vaginal delivery using a Kiwi cup.[5] At 12.31am, the vacuum delivery commenced. Dr D affected "gentle downward traction" with each contraction, and progress was noted with each pull. Dr D stated that the ventouse delivery was not prolonged and, once the baby's head was crowning, the Kiwi cup was removed.

20. Dr D stated that although the CTG showed tachycardia with decelerations from 12.22am until 12.40am, she did not perform a Caesarean section because the fastest way to deliver the baby at that point was by an operative vaginal delivery. At 12.51am, Baby A was delivered and required resuscitation. He was later diagnosed with stage 2 hypoxic ischaemic encephalopathy.[6]

Findings

Ms B

Standard of care

21. Ms B breached Right 4(1)[7] of the Code of Health and Disability Services Consumers' Rights (the Code) in the following ways:

a) She failed to establish an agreed EDD and did not formulate a plan for postdates care.

b) She failed to measure Mrs A's fundal height during the pregnancy.

c) She left Mrs A unattended for one hour and twenty-five minutes when Mrs A was in established late labour.

d) She failed to establish a baseline for maternal well-being and to follow up an elevated blood pressure recording, and during labour did not monitor Mrs A's maternal observations four hourly.

e) She failed to monitor the FHR every 15–30 minutes in the active phase of the first stage of labour, and between 10.00am and 11.45am was absent and did not monitor the FHR at all. She also did not monitor the FHR between 6.30pm and 8.30pm.

f) At 1.45pm, she failed to act on the clear indicators that labour was not progressing normally, and did not conclude that a consultation with a specialist was warranted.

Continuity of care

22. Mrs A had the right to co-operation among providers to ensure the quality and continuity of services. Ms B failed to hand over care adequately or supply the notes to the DHB team at the time of handover, and so Ms B also breached Right 4(5)[8] of the Code.

[5] A vacuum delivery system.
[6] A brain injury caused by oxygen deprivation; also commonly known as intrapartum asphyxia.
[7] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[8] Right 4(5) states: "Every consumer has the right to co-operation among providers to ensure quality and continuity of services."

Documentation

23. When Mrs A was in early labour, Ms B received and communicated clinical information by text, and did not document the text and telephone assessments, including whether or not the baby was active, and the advice given.

24. Furthermore, Ms B made multiple changes to the clinical records without dating the changes or noting that they were made retrospectively. Ms B's actions with regard to the clinical records were a very serious breach of professional standards. Ms B breached Right 4(2)[9] of the Code.

Informed consent

25. Mrs A had the right to the information that a reasonable consumer in her circumstances would expect to receive. Ms B failed to provide Mrs A with such information, and so breached Right 6(1)[10] of the Code. It follows that Mrs A was not in a position to make informed choices about her pregnancy, labour, and the delivery of her baby. Ms B also breached Right 7(1)[11] of the Code.

The DHB

26. Adverse comment was made about the core midwife acting outside the Hospital 2 guidelines without having first consulted with the obstetric team, and not clearly documenting her rationale for her actions. She also did not record her 15-minute checks of Mrs A or record the FHR during those checks. In addition, staff failed to collect the cord blood following the baby's birth.

Recommendations

27. It is recommended that the DHB:

a) Review its processes in circumstances where two women with significant risk factors are in labour concurrently, and report to HDC on the outcome of its review and its improvement plan.
b) Conduct refresher training for its maternity staff on the RANZCOG guidelines, the DHB's guideline on the use of water in labour and birth, and its expected standards of record-keeping.
c) Provide a written apology to Mrs A.

28. It is recommended that the Midwifery Council of New Zealand undertake a review of Ms B's competence, should she make an application to return to midwifery practice.

29. It is recommended that Ms B provide a written apology to Mrs A.

[9] Right 4(2) states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."
[10] Right 6(1) states: "Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive …"
[11] Right 7(1) states: "Services may be provided to a consumer only if that consumer makes an informed choice and gives informed consent, except where any enactment, or the common law, or any other provision of this Code provides otherwise."

30. Ms B will be referred to the Director of Proceedings in accordance with section 45(2)(f) of the Health and Disability Commissioner Act 1994, for the purpose of deciding whether any proceedings should be taken.

Complaint and investigation

31. The Commissioner received complaints from the Midwifery Director at the DHB (forwarded by the Midwifery Council of New Zealand) and from Mrs A about the services provided to Mrs A by midwife Ms B. The following issues were identified for investigation:

- *The appropriateness of the services provided to Mrs A by Ms B between Month1 and Month7.*
- *The appropriateness of the care provided to Mrs A by the DHB in Month6.*

32. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
Mr A	Consumer's husband
Ms B	Midwife Lead Maternity Carer
DHB	Provider
Dr C	Obstetric registrar
Dr D	Obstetric consultant
Ms E	Hospital midwife
Ms F	Hospital midwife

Also mentioned in this report:

Ms G	Midwife
Dr H	Anaesthetic registrar

33. Information from ACC was also reviewed.

34. Independent expert advice was obtained from a registered midwife, Dr Carolyn Young (**Appendix A**), and an obstetrician and gynaecologist, Dr David Bailey (**Appendix B**).

Information gathered during investigation

Background

35. In 2015, Mrs A became pregnant with her first child. At the time of becoming pregnant, Mrs A had been living in New Zealand for approximately five months. She speaks fluent English, which is her second language. Her partner, Mr A, speaks little English.

36. On 1 Month1, Mrs A (19+5 weeks' gestation) engaged a midwife, Ms B, as her Lead Maternity Carer (LMC).

Ms B

37. Ms B has been a registered midwife since 2007. At the time of these events, Ms B was a community-based self-employed midwife working as part of a group midwifery practice.

Amendments to notes

38. HDC has been provided with two different versions of Mrs A's midwifery notes. One version was supplied to HDC by Ms B, and the other was included in the clinical records supplied by the DHB.

39. The notes Ms B faxed to the DHB on 6 Month6 after the birth of the baby do not match the copy of the notes Ms B provided to HDC. Set out in **Appendix C** is a table of the additional entries identified in the notes Ms B provided to HDC. The additions are not marked as having been added retrospectively.

40. Ms B was asked to provide an explanation about the discrepancies between the two versions of the midwifery notes. She stated:

> "With the passing of time the only explanation I can give is that I had not written retrospectively into the body of the notes with the plan of misleading anyone — it was in an effort to give a more full and accurate birth story for [Mrs A] — at no time was I expecting this birth to end in a complaint to HDC as both [Mrs A] and her baby were well when I handed over the ongoing care of them to the Obstetric Team in [Hospital 2].
>
> The purpose of the additional information being inserted into the notes was to illustrate a fuller and truer record of [Mrs A's] labour and birth. Upon reading through the labour and transfer notes after I had handed over care to [the DHB], I became aware there were some omissions from the notes that would assist with the contemporaneous flow of the notes.
>
> …
>
> In hindsight, the additional notes that were added, I understand I should have written on the notes 'in retrospect and dated and signed' though at the time I was tired and fatigued and may not have been thinking very clearly."

41. Ms B told HDC: "When reading back through the notes on my return in the ambulance the mind is clearer to remember any omissions and to write them for a more contemporaneous birth story."

42. In her responses to HDC following Mrs A's complaint, Ms B did not inform HDC that she had changed the clinical records, and acknowledged that she had done so only after HDC questioned the discrepancies between the version held by the DHB and the version Ms B supplied to HDC.

Care plan

43. Ms B recorded on the maternity booking form that Mrs A had previously undergone high-frequency surgery on her cervix, and had a history of urinary tract infections (UTIs). The *Guidelines for Consultation with Obstetric and Medical Related Services* (the *Referral Guidelines*) require an LMC to recommend to a woman that a referral for a consultation with a specialist is warranted if the woman has had cervical surgery, including cone biopsy, laser excision, or a large loop excision of the transformation zone, without a subsequent term vaginal birth. There is no evidence that Ms B made such a recommendation.

44. At the time of booking, Ms B discussed the place of birth with Mrs A. Mrs A recalls that Ms B advised her that her pregnancy was normal and low risk, and therefore she could have her baby at home.

45. Mrs A said that she decided to have a home birth, with the plan that she would transfer to hospital should anything go wrong. She stated that she was not adamant about having a home birth, and her priority was the welfare of her baby. She said that she trusted the system, and also trusted that Ms B would advise her about the best and safest option.

46. Mrs A said that Ms B never discussed with her the pain relief options available during a home birth, other than recommending techniques such as hypnotherapy, acupuncture, and massage. However, on 25 Month4 Ms B recorded in the maternity notes: "[A]s [Mrs A] is planning a home birth will bring pool at next visit."[12]

47. Mrs A said that Ms B did not discuss with her the risks of having a home birth in her circumstances, including that Hospital 1[13] (the closest hospital for Mrs A) does not have obstetric staff, and the distance between her home and Hospital 2.

48. Mrs A's maternity notes contain a document entitled "Guide for Care Plan Discussion", and next to "Planned place of birth" is written "Home". The entry is dated "2 [Month5]". There is no other written care/birth plan. The form has nothing written in the section "childbirth preparation" other than the date "2 [Month5]".

Estimated due date

49. Mrs A's estimated date of delivery (EDD) according to her last menstrual period (LMP) was 24 Month5. An ultrasound scan carried out when Mrs A was 13+3 weeks' gestation estimated her EDD as 21 Month5.

50. The "Pregnancy Summary" document in Mrs A's maternity notes states that the "Final agreed EDD" was 24 Month5. However, Mrs A told HDC that they agreed to use the date calculated from the scan — 21 Month5.

[12] A birthing pool may be used to assist with pain management during labour.

[13] The Hospital 1 Maternity Unit offers birthing and postnatal services. The unit is staffed with registered midwives, but women requiring obstetric care travel to Hospital 2, which is approximately two and a half hours' travel by road. It is three and a half hours' travel to the nearest main centre public hospital.

51. At the top of Mrs A's antenatal record, Ms B has recorded next to EDD, "*24 [Month5](using)*", and next to EDD by scan, "21 [Month5]". However, it is not stated when that was recorded.

52. In the scanned copy of the midwifery notes Ms B provided to the DHB on 6 Month6, the "client profile summary" records the EDD as being 21 Month5. However, the copy of the midwifery notes provided to HDC by Ms B contains a different client summary profile and records the EDD as being 24 Month5. Ms B told HDC:

> "The discrepancy I found was the change in EDD on front page and the reason I would have changed that as initially it was filled out by [Mrs A] but upon reviewing later (unsure exactly) — the EDD was changed, to be in line with EDD by LMP."

53. For the first two antenatal appointments[14] Ms B recorded the gestation based on the EDD from the scan. For subsequent antenatal appointments Ms B recorded the gestation calculated based on the date of Mrs A's LMP. There is no reference in the midwifery records to any discussion about, or rationale for, Ms B changing the date for calculating the EDD.

54. On the pregnancy summary sheets Ms B recorded that the EDD was 21 Month5 for all three scan reports up to 36 weeks' gestation.

Antenatal care

55. On 1 Month1, Ms B saw Mrs A at her home. Ms B performed an abdominal palpation and recorded in the maternity notes, "[O]n abdominal palpation uterus measuring dates using landmarks[15] to identify" — indicating that the fetal growth was normal. Ms B told HDC that it is her usual practice to use landmarks to measure fetal growth, rather than measuring the fundal height.[16]

56. On 26 Month1, there was a further appointment. Ms B recorded that they discussed "blood tests screening for Gestational Diabetes", and that Mrs A said that she might not undertake further screening.

57. Mrs A's pregnancy progressed uneventfully.

Post dates

58. On 23 Month4, Mrs A had an ultrasound scan to check the fetal well-being and growth. The scan report noted that Mrs A was at 36 weeks' gestation by scan. Ms B has also recorded on the antenatal record that this scan was carried out at 36 weeks' gestation and that the EDD was 21 Month5. The report concluded that the fetal growth, amniotic fluid levels, and Dopplers were normal.

[14] On 1 and 26 Month1.
[15] The "Landmarks" used are the symphysis pubis (the midline cartilaginous joint uniting the left and right pubic bones), umbilicus, and xiphisternum (the lowest part of the sternum).
[16] The distance between the pubic bone and the top of the uterus.

59. On 2 Month5, Ms B recorded:

> "Some discussion regarding transfer during labour and how this occurs; would go to [Hospital 1] (Drive in own car) and then transfer via ambulance to [Hospital 2]; after obstetric consultation."

60. Mrs A told HDC that she recalls that after 21 Month5, which was her EDD according to the scan, her family members, who were visiting from overseas, were becoming concerned about the fact that she had gone past her due date, and were pressuring her to go to hospital to have the baby.

61. On 28 Month5, when Mrs A was 41 weeks' gestation by scan, she had an appointment with Ms B. Ms B recorded Mrs A's gestation by LMP as being 40+3, whereas the gestation by LMP would have been 40+4. Mrs A said that she was reassured by Ms B, who said that "everything was fine". Mrs A also recalls being told by Ms B that, in New Zealand, the process is to wait until a pregnant woman is two weeks past her EDD, and then have a scan to assess whether her labour needs to be induced or whether she can wait a little longer. Mrs A told HDC that she understood that nothing would happen until she was two weeks past her EDD.

62. Ms B told HDC that during this appointment she advised Mrs A that induction of labour does not generally occur prior to 42 weeks' gestation unless an immediate induction is indicated. Ms B said that the plan was for Mrs A to have a scan at 10 days post dates, but Mrs A could not arrange a scan until 5 Month6 (by which time Mrs A would have been 41+5 by LMP and 42+1 by scan). Ms B told HDC: "[Mrs A] was adamant that she never wanted an Induction — she would always tell me that she trusts her body and is happy to await labour." Ms B documented in the maternity notes:

> "[Mrs A] is well but everyone is becoming anxious regarding [baby's] arrival, explained and discussed with [Mrs A] that Induction of Labour does not occur before 42 weeks. Scan at 10 days post … [Mrs A] does not have scan until 5th [Month6] — due to holidays & now that [Mrs A] has gone past EDD is considering wanting to use scan date (21 [Month5]) Previously using 24 [Month5] (as agreed)."

63. However, when asked by HDC about what EDD they were using, Mrs A stated that she understood that the EDD they were using was 21 Month5. Mrs A recalls that her father was present at the 28 Month5 appointment and he spoke to Ms B expressing his concern and his opinion that Mrs A should go to hospital to have the baby. Mrs A said that she told Ms B: "I read articles that it could be so dangerous to wait too long and she always said, 'No you are reading the wrong articles'."

64. Mrs A also recalls that during this appointment she specifically requested that her labour be induced and asked whether Ms B could rupture her membranes, but Ms B kept saying that she would not be induced until she was at 42 weeks' gestation. Mrs A told HDC that her priority was for her baby to be healthy.

65. The *Referral Guidelines* require that the LMC recommend to the woman that a referral for a consultation with a specialist is warranted "in a timely manner for planned induction by 42 weeks".

66. Mrs A said that at no stage was she ever offered the option of consulting a specialist. She told HDC that she trusted Ms B, was reassured that there were no problems, and believed that her only option was to wait until she was at 42 weeks' gestation if she did not give birth in the meantime.

67. On 31 Month5, Ms B saw Mrs A (41+3 weeks' gestation according to her scan) at Hospital 1. During this appointment Ms B carried out a CTG "to monitor wellness of baby now passed estimated day [of] arrival of 24 [Month5]". Ms B recorded on a page headed "Midwifery notes" (Mrs A's MMPO (Midwifery and Maternity Providers Organisation) notes (her primary notes are otherwise headed "Maternity notes"): "[Mrs A] is declining stretch and sweep[17] and not interested in an induction at this stage/declined."

68. The entry concludes, "impression well woman; well baby all wellness checks within normal range", with the words, "baby all wellness checks within normal range" inserted below the bottom line on the page. The entry has Ms B's initials in the margin.

69. In an additional entry on a separate sheet of paper also headed "Midwifery notes", Ms B documented:

> "[Mrs A]. Further discussion with [Mrs A] regarding Induction of Labour. As per referral guidelines Code 4024 — Prolonged Pregnancy — a consultation is recommended for planned induction by 42 weeks. [Mrs A] confirmed she is wanting to wait and will make decision after post dates scan booked for 5th [Month6]. [Mrs A] is still wanting to have her baby at home so therefore is declining consultation with Dr's at this stage. [Mrs A] is aware she can change her mind at any stage."

70. Ms B told HDC that this note was made "at the time of the appointment". She explained that it was written separately and not included in the maternity notes held by Mrs A because Mrs A forgot her notes on that occasion.

71. In contrast, Mrs A told HDC that during this appointment Ms B told her that "everything was fine" and that they just had to wait. Mrs A denies that Ms B discussed or offered an induction or a referral to a specialist at that time, and says that had she been offered an induction or a referral she would have accepted immediately. She agrees that she did not bring her notes with her to that appointment, but she does not recall Ms B documenting anything during the appointment.

[17] A stretch and sweep is one way of initiating labour. It is an alternative to other induction techniques such as an artificial rupture of membranes (ARM) and/or a Syntocinon drip. "Stretch" refers to the process of stretching the cervix so that it opens a little, and "sweep" refers to separating the membranes from where they adhere around the cervix in the lower portion of the uterus.

Labour

72. On 4 Month6, Mrs A began to experience contractions. At 5.54pm, she sent a text message to Ms B that stated: "This afternoon I started some uncomfortable cramps on my lower abdomen. Can it be a early stage of labour? The cramps takes 60 seconds and come every 15/18 minutes." Ms B does not appear to have responded to this text message.

73. At 10.41pm, Mrs A sent another text message to Ms B that reads:

> "… I'm feeling strong contractions each 10 minutes now. I took one paracetamol 500mg at 8.32pm, but it didn't improve the pain. Is it normal? Another question: when I can fill the pool? I wanted to sleep, but it is impossible with the contractions."

74. Ms B responded to this text message advising Mrs A that she should have taken two 500mg paracetamol tablets and that she should take another one. Ms B wrote: "Still very early … Still try to sleep. I [am] going to sleep now … Contractions need to be every 3 minutes to be in labour …"

75. Mrs A said that she contacted Ms B by telephone at approximately midnight and said that her contractions were very painful, and asked Ms B for support. Mrs A recalls that Ms B asked her how regular the contractions were and told her that she did not need to worry.

76. Mrs A told HDC that her contractions were extremely painful, so she called Ms B again at around 2am. Mrs A said that Ms B told her that she (Ms B) needed to sleep and that Mrs A should try to sleep too. Mrs A recalls that Ms B told her to relax, and said that someone would come to see her in the morning. Mrs A's partner, Mr A, recalls that during this telephone call Mrs A was told to count the contractions, so they spent the rest of the night doing so.

77. At 4.44am, Mrs A sent a series of text messages to Ms B advising her that she thought she was now in active labour, that her contractions were "so strong and each 5/3 minutes", that she had taken another two paracetamol, and that she was bleeding. Ms B responded that another midwife, Ms G, would come around to undertake an assessment.

78. Ms B made no record of the telephone calls and text messages.

6am assessment

79. At 6am, Ms G arrived at Mrs A's house to carry out an assessment. Ms G documented that contractions were coming at a rate of two every 10 minutes and lasting 60 seconds, and the FHR was 155. Ms G noted that on abdominal palpation the baby was in an ROA longitudinal lie,[18] cephalic (head down) presentation, with 3/5th of the presenting part palpable. Ms G conducted a vaginal examination (VE) and noted that the presenting part was at station –1,[19] the membranes were intact and bulging, and the cervix was 6 or 7cm

[18] The occiput (prominence at the back of the head) faces anteriorly and towards the right. This position is not associated with labour complications.

[19] "Station" is a term used to describe the descent of the baby into the pelvis. Station is measured in centimetres. An imaginary line is drawn between the two bones in the pelvis (known as ischial spines). This is

dilated and 90% effaced.[20] Mrs A's blood pressure (BP) was raised at 138/98mmHg. Mrs A told HDC: "[Ms G] had told me that my dilation was 7 at 6am."

80. Ms B explained that Ms G contemporaneously documented 6cm and immediately scribed 7 over the top of the 6. Ms B said: "Later in the evening of the 5 [Month6] this was adjusted to 6–7cm for clarity."

81. Ms G documented that she informed Ms B of her assessment findings and that Ms B planned to come to Mrs A's house. Ms G then left Mrs A.

Arrival of Ms B

82. At 7.15am, Ms B arrived at Mrs A's house. Ms B noted that Mrs A was continuing to experience "regular strong contractions" and was "breathing through quietly". Ms B performed observations and a urinalysis, which showed protein ++. The unaltered notes do not indicate that Ms B took Mrs A's BP or temperature. However, the amended notes state that at 7.52am Mrs A's BP was 126/82mmHg. The next record of Mrs A's BP was at 3.30pm.

83. Mrs A said she told Ms B that she was struggling with the pain, but Ms B told her that it was normal.

10am assessment

84. At 10am, Ms B performed a further assessment. She documented that on abdominal palpation the baby was in a longitudinal lie ROA position and 3/5th of the presenting part was palpable in the abdomen. After performing a VE, Ms B noted that the cervix was fully effaced and 8–9cm dilated. Ms B documented that contractions had become "spaced out" and that she recommended that Mrs A try to get some sleep. Ms B also recorded: "[A]way to do a visit or two. Be back at 12. Call if needed sooner."

85. Ms B said that she discussed the findings of the VE with Mrs A and explained that she had to visit another client who was located close by. Ms B said that Mrs A was happy for Ms B to leave her and understood that she could call at any time if she had concerns. Mrs A said that she was not told the time that Ms B planned to return, but agrees that Ms B told her that she could call at any time.

86. Ms B told HDC that despite having documented that she planned to undertake a "visit or two", she went to see only one postnatal client. Ms B explained that the client was located approximately 450m from Mrs A's house, approximately a one-minute drive. Ms B told HDC that she does not believe that if she had "sat at home with [Mrs A] for those 90 minutes while she rested and slept, that the outcome would have been altered".

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the "zero" line, and when the baby reaches this line it is considered to be in "zero station". When the baby is above this imaginary line it is in a minus station. When the baby is below, it is in a "plus" station. Stations are measured from –5 at the pelvic inlet to +4 at the pelvic outlet.

[20] Effacement means that the cervix stretches and gets thinner.

87. Mrs A told HDC that she was very upset and angry at being left. She said that she was experiencing a lot of pain and using breathing exercises to try to manage it. She was unable to eat or drink because she kept vomiting. She said that Ms B still had not discussed pain relief options with her.

Return of Ms B

88. Shortly before 11.45am, Mrs A contacted Ms B and advised that her contractions had become more regular and strong again. Ms B said that she returned immediately. Mrs A recalls that it took about 10 minutes for Ms B to arrive.

89. At 11.45am Ms B documented that Mrs A "appear[ed] to be in transition stage". Mrs A recalls that she tried to tell Ms B that the pain was difficult to deal with, but Ms B did not offer her any pain relief options.

1.45pm — VE

90. Mrs A's labour continued. At 1.45pm, Ms B carried out a further VE. Ms B documented that the vertex was at station 0, the membranes remained intact, and the cervix was dilated to 9.5cm with an anterior lip present, which Ms B attempted to push away unsuccessfully. However, later Ms B referred to the dilation at this VE being 9cm.

91. Ms B told HDC that she considered that Mrs A's slow progress may have been due to the position of the baby, given that the contractions were variable. Ms B said that she recommended that Mrs A increase her fluid intake and eat some food, as dehydration can cause contractions to decrease in intensity and strength. Ms B stated that it was her understanding that Mrs A was "still happy at home as the vaginal examination at 1.45pm indicated further progress".

92. Mrs A told HDC that Ms B did not talk to her about her progress or what her options were, and did not discuss the possibility of going to hospital. Mrs A said that if she had been given the option of going to hospital she would definitely have gone. She recalls telling Ms B that she was in a lot of pain, and Ms B said that she could go back into the pool, which she did.

2.45pm — transfer to Hospital 1

93. At 2.45pm, Ms B documented that Mrs A was "not coping very well" and that she had discussed a plan with Mrs A to recheck her cervix and transfer her to the local hospital (Hospital 1). Ms B retrospectively added: "[T]alk with [doctors]." The notes state that the plan included: "Arrange ambulance to transfer to [Hospital 2] … epidural[21]/syntocinon[22] at time."

94. At 3pm, Ms B carried out an assessment, noting that the baby was still in a longitudinal lie and an ROA position, that a small anterior lip of cervix was present, and that the vertex

[21] An analgesic or anaesthetic drug is injected into the epidural space of the spinal cord to relieve pain or to provide an anaesthetic.
[22] Syntocinon contains oxytocin, which is a naturally occurring hormone. It is used as an intravenous infusion for starting (inducing) labour or for stimulating labour when the contractions are weak.

was at station –1 to 0. Ms B documented: "Decision to transfer to [Hospital 1] for CTG and assessment with another midwife. Then transfer to [Hospital 2] via Ambulance." Ms B retrospectively added that the other midwife was to confirm the findings.

95. Mrs A recalls that at that time Ms B questioned her about whether she was feeling any pressure, and asked her to try to push. When Mrs A reported no pressure, Ms B told her that she would need to go to hospital so that she could be checked by another midwife. Mrs A said that at that time she was not expecting to go to Hospital 2.

96. Mrs A said that Hospital 1 is approximately 20 minutes from her house by car. She stated that Ms B left the house approximately 20 minutes before her, and that Ms B said that she would meet them at the hospital. Mrs A said that because they did not expect to have to go to hospital they were not prepared, and it took them time to get organised.

97. Mrs A said that she was experiencing very painful contractions by that time. Mr A stated that he was very concerned that Mrs A would have the baby in the car.

Arrival at Hospital 1

98. At 3.30pm, Mrs A arrived at Hospital 1. Ms B documented that the plan was "for reassessment with decision to consider transferring". Ms B commenced a CTG, the results of which were reassuring. The BP is recorded as 143/96mmHg and the urinalysis is recorded as protein 2+.

99. Mrs A told HDC that when she got to Hospital 1 she asked Ms B for pain relief a number of times, because the pain was unbearable, but all she was told was that Ms B could not give her anything and that Mrs A would have to wait until she got to Hospital 2. However, the clinical progress notes at 3.30pm state: "[C]ommenced entonox also."

100. At 4.30pm, Ms B documented that she had contacted the on-call registrar at Hospital 2 to discuss transfer. No details of what was discussed or the outcome of that conversation are documented.

101. An obstetric registrar, Dr C, recalls receiving a telephone call from Ms B, who said that she was concerned because she had a term primiparous[23] woman who was 9cm dilated, but had not progressed in the last hour. Dr C said that Ms B told her that it was difficult to ascertain the current VE findings, and it was unclear whether the membranes were intact. Dr C was told that the FHR monitoring was normal.

102. Dr C advised that Mrs A should be transferred to secondary care. Dr C stated: "[I]n order to ensure safety of transfer, I requested a repeat vaginal examination from a senior midwife." Ms B told Dr C that Ms G was on site and would perform the examination. At 5pm, Ms B documented that they were waiting for an ambulance to arrive. Ms G carried out a VE, noting that an anterior lip was present and the vertex was at station 0. She noted that the membranes had ruptured.

[23] Primiparous — pregnant for the first time.

103. Dr C said that Ms B called back to say that Ms G had confirmed that the cervix was 9cm dilated and the membranes had ruptured. Dr C said she called the on-call senior medical officer (SMO), Dr D, who said that an LMC-escorted ambulance transfer with observations and fetal monitoring was required. Dr C said that she relayed the plan to Ms B and then informed the Hospital 2 core midwives, the acute care coordinator, and the anaesthetist to expect Mrs A.

104. The ambulance left at 6pm. Ms B noted in the maternity notes: "Left [town] no concerns with FHR on way down." Ms B accompanied Mrs A in the ambulance. Mrs A said that Ms B told them that there was insufficient space for her partner to travel with them and that, during the trip, Ms B did not talk to her or reassure her. Mrs A said she felt that Ms B "was just waiting for the baby to be born and for her to get out of the situation".

105. There is no record of the FHR between 6pm and 8.30pm.

Hospital 2

106. At approximately 8.30pm, Mrs A arrived at Hospital 2. Ms B stated to the Midwifery Council that she handed over care to the core secondary staff. Ms E, a hospital midwife and the shift coordinator, stated:

> "I am not aware of being present during the handover of care, and as it was a secondary handover, it was appropriate that the handover occurred between the doctors taking over care and the LMC handing over care."

107. Ms E noted that Dr C recorded that Ms B was the chaperone during Dr C's initial assessment, which supports her (Ms E's) account that she was not present at handover.

108. Dr C said:

> "There was rushed handover and the LMC was trying to leave before finishing handover. The LMC seemed worried about being able to get back home if the ambulance left without her."

109. At approximately 8.45pm, Dr C reviewed Mrs A, commenced a CTG, and recorded the maternal heart rate. Dr C told HDC that the DHB did not have any pre-existing notes for Mrs A, and Ms B gave her (Dr C) only one page of written progress notes.[24] Dr C said:

> "Other notes in the patient record were not available at that time. Ultrasound reports were not available at point of transfer. Further notes were collated post partum."

110. Dr C said that the MMPO maternity notes were not left at Hospital 2, and she "was informed these were required to remain with the LMC for return to Hospital 1 but copies would come". Dr C told HDC that Ms B left with the ambulance crew to return to Hospital 1, so she (Dr C) stayed with Mrs A until the core midwives were available for handover.

[24] The written notes contain a record of Ms B's assessments at 3.30pm, 10am, and 1.45pm (in that order).

111. In response to the provisional opinion, Mrs A said that Ms B abandoned her at the hospital.

Staffing

112. Ms E told HDC that it was a very busy shift, with a staff ratio of one to six women. However, according to the DHB, at the time of Mrs A's admission there were 11 women on the Birthing Unit, three having had elective Caesarean sections that morning, and one acute admission in the afternoon. The DHB advised that there were no other women labouring at the time of Mrs A's admission, and the staff on duty included three registered midwives and a maternity assistant.

113. The DHB told HDC that there are no agreed staff/patient ratios in New Zealand, and that a workforce planning system (the workforce planning system) is used to predict and then actualise workload requirements. The DHB said that the workforce planning information shows that 27.35 hours were required, and that 31 hours were available that day.

114. The DHB said that the staffing on the afternoon shift was increased based on the predicted need for that shift, but that at times the staff would have been stretched by the clinical demand. The DHB stated that this would have been evident at the time that the woman who required an urgent Caesarean was admitted on the afternoon shift, and during the night shift when Mrs A gave birth and her baby required intensive resuscitation.

Decision for epidural

115. At 8.47pm, Dr C carried out an assessment, noting Mrs A's history. Dr C recorded the progress of Mrs A's labour as follows: at 6.00am she was 6–7cm dilated, with the fetal head at station –1 and 90% effaced; at 10.00am she was 8cm dilated and fully effaced; at 1.45pm she was 9cm dilated with an anterior lip; and at 2.45pm she was 9cm dilated.

116. Dr C observed that Mrs A was "distressed [with] pain". On examination Dr C noted that the fetus was cephalic with 1/5th of the fetal head palpable in the abdomen. Mrs A's contractions were two every ten minutes, lasting 60 seconds. On VE, Dr C noted that the cervix was 8–9cm dilated, with the fetus in an occiput posterior (OP) asynclitic[25] fetal position, with no caput moulding.[26] Dr C's impression was: "Malpresentation, Analgesia requirement." Dr C recorded a plan that included IV access, assessment of vital signs, bloods, commencement of a CTG, and insertion of an epidural.

117. At approximately 9pm, Ms E inserted an IV line and took bloods, which were sent for analysis.

118. At approximately 9.05pm, Dr D reassessed Mrs A. Dr D recorded that she had spoken to Mrs A and that the plan was to insert an epidural and then attempt to rotate the baby manually with a possible vacuum delivery. Dr D said that she was aware of how long Mrs A had been in labour and that she was post dates.

[25] Asynclitism is a subtle malposition in which the baby's head is tilted and the top of the head is not centred on the cervix. It can result in back pain or prolonged active labour.
[26] Swelling of the scalp caused by the pressure of the scalp against the dilating cervix during labour.

119. Dr C said that she was surprised when Mrs A said, "[M]y midwife says epidurals are bad," which meant that extra time was needed to explain what an epidural is, as well as the benefits and risks, in order to gain informed consent. Dr C said: "It would have been helpful if the LMC had stayed to provide extra support with this process."

120. Ms E advised HDC that after she had completed the relevant paperwork and sent the bloods for analysis, she returned to Mrs A's room. Ms E said that while arrangements were being made for the epidural, she left to attend her postnatal patient.

Concurrent emergency

121. At approximately 9.15pm an emergency occurred, requiring Dr D, Dr C, and the anaesthetic registrar, Dr H, to attend theatre to undertake an emergency Caesarean section, which was completed at 11.27pm. Dr D stated:

> "A clinical decision was made that we should move to surgery with the preterm patient and return to do the epidural/rotation for [Mrs A] afterwards. This prioritisation of the preterm caesarean was appropriate due [to] the emergent nature of the caesarean and the stability of [Mrs A]."

122. Dr D said that there is only one operating room and one operating room team at Hospital 2, and that both she and Dr C needed to attend the Caesarean section, which would be "normal staffing". Dr C told HDC that consultant input was required for both the emergency Caesarean section and Mrs A's delivery, as she (Dr C) was not credentialled to undertake either procedure without supervision.

Anaesthetic cover

123. At the time of Mrs A's admission, Dr H was on site and an on-call anaesthetic consultant was off site. Dr H told HDC that he was told that a fresh set of bloods was being sent to the laboratory, and it is common practice to wait for the blood results before deciding to site an epidural. He did not receive any further calls from the obstetric ward, and so he did not call for the anaesthetic consultant to come in to attend to Mrs A's epidural.

124. The Clinical Leader Anaesthesia said that there is no formal policy at Hospital 2 regarding escalations of care for anaesthesia, but "the process is that the duty registrar is to keep the consultant closely informed of all cases and request help when needed". The Clinical Leader Anaesthesia said that if two anaesthetists are required on site and the registrar is involved in something that does not require direct supervision, then the on-call consultant will pick up the other case.

125. Dr D told HDC that at the time the other emergency occurred, Mrs A was stable, with a reassuring CTG. The DHB said that the medical staff did not consider there to be sufficient urgency to call in a second anaesthetist to insert Mrs A's epidural, or to call in a second obstetrician.

126. The DHB said that Ms E did not feel that it was appropriate to attempt to contact Dr H in theatre to seek further assistance, as she realised that there was an acute situation in theatre.

Ongoing management of Mrs A

127. Dr D said that she expected Mrs A to have continuous monitoring while she (Dr D) was in theatre with the other patient. She said: "I did not explicitly write this in a note to the midwives but I expected it in the usual course of a prolonged [labour]."

128. At approximately 10.15pm, after assisting with the postnatal patient, Ms E returned to Mrs A. Ms E stated that prior to re-entering Mrs A's room she had a conversation with Dr C and Dr D regarding pain relief options, in light of the other emergency. This conversation is not documented. Ms E stated: "It is my usual practice when a woman is under secondary care to discuss pain relief options with the team, so I am confident this occurred, yet I did fail to document this."

129. Ms E told HDC that pethidine[27] as an alternative pain relief option was discussed, but she does not recall whether the dosage was discussed. She said:

> "[D]ue to the timing of the section, how close [Mrs A] was to delivery and the need for a quick acting pain relief, I decided a small 25mg dose of pethidine dose given IV would be more appropriate than the normal 100mg IM [intramuscular] dose."

130. Neither Dr C nor Dr D recall discussing with Ms E the administration of pethidine.

131. Ms E recalls that Mrs A and her family were "very distressed and angry" when informed about the delay in arranging an epidural because of the other emergency. Ms E stated: "[Mrs A] was begging me for help and slowly I was able to calm them sufficiently so that we could talk about the options."

132. At 10.40pm, Ms E documented that she administered 25mg pethidine and 10mg Maxolon.[28]

133. At that time, Ms E considered that the CTG was reassuring. However, Ms E stated that in her hurry to remove the CTG to allow Mrs A to go to the toilet while she (Ms E) arranged for the pethidine, she did not notice that there was a deceleration down to 110bpm just prior to discontinuing the CTG.

134. Mrs A got into the bath "to help ease pain while awaiting epidural". Ms E advised that she cannot recall who suggested that Mrs A should get into the bath, and that her "[u]sual practice is not to use water and narcotics", but that due to the stressful situation, and given that it would be another 90 to 120 minutes before the anaesthetist would be available, she considered that there were no other options to offer Mrs A.

[27] Pethidine is an opioid used to treat pain, particularly during childbirth.
[28] Used as an antiemetic, to prevent nausea and vomiting.

135. The DHB told HDC that it does not have a specific guideline on FHR monitoring post administration of pethidine. However, its guideline in place at the time on the use of water in labour and birth[29] states that pethidine should not be given to women labouring in water. In addition, the New Zealand College of Midwives consensus statement, "The use of water for labour and birth", states: "[O]pioid analgesia is not recommended for women labouring in water. If the woman has already had opioid analgesia administered and then asks to use the pool, clinical judgement is required as to whether this is appropriate or not." The DHB stated that "it was with the knowledge of this consensus statement and the [Hospital 2] guidelines that the core midwife [Ms E] caring for this woman took the actions she did".

136. The DHB stated:

> "The core midwife caring for this woman was aware that although the woman was distressed by pain, she would not be able to get an epidural for some time as the anaesthetist was in theatre at an acute caesarean section. [Ms E] made a decision to give the woman a small amount of pethidine (25mgs) intravenously to give her some rapid analgesia and then get her into a bath for more prolonged pain management."

137. Ms E stated that after the CTG was discontinued to allow Mrs A to use the bathroom and enter the birthing pool, she returned to check on Mrs A every 15 minutes, but did not document her checks in the clinical notes. Ms E also did not document whether or not the FHR was assessed. Ms E told HDC:

> "My use of the word 'checking' included monitoring the fetal heart … Unfortunately due to rushing back to handover and my other responsibilities, it was not documented, there were no concerns noted about the baby's heartrate and I would have only left [Mrs A] and her support people, had there been normal parameters of the fetal heart."

138. At 11.40pm, Ms E handed over care to another midwife, Ms F, due to a shift change. At 11.40pm, Ms F documented that Mrs A was now out of the bath and "appear[ed] relaxed". Ms F said that she recommenced CTG monitoring at 11.41pm. The CTG continued for approximately eight minutes. Ms F stated: "This was a short trace but a reasonable indication of fetal wellbeing at this time." At midnight, Ms F noted that contractions had spaced out to 1:15, a brief CTG had been performed, and that Mrs A was tired. Ms F carried out an assessment, noting that on palpation the fetus was in a longitudinal LOP lie and cephalic.

Epidural sited

139. Dr H said that once he had finished the care of the other patient he returned to the obstetric ward, reviewed Mrs A's history and blood results, and sited the epidural. The DHB stated that it would have been "extremely difficult" to continue the CTG and obtain a record of an interpretive standard while the epidural was being inserted.

[29] Issued in 2006 and in place at the time of these events. This was superseded in 2016.

140. The CTG was recommenced at 12.12am and the FHR was monitored continuously until the birth. The FHR is recorded as 120bpm for approximately two minutes, and then 145bpm for three minutes before falling.

141. The records note that there was some fetal bradycardia and the FHR was down to 75bpm with recovery.

Delivery

142. At 12.20am, Dr D is noted to be present. The baby was in an OP position and was manipulated manually to an OA position. Dr D said that there was nothing to suggest that a manual rotation would trigger fetal distress. She told HDC that the FHR had decelerations during the rotation but returned to the normal range. She said that the decelerations were not continuous on the audible fetal heart tones and CTG, and the FHR recovered to within the normal range between the decelerations. Ms F stated that during the episode of fetal bradycardia the intravenous fluids were increased, Mrs A was placed on her left-hand side, and BP recordings were performed during five-minute intervals, and showed a drop to 108/51mmHg. At 12.30am the FHR is recorded as 166bpm, and Mrs A's BP was 140/65mmHg.

143. Dr D said that as the baby was quite low in the vaginal canal, she decided to do an operative vaginal delivery, and chose to use a Kiwi cup[30] because that is the mode of operative delivery with which she is most comfortable. She noted that there is no statistical difference in neonatal outcome, Apgar score,[31] or pH[32] between vacuum deliveries and the use of forceps.

144. At 12.30am the FHR is recorded as 166bpm.

145. At 12.31am, a vacuum delivery was commenced using a Kiwi cup. Dr D said that she affected "gentle downward traction" with each contraction, and progress was noted with each pull. The FHR is recorded as 142bpm at the second pull, 160bpm at the third pull, 166bpm at the fourth pull, and 164bpm at the fifth pull. Thereafter it was 170bpm until delivery, with variable decelerations to 130–140bpm.

146. Dr D stated that at the time, the degree of fetal compromise could not be determined from the CTG. She said that there was only one "pop off" of the ventouse in five pulls over 20 minutes, and so it was not a prolonged ventouse delivery. Once the baby's head was crowning, the Kiwi cup was removed.

147. Dr D stated that although the CTG showed tachycardia with decelerations from 12.22am until 12.40am, she did not perform a Caesarean section because the fastest way to deliver the baby at that point was by an operative vaginal delivery. She said that it would have

[30] A vacuum delivery system.

[31] The Apgar score rates a baby's appearance, pulse, responsiveness, muscle activity, and breathing with a number from 0 to 2 (2 being the strongest rating). The five numbers are then totalled.

[32] Blood acid levels are measured on the pH scale. Cord blood pH shows whether the baby was receiving enough oxygen during gestation, labour, and delivery.

taken 15–20 minutes to deliver the baby after calling for a Caesarean section, and noted that the staff were still "busy dealing with the [breach Caesarean] patient". She stated: "There was a sense of urgency to get the delivery accomplished due to the decelerations with the rotation as evidenced by the use of the Kiwi cup." She said that there was "excellent FHR noted on CTG up to the moment of delivery".

148. At 12.51am, Baby A was delivered and noted to be flat. The discharge summary states: "Baby boy delivered with cord around neck/body, some meconium liquor. No respiratory effort at birth, poor Apgars." Baby A's Apgars were 2 at 5 minutes (1 for heart rate and 1 for colour).

Subsequent events

149. Resuscitation was commenced. Dr D told HDC that blood was not taken from the umbilical cord, and said that it is her usual practice to request cord blood gases. The DHB stated that Ms F's recollection is that her attention was on the immediate resuscitation of Mrs A's baby, and the cord blood collection was overlooked.

150. Baby A was later diagnosed with stage 2 hypoxic ischaemic encephalopathy.

151. At 1.38am Dr C recorded that "additional LMC notes/scans found show 42+2 EDD 21 [Month5]". Dr C told HDC that she found the notes on a desk in the midwifery care station, and one of the core midwives told her that the notes had just been sent in. She said that this was the first time she saw the scan results, antenatal screening results, and the EDD, and she was surprised because the LMC had handed over that Mrs A was "at term".

152. On 6 Month6 at 10.00am, Dr C retrospectively recorded in the clinical progress notes that she had provided a debrief of events to Mrs A that included: "Limits to handover of available information. [Primary] notes not available (MMPO)." Dr C recorded: "MMPO notes collected & put in notes."

Further information — the DHB

153. The DHB said that it is usual practice at Hospital 2 to perform a ventouse delivery while not in an operating theatre unless the obstetrician considers that there is strong potential for the ventouse delivery to be unsuccessful, which would require birth by Caesarean.

154. The DHB Guideline regarding the use of water in labour and birth states that the FHR should be taken and documented prior to entering the pool, and assessments continued throughout the time the woman is in the water, as for any normal labour. It states that the woman should not require continuous monitoring. The FHR should be documented every 15 minutes, and the maternal temperature and pulse every hour.

Further comment from Mrs A

155. Mrs A told HDC that currently Baby A is developing normally and has met all his milestones, but they have been told that he may still experience ongoing developmental problems.

156. Mrs A stated that if at any stage during her pregnancy and labour Ms B had told her to go to hospital or suggested that she should be referred to a specialist, she would have agreed to do so.

ACC advice

157. ACC obtained advice from an obstetrician and gynaecologist who considered that Baby A's brain injury was caused by the effect of the epidural medication in the context of maternal dehydration. The obstetrician and gynaecologist noted that the FHR was normal prior to the insertion of the epidural. She said that a bolus dose of local anaesthetic was administered down the epidural catheter, which was followed by a prolonged FHR deceleration. She said that the FHR was mostly low from about 12.18am until 12.33am, apart from brief periods when the FHR rose. The obstetrician and gynaecologist stated:

> "This is a well described complication of an epidural and is probably caused by some of the local anaesthetic getting into the blood stream and then into the fetus causing a significant slowing of the FHR."

Responses to provisional opinion

158. Responses were received from Mrs A, the DHB, and Ms B, and have been incorporated into the "information gathered" section of the report where appropriate.

159. The DHB stated that it accepts the recommendations made.

160. Mrs A stated that she wants her experience used to prevent this type of thing happening to others. She said that during the pregnancy, labour, and birth she felt that she did not have options, and the risks were not explained to her.

161. Ms B submitted that it is not necessary to refer this matter to the Director of Proceedings. She said that she has not practised since 2016, when interim suspension of her Practising Certificate was imposed by the Midwifery Council of New Zealand, with conditions requiring further education before Council would consider lifting the suspension. Since the suspension, she has not engaged in any midwifery related education, as she has not been in a position to support herself financially as a student.

162. Ms B stated that she does not envisage a return to practice, given the extent of the educational requirements that have been set.

Relevant standards

Ministry of Health Referral Guidelines

163. The *Referral Guidelines* provide guidelines for circumstances in which an LMC must recommend a consultation with a specialist, or the transfer of clinical responsibility to a specialist.

164. The *Referral Guidelines* previously appended to the section 88 Maternity Services Notice 2002 are to be used in conjunction with the Primary Maternity Services Notice 2007.

165. The *Referral Guidelines* require that a woman be informed that a consultation is warranted in certain circumstances. Under "Consultation", the *Referral Guidelines* state:

> "The LMC must recommend to the woman (or parent(s) in the case of the baby) that a consultation with a specialist is warranted given that her pregnancy, labour, birth or puerperium (or the baby) is or maybe affected by the condition. Where a consultation occurs, the decision regarding ongoing care, advice to the LMC on management, and any recommendation to subsequently transfer care must involve three-way conversation between the specialist, the LMC and the woman. This should include discussion of any need for and timing of specialist review."

166. The *Referral Guidelines* require in "Code 2001 Cervical surgery including cone biopsy, laser excision or large loop excision of the transformation zone" that without a subsequent term vaginal birth, the LMC is to recommend to the woman that a referral for a consultation with a specialist is warranted.

167. The *Referral Guidelines* require in "Code 4024 Prolonged pregnancy" that the LMC recommend to the woman that a referral for a consultation with a specialist is warranted "in a timely manner for planned induction by 42 weeks".

168. Under the conditions and referral categories, "Code 5021 Prolonged and first stage of labour" states: "> 2 cm in 4 hours for nullipara and primipara. Slowing in progress in labour of second and subsequent labours. Take into consideration descent and rotation of fetal head, and changes in strength, duration and frequency of contractions." The referral category in 5021 is "Consultation".

RANZCOG Intrapartum Fetal Surveillance Clinical Guideline

169. The *RANZCOG Intrapartum Fetal Surveillance Clinical Guideline — Third Edition 2014* (the *RANZCOG Guideline*)[33] provides that:

- Continuous CTG should be recommended when either risk factors for fetal compromise have been detected antenatally, are detected at the onset of labour or develop during labour.
- Where there are no risk factors and a CTG is not required, the FHR should still be monitored by intermittent auscultation every 15 to 30 minutes in the active phase of the first stage of labour and after each contraction, or at least every five minutes in the active second stage of labour.

The New Zealand College of Midwives consensus statement (22 February 2012) Assessment of fetal wellbeing during pregnancy (NZCOM consensus statement)

170. The consensus statement provides:

> "• From 24 weeks gestation it is recommended that the fundal-symphysis height should be measured and recorded in centimetres at each antenatal appointment, preferably by the same person. Midwives using NZ Customised Growth Charts

[33] Endorsed by the New Zealand College of Midwives.

should be conversant with their conditions and limitations. If there is a decision to use a customised growth chart it is commenced beyond 24 weeks gestation …"

Midwives Handbook for Practice

171. The New Zealand College of Midwives (NZCOM) *Midwives Handbook for Practice*[34] provides:

"**Competency Two**
The midwife applies comprehensive theoretical and scientific knowledge with the affective and technical skills needed to provide effective and safe midwifery care.

…"

Code of Conduct

172. The Midwifery Council of New Zealand Code of Conduct (2010) states in a Guidance Statement:

"Text messaging can be an unreliable method of communication, with message transmission delayed at times or messages open to misinterpretation. While women may use texting to contact a midwife, midwives must consider the appropriateness of using text communications and ensure that their communication with women occurs through reliable methods such as telephone. All communication with women should be appropriately documented."

Opinion: Ms B — breach

Introduction

173. Mrs A became pregnant with her first child in 2015, shortly after she moved to New Zealand. She engaged community-based midwife Ms B as her LMC. I am very critical of aspects of the care provided by Ms B to Mrs A antenatally and during her labour. I am also concerned by the multiple retrospective amendments to the clinical record made by Ms B, which has made accurate assessment of events problematic.

Antenatal care

Confusion over EDD

174. Mrs A's EDD according to her LMP was 24 Month5. An ultrasound scan carried out when she was at 13+3 weeks' gestation gave an EDD of 21 Month5.

175. My expert midwifery advisor, Dr Carolyn Young, advised that ideally EDDs based on LMP are not altered after a scan is performed unless there is a week's discrepancy between the dates. However, she said that in practice, if the scan dating is performed within the first 6–8 weeks of a pregnancy then usually it is given precedence.

[34] *Midwives Handbook for Practice*, 5th Edition, 2015.

176. Ms B told HDC that Mrs A chose to use the date calculated from her LMP — 24 Month5. The "Pregnancy Summary" document in Mrs A's maternity notes (of which Mrs A held a copy) states that the "[f]inal agreed EDD" was 24 Month5.

177. In contrast, Mrs A told HDC that they agreed to use the date calculated from the scan — 21 Month5.

178. At the top of Mrs A's antenatal record Ms B has recorded next to EDD, "*24 [Month5] (using)*", and next to EDD by scan, "21 [Month5]". However, it is not stated when that was recorded.

179. In the scanned copy of the midwifery notes provided to the DHB, the "client profile summary" records the EDD as being 21 Month5. However, the copy of the midwifery notes provided to HDC by Ms B contains a different client summary profile and records the EDD as being 24 Month5. The DHB did not receive the antenatal sheet where the changes were made to the EDD and where it was noted that 24 Month5 was to be used. Ms B told HDC:

> "The discrepancy I found was the change in EDD on front page and the reason I would have changed that as initially it was filled out by [Mrs A] but upon reviewing later (unsure exactly) — the EDD was changed, to be in line with EDD by LMP."

180. For the first two antenatal appointments[35] Ms B recorded the gestation based on the EDD from the scan. For subsequent antenatal appointments, Ms B recorded the gestation calculated based on the date of Mrs A's LMP. I also note that on a few occasions Ms B miscalculated the gestation. There is no reference in the midwifery records to any discussion about, or rationale for, Ms B changing the date for calculating the EDD.

181. I also note that on the pregnancy summary sheets the EDD is recorded by Ms B as being 21 Month5 for all three scan reports up to 36 weeks' gestation. Given the changes to the records made by Ms B, I find her evidence to be unreliable. Consequently, I accept Mrs A's account that they agreed to use the date calculated from the scan — 21 Month5.

182. In my view, the confusion about the EDD was sub-optimal, and there should have been a clear understanding as to which EDD was being used. This became important for the provision of appropriate care when Mrs A went past both EDDs (discussed below).

Assessment of fetal growth during pregnancy

183. Ms B assessed Mrs A during her pregnancy by way of abdominal palpation using landmarks to assess fetal growth, and concluded that the fetal growth was normal. Ms B told HDC that her usual practice is to use landmarks to measure fetal growth rather than measuring the fundal height.

184. The New Zealand College of Midwives consensus statement "Assessment of fetal wellbeing during pregnancy 2012" states that from 24 weeks' gestation the fundal-symphysis height should be measured and recorded in centimetres at each antenatal appointment,

[35] On 1 and 26 Month1.

preferably by the same person. The consensus statement adds that there is no evidence to support assessment using only abdominal palpations or assessment using only fundal-symphysis height measurement.

185. Dr Young advised that the use of customised growth charts in antenatal care to ascertain fetal well-being through appropriate growth being graphed is becoming a global recommendation, but this is not followed by all midwives, nor is it a mandatory requirement for referral to some district health boards. However, the need to measure and record the fundal-symphysis height as part of the routine antenatal assessment for fetal well-being, whether or not it is graphed on a customised growth chart subsequently, is recognised as part of a midwife's "professional standards of care".

186. Fundal height measurement is the recommended practice for assessment of fetal growth. In my view, it was poor practice for Ms B to rely on palpation alone.

Post EDD care and failure to refer

187. On 28 Month5, when Mrs A was at 40+4 weeks' gestation by LMP (recorded by Ms B as 40+3 and 41 weeks' gestation by scan), she had an appointment with Ms B. Ms B assured Mrs A that everything was fine, and told her that the practice in New Zealand was for a pregnant woman to have a scan when she was two weeks past her EDD, to assess whether labour needed to be induced.

188. Ms B said that Mrs A was adamant that she never wanted an induction. However, Mrs A said that she told Ms B: "I read articles that it could be so dangerous to wait too long and she always said, 'No you are reading the wrong articles'." Mrs A said that she specifically requested an induction on 28 Month5, but Ms B told her that she could not be induced until she was at 42 weeks' gestation. There is no reference in the maternity notes to Mrs A having declined an induction on 28 Month5, although the records do refer to her being anxious about the baby's arrival, and being told that induction of labour would not occur before 42 weeks.

189. The Ministry of Health *Guidelines for Consultation with Obstetric and Related Medical Services* (the *Referral Guidelines*) in "Code 4024 Prolonged pregnancy" require that the LMC recommend to the woman that a referral for a consultation with a specialist is warranted "in a timely manner for planned induction by 42 weeks".

190. Dr Young advised:

> "The current approach to postdate management in the absence of any pregnancy complications is to defer induction of labour until approximately 42 weeks to maximise the opportunity for women to come into spontaneous labour in the knowledge that induced labour frequently leads to the need for further intervention."

191. On 31 Month5, Ms B saw Mrs A, who was then at 40+6 weeks' gestation by LMP (41+3 weeks' gestation according to her scan). The appointment was at Hospital 1 in order to undertake a CTG to monitor the wellness of the baby. Ms B noted on a page headed "midwifery notes" that Mrs A was past the "estimated day of arrival of 24 [Month5]". Ms B

also recorded on this page that Mrs A had declined a stretch and sweep and was "not interested in an induction" at that stage. The entry concludes: "[I]mpression well woman; well baby all wellness checks within normal range," with the words "baby all wellness checks within normal range" inserted below the bottom line of the page. The entry has Ms B's initials in the margin.

192. Ms B made further notes on a separate sheet of paper, also headed "midwifery notes" that commence "[Mrs A]" (see below). Ms B told HDC that this note was made "at the time of the appointment". She explained that the reason it was written separately and not included in the maternity notes was that Mrs A had forgotten to bring her notes.

193. The additional notes on the separate page record:

> "[Mrs A]. Further discussion with [Mrs A] regarding Induction of Labour. As per referral guidelines Code 4024 — Prolonged Pregnancy — a consultation is recommended for planned induction by 42 weeks. [Mrs A] confirmed she is wanting to wait and will make decision after post dates scan booked for 5th [Month6]. [Mrs A] is still wanting to have her baby at home so therefore is declining consultation with Dr's at this stage. [Mrs A] is aware she can change her mind at any stage."

194. However, Mrs A told HDC that Ms B did not discuss or offer an induction or a referral to a specialist. Ms B advised that this discussion was documented contemporaneously, but Mrs A does not recall Ms B documenting anything during the appointment on 31 Month5. I accept that it is possible that the clinical records were made immediately subsequent to the appointment. However, in my view, in light of words being inserted below the final line of the first page rather than the wording following onto the second page, I am not satisfied that the entry commencing "[Mrs A]" was not written later. Overall, I find it more likely than not that Mrs A's account is correct, and that she was not offered, and did not decline, a consultation on 31 Month5.

195. The Midwifery Council's "Competencies for Entry to the Register of Midwives" requires in Competency 1 that the midwife communicate effectively with the woman, and formulate and document the care plan in partnership with the woman.

196. Dr Young advised that if the entries were added in later, a lack of discussion, information sharing, and mutual formulation of an agreed plan would represent a moderate departure from acceptable standards of care. I agree with this advice (see further comments below).

Labour

Care provided during early stage of labour

197. On 4 Month6, Mrs A began to experience contractions. At 5.54pm, she sent a text message to Ms B that stated:

> "This afternoon I started some uncomfortable cramps on my lower abdomen. Can it be early stage of labour? The cramps take 60 seconds and come every 15/18 minutes."

198. Ms B does not appear to have responded to this text message. At 10.41pm, Mrs A texted Ms B that she was feeling strong contractions and pain. Ms B responded by text that the contractions needed to be every three minutes in order for it to be labour. Mrs A contacted Ms B again at around midnight regarding the pain, and asked for support. However, Ms B did not attend.

199. The Midwifery Council's "Competencies for Entry to the Register of Midwives" require in Competency 2.5 that the midwife attend, support, and regularly assess the woman. When Mrs A contacted Ms B again at around 2am because her contractions were extremely painful, Ms B told Mrs A that she (Ms B) needed to sleep, and that Mrs A should try to sleep too. Ms B told Mrs A that someone would come to see her in the morning. I find this response very concerning. Not only was Ms B's advice that the contractions needed to be every three minutes in order for it to be labour unhelpful, but her response to an anxious first-time mother who had contacted her four times was inappropriate and lacking in compassion.

200. Furthermore, Ms B made no records of these contacts. I would have expected a reported discussion to have been documented at every point of contact during the early labour phase. I consider it suboptimal that Ms B received and communicated clinical information by text and did not document the text and telephone assessments, including whether or not the baby was active, and the advice given.

201. At 6am, Ms G arrived at Mrs A's home and conducted an assessment. Mrs A's BP was raised at 138/98mmHg. The presenting part was at station –1, the membranes were intact and bulging, and the cervix was either 6 or 7cm dilated and 90% effaced.

202. At 7.15am, Ms B arrived and noted that Mrs A was experiencing regular strong contractions. Ms B performed observations and a urinalysis, but did not take Mrs A's temperature. Ms B monitored the FHR, but I am unable to state definitively how frequently she did so, given the retrospective amendments to the records. In any event, it was less frequent than half hourly.

203. The unaltered records do not state that a repeat BP recording was made, although the amended records state that at 7.50am Mrs A's BP was 126/82mmHg and urinalysis showed protein ++.

204. Between 7.15am and 10am the contractions slowed. At 10.00am the unaltered notes state, "Contractions eased off now," but give no timings. The amended notes state that the contractions had reduced from two in ten minutes to one in 8–15 minutes. Ms B performed another VE at 10am and found that there had been no further descent of the fetal head, and that dilation was 8–9cm.

205. Dr Young advised me that based on the unamended records, the failure to establish a baseline for maternal well-being and to follow up an elevated blood pressure recording at the initial assessment represents a moderate departure from accepted standards of care.

Ms B's decision to leave, and failure to monitor FHR adequately

206. At 10am, Ms B documented that the contractions had become "spaced out" (and retrospectively added "(1:15)"). She noted: "[A]way to do a visit or two. Be back at 12. Call if needed sooner." Ms B said that Mrs A was happy for her to leave, and understood that she could call if she had any concerns. Ms B then left to visit a postnatal client.

207. Mrs A stated that she was upset and angry at being left, was in a lot of pain, and was vomiting. She said that she was not told when Ms B planned to return, but agrees that Ms B did say that she could call her at any time.

208. Dr Young advised that irrespective of whether Mrs A questioned being left, the decision to leave at that point in labour was a midwifery lead decision. Dr Young stated:

> "[I]t is not possible to predict the exact time and birth at this stage of labour and even an approximation can prove to be very inaccurate. The New Zealand College of Midwives Standards of Midwifery Practice states in Standard 6 that: 'Midwifery actions are prioritised and implemented appropriately with no midwifery act or omission placing the woman at risk'."

209. I accept Mrs A's account that she was very upset and angry at being left and was experiencing vomiting and a lot of pain. Dr Young stated:

> "The purpose of [Ms B's] presence was not, as she has described, to have 'sat at home with [Mrs A] for those 90 minutes while she rested and slept' but to have provided regular monitoring, ongoing assessment and labour support. It appears that the decrease in the frequency of contractions has guided [Ms B's] decision to absent herself believing that neither [Mrs A] or her baby were likely to be compromised in her absence. She asserts that her decision to leave [Mrs A] unattended did not alter the outcome. The possibility that it may have, however, had been present. If fetal or maternal compromise had occurred during this period it would have been undetected until [Ms B's] return."

210. Dr Young advised that the assurance of the continued well-being of the baby was dependent on FHR monitoring, and it is recommended practice that in late first stage of labour, the FHR is monitored every 15 minutes. Ms B intended to be absent until midday, which was a period of one hour and 40 minutes, although she did in fact return after one hour and 25 minutes.

211. Dr Young considers that Ms B's action in leaving was a moderate departure from accepted standards of midwifery care. I accept Dr Young's advice. In my view, Ms B's decision to leave Mrs A at home with no midwifery support and knowing that the FHR would not be monitored during this period, was seriously suboptimal midwifery care, particularly in the circumstances of Mrs A being a first-time mother who was in pain and was vomiting.

Progress of labour and failure to refer

212. Dr Young advised that Mrs A was in established labour by 6am when she was 6 or 7cm dilated. By 10am, she was 8–9cm dilated, but there had been no further descent of the

presenting part, and the contractions had slowed. Dr Young advised that "these findings may be an early indication that labour is becoming obstructed".

213. Ms B returned to Mrs A's home at around 11.45am (having been called back) and documented that Mrs A appeared to be in transition stage. Ms B advised that she monitored the FHR. However, most of the records were made retrospectively, and I do not accept that Ms B could recall the exact FHR readings some time after the event, given that the amendments to the records were made after 6 Month6. Consequently, I do not consider the FHRs Ms B recorded retrospectively to be reliable.

214. Ms B noted that the FHR was reassuring and, at 1.45pm, carried out a further VE. Ms B recorded that the vertex was at station 0, the membranes remained intact, and the cervix was dilated to 9.5cm, with an anterior lip present, which Ms B attempted unsuccessfully to push away. However, later Ms B referred to the dilation at this VE as being 9cm.

215. Ms B stated that she considered that there had been further progress, so she did not discuss with Mrs A the possibility of going to hospital at that time. Dr Young noted that the VE at 1.45pm was performed approximately four hours after the previous VE. She stated:

> "[T]he cervical dilatation assessment of progress from 8–9cms to 9.5cms is less than optimal for primigravida progress of 2cm in four hours. There had been minimal descent of the presenting part. The presence of an anterior lip of cervix and uneven dilatation as described can be further indicative of a mal-presentation."

216. Dr Young advised that although this was not yet an urgent situation, there were clear indicators that labour was not progressing well, and the poor progress in labour needed to be discussed with Mrs A. Dr Young stated:

> "The decision of whether to continue to labour at home or whether to transfer to hospital needed to be made in partnership with [Mrs A] as a process of informed consent."

217. The *Referral Guidelines* provide that if there is a prolonged first stage of labour, described as "<2cms in four hours for nullipara and primipara … tak[ing] into consideration descent and rotation of fetal head, and changes in strength, duration and frequency of contractions", the LMC must recommend to the woman that a consultation with a specialist is warranted.

218. In my view, at 1.45pm Ms B should have discussed a consultation with a specialist. This was information that Mrs A could have expected to receive to enable her to make decisions about her care. I am particularly concerned by Ms B's lack of action, because Mrs A was approximately two and a half hours' travel by road from the nearest base hospital. I also consider that Ms B should have commenced the consultation process early in order to minimise the risk of dealing with a birth in an ambulance. The more progress Mrs A made in her labour, the greater the likelihood of having such a situation arise during an ambulance transfer.

219. At 2.45pm, Ms B documented that Mrs A was "not coping very well" and that she had discussed a plan with Mrs A to recheck her cervix and transfer her to Hospital 1. Ms B later added: "[T]alk with [doctors]." The notes state that the plan included: "Arrange ambulance to transfer to [Hospital 2] … epidural/syntocinon @ time."

220. At 3pm, Ms B carried out an assessment, noting that the baby was still in a longitudinal lie in an ROA position, that a small anterior lip of cervix was present, and that the vertex was at station –1 to 0. Ms B documented: "Decision to transfer to [Hospital 1] for CTG and assessment with another midwife to confirm findings. Then transfer to [Hospital 2] via Ambulance."

221. Mrs A recalls that at that time Ms B questioned her about whether she was feeling any pressure and asked her to try to push and, when she reported no pressure, Ms B told her that she would need to go to hospital so that she could be checked by another midwife. Mrs A said that at that time she was not expecting to go to Hospital 2. I accept Mrs A's account that she was told that she was to go to the local hospital to be checked by another midwife, rather than that Ms B recommended to her that an obstetric consultation was warranted.

FHR monitoring

222. There is no record of the FHR being monitored when Mrs A was in active labour between 10.00am and 11.45am and between 6.30pm and 8.30pm. The *RANZCOG Guidelines* state that where continuous monitoring is not required, then the FHR should be monitored by intermittent auscultation every 15 to 30 minutes in the active phase of the first stage of labour. Dr Young advised that the assurance of the continued well-being of the baby was dependent on FHR monitoring, and that in her view it is recommended practice that in the late first stage of labour the FHR is to be monitored every 15 minutes. Again, this was very poor midwifery care.

Maternal observations

223. Ms B recorded Mrs A's maternal observations (excluding her temperature) only when she first attended to Mrs A in the morning of her labour and then again at 3.30pm. Dr Young noted that when a woman is in established labour, it is recommended practice to monitor blood pressure and temperature four hourly, and to monitor the maternal pulse rate two hourly. She noted that changes in maternal recordings can be indicative of maternal distress. I am critical that Ms B did not monitor Mrs A's blood pressure, pulse, and temperature adequately.

Conclusions

224. Ms B failed to provide services to Mrs A with reasonable care and skill in the following ways:

a) Ms B failed to establish an agreed EDD and did not formulate a plan for postdates care.

b) Ms B failed to measure Mrs A's fundal height during the pregnancy.

c) Ms B left Mrs A unattended for one hour and twenty-five minutes when Mrs A was in established late labour.

d) Ms B failed to establish a baseline for maternal well-being and to follow up an elevated blood pressure recording, and during labour did not monitor Mrs A's maternal observations four hourly.

e) At times Ms B failed to monitor the FHR every 15–30 minutes in the active phase of the first stage of labour, and between 10.00am and 11.45am was absent and did not monitor the FHR at all. She also did not monitor the FHR between 6.30pm and 8.30pm.

f) At 1.45pm, Ms B failed to act on the clear indicators that labour was not progressing normally, and did not conclude that a consultation with a specialist was warranted.

225. Cumulatively, these failings suggest woefully poor midwifery care. I find that Ms B breached Right 4(1) of the Code.

Handover — breach

226. The handover took place at approximately 8.45pm. Dr C said that the handover was rushed, and that Ms B tried to leave before finishing it because she did not want the ambulance to leave to return home without her. Ms B then left with the ambulance crew, so Dr C stayed with Mrs A until the core midwives were available for handover.

227. The DHB did not have any pre-existing notes for Mrs A, and Ms B gave Dr C only one page of written progress notes. The team at the DHB did not have access to the MMPO maternity notes or the ultrasound reports.

228. Dr C said that Ms B informed her that the MMPO maternity notes were required to remain with the LMC for return to Hospital 1, but that copies would come. Subsequently, Ms B faxed the notes to the DHB at around 1.38am on 6 Month6.

229. Dr Young advised that the documentation relating to Mrs A's care prior to transfer was an important component in the management of on-going care, as it confirmed the degree and length of obstructed labour, and presented a record of the antenatal care.

230. The Ministry of Health Referral Guideline 4.3, Process for transfer of clinical responsibility for care, states that this requires:

- A three-way conversation between the LMC, the woman, and the specialist to determine that the transfer of care is appropriate and acceptable; and
- The LMC to provide to the specialist all relevant information, including any relevant maternity notes, test results, and histories.

231. Dr Young stated that the antenatal care notes were relevant to ongoing management because of the discrepancy in the EDD, which meant that the radiology results were of relevance, particularly when verbal misinformation had been given around the duration of pregnancy. Dr Young said that the labour notes were important as they provided a written

record of what had occurred thus far in the labour, helping to inform subsequent care providers of the best plan of care from the point of admission to hospital. Dr Young advised that if the notes were deliberately withheld at the point of transfer of care of a difficult labour to secondary services where there was no backup booking and known history of the woman, this action would be a departure from acceptable standards of practice. I accept this advice.

232. In my opinion, Ms B should have either left the notes at Hospital 2 or arranged to have them copied before she left in the ambulance. Mrs A had the right to co-operation among providers to ensure the quality and continuity of services. Ms B failed to hand over care adequately or supply the notes to the DHB team at the time of handover. I find that Ms B breached Right 4(5) of the Code.

Documentation — breach

233. The Midwifery Council's "Competencies for Entry to the Register of Midwives" require in Competency 2.16 that the midwife provide accurate and timely written progress notes and relevant documented evidence of all decisions made and midwifery care offered and provided. I have a number of concerns about Ms B's record-keeping.

234. When Mrs A was in early labour, Ms B received and communicated clinical information by text and did not document the text and telephone assessments, including whether or not the baby was active, and the advice given.

235. Furthermore, Ms B made multiple changes to the clinical records (see **Appendix C**) without dating the changes or noting that they were made retrospectively. When asked to provide an explanation about the discrepancies in the two versions of the midwifery notes, she stated:

> "With the passing of time the only explanation I can give is that I had not written retrospectively into the body of the notes with the plan of misleading anyone — it was in an effort to give a more full and accurate birth story for [Mrs A] — at no time was I expecting this birth to end in a complaint to HDC as both [Mrs A] and her baby were well when I handed over the ongoing care of them to the Obstetric Team in [Hospital 2].
>
> The purpose of the additional information being inserted into the notes was to illustrate a fuller and truer record of [Mrs A's] labour and birth. Upon reading through the labour and transfer notes after I had handed over care to [the DHB], I became aware there were some omissions from the notes that would assist with the contemporaneous flow of the notes.
>
> …
>
> In hindsight, the additional notes that were added, I understand I should have written on the notes 'in retrospect and dated and signed' though at the time I was tired and fatigued and may not have been thinking very clearly."

236. It is unclear when the changes were made. At the time of handover to the DHB on 5 Month6, Ms B gave Dr C one page of written progress notes. Ms B then left with the ambulance crew to return to Hospital 1. Ms B told HDC: "When reading back through the notes on my return in the ambulance the mind is clearer to remember any omissions and to write them for a more contemporaneous birth story."

237. However, on 6 Month6 at around 1.38am Ms B faxed to the DHB a set of Mrs A's notes that does not contain the retrospective changes, ie, the unamended notes. Given that, it is clearly untrue that Ms B made the alterations to the notes on 5 Month6 while in the ambulance returning to Hospital 1.

238. Some time after the clinical notes were faxed to the DHB at 1.38am, Ms B made multiple changes to the notes. I am unable to make a finding as to when the changes were made, but it was at some time between 6 Month6 and when she provided the altered notes to HDC. I do not find it credible that Ms B was able to recall the FHR and other details so far after the events, which casts doubt on the accuracy of the amended notes.

239. I am unable to make a finding that Ms B made the alterations with an intention to deceive. However, I note that in her responses to my Office following the complaint she did not acknowledge the changes, and did so only once my Office questioned the discrepancies between the DHB's version and the version Ms B supplied to HDC.

240. In my view, Ms B's actions with regard to the clinical records are a very serious breach of professional standards. Accordingly, I find that Ms B breached Right 4(2) of the Code.

Information and consent — breach

241. I am critical of Ms B's provision of information to, and communication with, Mrs A at various points during the time Ms B was providing care.

Birth/care plan

242. Ms B talked to Mrs A about having a home birth. The plan was that Mrs A would transfer to hospital if complications arose. According to Mrs A, she was not adamant about having a home birth, and her priority was the welfare of her baby.

243. Mrs A's maternity notes contain a document entitled "Guide for Care Plan Discussion", on which, next to "Planned Place of Birth" was written only one word — "Home". A number of topics are listed on the form under the heading "Child Birth Preparation", but the only detail entered on the form is the date "2 [Month5]". Although there are spaces to enter the detail of what was discussed, no such entries were made.

244. Mrs A said that Ms B also did not discuss with her the risks of having a home birth, that Hospital 1 does not have obstetric staff, or the distance between her home and Hospital 2. Given the lack of written records, I accept Mrs A's account that Ms B did not discuss with her the above information. These matters should have been discussed and recorded in a care plan provided to Mrs A. This was essential information for Mrs A to take into account when making decisions about the birth. It is critical that the planned model of care and the

implications and risks associated with the model of care are communicated to and understood by consumers.

Medical history

245. Previously Mrs A had undergone high-frequency surgery on her cervix. The *Referral Guidelines* require that the LMC recommend to the woman that a referral for a consultation with a specialist is warranted if she has had cervical surgery. There is no evidence that Ms B discussed an obstetric consultation in light of Mrs A's previous history.

246. I consider that Ms B should have discussed that recommendation with Mrs A.

Post EDD care

247. On 28 Month5, when Mrs A was at 40+4 weeks' gestation by LMP (recorded by Ms B as 40+3 and 41 weeks' gestation by scan) she had an appointment with Ms B. Ms B assured Mrs A that "everything was fine", and told her that the practice in New Zealand was for a pregnant woman to have a scan when she was two weeks past her EDD, to assess whether labour needed to be induced.

248. Ms B said that Mrs A was adamant that she never wanted an induction. However, Mrs A said that she told Ms B: "I read articles that it could be so dangerous to wait too long and she always said, 'No you are reading the wrong articles'." Mrs A said that she specifically requested an induction on 28 Month5, but Ms B said that she could not be induced until she was at 42 weeks' gestation. There is no reference in the maternity notes to Mrs A having declined an induction on 28 Month5, although the records do refer to her being anxious about the baby's arrival, and being told that induction of labour would not occur before 42 weeks.

249. In "Code 4024 Prolonged pregnancy", the *Referral Guidelines* require that the LMC recommend to the woman that a referral for a consultation with a specialist is warranted "in a timely manner for planned induction by 42 weeks".

250. Dr Young advised:

> "The current approach to postdate management in the absence of any pregnancy complications is to defer induction of labour until approximately 42 weeks to maximise the opportunity for women to come into spontaneous labour in the knowledge that induced labour frequently leads to the need for further intervention."

251. On 31 Month5, Ms B saw Mrs A, who was then at 40+6 weeks' gestation by LMP (41+3 weeks' gestation according to her scan). The appointment was at Hospital 1 in order to undertake a CTG to monitor the wellness of the baby. Ms B noted in the midwifery notes that Mrs A was past the "estimated day of arrival of 24 [Month5]".

252. Ms B recorded on a page headed "midwifery notes" that Mrs A had declined a stretch and sweep and was "not interested in an induction" at that stage. Ms B made further notes on a separate sheet of paper, also headed "midwifery notes". Ms B told HDC that this note was made "at the time of the appointment". She explained that the reason it was written

separately and not included in the maternity notes held by Mrs A was because Mrs A had forgotten her notes on that occasion.

253. The first page concludes, "[I]mpression well woman; well baby all wellness checks within normal range," with the words "baby all wellness checks within normal range" inserted below the bottom line printed on the page. The entry has Ms B's initials in the margin.

254. The additional notes on the separate page record:

> "[Mrs A]. Further discussion with [Mrs A] regarding Induction of Labour. As per referral guidelines Code 4024 — Prolonged Pregnancy — a consultation is recommended for planned induction by 42 weeks. [Mrs A] confirmed she is wanting to wait and will make decision after post dates scan booked for 5th [Month6]. [Mrs A] is still wanting to have her baby at home so therefore is declining consultation with Dr's at this stage. [Mrs A] is aware she can change her mind at any stage."

255. I accept Dr Young's advice that if Mrs A was aware of the recommendation in the *Referral Guidelines* and had given informed consent to the delay in induction, this aspect of the care provided post Mrs A's EDD would have been acceptable midwifery care.

256. However, Mrs A said that Ms B did not discuss or offer an induction or a consultation with a specialist. Ms B advised that this discussion was documented contemporaneously, but Mrs A does not recall Ms B documenting anything during the appointment on 31 Month5. I accept that it is possible that the clinical records were made immediately after the appointment. However, if they were made subsequently they should have been marked as having been made retrospectively.

257. In my view, in light of some of the wording on the first page being inserted below the last line of the page, rather than following on to the second page as would have been expected if both pages were completed at the same time, I find it more likely than not that the second page was added later.

258. I accept Mrs A's account that she was not offered, and did not decline, an obstetric consultation on 31 Month5.

259. Ms B said that the plan was for Mrs A to have a scan at 10 days post dates, but that, because of the holidays, Mrs A could not arrange a scan until 5 Month6 (by which time she would have been 41+5 by LMP and 42+1 by scan). Ms B failed to recommend to Mrs A that a referral for a consultation with a specialist was warranted in order to be able to plan an induction by 42 weeks' gestation.

Transfer

260. At 1.45pm, Ms B documented that Mrs A's cervix was dilated to 9.5cm with an anterior lip present. Ms B recommended that Mrs A increase her fluid intake and eat some food. Mrs A said that Ms B did not talk to her about her progress, what her options were, or the possibility of going to hospital. Mrs A told Ms B that she was in pain, but Mrs A was not given any options other than returning to the birthing pool.

261. At 2.45pm, Ms B formed a plan to recheck Mrs A's cervix and transfer her to Hospital 1. Mrs A said that Ms B told her that she needed to go to hospital to be checked by another midwife, but not that she might be transferred to Hospital 2.

262. Given the requirements of the *Referral Guidelines*, at around 1.45pm Ms B should have had a thorough conversation with Mrs A about a consultation with a specialist, the possibility of a transfer to Hospital 2, how that would take place, and the best time to make such a decision.

263. Dr Young advised:

> "While [Mrs A's] and her baby's observations were stable, there was a failure by [Ms B] to discuss the clinical findings and their implications with [Mrs A] and to communicate the need for consultation and transfer. This must be further considered in conjunction with the distances and time lines involved to reach a base hospital."

264. There is no documentation of what Ms B discussed with Mrs A. In light of that and Ms B's and Mrs A's evidence, I find it more likely than not that at 1.45pm Ms B did not discuss with Mrs A the possibility of consulting a specialist or transferring to Hospital 2, despite the fact that the *Referral Guidelines* provide that in the case of a prolonged first stage of labour, the LMC must recommend to the woman that a consultation with a specialist is warranted.

265. In my view, this was essential information that Mrs A had the right to receive at 1.45pm and did not. By not discussing with Mrs A the recommendations in the *Referral Guidelines* — either antenatally or during labour — Ms B did not ensure that Mrs A was at the centre of decision-making, and denied Mrs A the opportunity to make an informed decision about her ongoing care and treatment.

Conclusion

266. Mrs A had the right to the information that a reasonable consumer in her circumstances would expect to receive. Ms B failed to provide Mrs A with such information, as is set out above. Accordingly, I find that Ms B breached Right 6(1) of the Code. It follows that Mrs A was not in a position to make informed choices about her pregnancy, labour, and the delivery of her baby. Accordingly, I find that Ms B also breached Right 7(1) of the Code.

Opinion: DHB

Standard of care — adverse comment

Introduction

267. I have a number of concerns about the care Mrs A received at Hospital 2. However, I accept that this was in part due to the particular circumstances that day.

Pain relief

268. At approximately 8.30pm, Mrs A arrived at Hospital 2 by ambulance and was assessed by the obstetric team. At approximately 9.05pm, a senior medical officer, Dr D, carried out a further examination, and a decision was made to insert an epidural and then attempt to rotate the baby manually, with a possible vacuum delivery. Due to a concurrent emergency, Dr D and other obstetric and anaesthetic staff were called away and were unable to attend to Mrs A's epidural until midnight. Mrs A was stable, with a reassuring CTG, and the obstetric team did not consider there to be sufficient urgency to need to call in a second anaesthetist or obstetrician.

269. Although I acknowledge that the obstetric and anaesthetic staff were faced with a concurrent emergency, I am critical of the delay in attending to Mrs A's pain relief needs. My obstetric advisor, Dr David Bailey, advised that the delay in providing epidural analgesia could have been avoided if the on-call anaesthetic consultant had been called in. Mrs A was not provided with any pain relief until Ms E administered pethidine at 10.40pm. In my view, given Mrs A was distressed with pain and had been in labour for a protracted period, staff should have called in the on-call anaesthetist to attend to Mrs A's pain relief.

270. At 10.40pm, Ms E documented that she administered 25mg pethidine and 10mg Maxolon intravenously. Mrs A got into the bath "to help ease pain while awaiting epidural". Ms E advised that she cannot recall who suggested that Mrs A should get into the bath, and that her "[u]sual practice is not to use water and narcotics" but that due to the stressful situation, and given that it would be another 90 to 120 minutes before the anaesthetist would be available, she considered that there were no other options to offer Mrs A.

271. The DHB does not have a specific guideline on FHR monitoring post administration of pethidine. However, its guideline on the use of water in labour and birth in place at the time states that pethidine should not be given to women labouring in water. In addition, the New Zealand College of Midwives consensus statement, "The use of water for labour and birth", states:

> "[O]pioid analgesia is not recommended for women labouring in water. If the woman has already had opioid analgesia administered and then asks to use the pool, clinical judgement is required as to whether this is appropriate or not."

272. The DHB stated that "it was with the knowledge of this consensus statement and the Hospital 2 guidelines that the core midwife [Ms E] caring for this woman took the actions she did". The DHB said:

> "The core midwife caring for this woman was aware that although the woman was distressed by pain, she would not be able to get an epidural for some time as the anaesthetist was in theatre at an acute caesarean section. [Ms E] made a decision to give the woman a small amount of pethidine (25mgs) intravenously to give her some rapid analgesia and then get her into a bath for more prolonged pain management."

273. Dr Young advised:

> "The decision to administer pethidine must also be placed in the context of [Ms E] trying to provide care for a woman who was exhausted and pleading for pain relief … Anticipating that it would be a 90–120-minute wait before epidural anaesthesia would be achieved, which proved to be a wait of 135 minutes, [Ms E] prescribed and administered a conservative dose of Pethidine IV as an analgesic. In my opinion this was not inappropriate with or without discussion with the secondary services."

274. I accept Dr Young's advice that Ms E's decision to administer pethidine was not inappropriate in these circumstances. However, given the risks, I would be critical if Mrs A had not been monitored regularly while in the bath. Furthermore, in my view, Ms E should not have acted outside the Hospital 2 guidelines without having first consulted with the obstetric team. In addition, she should have clearly documented her rationale for her actions.

Monitoring of Mrs A

275. A further reason for it having been unwise for Mrs A to labour in the bath is that Mrs A had an intrapartum risk factor of a prolonged first stage of labour, which meant that continuous CTG monitoring should have been recommended. The RANZCOG guideline "Intrapartum Fetal Surveillance" (2014) states:

> "Continuous CTG should be recommended when either risk factors for fetal compromise have been detected antenatally, are detected at the onset of labour or develop during labour."

276. Dr Bailey advised that, as all maternity staff are familiar with the RANZCOG guidelines, it should not be necessary for the medical staff to specifically instruct the midwifery staff to use continuous CTG in these circumstances. However, Dr Bailey noted that clinical responsibility for Mrs A had been transferred to the medical staff, who were therefore responsible for documenting a plan of care, including plans regarding monitoring. While I am critical that neither obstetrician documented such a plan, I am also critical that the midwives acted outside the RANZCOG guidelines without discussing that decision with the obstetric team.

277. Ms E was responsible for Mrs A's midwifery care from her admission at Hospital 2 until 11.40pm when she handed over Mrs A's care to another midwife. Ms E stated that the CTG was discontinued at 10.40pm after two hours, to allow Mrs A to use the bathroom and enter the birthing pool for pain relief. Ms E said that she returned to "check" on Mrs A every 15 minutes during this time until the CTG was recommenced, but did not document her checks in the clinical notes. Ms E also did not document whether or not the FHR was assessed.

278. Ms E told HDC:

> "My use of the word 'checking' included monitoring the fetal heart … Unfortunately due to rushing back to handover and my other responsibilities, it was not documented,

> there were no concerns noted about the baby's heartrate and I would have only left [Mrs A] and her support people, had there been normal parameters of the fetal heart."

279. Dr Young advised: "It is recommended practice that a FHR is assessed every 15 minutes in late first stage labour and more frequently if there are complications; the administration of IV Pethidine would further necessitate this." I am very critical that Ms E's documentation does not record her 15-minute checks of Mrs A or record the FHR during those checks.

Ventouse delivery

280. Dr D said that she was aware of how long Mrs A had been in labour and that she was post dates. At around 9pm, Dr D formulated a plan to insert an epidural and then attempt to rotate the baby manually, with a possible vacuum delivery. Dr Bailey advised that a Caesarean section should have been considered immediately following Dr C's assessment of Mrs A. In any event, an emergency intervened and Dr D was not available to deliver the baby until 12.20am.

281. Dr D performed a ventouse delivery in Mrs A's room rather than in theatre. The DHB said that this was usual practice at Hospital 2 if the obstetrician was confident that the delivery would be successful. Dr D said that she chose a ventouse delivery because that was the method with which she felt most comfortable, and that the outcomes do not differ between ventouse and forceps deliveries.

282. With regard to the delivery, Dr Bailey stated:

> "It would have been more appropriate to conduct the delivery in theatre with a spinal anaesthetic and the ability to immediately resort to caesarean section in the event of difficulty."

283. However, Dr D said that although the CTG showed tachycardia with decelerations from 12.22am until 12.40am, she did not perform a Caesarean section because the fastest way to deliver the baby at that point was by an operative vaginal delivery. She said that it would have taken 15–20 minutes to deliver the baby after having called for a Caesarean section, and she noted that the staff were still busy dealing with the other patient.

284. Dr Bailey stated:

> "[T]he decision to start and continue with a prolonged ventouse delivery, while failing to recognise that the CTG monitoring indicated fetal compromise, was a moderate departure from accepted practice."

285. However, Dr D said: "There was a sense of urgency to get the delivery accomplished due to the decelerations with the rotation as evidenced by the use of the Kiwi cup." She also stated that the degree of fetal compromise could not be determined from the CTG at the time, and that it is misleading to refer to the delivery as being prolonged.

286. I accept that after she returned at 12.20am Dr D was aware of the need to deliver the baby as quickly as possible, and was confident that she could do so successfully via vacuum extraction.

Cord blood

287. Dr Bailey advised me that "[i]t is unfortunate that cord gas analysis was not performed as this could have provided useful information as to whether the hypoxia occurred before or after birth".

288. Dr D said that it is her usual practice to obtain cord gases. The DHB stated that Ms F's recollection is that her attention was on Baby A's immediate resuscitation, and the cord blood collection was overlooked.

289. I am critical that the collection of cord blood was not undertaken.

Recommendations

290. I recommend that the DHB:

a) Review its processes in circumstances where two women with significant risk factors are in labour concurrently, and report to HDC on the outcome of its review and its improvement plan, within three months of the date of this report.

b) Conduct refresher training for its maternity staff on the RANZCOG guidelines, the DHB's guideline on the use of water in labour and birth, and its expected standards of record-keeping. The DHB should report to HDC on the content and timing of the training, and provide evidence of the attendees, within three months of the date of this report.

c) Provide a written apology to Mrs A for the failings identified in this report, within three weeks of the date of this report. The apology is to be sent to HDC for forwarding to Mrs A.

291. I recommend that the Midwifery Council of New Zealand undertake a review of Ms B's competence, should Ms B make an application to return to midwifery practice.

292. I recommend that Ms B provide a written apology to Mrs A, within three weeks of the date of this report. The apology is to be sent to HDC for forwarding to Mrs A.

Follow-up actions

293. Ms B will be referred to the Director of Proceedings in accordance with section 45(2)(f) of the Health and Disability Commissioner Act 1994, for the purpose of deciding whether any proceedings should be taken.

294. A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the Midwifery Council of New Zealand, and it will be advised of Ms B's name.

295. A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the New Zealand College of Midwives, and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists.

Addendum

296. The Director of Proceedings filed proceedings by consent against Ms B in the Human Rights Review Tribunal. The Tribunal issued a declaration that Ms B breached Rights 4(1), (2), and (5), 6(1), and 7(1) of the Code in relation to the care she provided to Mrs A.

Appendix A: Independent midwifery advice to the Commissioner

The following independent expert advice was obtained from midwife Dr Carolyn Young:

"My name is Carolyn Young.

[...]

I have been engaged by the Health and Disability Commission[er] to provide an opinion on the following matters:

1. Please comment on the adequacy and appropriateness of the care provided by [Ms B] during the antenatal period, including comment on the adequacy and appropriateness of [Ms B's] assessment and management plan from 28 [Month5] (at 40+3 weeks' gestation).
2. On 5 [Month6], [Mrs A] (at 42+2 weeks' gestation) began spontaneously contracting. Please comment on the adequacy and appropriateness of [Ms B's] assessment and management between 7.15am and 10am.
3. At 10am [Ms B] carried out an assessment, noting that [Mrs A's] contractions had 'eased off' to 1:8, 1:10. [Ms B] noted that the fetus was in a longitudinal lie, ROA position, with 3/5th of the fetal head palpable. On vaginal examination, the cervix was noted to be anterior, fully effaced and dilated to 8–9cms. Bulging membranes were noted. At approximately 10.20am [Ms B] left to undertake 'a visit or two' with the plan to return at 12pm. In a statement to the Midwifery Council [Ms B] explained that the visit was for a postnatal woman and baby who was having breastfeeding concerns and slow weight gains. The woman's house was approximately 450m, 1-minute drive, from [Mrs A's] house. Please advise whether [Ms B's] actions at that time were appropriate and in accordance with accepted practice.
4. [Ms B] returned to [Mrs A] at 11.45am. [Ms B] assessed [Mrs A] as being in 'transition stage'. Please advise on the adequacy and appropriateness of [Ms B's] assessment and management plan at that time.
5. At 1.45pm, [Ms B] undertook a further vaginal examination, noting that the vertex was at station 0, membranes were intact, the cervix was 9.5cms dilated, with a thin anterior lip present which [Ms B] attempted to push away. Please advise on the adequacy and appropriateness of [Ms B's] assessment and management plan at that time.
6. At 2.45pm, [Ms B] noted that [Mrs A] was not coping very well and discussed a plan with [Mrs A]. At 3pm, [Ms B] then undertook a vaginal assessment, noting the presence of a small anterior lip, vertex at station –1 to 0, and the 'posterior fontanelle felt at 12 o'clock?'. The decision was then made to transfer [Mrs A] to [Hospital 1] 'for CTG and assessment with another midwife to confirm findings. They then transfer to [Hospital 2] via Ambulance.'

a) Please comment on the adequacy and appropriateness of [Ms B's] assessment and management plan at that time.

b) If not already discussed, please include comment on whether there was any indication to transfer [Mrs A] earlier than 3 pm.

c) Please also comment on the appropriateness of transferring [Mrs A] to [Hospital 1] in the first instance, rather than directly to [Hospital 2].

7. [Mrs A] arrived at [Hospital 1] at 3.30pm. [Ms B] commenced a CTG. At 4.30pm, [Ms B] contacted the on-call obstetrics registrar to discuss transfer to [Hospital 2]. Please comment on the adequacy and appropriateness of [Ms B's] assessment and management at that time. In particular, please comment on whether [Ms B] should have contacted the obstetrics registrar and arranged transfer earlier than 4.30pm.
8. Please comment on the adequacy and appropriateness of [Ms B's] documentation.
9. Any other comment you wish to make.

I have reviewed the documentation provided by the HDC including:

- Copy of [the DHB's] notification to the Midwifery Council
- Copy of [Mrs A's] complaint
- Copy of telephone conversation with [Mrs A]
- Statement from [Ms B] to the Midwifery Council
- Copy of Midwifery records
- Copy of [the DHB's] clinical records
- Statement from obstetric consultant, [Dr D]

My opinions on the matters under consideration are as follows.

Advice Requested — Question One:

[Ms B] saw [Mrs A] regularly and at appropriate intervals through her pregnancy. Antenatal checks were thorough and there is some documentation around the discussions which occurred during the visits in the clinical notes. As I have been asked to particularly consider care around term pregnancy and postdate management I have carefully considered this in my response.

There is an ongoing discrepancy around the estimated date of delivery (EDD). Dating from the last menstrual period (LMP) gave an EDD of 24 [Month5]. The LMP date was established at the booking visit, but it was not indicated whether it was sure or unsure. [Mrs A] had a 28-day menstrual cycle on which an EDD is normally based when calculating it from the LMP. A scan performed at 13 weeks + 3 days gave an alternative EDD of 21 [Month5], creating a three-day difference. Ideally EDDs based on LMP are not altered after a scan is performed unless there is a week's discrepancy between the dates, however in practice the scan dating if performed within the first 6–8 weeks of a pregnancy is usually given precedence.

The discrepancy as to EDD continues in the HDC documentation requesting an opinion. In question 1 the gestational age is based on the LMP dates of an EDD of 24 [Month5], in question 2 it is based on the scan dates of an EDD of 21 [Month5], but the gestation should then read 42+1 not 42+2.

On the 28 [Month5] [Ms B] documented in the clinical notes that [Mrs A] was 'wanting to use scan date of 21 [Month5], previously using 24 [Month5] (as agreed)'. No discussion around the joint decision to use the EDD of 24 [Month5] is documented, but this date is identified as the EDD being worked to within the antenatal record of which [Mrs A] held a copy. In the initial antenatal visits for purposes of calculating gestation the scan date was used. In subsequent visits the LMP dating was used. For purposes of clarity the scan based EDD of 21 [Month5] will be used with the discrepancy referred back to when it has bearing on the opinion given.

The Guide for Care plan discussion within the Midwifery and Maternity Providers Organisation (MMPO) notes used by [Ms B] only allows for entering the date on which the discussion took place but no detail as to what that discussion consisted of. The discussion around referrals to Specialist care/transfer which would include postdate referral is dated in the care plan to have taken place on the 1 [Month1]. What was said is not referred to or detailed in the clinical notes of the care given on the same day. However, even allowing for the differing perceptions between [Mrs A] and [Ms B] as to what occurred within their discussion of postdate management, it is apparent that from 28 [Month5] [Mrs A] and her family were becoming anxious for labour to occur.

A scan was arranged and done at 36 weeks' gestation to assess fetal wellbeing, including growth estimation, liquor volume and uterine Doppler ratios; the results of this was reassuring and a report is provided. This is contrary to [Mrs A's] assertion that she did not have any scans after 35 weeks, however this may simply be due to her mistaking the gestational age at which this scan occurred. It is not usual to offer further scans beyond the 20-week anatomy scan unless there are clinical indications for concern prior to a postdate scan.

A CTG was done at 41+3 weeks, again the findings were reassuring. A postdate scan had been arranged for 42+1 weeks when spontaneous labour occurred.

The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services Code 4024 Prolonged pregnancy recommends consultation and describes the need to 'refer in a timely manner for planned induction by 42 weeks.'

Women also have the right to refuse a consultation. [Ms B] documents in the clinical notes on 31 [Month5] that [Mrs A] declined consultation for induction of labour but she would reconsider this after her postdates scan on the 5 [Month6] and was aware 'that she could change her mind at any stage.' [Mrs A] however details in her complaint that she discussed the risks of prolonged pregnancy from term and was advised that there were no concerns and induction of labour was therefore not an option.

There is a difficulty in having two differing dates for the EDD. In addition, there is the conflicting consideration that EDD dates are not usually altered after scanning unless there is a discrepancy of a week, yet the common practice is to work with the scan date as the EDD. Further there are differing perceptions as to whether consultation was declined and deferred, or whether it was offered.

If the scan date of 21 [Month5] is taken as the correct EDD date [Ms B] was outside the recommended postdates referral point for a planned induction by 42 weeks. If the LMP date of the 24 [Month5] is taken as the correct EDD date, then [Ms B] was within the referral criteria.

To recap, [Ms B] states the latter date had been agreed to by [Mrs A]. This is also the date identified as the EDD date being worked to within the antenatal records of which [Mrs A] held a copy. In addition, there is the confusion of the conflicting accounts of whether a referral was discussed and declined on the 31 [Month5]. This discussion is clearly documented in the clinical notes but disputed in [Mrs A's] complaint. As women are entitled to decline consultation [Ms B] would have been obligated to respect [Mrs A's] preference of declining or deferring consultation.

The NZCOM Handbook for Practice/Standards of Midwifery Practice standard two states, the midwife:

- respects the woman's right to decline treatments or procedures

The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services (5) states:

- The right to informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability [Services] Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another practitioner, or transfer of clinical responsibility.

In forming an opinion, I have taken into account the adequacy and appropriateness of care prior to this particular point in care and have considered the postdates care that was provided. I have noted that a postdates CTG monitoring had occurred, that a postdates scan had been arranged and that there was a full and careful assessment by [Ms B] of [Mrs A] and her baby's wellbeing from full term onwards.

In my opinion [the] care provided was acceptable midwifery care.

Advice requested — Question two:

The recognition of prolonged labour requires a time line from the onset of established labour. Onset of contractions and establishment of labour is documented in the [DHB] Labour and Birth Summary as 0600 hours 5 [Month6]. There is no partogram, which graphs the progress in labour and the observations, or a labour summary identifying the onset of established labour in the notes furnished by [Ms B]. Her clinical notes do not clearly identify the time labour established. [Mrs A] comments that she started her contractions during the night; that by the time she was transferred to [Hospital 2] she had been contracting 22 hours. This however does not indicate that she had been

in active and established labour for that period of time, simply the time of the onset of contractions. In the clinical notes, written after transfer to [Hospital 1], initial contractions are stated to have begun to occur at 1700 hours on the 4 [Month6], again this does not confirm established labour. At 0600 hours 5 [Month6] on vaginal assessment she was found to be 6–7cms dilated, the point at which established labour is taken from in the [DHB] notes. Established labour is considered to occur at 4 cm dilatation so this would suggest that established labour occurred prior to this time. There is no clear indication within all records as to at what point labour established.

[Mrs A] details in her complaint that she 'called my midwife and she just came to see me at 10am'. However, the clinical notes document [Ms B's] first attendance from 0715 hours and continual attendance until 1020 hours when [Ms B] details leaving [Mrs A's] home to attend another client. Maternal base observations were performed and recorded but a maternal temperature was not taken. Urinalysis was performed. Palpation for fetal lie and descent and vaginal assessment had already been undertaken by [Ms B's] midwifery partner [Ms G]. Therefore, it was both unnecessary and in terms of the vaginal assessment not recommended in the absence of any evidence of complication or advanced labour to repeat these.

Reviewing the clinical notes in the absence of a partogram, the fetal heart was monitored half hourly. There was a slowing of rate of contractions from two in ten minutes to one in eight to ten minutes. At 1000 hours, a further vaginal examination was performed, this complied with four hourly assessments as in keeping with recommended practice. The assessment found that there was no further descent of the fetal head and dilatation was assessed as 8–9cm dilated, with bulging membranes.

In my opinion the care provided was acceptable midwifery care.

Advice requested — Question three:

At approximately 1020 hours, as per the clinical notes, [Ms B] left [Mrs A's] home to conduct a postnatal visit for another woman. [Mrs A] relates that she was given to understand by [Ms B] that she wouldn't give birth until 3pm and did not question or disagree with being left, however, the decision to leave at this point in labour is a midwifery led decision. It is not possible to predict the exact time of birth at this stage of labour and even an approximation can prove to be very inaccurate. The information around a predicted time of birth may have influenced [Mrs A] to accept being left on the understanding that another two women [had] needs [that] were of greater priority of midwifery input.

[Ms B] has established that her criteria for leaving was that she had a postnatal client with breastfeeding concerns and slow infant weight gain. Further, that [Mrs A's] contractions had slowed significantly, she was resting between contractions; that the home she was visiting was in immediate proximity and [Ms B] could return promptly if requested. [Ms B] has gone to some lengths to establish the geographical closeness of the second client's home. However, in the clinical notes it is detailed that the proposal was that she would leave to conduct 'one or two visits' and it is not known where the

third client's home was located in relation to [Mrs A's] home whom there had been a possible intention of visiting.

While there can be a dilemma of meeting simultaneous client need for case loading midwives, it must be questioned that a woman with breastfeeding concerns and slow infant weight gain justified a visit that required the absenting of a midwife from a woman in well-established labour at home. [Ms B] had a backup midwifery partner and could have further utilised her to enable a postnatal visit to be made if she deemed this visit to be urgent enough to consider leaving a woman in advanced first stage labour at home without midwifery support.

The NZCOM Handbook for Practice/Standards of Midwifery Practice Standard Six states that:

- Midwifery Actions are prioritized and implemented appropriately with no midwifery act or omission placing the woman at risk.

The NZCOM Handbook for Practice/Standards of Midwifery Practice third decision point states:

- Continue regular assessment of the woman and baby and progress of labour.

[Ms B] herself refers to the third decision point in labour as stated in the Midwives Handbook for Practice. There is some recognition by her that the decision to leave [Mrs A] is not accepted care when [Ms B] states that 'it is not my usual practice to leave women for 90 minutes when they are 8–9cm dilation.' However, she also states that her decision to do so must be viewed in context in which perspective she does not regard her care as being unacceptable.

Viewed in context, the time of established labour is unclear but is documented in the [DHB] notes as being at 0600 hours when [Mrs A] had been assessed as 6–7cm dilated. Four hours later she was re-assessed at 8–9 cm dilated, there had been no further descent of the presenting part and contractions had now slowed. These findings may be an early indicator that labour is becoming obstructed.

[Mrs A's] membranes were intact. The reassurance of the liquor being clear, or the possible alert if meconium, which can be an indicator of fetal distress, had been present was not known. The assurance of the continued wellbeing of the baby was therefore dependent on fetal heart rate monitoring. While [Mrs A] and her family would be aware of calling [Ms B] to ask her to return should something significant occur they did not have the ability to monitor the baby's heart rate and interpret the findings. It is recommended practice that in late first stage the fetal heart is monitored every 15 minutes.

The intention was for [Ms B] to absent herself from [Mrs A's] care until midday, a period of 1 hour and 40 minutes. She returned at [Mrs A's] request after 1 hour and 25 minutes, taking 1020 hours as the time of departure and 1145 hours as the time of her return. The purpose of [Ms B's] presence was not, as she has described, to have 'sat at home with [Mrs A] for those 90 minutes while she rested and slept' but to have provided regular monitoring, ongoing assessment and labour support. It appears that the decrease in the frequency of contractions has guided [Ms B's] decision to absent

herself believing that neither [Mrs A] or her baby were likely to be compromised in her absence. She asserts that her decision to leave [Mrs A] unattended did not alter the outcome. The possibility that it may have, however, had been present. If fetal or maternal compromise had occurred during this period it would have been undetected until [Ms B's] return.

In my opinion this is a moderate departure from acceptable midwifery care.

Advice requested — Question Four:

On returning to [Mrs A's] home, [Ms B] considered that she may be in the transitional phase of labour. There is no documentation that suggests [Mrs A] had entered active second stage. Having had a vaginal assessment approximately two hours previously and progress while slow was appropriate for a primigravida woman, a further vaginal examination was not indicated. The fetal heart rate is documented as being assessed four times over the two-hour interval and as being 'reactive and reassuring.' No ongoing plan is documented in the clinical notes however the care provided was that of supportive watchful waiting for the onset of second stage labour.

The NZCOM Handbook for Practice/Standards of Midwifery Practice fourth decision point in labour states:

- If the woman feels that she wants to push and signs of full dilatation are evident, support her to do so. Encourage the woman to move into whatever position she feels comfortable.

In my opinion the care provided was acceptable midwifery care.

Advice requested — Question Five:

At 1345 hours [Ms B] undertook a further vaginal examination of [Mrs A] and assessed her as being 9.5 cm dilated, with membranes intact and descent was estimated as being Station 0. The anterior lip of cervix was unable to be manually slipped up. Her impression was that [Mrs A] was 'nearly there.' On transfer into [Hospital 1] [Ms B] wrote in retrospect in the clinical notes that the dilatation was 9cm; on admission to [Hospital 2] [Mrs A] was further assessed as 8–9cm dilated. It is fair to comment however that cervical dilatation can change due to cervical oedema in obstructed labour.

The vaginal examination at 1345 hours was performed approximately four hours from the previous one. The cervical dilatation assessment of progress from 8–9cm to 9.5cm is less than optimal for primigravida progress of 2 cm in four hours. There had been minimal descent of the presenting part. The presence of an anterior lip of cervix and uneven dilatation as described can be further indicative of a mal-presentation.

The position of the presenting part, the presence or absence of caput and/or moulding of the fetal head is not commented on. These features of the vaginal assessment may have been made but they are not recorded. Mal-presentation, the presence of caput (fetal scalp oedema) and/or extensive moulding of the fetal skull

are findings that would further inform the decision as to whether [Mrs A] was experiencing an obstructed labour.

Maternal baseline recordings were not repeated, the previous observations having been done at 0752 hours. It is recommended practice that blood pressure and temperature are monitored four hourly and the maternal pulse rate is monitored two hourly in established labour. Changes in maternal recordings can be indicative of maternal distress.

The clinical picture of the slowing of contractions needs to be considered. It is more usual for the pattern of contractions to become more frequent and stronger near transitional labour as second stage labour approaches. The frequency of contractions is not recorded other than the comment at 1300 hours 'contractions have slowed.' Uterine inertia and slowing of contractions can also be indicative of obstructed labour. The fetal heart rate continued to be reassuring. The plan of care was to continue providing support using positional techniques to aid pelvic expansion.

There is no documented discussion between [Ms B] and [Mrs A] and her family as to whether transfer should be considered at this point and, if declined, if there was then a decision point of when to accept the need for transfer. While [Mrs A] had been very committed to giving birth at home it should not be assumed that she would adhere to this preference in the light of the labour she was experiencing. Although this was not yet an urgent situation there were clear indicators that labour was not progressing well with minimal dilatation and descent and the slowing and decreasing intensity of contractions, I appreciate that [Ms B] remained optimistic of [Mrs A] achieving a home birth and was most likely not wanting to introduce a negative aspect into the birthing environment by initiating a discussion around transfer from home, however the poor progress in labour needed to be discussed with [Mrs A]. The decision of whether to continue to labour at home or whether to transfer to hospital needed to be made in partnership with [Mrs A] as a process of informed consent.

The NZCOM Handbook for Practice/Standards of Midwifery Practice Standard One states:

- The midwife upholds each woman's right to free and informed choice and consent throughout the childbirth experience

Practice Standard One states that the midwife

- Shares relevant information within the partnership:

The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services Code 5021 re prolonged first stage of labour states to evaluate the cervical dilatation and to:

- Take into consideration descent and rotation of fetal head, and changes in strength, duration and frequency of contractions

The referral category is to consult.

The external factor that also needed to be considered was that [Hospital 1] is a primary unit. Ongoing transfer to [Hospital 2] involved a considerable distance and additional timeframe of approximately two and half hours if transfer was by road. Added to this was the uncertainty of the time required to access ambulance services to facilitate transfer; in this instant, there was approximately a further hour's delay from initiating the request for an ambulance and its time of arrival. Any decision as to whether to transfer from a home birth situation in the community must take local dynamics into account. As a rule the further away from a base hospital the woman is labouring, the lesser the tolerance of any deviation from normal labour.

While [Mrs A] and her baby's observations were stable, there was a failure by [Ms B] to discuss the clinical findings and their implications with [Mrs A] and to communicate the need for consultation and transfer. This must be further considered in conjunction with the distances and time lines involved to reach a base hospital.

In my opinion this is a mild departure from acceptable midwifery care.

Advice requested — Question Six; a.b.c:

6. a. [Mrs A] is documented as becoming distressed at 1445 hours and a discussion of planned on going care took place. The plan was to assess for progress, transfer to [Hospital 1] with a view to transferring from there to [Hospital 2]. The vaginal assessment revealed little change; no further descent, a possibly persisting anterior lip of cervix and uncertainty whether this was successfully slipped up over the baby's head, the presenting position was thought to be occipito anterior (normal presentation). The need to transfer from home was confirmed and put into place.

In my opinion this was acceptable midwifery care.

6. b. Discussed and opinion previously given.

6. c. The decision was made by [Ms B] to transfer [Mrs A] from her home at 1500 hours to [Hospital 1] for CTG assessment, IV cannulation access and to facilitate a second midwifery opinion prior to transfer to [Hospital 2].

[Hospital 1] is geographically en route to [Hospital 2] and the Ambulance station appears to be situated in closer proximity to [Hospital 1] than [Mrs A's] home. As in this instant, there can be delays in accessing an ambulance. By transferring initially to [Hospital 1] there was an ability to perform a CTG over that possible time lag which was not possible at [Mrs A's] home. While it is appreciated that [Hospital 1] is a limited facility and primary unit, transferring there initially enabled a more detailed assessment to be made prior to undertaking an approximately two-and-a-half-hour journey by road ambulance. The assessment at [Hospital 1] would have informed the decision as to whether air ambulance transfer would be more appropriate.

In my opinion the care provided was acceptable midwifery care.

Advice requested — Question Seven:

On admission to [Hospital 1] CTG monitoring was commenced. Maternal observations were now taken and recorded. There are indicators in the rise in blood pressure and pulse of a possible small degree of maternal distress; maternal temperature was

within normal range. An IV luer was inserted and IV fluids were running. A request for a collegial second opinion appears to have been initiated as [Mrs A] was further examined by [Ms B's] midwifery partner. This vaginal examination was done at 1700 hours and confirmed the previous vaginal findings however the presentation was felt to be occipto posterior and not anterior. The second opinion of [Ms B's] colleague was not necessary as the need to transfer to [Hospital 2] had been made at 1500 hours prior to moving from the home birth situation and the need for transfer was confirmed and accepted by the Obstetric Registrar at 1630 hours. However, I am presuming that there was no delay in facilitating the transfer associated with accessing this second opinion and it occurred simply because the ambulance was still in transit. As there was a need to insert a urinary catheter now as IV fluids were being administered and [Mrs A] had last passed urine at 1420 hours, a vaginal assessment at the time of performing the catheterisation was also appropriate.

It must be appreciated that when providing care and supporting a tired and distressed labouring woman and her concerned family, procedures are not always accomplished as quickly or as easily as it may be assumed they will be from the documented account.

The NZCOM Handbook for Practice/Standards of Midwifery Practice Standard One is that the midwife works in partnership with women. Part of the criteria for which is that the midwife:

- facilitates open interactive communication and negotiates choices and decisions
- shares relevant information within the partnership
- recognises contribution of both partners

The physical transfer from [Hospital 1] to [Hospital 2] was being done in anticipation of a transfer of care from [Ms B] to a consultant and for the provision of midwifery care to then be given by core midwives.

The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services 4.3 Process for transfer of clinical responsibility for care states that this requires:

- a three-way conversation between the LMC, the woman and the specialist to determine that the transfer of care is appropriate and acceptable
- the LMC to provide all relevant information, including any relevant maternity notes, test results, and histories to the specialist

This then requires an up to date assessment of the woman and baby's status and discussion. It is usual to evaluate a CTG as to fetal wellbeing after a minimum of 20 minutes of monitoring. In the clinical notes the CTG is documented as being commenced at 1530 but the actual time of an evaluation of the findings as reassuring is not recorded. The timeline of events provided by [Ms B] in her response differs marginally from the times recorded in the clinical notes.

The main purpose of the admission to [Hospital 1] was to facilitate on going transfer to [Hospital 2] after confirmation with the obstetric registrar. Given the distance a

phone call to both the [Hospital 2] Obstetric Registrar and the ambulance services to begin the transfer process was of high priority but the information provided as to the status of mother and baby also needed to be accurate and current to evaluate the mode of transfer. The contact with the registrar was initiated at 1630, and the ambulance service was then contacted at 1635. Prior to this [Ms B] had established that the maternal and fetal conditions were stable and not causing any urgent concern. It is probable that this is why she made the decision to insert an IV line so she could begin administering IV fluids, as dehydration can be a factor in prolonged labour, prior to beginning to initiate phone calls to arrange transfer.

In my opinion the care provided was acceptable midwifery care.

Advice required — Question eight:

Many aspects of [Ms B's] documentation are very thorough, but unfortunately there are gaps. She has used MMPO case notes with a dating system for identifying that specific aspects of care have been discussed, but the clinical notes don't detail the actual discussion that occurred. As these notes are also held by the women receiving care it allows a greater clarity as to what has been shared and to ensure that it has been understood by both parties. There are further instances when discussion is said to have occurred but is not documented.

Time sequences are not always well recorded.

There is no partogram included which enables an instant overview of the progress of labour, the dilatation of the cervix, the descent of the baby, the frequency of contractions, the recording of maternal observations and the fetal heart rate. In prolonged labour the graphing of this information is a useful tool in recognising when labour slows and may provide an early warning of the possibility of obstructing labour and/or uterine inertia, as well as maternal or fetal distress.

There is no labour summary which includes the date and time of onset of labour and when labour establishes and there is no documentation as to when established labour occurred in the clinical notes. This is important in recognising prolonged labour or obstructing labour.

In my opinion documentation is in minor breach of an acceptable midwifery standard.

Question nine:

There are discrepancies in the two accounts of [Mrs A] and [Ms B]. There are points where this makes an evaluation of what occurred more difficult, in particular around the discussions concerning postdates induction of labour where there are opposing views as to what was said and what was agreed to and what date was decided on.

English is not [Mrs A's] first language and may have contributed in some part to this. I note that an interpreter was requested by the Registrar at [the DHB] in view of the need to discuss the complexities of the baby's condition with the parents. However, if this was a factor, it is the midwifery responsibility to ensure information is understood as part of the informed consent process.

Conclusion:

[Mrs A] engaged [Ms B] to provide midwifery care for her and support her in her intention of giving birth at home.

Tension occurred initially over postdate management. There was some confusion over whether to use the LMP or scan based EDD involving a three-day difference. There is a further difficulty in ascertaining exactly what discussion occurred around postdate management as different accounts are given by the midwife and the client.

During the labour [Ms B] absented herself for one hour and twenty-five minutes in late second stage. Complications arose as labour proceeded requiring the transfer of [Mrs A] to a base hospital and there are further concerns as to whether this transfer was negotiated in a timely way.

In my opinion the midwifery care provided was acceptable except for:

- [Ms B] absenting herself from [Mrs A's] care in late first stage labour (moderate breach of acceptable midwifery care)
- The failure to decision make with [Mrs A] to transfer from home into a hospital facility as the need to do so became apparent particularly in the light of the local dynamics of facilitating transfer to a base hospital (mild breach of acceptable midwifery care).
- The adequacy and appropriateness of [Ms B's] documentation is in mild breach of an acceptable standard.

Dr Carolyn Young, RN, RM, PhD.

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Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) (2012) Ministry of Health, New Zealand Government.

[Hospital 1], (information uplifted 21.05.2016)
[The DHB website]

[The DHB website] (information uplifted 21.05.16)

[Ambulance service website] (information uplifted 21.05.16).

ADDENDUM: 11/12/16

Further to careful consideration of the additional material submitted to me I have revisited my opinions that were previously provided and restated them in the light of the new information.

Question One:

The conflicting accounts around the agreed to EDD between [Mrs A] and [Ms B] is still very much in evidence in the additional material continuing to make it difficult to

identify what was mutually agreed to given the lack of documentation around this. [Ms B] has now provided information that this discussion took place and the EDD was agreed to prior to [Mrs A] registering with her for care, hence the discussion was not documented.

While the scan derived EDD is very much focussed on by [Mrs A], scan dating is not an absolute in terms of accuracy. Before 12 weeks of gestational age it is within 3–5 days of accuracy with studies contesting that the most accurate time for dating is between 8 and 11 weeks or conversely 10 and 12 weeks. [Mrs A's] first scan was performed at 13 weeks +3 which is outside the ideal time frame by either 17 or 10 days depending on what study you are guided by. While it is usual to use the scan date where there is a marked discrepancy between the LMP date based EDD and the scan based EDD, where it is less than a week's difference the LMP based EDD is not usually altered. In her email to [HDC], [Mrs A] expresses concern in terms of the laboratory finding of the placental condition and ventures the opinion that an earlier scan may have avoided her traumatic birth. While pre-term placental calcification is linked to adverse outcomes, postdate placental calcification does not place women or their babies at any greater risk.

Similarly, there is a continued discrepancy between both accounts of what discussion took place around post-date management and consultation; induction of labour being a decision made between the woman and an obstetrician. The current approach to postdate management in the absence of any pregnancy complications is to defer induction of labour until approximately 42 weeks to maximise the opportunity for women to come into spontaneous labour in the knowledge that induced labour frequently leads to the need for further intervention.

As previously stated, women have the right to refuse a consultation. [Ms B] documented in the clinical notes on 31 [Month5] that [Mrs A] declined consultation for induction of labour but she would reconsider this after her postdates scan on the 5.01.16 and was aware 'that she could change her mind at any stage.' [Mrs A] however detailed in her original complaint that she discussed the risks of prolonged pregnancy from term and was advised that there were no concerns and induction of labour was therefore not an option. In the additional material, [Mrs A] gives an account through an interpreter of having been open to an induction of labour and actively seeking this when she attended a clinic with [Ms B] on 28th [Month5] when she was 41+1 day postdates based on the scan date. Induction of labour is not normally offered at this gestation in the absence of any pregnancy complication for the reasons previously stated and midwifery care should include careful monitoring. This was put in place with a CTG monitoring being performed on the 31 [Month5] when [Ms B] refers in the clinical notes as the LMP based EDD being 24 [Month5] giving a gestational age of 41 weeks. The trace was reassuring and spontaneous labour occurred 5 days later. [Ms B] comments on her attempt to book a postdates scan at 10 days postdates on [Mrs A's] behalf and not being able to achieve this because of unavailability of appointments and public holiday closures. This is a practice reality for all midwives and probably more so in a small community even when the midwife has shown due diligence in trying to procure an early booking for an appointment.

My opinion remains that the care provided was acceptable midwifery care.

Question Two: While the absence of a partogram does not allow for a clear time line and evaluation of progress on which to base an opinion, it is not a legal requirement and some midwives therefore may elect not to use them. [Ms B] does comment in her additional interview that she would use one in an abnormal labour, which [Mrs A's] labour became. I believe there would have been advantages in doing so as it enables a woman's lack of progress in labour to be identified in a glance by both the midwife and/or interfacing colleagues, but it is not a requirement. In hindsight [Ms B] recognises creating one retrospectively on transfer could have been beneficial.

My opinion remains that the care provided was acceptable midwifery care.

Question Three: The additional information provided via an interpreter asserts that [Mrs A] was far from comfortable with being left alone at this stage of her labour while the account originally offered by [Ms B] was that she 'was happy for me to go and see my client'. Regardless of how [Mrs A] felt about being left unattended at this stage of her labour it is a professional judgement that the midwife must assume responsibility for to leave a woman unattended after assessing her to be in advanced first stage labour for a prolonged period.

Again, the documented intention within the clinical notes by [Ms B] was to do two post-natal checks but the request for her attendance came after one had been completed as stated in [Ms B's] further response. The location of the potential second client remains unknown. The location of the client attended was stated as being one minute's drive away from [Mrs A's] home by [Ms B], while the additional information provided through the interpreter for [Mrs A] states it was ten minutes before she returned. This seems a reasonable time frame given that she needed to leave the residence where she was, possibly return equipment to her vehicle, and drive to [Mrs A's] home. The reality therefore is that while [Ms B] was a minute's drive away, it would take her ten minutes to be present when requested to return.

The critical part of this action however always comes back to the midwifery based decision of [Ms B] to leave a woman in advanced first stage labour unattended. As [Ms B] at this point still regarded [Mrs A] to be experiencing a normal labour which she further focuses on. If so the possibility of rapid progress resulting in an unattended birth was not allowed for. Fetal heart rate monitoring is recommended as being carried out at 15 minute intervals in the presence of normal findings at this stage of labour. If however, she had assessed [Mrs A] as being in obstructed labour the need for ongoing more frequent monitoring was not allowed for. As stated in my original response, detection of maternal or fetal compromise would not have occurred in the absence of any monitoring.

My opinion remains that the care provided was a moderate departure from acceptable midwifery care. This opinion is aligned to that of midwifery peers.

Question Four: the additional documentation does not offer any further insight; while [Ms B] has expressed that she now feels she would have been prudent to consult at

this juncture, this is with the benefit of hindsight. My opinion that the care provided was acceptable midwifery care remains unchanged.

Question Five: the additional documentation does not offer further insight into the situation. My opinion that the care provided was a mild departure from acceptable midwifery care remains unchanged and this opinion is aligned to that of midwifery peers.

Question Six: a,b,c — the additional documentation does not offer further insight into the situation. My opinion that the care provided was acceptable midwifery care remains unchanged.

Question Seven: the additional documentation does not offer further insight into the situation. My opinion that the care provided was acceptable midwifery care remains unchanged.

Question Eight: [Ms B] has further provided information advising that some discussions took place prior to [Mrs A] formally booking with her for care, hence that conversation has not been documented. Although [Mrs A] does not recall any documentation occurring at the visit where she omitted to bring her clinical notes when induction of labour and referral was discussed, it is not unreasonable to assume that a summary of the visit was made by [Ms B] after its conclusion given that the clinical notes were not immediately available.

[Ms B] has stated that she does not use a partogram in normal labour, which she had assessed [Mrs A] as experiencing until the point of transfer from home. As I have previously acknowledged while use of a partogram enables a ready overview of a woman's progress and the overall wellbeing of her and her infant in labour its use is not a requirement. There are gaps in her documentation around the nature of the information shared, partly because of the MMPO notes system of developing a care plan.

The telephone consultation with [Dr C] is documented to have taken place in the clinical notes but the content of that conversation is not commented on. While this is an omission, the request by [Dr C] for a 2nd vaginal assessment by a more senior midwife was acted on and she was re-contacted with the information. Arranging an ambulance transfer in response to the phone call signals that the transfer has been accepted and the detailing of a plan of care after arrival at [Hospital 2] also shows that ongoing management has been discussed during the consultation. The actual hand over of care at [Hospital 2] was presumed to involve a very basic summary of care because of the assertion that the full notes needed to be retained by the midwife with an undertaking that copies of these would be provided. However, there is further written comment within the clinical notes from the secondary services at 0138 hours that additional LMC notes/scans were found so the assumption must now be that they were part of the handover process.

In the light of the additional information I have received I have therefore altered my previous opinion. My opinion now is that the documentation meets an acceptable midwifery standard.

I have further been asked to comment on the following:

1. Please comment generally on the appropriateness and adequacy of the care provided by hospital midwifery staff.
2. The appropriateness of [Ms E's] decision to administer pethidine to [Mrs A] if a) HDC accepts that [Ms E] discussed this with Dr D and/or [Dr C] prior to administering it, or b) HDC does not accept that [Ms E] discussed this with [Dr D] and/or [Dr C] prior to administering it.
3. The adequacy of the midwifery staffing ratios on the night of 5/6 [Month6].
4. Please provide any recommendations for improvement that may help to prevent a similar occurrence in the future.
5. Any additional comment you wish to make.

Question One:

I have been asked to comment on the appropriateness and adequacy of care provided from the perspective of midwifery care provided. To re-cap, the intent of [Mrs A's] transfer to [Hospital 2] was to access the facilities at [Hospital 2] for the purposes of epidural analgesia and augmentation of labour through the administration of a syntocinon infusion with appropriate management of her birth when the situation declared itself.

On admission to [Hospital 2] an assessment was carried out by [Dr C], the on call obstetric registrar with whom there had been a prior telephone consultation facilitating her transfer to their unit. This assessment took place on the 5 [Month6] at 2047 approximately 17 minutes after [Mrs A's] admission. It was noted by [Dr C] that [Mrs A] was distressed and in pain and her baby was in a malposition. A plan of care was made by her for [Mrs A] which included epidural anaesthesia. It is reasonable to await haematology results before siting an epidural to evaluate the platelet count and bloods for this purpose were taken 2100 hours. If labelled urgent these results could have been expected to be available relatively promptly but [Dr H] comments that these bloods did not arrive at the laboratory until 2134. This may however be an acceptable time frame within the local setting. It is also not unusual to wish to have a CTG recording of approximately 20 minutes' duration before proceeding to epidural anaesthesia because of the maternal hypotension that may be induced by epidural anaesthesia influencing the fetal heart rate. Allowing for the time lapse before the bloods were received at the laboratory it is reasonable to expect that a full blood count would have been available by 2000 if not earlier and adequate CTG monitoring would have been achieved to facilitate the provision of safe care to [Mrs A] around siting the epidural. From this point on whatever the circumstances around staffing ratios and/or breakdown in communication the time lapse in siting the requested epidural must be viewed as a facility problem. The epidural was sited at 0020 6 [Month6] three hours 20 minutes after it had been detailed in her plan of care and

two hours 20 minutes after the expectation that haematology results and a CTG trace would have been available.

Therefore [Mrs A's] needs for analgesia in a labour that had become prolonged and difficult were not met by the facility. As the commencement of a syntocinon infusion to augment labour was to be post epidural this part of her plan of care was also not followed through on. [Dr H's] decision not to utilize the available second on call anaesthetist to attend [Mrs A] assumes that in the absence of further calls from the obstetric ward [Mrs A] could continue to wait for epidural anaesthesia. In my opinion the decision making whether to call the second on call anaesthetist was not a midwifery responsibility.

The clinical notes document the cessation of continual CTG monitoring at 2240 hours to facilitate [Mrs A] entering the birth pool for pain relief. The intent had been to discontinue the CTG to enable her to use the pool during the shift change handover for a period of 30 minutes, but the hand over took longer than anticipated. CTG monitoring was then recommenced at 2341 hours. There is no evidence within the clinical notes that a fetal heart rate was recorded during this time and the partogram (obstetric observation chart) was not commenced until 0000 hrs 6/1/16. In her account of events [Ms E] states returning to check on [Mrs A] every 15 minutes during this time but not documenting this in the clinical notes; she does not mention if a FHR was assessed. It is recommended practice that a FHR is assessed every 15 minutes in late first stage labour and more frequently if there are complications; the administration of IV Pethidine would further necessitate this. While this monitoring may have occurred, hence [Ms E's] return to the room every 15 minutes, there is no documentation supporting this. With this possible exception, in my opinion the midwifery care provided by hospital staff midwifery was adequate. Appropriate care would have been the provision of one-on-one care to [Mrs A] as recognised by [Ms E], but given the multiple responsibilities she was carrying there was an inability for her to provide this without passing her work load onto colleagues who were already struggling.

Question Two:

Pethidine is a controlled drug that can be prescribed by midwives therefore there is no requirement for a midwife to obtain a consultant's directive before prescribing and administering it. For this reason, I feel question a) has no relevance. [Ms E] details her uncertainty when revisiting the situation as to whether she discussed the option of administering Pethidine to [Mrs A] or not with either [Dr D] and/or [Dr C] prior to administering it as was her usual practice when women were under secondary care. There is some dispute over whether this conversation occurred and documentation does not record this but there was no mandatory requirement for this conversation to have taken place.

It is the only controlled drug able to be prescribed by New Zealand Midwives hence [Ms E] feeling it was the only other analgesic option she could offer. Pethidine readily crosses the placenta with maximum levels found in the baby's bloodstream between one and five hours following maternal administration. Fetal effects include short term

beat-to-beat variability of the fetal heart and neonatal effects include reduced Apgar scores, depressed muscle tone, respiratory effort and sucking ability. This can be reversed in the short term by the administration of Naloxone. As I do not have access to the infant notes I am unsure if this was required.

The administration of pethidine to a woman must include the consideration of the anticipated time of her baby's birth. This can be difficult to estimate and particularly so in a primigravida woman whose labour has plateaued at 8–9cms for approximately 11 hours. Further when [Mrs A] was assessed as still being at this dilatation 2 hours previously by [Dr C], the descent of the baby's head was assessed as being at St 0. The head therefore needed to descend further through the maternal pelvis to even be vaginally deliverable. Additionally, a malposition of a posterior occiput asynclitic presentation was detected which carries a further clinical anticipation of slow progress. These factors would influence a midwifery practitioner to anticipate that birth was far from imminent when administering pethidine. The use of a quarter dose administered IV demonstrates that [Ms E] was seeking to achieve a quicker but lesser uptake of pethidine in recognition of the stage of labour.

[Ms E] does not document discussing and obtaining consent for the administration of Pethidine from [Mrs A] in the clinical notes, but in her response for HDC she comments that pain relief was wanted by her and pethidine was agreed to. The New Zealand College of Midwives consensus statement around prescribing and administration of opioid analgesia in labour acknowledges the need to respect the woman's wishes. However, in [Mrs A's] account through an interpreter she does not recollect having a discussion around the risks of pethidine prior to its administration by [Ms E]. In the continuing New Zealand College of Midwives consensus statement, they recommend that the benefits, actions and side effects of pharmacological and non-pharmacological analgesia should be discussed antenatally; this situation upholds that rationale.

The decision to administer pethidine must also be placed in the context of [Ms E] trying to provide care for a woman who was exhausted and pleading for pain relief. [Mrs A] describes through an interpreter that she felt this was the scariest moment of her life. Her family were highly distressed and her husband recounts through the interpreter of his thinking if she had to wait an hour longer both she and the baby would die. Working with this frightened family and exhausted very distressed woman was further exacerbated by language and cultural differences making communication less than easy in a work situation where one-on-one midwifery care was not possible. Anticipating that it would be a 90–120-minute wait before epidural anaesthesia would be achieved, which proved to be a wait of 135 minutes, [Ms E] prescribed and administered a conservative dose of Pethidine IV as an analgesic. In my opinion this was not inappropriate with or without discussion with the secondary services.

Question Three:

There is conflicting information between the accounts of both [Ms E] and [Ms F] as to the demands of the two shifts on the night of [Month6] 5/6 and the assessment of [the CEO of the DHB]. The midwives' accounts detail a work situation of high demand

that impacted on their ability to provide appropriate care while the countering response from management is that there was an adequate staffing roster when [Mrs A] was in the unit. [The workforce planning system] is further cited as a validated acuity tool used by [the DHB] and is retrospectively used to show that the required hours of that shift were 27.35 with the available hours being 31.

[The workforce planning system] was originally designed as a computer program for the provision of nursing care and has not adapted well to its use in the provision of midwifery care. Because of the unpredictability of the level of care required in emergency departments [the workforce planning system] is not used by them yet the same factors come into play in a maternity birthing unit. Within midwifery care mother and baby are factored in as one unit and not two. There is always a difficulty within computer programming of capturing the human factor. The differing views of management and that of the midwives providing the service suggests that [the workforce planning system] data did/does not accurately capture the lived experience of the midwifery work force.

It appears that rather than use this incident to further assess work place sustainability and the safety and efficiency of care, [the workforce planning system's] computerised evaluation has been used in a manner which does not allow challenge. This has the effect of denying the service providers a voice and creating listening that does not extend far enough to hear the experienced difficulties faced in meeting the service that is being asked of them. The computer data takes precedence over the actual human experience. I find this of concern.

The accounts of all the professionals involved in this situation is one of trying to meet multiple asks with the midwifery profession carrying an unmanageable work load. It is in such an environment that incidents occur. In my opinion regardless of the perception of management based on shift analysis and [the workforce planning system] predictions, the reality of the demands placed on the midwifery staff over this time impacted on their ability to provide [Mrs A] with a more appropriate level of care. This indicates that the staffing ratio for whatever reason was inadequate.

Question Four:

My recommendations would be that there needs to be an open non-judgemental conversation between management and the service providers across all the professions involved. The individual responses around this incident are, for the most part, fragmented and defensive with a reluctance to assume any responsibility for any action that may have contributed to the outcome for [Mrs A].

Management appears to have distanced themselves from the situation on the basis that their data informs them that the clinical situation was manageable, yet the accounts of the midwifery service providers tell a very different story of recognising need and not being able to meet it or offer care of the standard they would expect to. The obstetric registrar's plan of care was unable to be followed through because of the unavailability of the on-call anaesthetist, of which there would have been an awareness as there was a joint attendance in OT by the obstetric registrar and the

anaesthetist. The anaesthetist implicates the midwives in the decision not to call a second anaesthetist in because they did not call down to OT to continue to advise of [Mrs A's] ongoing stress. I am aware that while there may have been an ability for an anaesthetics colleague to be called in there can also be a local culture that makes this a last option rather than a readily available one and this may be a factor that needs to be considered.

In an era where complex care requires a multi professional team approach there would appear to be a need for greater cohesion, support and collegial good will.

[The workforce planning system] data does not appear to have the ability to capture the workplace reality in a constantly fluctuating situation and maternity care has an unpredictable element in that the numbers of women presenting for care fluctuates as does the intensity of that care. There is therefore a need for an ability for staff who are working in the actual clinical situation to both evaluate the need for and access additional help when needed for the provision of safe and efficient care. This calls for trust by management in their staff to make such a decision and the creation of an ease of acquiring additional help without censure. From a midwifery perspective, this could be achieved by having on-call midwives available which could be met through core staffing or LMC providers.

There does not appear to have been a formal debriefing or root cause analysis with the practitioners involved in this incident. In my opinion this should be an automatic process after any such incident. It serves the purpose of accessing any learning that there is to be had while the events are clear and to bring the people involved together to express and be supported though the inevitable impact the event has had on them. By creating a cohesive approach across the differing professions, they are less likely to take opposing stances and focus on working supportively to prevent a similar occurrence. It is my opinion that the district area health providers carry an onus of responsibility not only to the recipients of their care but to the people whom they have employed to provide that care.

Question Five:

I would like to acknowledge [Ms E's] candour and honesty in carefully self-examining her practice for any culpability rather than deflecting responsibility. I commend her voluntarily engaging with a programme that she felt would offer her further education around documentation after identifying that this could have been done better.

Dr Carolyn Young, RN, RM, Ph D.

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Second Addendum

Further to my original report and addendum and in response to your additional questions:

1. At 7.15am, the BP recording was high at 138/98. Please provide your advice in two scenarios:

a) if an additional normal BP was subsequently taken and recorded.
b) if no additional normal BP was taken or recorded

Blood pressure recordings in pregnancy are referred back to the booking blood pressure as the baseline and an increase of over 10mmHg from this is seen as significant. I am no longer holding [Mrs A's] clinical notes to assess this, but regardless of this criteria, a diastolic recording of 98 is seen as elevated and should be responded to.

a) if an additional normal BP was subsequently taken and recorded then the elevation could be seen as a random response to the stress of labour, an assessment of the maternal pulse rate should accompany this. There should be a more frequent monitoring of the blood pressure initially to confirm that it was stable and remained within the normal range. This also ascertains whether the initial return to a normal recording following an elevation in the blood pressure was not the random response and the elevation is ongoing.

If this was observed then in my opinion this is acceptable midwifery care.

b) If no additional normal BP was taken or recorded

The NZCOM Handbook for Practice/Standards of Midwifery Practice Standard Six states that:

- Midwifery actions are prioritized and implemented appropriately with no midwifery act or omission placing the woman at risk

The NZCOM Handbook for Practice/Standards of Midwifery Practice Standard Six further states that:

- identifies deviations from normal, and after discussion with the woman, consults and refers as appropriate.

If no follow up of the abnormal BP occurred to ensure that it had normalised and remained stable within the normal range, particularly in the case of a planned home birth, in my opinion this would be a moderate departure from acceptable midwifery care.

2. At 3.30pm the BP is recorded as 143/96 and the urinalysis is recorded as protein 2+. Do you have any comments on this? What action (if any) would you expect [Ms B] to have taken?

The BP recording is again elevated. Reading through my original report it appears that at this time [Mrs A] still had intact membranes, I am unsure whether or not she had had a 'show' or vaginal mucoid loss. Contamination of a urine specimen by liquor or mucous can produce a protein reaction and this should be discussed with the client when collecting a urine sample. I am unclear as to the collection of this sample as when [Mrs A] was catheterised at the time of her examination at 1700 hours this was based on her having last voided at 1420 hours and having been administered IV fluids. If the urine sample had sat for over an hour in an environment with a raised temperature theoretically there could have been some bacterial changes which may have contributed to the presence of protein. However it cannot be simply assumed that an abnormal protein reading is from contamination and this finding should be further considered in the light of an elevated blood pressure and indicators of an obstructed labour with poor progress between assessments of both cervical dilatation and cephalic descent.

The NZCOM Handbook for Practice/Standards as previously stated calls for prioritizing of care, recognition of deviations from normal and discussion of this with the woman with appropriate consultation. At 3.30 [Mrs A] had been transferred to [Hospital 1] for assessment and stabilisation with IV fluids; she was aware of the need to then transfer to [Hospital 2] because of concerns arising from her labour and a consultative process was occurring. Therefore in my opinion the actions in keeping with providing acceptable midwifery care was occurring.

3. [Mrs A] stated that at around 3.30pm she asked [Ms B] for pain relief and said that she was told she would have to wait until th[ey] arrived at [Hospital 2] (2.5 hours drive away). Do you have any comments on this?

Analgesia during extended road transfer can be complex. Options of analgesia during labour other than those of low level support such as hydrotherapy, massage, positioning etc are those of Entenox, Pethidine administered IM or IV or epidural anaesthesia. Obviously epidural anaesthesia was inappropriate as well as being unavailable.

Pethidine when administered IM may take half an hour to have any effect and will remain in the woman's system for four hours; when given IV it takes effect within minutes but stays in the system for a shorter period of time which can vary for some individuals. It is increasingly regarded as a less effective analgesic in labour; in one survey 48% of women reported it having no effect and there is the additional recognition that it is more likely to provide relief in early labour than in late labour when the contractions are stronger. It can have side effects of dizziness, nausea or vomiting for the woman and it is known to have a respiratory depressant effect on the baby which is maximal between 1 and 3 hours. This can lead to a more complex resuscitation situation and the antidote to the pethidine is required to be administered by injection to the baby. The antidote has a short duration only and may be required to be repeated if the baby's breathing re-lapses. It is also known to cross the placenta and present in breastmilk causing feeding difficulties in the first few days. With a woman transferring by road with an already compromised labour I would not regard the administration of Pethidine to be appropriate. I base this on the always unknown factor of there being sudden progression and the birth of the infant in the intervening 2.5 hours with restrictions of infant resuscitation in transit conditions of a baby who is respiratory compromised from the administration of Pethidine.

This leaves the option of Entonox. I am unsure if the ambulance involved in the transfer carried Entonox, or if there was a possibility of making this available for the journey by [Hospital 1] with a sufficient supply to cover the time frame of the transfer. If this was a possibility and [Mrs A] had found it effective, it could have been offered.

Dr Carolyn Young, RN .RM. PhD.

Reference:

www.pregnancy.com.au/.../Pethidine-for-pain-relief-in-labour.html
Retrieved 24/08/17.

Second Addendum: 29/03/2018

I have been requested to provide a further opinion in the [Mrs A]/[Ms B] complaint in the light of new information now made available to me that [Ms B] amended the notes documenting the care that she provided to [Mrs A] during her pregnancy and labour with [Baby A] and did not indicate that these amendments were made retrospectively. I have carefully considered the implications of the altered documentation which is detailed in the HDC covering letter. The amended notes have not been made re-available to me, but in the covering letter from the Associate Commissioner these notes are stated as having been altered from the original unamended documentation at eight points. I have been asked how or if these alterations may have changed my perception of the standard of care that was provided in my original response. In addition to responding to this, I have also re-evaluated the care provided if the unamended notes more accurately reflect the care that was given and commented as to whether I now feel it met an acceptable standard of practice. I have also responded to the further questions posed by the

Commissioner around abdominal palpation, clinical record entry on 31 [Month5] and the handover of care at [the DHB].

The New Zealand College of Midwives Handbook for Practice has clear directions around documentation set out within the professional standards of practice. Standard four states that 'The midwife maintains purposeful, on-going updated records and makes them available to the woman and other relevant persons' while standard seven includes the criteria that the midwife 'clearly documents her decisions and professional actions' and 'records her practice outcomes and makes them freely available'. Retrospective documentation is not specifically referred to but the ethical principle governing this action in the context of documentation is that it should be one of providing additional relevant written information which was unable to be entered at the time of the event that accurately reflects what occurred. Retrospective documentation should be entered as closely as possible to the time of the event which occurred, the date and time of entering the additional information recorded, and it being clearly indicated as being retrospective documentation. It is a process that allows for situations where the urgent provision of care prioritises documentation and does not support improper preparation, alteration, or suppression of health record information (Ethical Standards for Clinical Documentation Improvement (CDI) Professionals (2016). In the Midwives Handbook for Practice the Code of Ethics determining midwifery ethical responsibilities to the woman further comments that 'Midwives have a responsibility to ensure that no action or omission on their part places the woman at risk' — inaccurate and misleading documentation can fall into this category. Unfortunately, when documentation is altered after the event and there is no indication that this has been done retrospectively it cannot help but call into question the integrity of the clinical record and raise the concern of whether the additionally entered information is accurate.

Responses to the eight points of altered documentation detailed in the HDC request for advice:
6am: '6–7 cm dilated' — the 7 has been overwritten by the number 6. In the unamended notes the entry states 6 cm dilated and the 6 then appears to have been altered to 7 rather than the other way around as the 7 is in bolder penmanship. This is of minimal difference as the notes then continue to state that the dilatation was inconsistent as the cervix was unevenly dilated. It is quite possible that after making the entry [Ms B] re-considered her findings and decided that 7 cm more accurately represented her findings and subsequently altered this immediately. In my opinion this would have had minimal influence over the forward planning of [Mrs A's] care.

7.52 am: 'BP 126/82' added. In the unamended notes the letters BP are written but no value is entered next to them. Clearly there was the intention to take a BP recording, but whether this was done, and, if it was done, whether the retrospectively entered recording is accurate cannot be ascertained. It is, however, questionable as to whether the recording could be accurately recollected so many hours after it was taken and with the ongoing distraction of an increasing complexity of care. The BP assessment is part of the component for creating a baseline as to maternal wellbeing;

this should include the pulse, respiratory rate and temperature all of which are not recorded in either set of notes until transfer into [Hospital 1] had taken place. This initial assessment creates a benchmark to refer back to in subsequent monitoring for indications of maternal distress and is therefore of importance to the provision of care. There had been a blood pressure recording taken by [Ms B's] colleague who originally attended [Mrs A] on [Ms B's] behalf at 0600, this gave a recording of 138/98 which is elevated. Where blood pressure recordings fall within normal range it is usual to take it, along with pulse, respirations and temperature recordings, at 4 hourly intervals, but where it is elevated it would be rechecked again relatively quickly at the midwife's discretion, e.g. within an hour. The absence of any attempt to establish such a baseline at the beginning of labour care and to follow up an initially abnormal blood pressure recording, if this did not in fact occur, is of concern and will be discussed at the end of this comment.

8.15am: 'FHR 138 bpm' added. This recording is absent in the unamended notes. It is usual to do such an assessment of fetal well being before women enter a birthing pool as monitoring in the water can at times be a little more difficult and an increasing fetal heart rate is an additional indication if the pool temperature is too high — I cannot see any indication of the pool temperature having been recorded other than the comment that 'the pool still requires a little heating.' Again, if there is any indication of developing fetal distress labouring in water is not recommended. (Added in FHRs to be discussed at conclusion).

8.40am: 'FHR 142 bpm' added

9.30am: 'FHR 132 bpm' added — both these recordings are also absent in the unamended notes. It appears that they have been entered where there is a gap in the clinical notes that allow for this inclusion. Again, clinical documentation standards require that after an entry has been made a line is drawn through any unwritten in space prior to the entry being signed to prevent the addition of any further information without indicating that this information is being added in retrospectively. [Ms B's] documentation does not uphold this criterion. One recording of the FHR has been entered in the original documentation at 9.00am with the next entry being at 12.00 midday. The recommendation for monitoring the FHR in active labour, which is assessed as 4cm or more dilated ([Mrs A] having been assessed as 7cms dilated at 6am) is for quarter to half hourly recordings (RANZCOG, 2014). In addition, where there is the presence of any risk factors the increasing frequency and the reduced tolerance for commencing CTG monitoring is advocated for. Post dates gestational age of over 41 weeks is viewed as such a risk factor and [Mrs A] commenced labour at 42+2 weeks gestation. I believe this has implications for the standard of care provided but will also discuss this at the completion of this comment.

10.00 '1.8.10' added referring to the easing off of contractions '1.15' referring to the contractions spacing out. The unamended clinical notes refer to the spacing out of contractions twice during this entry although the frequency is not indicated. It is also stated that [Mrs A] is going to rest and possibly sleep which intimates infrequent

contractions; for this reason, I do not think the absence of documentation as to the actual frequency of contractions in the clinical notes has any implications for the forward planning of care.

2.05pm: 'FHR 145' added. Again, there is an obvious gap in the unamended notes that would facilitate adding this information in later at this juncture in the record keeping. Unfortunately, this pattern continues to create the impression that the information was added in where the written notes allowed for this to be done rather than in response to a true recollection of the events that took place. It is otherwise quite coincidental that the omitted FHR recordings took place to coincide with the gaps occurring in the original documentation.

2.45pm: 'talk with Drs' added. It is hard to ascertain what this implies exactly but the assumption is that the plan is to discuss the situation with obstetric colleagues rather than that the conversation has taken place. However, it is a given that if a woman is being transferred to another hospital that the need for the transfer and the acceptance of her by facility personnel for admission to that hospital necessitates a discussion with an obstetrician or obstetric registrar. Therefore, whether the intention for this to happen is documented as such or not, the decision to transfer [Mrs A] to [the DHB] facility upholds that such a conversation will be occurring.

In conclusion, I do not think the alteration of the recording of cervical dilatation, the addition of the frequency of contractions and the addition of the intent to discuss [Mrs A's] need for transfer with obstetric colleagues documented as such has any implications for [Ms B's] midwifery care. I do however, feel that the absence of a baseline blood pressure recording as well as the other basic assessment recordings and the lack of appropriate monitoring of the fetal heart rate have. In my original opinion I felt that the absenting of [Ms B] for [Mrs A's] care disenabling the monitoring of the fetal heart rate over that period of absence represented a moderate departure from accepted standards of care and if the fetal heart rate was not monitored as frequently while she was present as the unamended notes now indicate this reinforces but does not change this opinion. Again, the failure to establish a baseline for maternal wellbeing and follow up an elevated blood pressure recording at the initial assessment also represents a moderate departure from accepted standards of care.

Abdominal palpation:

In addition, please advise whether you consider it is within accepted standards to assess [Mrs A] during her pregnancy solely by way of abdominal palpation using landmarks to assess fetal growth.

The letter from your department notes that the New Zealand College of Midwives consensus statement 'Assessment of fetal wellbeing during pregnancy 2012' states that from 24 weeks' gestation the fundal-symphysis height should be measured. I concur with these findings. The recommendation, and requirement in some district health boards, is that each woman not only has this measurement carried out but that a customised growth chart is generated for her that takes into account her BMI,

Ethnicity and obstetric history including any previous babies' birth weights and that this chart is used from 24 weeks' gestation and forms part of her records. The use of customised growth charts in antenatal care to ascertain fetal wellbeing through appropriate growth being graphed is becoming a global recommendation but this is not followed by all midwives nor is a mandatory requirement for referral to some District Health Boards. However, the need to measure and record the fundal-symphysis height as part of the routine antenatal assessment for fetal wellbeing, whether it is subsequently graphed on a customised growth chart or not, is both recognised as part of the professional standards of care. If this was not done at [Mrs A's] express request I would expect the discussion around this and the decision made by her to decline this aspect of care to be documented which I do not recollect as having been done. If, however, it was not done simply at the midwife's discretion and in the absence of any such discussion and consumer decision making, in my opinion this falls below the accepted standard of care and represents a moderate departure from it.

Entry 31 [Month5]

Please also advise whether your advice would change if the Commissioner were to find that the following entry in the clinical records on 31 [Month5] was added later: '[Mrs A]. Further discussion with [Mrs A] regarding induction of labour. As per referral guidelines code 4024 — Prolonged Pregnancy — a consultation is recommended for planned induction by 42 weeks. [Mrs A] confirmed she is wanting to wait and will make decision after post date scan booked for 5th [Month6]. [Mrs A] is still wanting to have her baby at home so therefore is declining consultation with Dr's at this stage. [Mrs A] is aware she can change her mind at any stage.'

As I have returned all previous notes to you and the unamended notes forwarded to me do not cover the antenatal care I can only go on my recollection that the above was the only reference documented in the prior notes received by me as to any discussion around postdate management and [Mrs A's] decision to decline this? I don't recollect within the discussion on the 31 [Month5] that the guideline was identified by code, but it is some time since I reviewed the original notes. There was also a conflicting statement from [Mrs A] as to whether such discussion took place; her own account was that she raised the issue of postdate risk from term with [Ms B] but was advised by her that there was no risk and induction was not an option. This advice must be placed in the context that until women are 41+ weeks' gestation in the absence of any risk factors induction of labour is usually deferred to maximise the opportunity for spontaneous labour to occur. Further confusion around this point was created by the uncertainty surrounding the agreed estimated date of delivery.

My previous opinion was based on this discussion around induction of labour being clearly documented in the clinical notes of which [Mrs A] would hold a copy despite that such discussion ever took place being disputed in [Mrs A's] complaint because it was precisely documented as having occurred. As women are entitled to decline consultation [Ms B] would have been obligated to respect [Mrs A's] preference of

declining or deferring consultation, my opinion at that time therefore was that this met the accepted standard of midwifery care. However, if it is found that this statement was later added in to the clinical notes and at the time of deciding to decline consultation [Mrs A] therefore did not have access to it as a written comment in her clinical records this becomes significant. Further, in the light of [Mrs A's] assertion that such discussion never took place, in the absence of documentation detailing that it did the assumption must be that it may not have? There is of course always the possibility that it did occur but was not documented.

Alternatively, [Mrs A's] assertion that this discussion did not happen could possibly suggest that if it did it was not of sufficient depth for her to recollect it and her subsequent declining of a postdate referral based on the information that she was given as she had a right to do. I am aware that English is a second language for [Mrs A] and there may have been some difficulty arising from this around her understanding of what was verbally discussed, however the onus of giving informed consent, particularly when deviating from recommended care, rests with the midwife. An interpreter should be engaged if it is not felt that the information has been fully understood. The New Zealand College of Midwives Handbook for Practice identifies prolonged pregnancy as a decision point with a view to referral that calls for discussion and subsequent decision points being agreed on with the woman. The NZCOM Handbook for Practice/Standards of Midwifery Practice Standard One is that the midwife works in partnership with women. Part of the criteria for which is that the midwife:

facilitates open interactive communication and negotiates choices and decisions

shares relevant information within the partnership

recognises contribution of both partners

Therefore, should the decision be made that the documentation around this was added in later because it is a critical decision point in midwifery care a lack of discussion, information sharing and mutually formulating an agreed to plan would fall below an acceptable standard of care and would represent a moderate departure from it.

Handover at [the DHB]: At approximately 8.30pm [Mrs A] arrived at [Hospital 2] by ambulance. She was reviewed by Registrar [Dr C] who commenced a CTG and recorded the maternal heart rate. [Dr C] told HDC that [the DHB] did not have any pre-existing notes for [Mrs A] and that [Ms B] gave [Dr C] only one page of written progress notes. [Dr C] said the MMPO maternity notes were not left at [the DHB] and she was told by [Ms B] that they were required to remain with the LMC for return to [Hospital 1], but copies would come. [Dr C] said [Ms B] told her [Mrs A] was 'at term' rather than postdates. [Ms B] left with the ambulance crew to return to [Hospital 1]. At 1.20am on 6 [Month6] [Dr C] found [Mrs A's] unamended notes that had been faxed to [the DHB]. Please advise whether [Ms B's] actions were of an acceptable standard.

When first considering the handover process in my original opinion I took note of the information that the notes detailing all of [Mrs A's] care 'had been found' at [the DHB] after [Ms B] had left. I had therefore erroneously presumed that the handing over of clinical notes had formed part of the formal handover, but these records had then been misplaced within the facility by the facility staff. This had subsequently necessitated working from a single page summary of care that I believed was also made available by [Ms B] before the clinical notes were eventually re-located. The additional information attached to your further request of advice now makes it apparent that the clinical records were not handed over by [Ms B] at the time of [Mrs A's] admission but were faxed through by her after returning to [Hospital 1]. This puts the handover process in a different light. In my opinion the documentation relating to [Mrs A's] care thus far was an important component in the management of her on-going care as it confirmed the degree and length of obstructed labour as well as presenting a record of her antenatal care.

The Ministry of Health Guidelines for Consultation with Obstetric and Related Medical Services 4.3 Process for transfer of clinical responsibility for care states that this requires:

> a three-way conversation between the LMC, the woman and the specialist to determine that the transfer of care is appropriate and acceptable
>
> the LMC to provide all relevant information, including any relevant maternity notes, test results, and histories to the specialist

While it is possible to print out laboratory and scan results for women, not all radiologists or independent laboratories make these available on line and at the hour of the night when transfer took place they would be unavailable through a direct request to the clinics where they were performed. The antenatal care notes were relevant to ongoing management because of the discrepancy in the EDD and the radiology results around this were therefore of relevance, particularly when verbal misinformation had been given around the duration of pregnancy. The labour notes are of importance as it provides a written record of what had occurred thus far in the labour helping to inform subsequent care providers of the best plan of care from the point of admission to [the DHB]. While it is important for the LMC to retain records of her care, MMPO notes are in duplicate, one copy to be held by the midwife and one by the client, therefore the client held duplicate copy of the labour care which would not have been given to the client at this point could have been left at the facility and subsequently returned to [Mrs A] directly. If duplicate notes had not been kept then there was probably an opportunity to photocopy the notes at [Hospital 1] while waiting for the ambulance particularly with two being midwives present providing care. I say 'probably' only because I am unaware if photocopiers are available at [Hospital 1] but one would presume they are — if not then they could have been photocopied at [Hospital 2] on admission. The photocopying need not have been done personally by [Ms B] at that point of care, given that the ambulance return to [Hospital 1] would most likely be subject to some urgency, but she could have made the notes available for copying by a staff member while the admission process and

handover was occurring. Failing this happening, and the notes not having been made in duplicate, I would view the notes being left at [the DHB] to better inform the plan of care for [Mrs A] as being of greater priority than [Ms B] continuing to personally hold them despite my appreciating that requests for notes to be subsequently returned to the LMC midwife are not always upheld. The midwife is not legally obliged to hold notes for her clients and some clients hold the sole copy of their own notes.

If the notes were therefore deliberately withheld at the point of transfer of care of a difficult labour to secondary services where there was no backup booking and known history of the woman, this action does not meet the acceptable standard of practice. I have then considered that the faxed notes were made available five hours after [Ms B's] admission, but I am unsure when these were faxed through sooner and if there was then a further delay within the facility of making these available to [Mrs A's] current caregivers. I am also not privy to the summary of care that was handed over by [Ms B] at the point of admission and therefore cannot evaluate how detailed and accurate this was. Weighing all this up, it is my opinion therefore that the handover procedure by [Ms B] represents a mild breach of the accepted standards of practice.

Dr Carolyn Young, RN, RM, PhD.

References:

Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) (2012) Ministry of Health, New Zealand Government.

Midwives Handbook for Practice — New Zealand College of Midwives (Inc)

New Zealand College of Midwives' consensus statement: Assessment of fetal wellbeing during pregnancy 2012.

Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2014) *Clinical Guidelines:* Third Edition. Retrieved from http:/www.midwife.org 29/03/18"

Appendix B: Independent obstetric advice to the Commissioner

The following independent expert advice was obtained from an obstetrician and gynaecologist, Dr David Bailey:

> "I have been asked to provide expert advice to the Health and Disability Commissioner regarding the care provided by [the DHB] to [Mrs A] following her transfer in labour to [Hospital 2] on 5 [Month6].
>
> I have read the Guidelines for Independent Advisors provided by your office and agree to follow these guidelines.
>
> I am a Consultant in Obstetrics & Gynaecology at Northland District Health Board. I graduated in Medicine from London University in 1985 and trained in Obstetrics & Gynaecology in New Zealand and the United Kingdom, with advanced training in Maternal Medicine and Fetal Medicine. I became a Member of the Royal College of Obstetricians and Gynaecologists in 1999 and a Fellow of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists in 2005. I have a Diploma in Advanced Obstetric Ultrasound from the Royal College of Obstetricians and Gynaecologists. My main interest is in quality improvement in maternity care.
>
> I have been asked to comment on the following:
>
> 1. What information should [Dr C] have obtained at the first assessment on admitting [Mrs A]?
> 2. Were the assessment and plan on admission appropriate?
> 3. Should the SMO have instructed the core midwife to undertake continuous CTG monitoring?
> 4. Was it appropriate to delay the epidural?
> 5. Should the off-site anaesthetist have been called in?
> 6. Was it appropriate to attempt a manual rotation and a ventouse delivery?
> 7. Was the delivery appropriate?
> 8. Was the staffing level appropriate?
> 9. Any additional comments about the care provided by [Dr C] or [Dr D].
>
> I am aware that the Commission has also been investigating the care provided to [Mrs A] by her Lead Maternity Carer (LMC) [Ms B]. However, I have not been asked to comment on this matter; as a result, I have not read [Ms B's] MMPO notes and have tried to assess the care provided by the staff at [the DHB] in the light of the information that would have been available to them at the time.
>
> I have referred to the documents provided by the Commission, including the clinical notes from [Hospital 2] and the statements provided by [Mrs A] and by [DHB] staff.
>
> **Background**
>
> [Mrs A] was transferred to [Hospital 2] from [Hospital 1] on the evening of 5 [Month6]. She had been laboring at home before transfer to [Hospital 1] by her Lead Maternity Carer. The Resident Medical Officer (RMO) in Obstetrics and Gynaecology (O&G), [Dr

C], was in a temporary locum position at [Hospital 2] at the time. She stated she had received a telephone call earlier in the day from the LMC to discuss transfer and was concerned that the LMC was unable to provide appropriate information about the labour and examination findings. [Dr C] requested another midwife at [Hospital 1] to perform an examination before transfer to confirm the clinical situation. [Dr C] informed the O&G Senior Medical Officer (SMO), [Dr D], about the transfer. When [Mrs A] arrived at [Hospital 2] at about 20.30 she was accompanied by her LMC. [Dr C] attended promptly; she was provided with two pages of hand-written LMC notes from [Hospital 1] Maternity Unit, which summarized [Mrs A's] labour care. However, [Dr C] stated that the LMC left [Hospital 2] without providing a comprehensive handover of care to the hospital staff and withholding important information such as gestation. It appears [Mrs A] had not previously been booked for maternity care at [the DHB] and, as a result, no other information was available to the hospital staff at this time.

[Dr C] recorded that [Mrs A] was [...] in spontaneous labour at term expecting her first baby. No specific obstetric risk factors were noted. She had made slow progress to 9 cm dilated by 13.45 and no further progress three hours later. On examination [Dr C] found the cervix was 8–9 cm dilated and the position was occipito-posterior; by this stage there had been little progress for 11 hours. [Mrs A] was distressed with pain. [Dr C] commenced cardiotocograph (CTG) recording of the fetal heart rate and made a plan for epidural analgesia, to be followed by reassessment and either Oxytocin augmentation or caesarean section. [Dr D] also attended promptly, reexamined [Mrs A] at 21.05 and diagnosed full dilatation. She agreed with the plan for epidural analgesia and expected to follow this with an assisted vaginal delivery.

There are very few entries in the [Hospital 2] records for the next three hours. The sequence of events during this time can be reconstructed from the statements of [Dr C], [Dr D] and the core midwives on duty and from the CTG record. It appears that shortly after [Mrs A] was admitted there was an obstetric emergency involving another woman in advanced preterm labour with a complex breech presentation requiring urgent caesarean section. As a result, both the obstetric RMO and SMO and the on-site anaesthetic registrar were unavailable for some time. [Mrs A] had continuous CTG monitoring between 20.33 and 22.30; this recording was normal, apart from some variable decelerations mirroring contractions and therefore unlikely to indicate fetal hypoxia. The CTG was discontinued around 22.30 and [Mrs A] received intravenous Pethidine for analgesia and entered a birthing pool for additional analgesia. According to Midwife [Ms E], who was providing care, she was checked after 15 minutes in the pool and remained in the pool for 30 minutes. During this time there were no fetal heart recordings. The CTG was not reapplied until 23.40 and was removed again after only six minutes while the epidural was inserted. This brief section of CTG recording had normal features. The CTG was recommenced at about 00.10 on 6 [Month6] and the fetal heart rate was initially normal. [Dr D] manually rotated the fetal head from occipito-posterior to anterior at about 0020. This manoeuvre was associated with an abrupt change in the CTG recording with a decreased fetal heart rate lasting 16 minutes; the CTG may have been recording maternal heart rate or may have recorded a fetal bradycardia at 80–90 bpm, a

possible indication of severe fetal compromise. [Dr D] applied a Kiwi cup suction device at 00.31 and delivered the baby over the next 20 minutes using five or more pulls on the cup. During this time the fetal heart rate was recorded as between 120 and 175 bpm with no clear baseline rate and therefore difficult to interpret. The baby was born in very poor condition and required resuscitation before transfer to the Neonatal Unit. Cord bloods were not taken for blood gas analysis. Subsequent blood tests from the baby showed severe metabolic acidosis. The baby was transferred to the Neonatal Unit at [another DHB] for treatment of neonatal encephalopathy.

Advice

1. What information should [Dr C] have obtained at the first assessment on admitting [Mrs A]?

[Dr C] would have been expected to take a history using information from the LMC (both a verbal handover and written records), from [Mrs A] and from information in the hospital records. [Dr C] stated in her replies to the Commission that she was unable to obtain adequate information from the LMC, who she found to be evasive and who refused to leave her written records. [Mrs A] was distressed and in pain and, in addition, English was not her first language; it does not appear that [Dr C] obtained any information from her. Lastly, the LMC had not booked [Mrs A] for maternity care at [the DHB], so the hospital records contained no information. In the circumstances, [Dr C] appeared to have summarized the information available to her. The main piece of information not obtained was that the gestation was 42 weeks. [Dr C] then performed an examination and determined that there had been no labour progress since 17.00 and very little progress since 10.00, an interval of 11 hours.

2. Were the assessment and plan on admission appropriate?

After discussion with [Dr D], [Dr C] decided that immediate Caesarean delivery was not necessary and instead recommended an epidural for pain relief, followed if appropriate by Oxytocin augmentation of labour. [Dr D] subsequently attended and performed another assessment. In her opinion the cervix was fully dilated so vaginal delivery was possible. She continued the plan for epidural analgesia with an intention to manually rotate the baby's head and deliver with ventouse.

Immediate Caesarean delivery would have been a reasonable option after the first examination by [Dr C] as this indicated there had been no progress for about 11 hours. The alternative option of augmentation of labour with Oxytocin would only have been appropriate if certain conditions were satisfied:

- [Mrs A] consented to this plan
- Fetal heart rate monitoring indicated no evidence of hypoxia
- [Mrs A] was able to tolerate a prolonged labour with an increase in the strength and frequency of the contractions; in her distressed state it would be difficult to contemplate this without an epidural.

When [Dr D] reassessed [Mrs A] she decided that vaginal delivery was possible. It is not stated why she repeated the examination so soon after [Dr C]. [Dr D]

recommended epidural analgesia followed by manual rotation and vacuum delivery. There does not appear to have been consideration that the delivery might be unexpectedly difficult and caesarean section might be necessary. It would have been more appropriate to conduct the delivery in theatre with a spinal anaesthetic and the ability to immediately resort to caesarean section in the event of difficulty. This is discussed further in section 6.

3. Should the SMO have instructed the core midwife to undertake continuous CTG monitoring?

According to the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Fetal Surveillance Guidelines, continuous CTG monitoring from admission to delivery was indicated for the following reasons:

- Prolonged first stage of labour is an indication for CTG monitoring; this is defined in the Obstetric Referral Guidelines (2012) as:
  < 2 cm in 4 hours for nullipara and primipara … Take into consideration descent and rotation of fetal head, and changes in strength, duration and frequency of contractions.
- On the initial CTG recording there were some variable decelerations. Continued monitoring is recommended when the initial CTG recording is not entirely normal.

All maternity staff are familiar with these guidelines. It should not be necessary for the medical staff to specifically instruct the midwifery staff to use continuous CTG in these circumstances. However, it should also be noted that clinical responsibility for [Mrs A] had been transferred to the medical staff, who were therefore responsible for documenting a plan of care, including plans regarding monitoring.

4. Was it appropriate to delay the epidural?

On admission [Mrs A] was distressed and requiring either immediate delivery or adequate analgesia. Once a decision was made for epidural analgesia this should have been provided as soon as possible. Sometimes delays are unavoidable. The Anaesthetic Registrar was called away for an urgent theatre procedure; however, if another anaesthetist was available they should have been called.

5. Should the off-site anaesthetist have been called in?

As there was another anaesthetist available, in my opinion they should have been called in for the epidural.

6. Was it appropriate to attempt a manual rotation and a ventouse delivery?

The indications and conditions for an operative vaginal or instrumental delivery (these two terms are synonymous) are described in some detail in the RANZCOG position statement on instrumental delivery (2016). Although the most recent version of this statement was issued after the events in this report, previous versions of the statement had been in place since 2002.

[Mrs A] was reexamined by [Dr D] shortly after epidural insertion. The decision to deliver at this stage was reasonable as [Mrs A] had been fully dilated for more than three hours without further progress; however, she had been given no opportunity to push. [Dr D] performed a manual rotation of the fetal head to occipito-anterior position. The manual rotation was followed by what appears to have been a prolonged fetal heart rate deceleration lasting 16 minutes. This was likely to be associated with fetal hypoxia and a compromised baby and appropriate action would have been to deliver the baby by the quickest and safest means possible. In my opinion, this would usually involve a forceps delivery. An alternative option would have been to abandon the plan for vaginal delivery, move straight to the operating theatre and deliver the baby by caesarean section. This would have avoided potential problems with a difficult vaginal delivery but would have involved some delay and would have exposed [Mrs A] to an increased risk of harm from surgical complications. In the event [Dr D] did not choose either of these options. Instead she proceeded with the original plan of ventouse delivery with a Kiwi cup device, which was commenced after 10 minutes of fetal bradycardia and took a further 20 minutes to effect delivery. During this time the fetal heart rate was difficult to interpret but appeared to increase to 160–170 bpm with variable decelerations of uncertain significance; the fetal heart rate baseline rate had previously been 135 bpm, so this increase in heart rate is likely to have been associated with fetal compromise.

Midwife [Ms F] indicated in her statement that the Kiwi cup device was the standard instrument for assisted vaginal delivery at [Hospital 2]. The evidence around choice of instruments is discussed in the RANZCOG position statement. The choice of Kiwi cup over forceps may have reflected personal choice, but this would have been expected to increase the time taken to deliver the baby, with the added risk that the delivery may have been unsuccessful. The RANZCOG Position Statement quotes observational studies reporting a 30% rate of failure to deliver with the Kiwi cup and states:

> *Vaginal birth is more likely to be achieved with forceps than vacuum and will occur over a shorter time interval*.

The prolonged slow labour and persistent occipito-posterior position both indicate that the procedure could have proved unexpectedly difficult. Many Obstetricians (myself included) would have opted to conduct the delivery in the operating theatre, so that there would be easy recourse to caesarean section if the attempted vaginal delivery proved unsafe. The RANZCOG Position Statement states:

- *(Recommendation 3). When there is an increased likelihood that attempted instrumental birth may not be successful, where feasible, the attempt should be conducted in a place where immediate recourse to caesarean section is possible*.

The option of delivery in theatre does not appear to have been considered.

7. Was the delivery appropriate?

According to the clinical record, the ventouse delivery took 20 minutes from application of the cup to delivery of the baby. This is within an acceptable timeframe, provided there was evidence of progress and reassuring fetal monitoring. However, it did not appear that there was any sense of urgency or appreciation that the fetal heart recording was abnormal. Had this been appreciated, forceps delivery immediately after the onset of fetal bradycardia would have been preferable.

8. Was the staffing level appropriate?

It is difficult to comment on this from the information provided. The midwives in their statements considered that the staffing level on the night in question was too low for the number and acuity of patients. They consider that this compromised their ability to provide appropriate care to [Mrs A]. In contrast, on the basis of administrative electronic records, [the DHB] Chief Executives stated in letters of 8 August 2016 and 27 October 2016 that staffing numbers were adequate. I have reflected on this and discussed this with colleagues. I believe that if the midwives on duty at the time considered the unit was understaffed then this should be accepted as a statement of fact. [The workforce planning tool] is an imprecise and retrospective electronic tool which often fails to reflect the complexities of clinical situations and should not be taken as evidence of adequate staffing when the staff on duty consider otherwise.

9. Any additional comments about the care provided by [Dr C] or [Dr D].

The decision to prioritise another Obstetric emergency over the immediate care of [Mrs A] was unfortunate but necessary in the circumstances and the decision-making in this regard was correct. Both Obstetricians were required in theatre to conduct a caesarean section which would be expected to be technically challenging. Although it might have been possible to call in another Obstetrician from home (someone not on call), they would not have been able to help at that time. [Mrs A's] immediate need was for an epidural, the provision of which was the responsibility of the Anaesthetic service, not the Obstetricians.

Opinion regarding standards of care

There were unfortunate delays providing care to [Mrs A], which caused her distress and may have contributed to the harm to her baby. The delays in providing appropriate care prior to transfer were outside the control of the [Hospital 2] staff. However, the assessments indicate that when [Mrs A] arrived at [Hospital 2] her unborn child was not compromised despite the prolonged labour.

The delay in providing epidural analgesia could have been avoided if the on-call Anaesthetic consultant had been called in. I would have expected this to occur in the hospital where I work. I consider this a moderate departure from expected practice. It resulted in [Mrs A] suffering avoidable distress and contributed to suboptimal care including inappropriate use of a birthing pool with inadequate fetal monitoring.

I am concerned about the circumstances around the delivery. I consider this may have contributed to the baby's poor condition at birth and subsequent hypoxic injury. It is often difficult to be certain when a hypoxic brain injury occurs. This could have

occurred before the onset of labour or during the prolonged labour prior to admission, during which time there was very little fetal monitoring. There could have been a hypoxic episode at [Hospital 2] between 22.30 and 23.40, during which time the CTG was discontinued; however immediately before and after these times CTG recording was reassuring. It is most likely that the hypoxic episode started with the manual rotation at around 00.20 and continued until the delivery about 30 minutes later; this is consistent with the abnormal CTG recording, the poor condition of the baby at birth and the initial neonatal blood tests showing severe metabolic acidosis. It is unfortunate that cord gas analysis was not performed as this could have provided useful information as to whether the hypoxia occurred before or after birth. It is likely that a forceps delivery would have delivered the baby much quicker that ventouse, but it is not certain that this would have prevented hypoxic injury. Nevertheless, I consider that the decision to start and continue with a prolonged ventouse delivery, while failing to recognise that the CTG monitoring indicated fetal compromise, was a moderate departure from accepted practice.

References

Royal Australian & New Zealand College of Obstetricians & Gynaecologists (2016). Instrumental vaginal birth. Position statement C-Obs 16.

Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2014). Intrapartum Fetal Surveillance. Clinical Guideline — Third Edition.

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Appendix C

Date and time (if relevant)	Additional entry/difference	[Ms B's] explanation
6 am	"6–7 cm dilated" where DHB scanned notes record "7cm dilated with the 7 overwritten the number 6"	"Vaginal Examination (VE) 5 [Month6] 0600 by [Ms G] was contemporaneously documented at the time to reflect her findings accurately. Initially she wrote 6 and immediately scribed over the top 7cm. Later in the evening of the 5 [Month6] this was adjusted to 6–7cm for clarity."
7.52am	"BP 126/82"	"Blood pressure and pulse reading were added after I realised they had not been written in at the time of taking. Previously in practice I use an automated blood pressure cuff which memorises the previous readings. Therefore, this allowed me to check back on the readings, which was then added to the notes retrospectively. It is important to also understand the reason why this may not have been written in the notes at the time. During this labour there were often other distractions, the woman needing consistent verbal one on one reassurance, her partner or her parents asking questions, and also English was their second language. [Mrs A's] parents did not have any English understanding, so [Mrs A] was translating to them how her labour was progressing. Also you, the midwife, are the only person there focusing on the woman's needs, assisting physically, and emotionally supporting during the first stage of labour and the vast unknowingness for a Primigravida."
8.15am	"FHR 138bpm"	"… primarily as a midwife when a woman first enters the pool I will document in the notes that she has

		entered the pool. Once the woman becomes comfortable, I then listen to the FHR to ensure that the baby is coping well with the mother's emersion into the birthing pool, the reason this heart rate may have been omitted at the time is that my hand would have been wet from listening and I would have had to remove gloves and dry my hands, therefore I omitted to write the recording down at that time, but as babies FHR throughout labour was consistently between 120's and 160's at the time it was better to write in an average of what it was as I could not precisely remember. Throughout [Mrs A's] labour at home, there were no concerns regarding the baby's FHR."
8.40am	"FHR 142bpm"	"When working around the woman's needs and her partner supporting her throughout her labour, occasionally the FHR was listened too but not documented in the notes contemporaneously. I can certainly recall being vigilant in listening to FHR. Guidelines and numerous midwifery texts recommend the FHR should be recorded once every 15–30 minutes throughout active labour to ensure the baby is coping well with labour. [Mrs A] also wanted to ensure that her baby was always coping well throughout labour. Also it was important to do this as [Mrs A's] parents had previously expressed concern with [Mrs A] deciding on birthing her first baby at home, as this is not customary for [women in her country], they usually have an Elective Caesarean Section."
9.30am	"FHR 132bpm"	"… prior to this I had listened to the FHR at 0900 therefore even though not written at the time I am confident that I listened due to the recommended guidelines. The FHR was previously

		between 126bpm and 155bpm so even though initially it was not written I am confident the FHR was between these readings."
10am	"1:8:10" referring to the easing off of contractions. "1:15" referring to the contractions spacing out.	"This information was added as it gave a more full and accurate picture of what was occurring with [Mrs A's] contractions during labour."
2.05pm	"FHR 145"	"1345 I had undertaken a vaginal examination and upon reading back through the notes I had omitted to write in the FHR. As a practice I will always listen to the FHR after undertaking a vaginal examination to ensure the baby may not have become distressed with the woman lying supine or you touching their head. I added this as once again there was never any concerns with babies FHR and I recalled it being in the 140's."
2.45pm	"talk with Dr's"	"This was added as I had omitted to write it at the time, as there was a sense of urgency going on, organising at the home, packing bags, car seats, to transfer to [Hospital 1] to arrange an ambulance transfer to [Hospital 2] and I had omitted this information. When reading back through the notes on my return in the ambulance the mind is clearer to remember any omissions and to write them for a more contemporaneous birth story."