Midwife, Ms C

A Report by the

Health and Disability Commissioner

(Case 11HDC00098)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. In late 2010, Ms A, aged 22 years, began experiencing pain around 39 weeks into her pregnancy. She contacted her independent midwife and lead maternity carer, Ms C. Ms C told Ms A that what she was experiencing was normal and instructed her to take paracetamol and to rest.

2. On her due date, Ms A contacted Ms C because she believed she was having contractions. Ms C examined Ms A and told her she was not in labour. Two days later, Ms C examined Ms A again and told her that she was in early labour.

3. The following day, Ms A contacted Ms C, as her contractions were closer together. Ms C agreed to meet her at hospital to conduct a further examination. Ms C started a cardiotocograph (CTG)[1] trace, which she did not interpret as significantly abnormal. A small amount of yellow-green discharge was noted and Ms C sought the advice of the charge midwife, Ms D. Ms D confirmed that the discharge was meconium and noted that the CTG had been abnormal from the beginning. Obstetric registrar Dr E attended and also identified the CTG to be abnormal and requested an urgent Caesarean section. Ms A's baby was born underweight, diagnosed with respiratory distress and transferred to the neonatal intensive care unit.

Findings

4. Ms C was found in breach of Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code)[2] for failing at the outset to recognise that the CTG was non-reassuring and, for the next hour, continuing to fail to recognise that the CTG was non-reassuring.

5. Ms A had continued to smoke throughout her pregnancy and consequently was at higher than normal risk of having an underweight baby. Accordingly, Ms C should have monitored the fetal growth more closely. Ms A also had a long period of latent labour, and the fetal head had not descended into her pelvis, which should have prompted a more thorough assessment by Ms C once Ms A was in latent labour. In light of these failings, Ms C was found in breach of Right 4(1) of the Code.

6. Ms A's antenatal documentation was sparse and not recorded sequentially, and some entries were written retrospectively without being identified as such. By failing to document Ms A's antenatal care in accordance with professional standards, Ms C breached Right 4(2) of the Code.[3]

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[1] A CTG records the fetal heartbeat and uterine activity onto graph paper for analysis of fetal well-being and uterine activity.

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

[3] Right 4(2) of the Code states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."

Complaint and investigation

7. On 8 August 2011, the Commissioner commenced an investigation into the following issue:

   - *Whether independent midwife Ms C provided Ms A with an appropriate standard of care.*

8. Information was obtained from the following parties:

Ms A	Consumer/complainant
Mrs B	Ms A's mother
Ms C	Midwife/provider
Ms D	Charge midwife, public hospital
Dr E	Registrar (obstetrics and gynaecology)
The DHB	Provider

9. Independent expert advice was obtained from midwife Robyn Maude (attached as **Appendix A**).

Information gathered during investigation

10. In mid 2010, Ms A (then aged 22 years) was 11 weeks pregnant. At that time, Ms A arranged for Ms C to be her midwife lead maternity carer (LMC).[4]

11. At the time, Ms C was an independent midwife with over 16 years' experience, and was working in a group community practice.

Antenatal documentation

12. Ms C saw Ms A 13 times during her pregnancy.

13. Ms C told HDC that at each visit she would take Ms A's blood pressure and weight, conduct a urine check, listen to the fetal heart, and measure fundal height.[5] These observations were documented on a one-page form entitled "PRE-NATAL".

14. Ms C measured the fundal height with a tape measure. Rather than record the measurement, Ms C entered "=" in the appropriate column on the form. Ms C later conceded that she did not document this appropriately.

[4] LMCs are funded by the Ministry of Health to provide maternity services to women throughout their pregnancy and postpartum period. The LMC's responsibilities are set out in the Primary Maternity Services Notice, issued pursuant to section 88 of the New Zealand Public Health and Disability Act 2000.

[5] The fundal height is a measure of the size of the uterus, used to assess fetal growth from the top of the pubic bone to the top of the uterus.

15. Ms C said that she did not document a GROW chart[6] as she was not familiar with them.[7] Ms C also did not document Ms A's height.[8]

16. Ms C said that she would then have a discussion with Ms A, which often included conversations about smoking.[9] Ms A recalls being advised to quit or reduce her smoking. These discussions were not documented in detail. For example, at the first antenatal visit the entry states: "Options, diet, hydration, Exercises, Smoking".

17. On a corresponding document entitled "Report", there are six separate entries, most of which are undated and not written in chronological order. Ms C initialled only some of the entries. She told HDC that she leaves the top of the page clear for filling in any later "issues" during the pregnancy, and conceded that she should have written her entries in chronological order and dated each entry. Ms C cannot recall specifically when each of the undated entries was written.

18. At 38 weeks' gestation,[10] Ms C documented on the "PRE-NATAL" form that she had a "labour talk" with Ms A. An undated entry on the "Report" form lists ten numbered items that Ms C says were discussed as part of the "labour talk", including support from friends and family, the placenta, how long Ms A wanted to stay at home before the delivery, analgesia, specialist team involvement, feeding the baby, having a car seat, and transfer to the maternity unit following delivery. These notes are very brief, with only a few words or a tick beside each item.

19. Ms C's last two entries on the "Report" form are a retrospective review of events over the previous couple of weeks, but the entries are undated and not recorded as being written in retrospect. Ms C told HDC that she wrote both entries on the same day, sometime after the due date. She said that she started discussing induction with Ms A from 38 weeks' gestation but did not document this until possibly the day before the delivery. Ms C explained that she wrote the last two entries "together" rather than "day-by-day-by-day".

20. In response to Ms A's complaint, Ms C created a timeline of what occurred, including what was discussed at each antenatal appointment. The timeline included information that was either not documented at all or documented only in Ms C's last two entries on the "Report" form.

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[6] GROW (gestation related optimal weight) is the software used to generate a customised antenatal growth chart. The chart is based on the calculation of an individualised weight standard for the duration of the pregnancy, adjusted for the physiological variables of maternal height, weight in early pregnancy, parity (number of times the mother has given birth) and ethnic group.

[7] On 14 September 2011, the New Zealand College of Midwives wrote to HDC to advise that the use of GROW charts is not mandatory and there has been much discussion on their use. The College was drafting a consensus statement on fetal assessment.

[8] An ultrasound report on 22 June 2010 recorded Ms A's height as 152cm, which gives a BMI (body mass index) of 27 at the start of her pregnancy, which is classified as overweight but not obese.

[9] Ms A was a smoker and continued to smoke during her pregnancy. Smoking is a known cause of intrauterine growth restriction (IUGR), which requires close monitoring of fetal growth.

[10] Gestation refers to the age of the fetus in the uterus. Delivery generally occurs at approximately 40 weeks' gestation. A woman is considered post-mature at 41 weeks' gestation and induction should be considered.

Latent labour

Reports of pain

21. Nine days before her due date, Ms A began experiencing pain and telephoned Ms C to find out what to do. Ms A recalls Ms C telling her to take a couple of paracetamol and to get some sleep, as this was normal. The pain continued for the remainder of Ms A's pregnancy.

Reports of show

22. On the same day, Ms A also reported having a small amount of pale pink show,[11] which Ms C advised her was normal. Ms A had two further shows that week, which were paler than the first. Ms C asked Ms A to bring in her pad or toilet paper so she could check the show. Ms A recalls that she was unable to do so.

Position of the fetus

23. Six days before her due date, Ms A saw Ms C for her next (eleventh) antenatal visit. Ms C documented: "Some show since Monday [none] today." Ms A's baby was in the cephalic right occipito posterior (ROP) position[12] and the fetal head had not descended into the pelvis.[13] Ms C told HDC:

> "[Occipito-Transverse/Occipito-Posterior] positions with a high fetal head at term are fairly common and in my experience many midwives will not act on that apart from advising exercises, sitting positions, leaning forward and getting down on all four limbs; with the hope that the baby may turn. It is very often the fetal head remains high even in well-established labour, and that is often managed by augmentation to encourage [descent]."

Increasing pain

24. Five days before her due date, Ms A's pain worsened and she became emotionally and physically drained. Ms C continued to advise Ms A to take paracetamol, and to exercise and rest. Ms A said that when she told Ms C that the paracetamol was not working, Ms C told her that it was not supposed to work. Ms C denies saying this. Ms A stopped taking paracetamol. However, Ms C advised her on at least two further occasions to take paracetamol and to rest.

25. Ms C told HDC that Ms A was experiencing "a prolonged latent phase which meant she experienced labour-like symptoms on occasion without actually going into labour over an extended period, which is quite tiring and stressful for the woman, especially

[11] A "show" is the appearance of blood-tinged mucus created by the extrusion and passage of the jelly-like plug of mucus that seals the cervix during pregnancy. A show can occur up to a couple of weeks before a woman gives birth. There can also be an increase in vaginal discharge a week or more before labour commences. All of this may be normal.

[12] The baby was head down and facing forward. In an occipito posterior position, labour becomes prolonged and more operative interventions are deemed necessary. The prevalence of the persistent occipito posterior position is approximately 4.7%.

[13] The baby's head had not engaged into the pelvis, in part because it was in the ROP position. This increases the likelihood of slow labour progression and increased likelihood of needing a Caesarean section.

in a first pregnancy". After receiving a copy of the independent midwifery expert's advice, Ms C subsequently told HDC:

> "One might say she had a prolonged latent phase — but in my opinion she was not in labour at all. I have had my hand on her abdomen for long periods and had not managed to feel any contractions on palpation, [Ms A] said that she 'only felt them sometimes' that was not enough to confirm she was in labour, however not much could be done apart from reassurance and advice example: Panadol, warm baths, walks, exercises, breathing, hydration, forms of relaxation therapy etc."

Twelfth antenatal appointment

26. On Ms A's due date, she called Ms C regarding having possible contractions, and they met at the maternity unit. Ms C said she did a vaginal examination at Ms A's insistence. Ms A recalls Ms C performing a stretch and sweep procedure.[14] Ms C documented "managed to get in 1 finger [into cervix] tightly tried to stretch small show". Ms A was 2cm dilated and was told that she was not in labour. She was advised to take Panadol for pain relief and to take a bath to relax. Ms C documented her discussion with Ms A and the results of the examination. Ms A recalls having a yellow-green discharge on her pad on her due date, and that the discharge continued. Ms A believes Ms C saw the discharge but did not comment on it. Ms C does not recall seeing a discharge and did not document anything in relation to a discharge at this appointment.

Thirteenth antenatal appointment

27. Two days later, Ms C examined Ms A and told her, and documented, that she was in early labour but was only 2cm dilated. Ms C recorded on the "PRE-NATAL" form that the baby's fetal heart rate (FHR)[15] was 142 beats per minute (bpm) and Ms A's blood pressure was 120/82mmHg.[16] No other notes were made of the examination, and no discussion was recorded in the progress notes.

Day of delivery

28. The following morning, Ms A contacted Ms C when her contractions were two to three minutes apart. At 10.30am, Ms C examined Ms A at the maternity unit. Ms A recalled being told that she was still only 2cm dilated. Ms C told Ms A to return home, have a bath and return at 3pm. Ms C noted "no show" and "some discharge" but not the colour of the discharge.

29. At 2pm, Ms C telephoned Ms A's home, spoke to Ms A's mother, and asked if Ms A and her mother could meet Ms C at the public hospital at 3pm, as it was more convenient for Ms C than the maternity unit. Ms A was at a friend's house having a bath at that time. Ms C told HDC that she arranged this meeting because she was going on leave for the weekend and wanted to make a plan for Ms A.

[14] An internal examination during which the midwife "sweeps" a finger around the neck of the cervix to stimulate and/or separate the membranes around the baby from the cervix. This causes a release of prostaglandins, which can help to start labour.
[15] The normal fetal heart rate is between 120 and 160 beats per minute.
[16] Normal blood pressure ranges between 90/60mmHg and 140/90mmHg.

The public hospital

Initial monitoring

30. At 3pm, Ms A and her mother arrived at hospital and saw Ms C at 3.20pm. Ms A and her mother were taken through to the assessment/delivery room, and CTG monitoring was started. At 3.30pm, Ms C summarised the day's events in the progress notes, and then wrote:

> "Now at [Hospital]
> CTG commenced.
> Base line 150[17] a bit of a sleepy trace[18] — good variability with a contraction.[19]
> Contracting 1:6.[20] very short duration."

31. Ms C told HDC that Ms A was lying on her back when the CTG was started. Ms C noticed the deceleration[21] on the trace and asked Ms A to lie on her side. Ms C noted on the CTG when Ms A changed positions, as this can alter the readings. Ms C told HDC that at the time she wondered whether the deceleration was due to pressure on the umbilical cord from Ms A lying flat on her back, or pressure on the baby's head.

Internal examination

32. Around 4pm, Ms C performed an internal examination. Ms C asked Ms A whether her waters had broken while she had been in the bath as she could no longer feel them. Ms A said that she did not know if her waters had broken. Ms C told HDC that during the internal examination she noticed a small amount of "limey" coloured discharge on the examination glove, which she wiped on a sanitary pad. Ms C said that it did not smell like amniotic fluid[22] and she was not sure what it was.

33. Ms A told HDC that her contractions had slowed down. She also recalls her mother asking Ms C what was happening and why there was green discharge on Ms A's pad. Ms A recalled that Ms C said she did not know and kept sniffing the pad. Ms A recalled Ms C asking whether she had an infection or was itchy and then leaving the room with the pad. Ms C took the pad to show Ms D, the charge midwife on duty.

34. Ms C told HDC:

> "[Ms A] made no mention of a yellow discharge until after being admitted to [hospital]. … At [hospital], it was the usual [sic] yellow colour of the discharge that initially was cause for concern and which was why I requested the charge midwife to attend."

[17] Fetal baseline heart rate of 150bpm (beats per minute). The normal range is 110–160bpm.
[18] A sleeping fetus will have a reduced variability in heart rate.
[19] A healthy fetus's heart rate will abruptly increase or decrease in response to a contraction.
[20] One contraction every six minutes.
[21] A deceleration is an abrupt drop in the fetal heart rate of >15bpm (beats per minute) for >15 seconds.
[22] The fluid surrounding the fetus.

Review by charge midwife

35. At 4.45pm, Ms D came into the room as she was concerned about the discharge on the pad that she had been shown. Ms D confirmed that the discharge was meconium.[23] Ms D documented that she was asked to review the CTG, which was non-reassuring[24] with reduced variability[25] and variable decelerations.[26] Ms D told HDC that the CTG trace had been abnormal from the beginning. A decision was then made to call the obstetric registrar, Dr E.

36. Ms C told HDC that while she was waiting for the obstetric registrar to arrive, she started preparing Ms A for surgery. Ms C said: "Being with her and getting the ball rolling was more important than getting [to write] the notes." There was no formal handover of care from Ms C to the hospital staff, and Ms C continued to assist hospital staff.

Review by obstetric registrar

37. Dr E arrived at 4.50pm, saw the meconium on the pad, and reviewed the CTG, documenting that it was non-reassuring with "[p]rolonged variable [decelerations], slow recovery with all contractions" and "[n]o [accelerations]". Dr E's impression was fetal distress in early labour and, after discussion with the consultant obstetrician, at 5pm Dr E called for an emergency Caesarean section. Dr E told Ms A that her baby needed to be delivered urgently as it was not recovering from the contractions. Dr E recalls Ms A's mother saying that her daughter had been in labour for too many days, to which Dr E replied that it was not unusual for a first-time mother to experience contractions for a number of days before going into established labour.

38. Ms C told HDC that she could have sought help earlier when the first deceleration occurred but believed that if she had done so she would have been told to turn Ms A on her side to see whether the trace improved.

Delivery

39. Ms A's baby was delivered by Caesarean section and taken to the neonatal intensive care unit, where she remained for a week. The baby had swallowed meconium and was diagnosed with respiratory distress. The baby weighed 2280 grams, which is classified as having intrauterine growth restriction (IUGR).[27] Dr E told HDC that the placenta was "very gritty",[28] which would probably explain the baby's distress and the passing of meconium.

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[23] Meconium is the contents of the lower bowel of a fetus. The presence of passed meconium during labour may indicate fetal distress.

[24] CTG traces can be classified as normal, non-reassuring or abnormal based on the observed baseline heart rate, variability, decelerations and accelerations.

[25] Normal variability refers to the variation in heart rate from one beat to the next. Normal variability is between 10–25bpm. Non-reassuring variability is <5bpm for between 40–90 minutes, and abnormal variability is <5bpm for >90 minutes.

[26] Variable decelerations are rapid falls in baseline fetal heart rate with a variable recovery phase, and are often caused by umbilical cord compression.

[27] Fetal growth below the average expected for the gestational age.

[28] A "gritty" (calcified) placenta is a sign of advanced maturity and decreased efficiency, and may be caused by smoking during the pregnancy.

40. Ms C attended the delivery.

Postnatal period

41. Ms C advised Ms A that her colleague would visit Ms A over the weekend, as Ms C was off duty, and Ms C would then visit Ms A.

42. The day following delivery, Ms A's baby had a seizure and was put on a cooling blanket for 72 hours.[29] Ms A was not able to hold her baby until after the baby came off the cooling blanket two days later.

43. Ms C visited Ms A after her weekend off and there was a lengthy discussion about smoking. Ms A subsequently decided against using Ms C for her postnatal care and was placed under the care of the DHB LMC Team.

44. In contrast to her antenatal notes, Ms C's postnatal notes are more detailed and include what she discussed with Ms A.

Initial response to complaint

45. After receiving a copy of Ms A's complaint, Ms C wrote to Ms A on 23 February 2011. In her letter, she said that her perception of events was different from those of Ms A and apologised "that the care [she] provided did not meet [Ms A's] expectations".

Further training

46. Ms C informed HDC that she sought guidance from her professional colleagues about the care she provided to Ms A. Ms C also discussed Ms A's complaint at her Midwifery Standards Review in March 2011. The areas for improvement that were identified included:

- CTG reading skills; and
- documentation, including fundal heights and distinguishing between contemporaneous notes and notes written in retrospect.

47. Ms C said that in hindsight she should have contacted the consultant obstetrician 30 minutes earlier. She also re-read her notes from a Technical Skills Study Day and realised that her documentation did not meet accepted standards.

48. Ms C subsequently:

- attended a Fetal Surveillance Education Programme on 31 May 2011;
- participated in a Special Midwifery Standards Review;
- attended a "Dotting the 'I's and Crossing the 'T's" documentation workshop in November 2011;

[29] The baby was diagnosed with Hypoxic Ischaemic Encephalopathy Grade II (bleeding into the brain's ventricular system), which is common in very low birthweight babies. Grade II does not necessarily lead to further complications.

- changed her practice regarding CTG monitoring, including when to seek a second opinion on traces; and
- started using GROW charts.

Relevant professional standards

49. The relevant professional standards from the New Zealand College of Midwives (NZCOM) *Midwives' Handbook for Practice* (2008) state:

> "**Standard Three**
>
> The midwife collates and documents comprehensive assessments of the woman and/or baby's heath and well-being.
>
> …
>
> **Standard Four**
>
> The midwife maintains purposeful, ongoing, updated records and makes them available to the woman and other relevant persons.
>
> *Criteria* [under this standard include]
> The midwife:
>
> - reviews and updates records at each professional contact with the woman
> - ensures information is legible, signed and dated at each entry
>
> …
>
> **Standard Six**
>
> Midwifery actions are prioritised and implemented appropriately with no midwifery action or omissions placing the woman at risk.
>
> *Criteria* [under this standard include]
> The midwife:
>
> - identifies deviations from the normal, and after discussion with the woman, consults and refers as appropriate
>
> …
>
> **Standard Seven**
>
> The midwife is accountable to the woman, to herself, to the midwifery profession and to the wider community for her practice.
>
> *Criteria* [under this standard include]

The midwife:

- clearly documents her decisions and professional actions."

50. Midwives must maintain their competencies at the level of entry to the Midwifery Register. The relevant competency for entry to the Register of Midwives as outlined by the New Zealand College of Midwives *Midwives' Handbook for Practice* (2008) states:

"**Competency Two**

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

Performance criteria [under this competency include]
The midwife:

2.8 recognises and responds to any indication of difficulty and any emergency situation with timely and appropriate intervention, referral and resources.

2.15 shares decision making with the woman/wahine and documents those decisions.

2.16 provides accurate and timely written progress notes and relevant documented evidence of all decisions made and midwifery care offered and provided."

51. In addition, the New Zealand College of Midwives electronic document *Booking Guidelines*,[30] in setting out the process and considerations when a midwife LMC "books" a woman for LMC midwifery care, states:

"2.3 Documentation

… [women held maternity notes] remain with the woman throughout her maternity care episode and contain all of the information (including test results, clinical assessments, information offered, decisions made, and care plan) required to inform the woman's care.

... Women hold their notes throughout the pregnancy and they are maintained by the midwife to provide a contemporaneous record of the maternity care …"

52. Section 2.3 also states:

"Midwifery responsibilities in relation to documentation are governed by:

- NZCOM Code of Ethics, Standards of Practice and Philosophy

[30] Ratified at the New Zealand College of Midwives Annual General Meeting of 11 September 2008. See http://www.midwife.org.nz/index.cfm/3,108,559/nzcom-booking-guidelines-final-sept-08.pdf

- Midwifery Council Competencies for Entry to the Register of Midwives
- The requirements of the Code of Health and Disability Services Consumers' Rights
- The requirements of the Privacy Act 1993 and the Health Information Privacy Code 1994
- The requirements of the Health (Retention of Health Information) Regulations 1996
- The requirements of the Section 88 Primary Maternity Services Notice."

Opinion: Breach — Ms C

53. As Ms A's LMC, Ms C was responsible for Ms A's care during her pregnancy and postpartum period until Ms A's care was transferred to the DHB's LMC team. Ms C was also responsible for keeping clear and accurate records about the care she provided to Ms A.

54. Under Right 4 of the Code, Ms A had the right to receive services of an appropriate standard. In many areas of her care, Ms C complied with this obligation. However, I consider that she did not manage Ms A's labour or antenatal assessment and monitoring appropriately, particularly in relation to her interpretation of the CTG, and therefore Ms C breached the Code. My reasons for this view are set out below.

CTG reading

55. Ms C documented that the CTG trace was "a bit of a sleepy trace — good variability with a contraction", whereas Ms D and Dr E interpreted the CTG as having been abnormal from the beginning. My independent midwifery expert, Robyn Maude, stated that "[Ms C] clearly does not understand and cannot interpret electronic fetal heart monitoring (CTGs)". Ms C later told HDC that she was concerned about the decelerations and asked Ms A to change position, which Ms C documented on the trace. She said she believed that she would have been advised to do this if she had requested assistance.

56. Ms C failed to exercise reasonable care and skill in interpreting Ms A's CTG in that she failed from the outset to recognise that the CTG was non-reassuring and, for the next hour, continued to fail to recognise that the CTG was non-reassuring. This resulted in a delayed referral to the specialist team. Standard six of the New Zealand College of Midwives' publication *Midwives Handbook for Practice* (2008) states that the midwife "identifies the deviations from normal, and … consults and refers as appropriate".

57. Ms C should have been able to identify a non-reassuring CTG. The interpretation of CTGs is a core competency and is expected of any midwife. As this Office has said

previously:[31]

> "Experienced midwives should know that late decelerations are ominous because they suggest fetal compromise. [Ms F] was an experienced midwife. However, it is clear that she did not recognise that the CTG was non-reassuring and that closer surveillance was required. [My expert advisor] advised that consultation should have occurred when there was persistent early to late decelerations and a rising baseline and reduced variability."

58. I conclude that Ms C breached Right 4(1) of the Code by failing to interpret the CTG correctly.

Antenatal assessment and monitoring

Growth

59. Ms A was a smoker and continued to smoke throughout her pregnancy. Ms Maude advised that as smoking is a well known cause of IUGR, Ms C should have monitored the fetal growth more closely, preferably using a GROW chart. Ms Maude stated:

> "The use of the GROW chart requires the measurement of the symphiso-fundal height from 24 weeks gestation so it can be plotted on the GROW chart. Palpation of the maternal abdomen and estimation of fetal growth clinically by measuring the fundal height have always been a routine part of the antenatal assessment. Over recent decades this measurement has been conducted using a tape measure. Whilst not yet mandatory in New Zealand, individual growth charts are strongly recommended by the [Perinatal and Maternal Mortality Review Committee] 3rd Report 2008–2009, and [t]his information has been 'out there' for some time."

60. Ms Maude advised that if Ms C had generated a customised GROW chart, she may have detected that Ms A's baby was likely to have IUGR and ordered a growth scan and/or referred Ms A to an obstetrician.

61. Ms C said that she was unfamiliar with the use of GROW charts, and the New Zealand College of Midwives has advised that their use is not mandatory. Nevertheless, I consider that Ms C's monitoring of the fetal growth was inadequate. I note that Ms C now uses GROW charts with all her clients.

62. Ms Maude advised that "[b]abies with IUGR are known to also have reduced liquor volume and do not tolerate the stress of labour well". As Ms A was at greater risk of having an IUGR baby it would have been prudent to have ordered one or more growth scans late in her pregnancy, rather than rely on the fundal height measurements alone. A growth scan would also have measured the amount of liquor around the fetus.

Latent labour

63. In her further advice, Ms Maude advised that the management of Ms A's latent labour was less than ideal. Ms Maude said that there were several clues that should have alerted Ms C to undertake a more comprehensive assessment during the two weeks of

[31] Refer: http://www.hdc.org.nz 05HDC17106, 30 April 2007, p.23.

apparent latent labour, including Ms A's smoking status, the persistent Occipito-Transverse/Occipito-Posterior position of the fetus, and the high fetal head at term. In Ms Maude's opinion a CTG should have been done which, if non-reassuring, should have prompted further evaluation and consultation. In Ms Maude's opinion, the antenatal care provided by Ms C to Ms A would be viewed with mild to moderate disapproval by her peers.

Conclusion

64. In my view, Ms C's monitoring of Ms A's pregnancy, and Ms C's assessment of the risk factors of Ms A's smoking, long latent labour and position of the fetus, were superficial and inadequate. Ms C did not take adequate steps in light of the risk factors and, by not doing so, breached Right 4(1) of the Code.

Antenatal documentation

65. The relevant midwifery standards, competencies and responsibilities in relation to documentation are clear. There is an explicit expectation that midwives document all test results, clinical assessments, information offered, decisions made and care plans. These records should provide a contemporaneous record of a woman's care, and each entry should be signed and dated.

66. Ms C's documentation during the antenatal period was minimal and inadequate. Ms Maude was unable to comment fully about the quality of care Ms C provided to Ms A throughout her pregnancy and labour because of the poor documentation. Ms Maude advised that there are "areas of antenatal documentation and assessment that are missing" from Ms C's notes, including maternal height and symphisio-fundal height measurements.

67. Ms C said that she measured Ms A's fundal height with a tape measure and used that to check progress, although she concedes that this is not clear in her notes. No fundal heights were recorded. Instead, an "=" sign was recorded in the calculated gestation column.

68. As previously stated by this Office, "health professionals are required to keep accurate, clear and legible clinical records. They are a record of the care provided to the patient and clinical decisions made, and enable other health professionals to coordinate care."[32] In my opinion, Ms C's documentation of Ms A's antenatal period would have provided little assistance to the other health professionals involved in her care.

69. Ms C has acknowledged that her documentation was inadequate. I note that Ms C has subsequently undergone a Midwifery Standards Review, which included her documentation, and attended a course on documentation.

70. In my view, Ms C failed to comply with professional standards of documentation and, accordingly, breached Right 4(2) of the Code.

[32] See Opinion 07HDC16053 (10 June 2008), p 11.

Pain management

71. Ms A recalls contacting Ms C nine days before her due date because she was experiencing pain. Ms C did not document this conversation. In her entry for the due date, Ms C noted that Ms A "reported a few pains over the previous few days and she was getting upset and frustrated". Ms C did not document her advice on pain relief but noted: "I reassured [Ms A] she was not yet in labour and sent her home asking her to call me whenever she needed." Ms A recalls being advised to take paracetamol, which did not work. She recalls Ms C telling her that it was not supposed to work. Ms C denies telling Ms A that paracetamol was not supposed to work.

72. Ms Maude advised that it was appropriate to recommend paracetamol in the early stages of labour. Ms Maude explained that paracetamol is not expected to take away the pain of labour but, in the early stages, may be sufficient to allow the woman to relax. Ms Maude concluded that the pain relief options given to Ms A were appropriate. I am satisfied that Ms C's instructions for pain management were appropriate, although her communication with Ms A regarding the reason for suggesting this medication could have been better.

Show/discharge

73. Ms C documented that Ms A reported having a "show (slight discharge)" nine days before her due date. Ms A recalls having a "yellow/green discharge" on her pad from her due date, which she believes Ms C saw but did not comment on. Ms C documented a "small show" at this visit but did not document a discharge. Ms C told HDC that she did not see a discharge during her examinations of Ms A on her due date.

74. Ms Maude advised that if Ms C was informed by Ms A of the presence of a yellow-green vaginal discharge and did not undertake a further assessment, this would have been a departure from accepted midwifery practice. However, I consider that there is insufficient information to determine whether Ms C breached the Code in this regard.

Conclusions

75. Ms C failed at the outset to recognise that the CTG was non-reassuring and, for the next hour, continued to fail to recognise that the CTG was non-reassuring. Ms C's assessment and management of the potential risk factors of Ms A's smoking, long latent labour and position of the fetus were superficial and inadequate, and Ms C did not take adequate steps in light of the risk factors. Accordingly, I consider that Ms C breached Right 4(1) of the Code. The quality of Ms C's antenatal documentation was not of an appropriate standard and, in my opinion, breached Right 4(2) of the Code.

Recommendations

76. In my provisional opinion, I made the following recommendations:

1. Ms C provide a written apology to Ms A for her breaches of the Code.

2. Ms C repeat the Fetal Surveillance Education Programme, if she achieved a mark of less than 70% in the test she completed at the end of the programme, by 22 September 2013.

3. Ms C provide me with evidence that she has attended an appropriate course on documentation.

77. In response to my provisional opinion, Ms C advised that she had no comment, and:

1. in relation to recommendation 1, provided me with a written apology to forward to Ms A; and

2. in relation to recommendation 3, provided me with evidence that she has attended an appropriate course on documentation.

78. Ms C advised that she has decided to cease practising midwifery and will not be renewing her practising certificate at the end of March 2013. I have asked the Midwifery Council of New Zealand to inform me if Ms C does renew her practising certificate in the future, at which point I would follow up recommendation 2.

Follow-up actions

79. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Midwifery Council of New Zealand, and it will be advised of Ms C's name. The copy of the report will be accompanied by a recommendation to the Council that, in the event that Ms C does renew her practising certificate, it inform me of this and undertake a competency review of Ms C.

80. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the New Zealand College of Midwives and the DHB, and they will be advised of Ms C's name.

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

Appendix A — Independent midwifery advice to the Commissioner

The following expert advice was obtained from midwife Robyn Maude:

"My name is Robyn Maude. I am a registered midwife (RM) with 34 years experience in diverse settings and roles. I trained as a nurse in Adelaide, South Australia from Sept 1971-Jan 1975 and completed a one year midwifery qualification in 1976, also in Adelaide.

I have a Bachelor of Nursing for Registered Nurses from Wellington Polytechnic in 1996 and Master of Arts (Applied) Midwifery from Victoria University of Wellington in 2003. My master's thesis was a narrative inquiry into women's experience of using water for labour and birth. I am currently a PhD candidate at Victoria University of Wellington. My research interest is in fetal heart monitoring. I will complete the PhD this year.

I am employed at Capital and Coast District Health Board (C&CDHB) as the Associate Director of Midwifery and seconded to the Graduate School of Nursing, Midwifery and Health, Victoria University of Wellington as a lecturer. I coordinate the Post-Graduate Certificate in Midwifery (Complex Care) and supervise midwifery research students. I provide LMC care to a small caseload of women.

I have been asked to provide preliminary expert advice to the Commissioner on case number C11HDC00098. I have read and agree to follow the Commissioner's guidelines for Independent Advisors. I confirm that I have thoroughly read all the material provided to me as listed in appendix one.

The purpose of this advice is to enable the Commissioner to determine whether, from the information available, there are concerns about the midwifery care provided by [Ms C] to [Ms A]. In particular:

- Did [Ms C] adequately address [Ms A's] complaint of persistent yellow discharge from about [her due date], and particularly on [the day of delivery]?

- Did [Ms C] manage [Ms A] appropriately given the appearance of her CTG from l530hrs on [the day of delivery]?

Summary of events
[Ms A], a 22 year old G2 0 (prev. TOP), had an expected date of delivery (EDD) of [date] based on scan at 12 weeks on [date]. She received antenatal care from LMC midwife [Ms C]. Blood group A positive; 1 trimester maternal serum screening low risk and other blood tests normal. There were 13 documented antenatal visits. [Ms A] reported pains and show [at 39^2 weeks gestation].

There was an antenatal assessment at [a] Maternity Unit on [the due date], because [Ms A] had a history of some contractions and was quite upset and frustrated. The findings of a vaginal examination (VE) revealed her cervix to be posterior in

position, long (2cms), soft and able to admit 1 finger. The baby's head was high. There were abdominal tightenings, mild on palpation. The fetal heart rate (FHR) was 'excellent' at 140 bpm. [Ms A] was reassured by midwife [Ms C] and sent home.

[At 40[2] weeks gestation] [Ms A] was thought to be in early labour. On abdominal palpation, the baby was cephalic presentation and in a ROP position. A VE revealed the cervix to be 2cms dilated.

[Three days later] at 40[3] weeks, [Ms A] was seen at 1030 and found to be contracting every 46 minutes lasting 60 seconds. A VE revealed the cervix to be 90% effaced, stretchy, soft and 2cms dilated. There was no show, but some discharge was noted.

[Ms A] was admitted to [Hospital] at 1530 [that day] with a history of strong contractions since 0800hrs, with intact membranes and no show reported. On examination the contractions were felt to be weak and coming every 5 minutes. A cardiotocograph (CTG) was commenced to monitor contractions and fetal heart rate. Initial assessment of the FHR was documented by midwife [Ms C] as baseline 150 bpm, 'a bit of a sleepy trace, good variability with a contraction'. The Charge Midwife Manager was consulted regarding the CTG at l645hrs and the on call consultant was called. The obstetric registrar saw the CTG at 1650 and advised an immediate emergency caesarean section be performed. A female baby was delivered at 1806hrs, weighing 2250gms, with Apgar scores of 5 at 1 minute, 7 at 5 minutes and 9 at 10 minutes. The baby was transferred to Neonatal Unit for ongoing treatment. The baby received, amongst other things, CPAP and cooling treatment and was discharged [a week later]. Diagnoses were respiratory distress, meconium exposure at birth, HIE grade II seizures/abnormal tone and posturing, hypoglycaemia, pneumothorax and pnuemomediastinum, hyponatraemia and IUGR. Postnatal follow-up was arranged. [Ms A] had a straight forward post CS recovery.

Did [Ms C] adequately address [Ms A's] complaint of persistent yellow discharge from about [the due date], and particularly on [the day of delivery]?

The antenatal record of [six days prior to due date] (39[2] wks) notes, 'some show since Monday'. The show is not described by the midwife or [Ms A] in her letter. A show is usually understood to be an increased vaginal mucous discharge, often streaked with blood - either old blood, brown in colour or bright blood associated with tightening of the uterus (Braxton Hicks contractions) or contractions that increase in frequency and intensity at or around term (37—42 weeks gestation). A show is considered to be one of the early warning signs that labour is approaching as it demonstrates there are cervical changes occurring i.e. softening and effacing. Not all women are aware of or have a show and women having their first baby may have a show some days before going into established labour. It would not be considered necessary for the midwife to actually see evidence of the show, but she would ask the woman questions about the presence of contractions, fetal movements and whether there was any discharge of fluid from the vagina, including the colour of the fluid, which might indicate the membranes had

ruptured. At the antenatal assessment [six days before the due date] the midwife notes the presence of the show and records the FHR as 142 bpm and the presence of fetal movements. She writes in her notes that there is no show seen on this day.

At the antenatal assessment on [the due date] [Ms A] is seen at [the] Maternity Unit with a history of contractions for a few days which were causing her to become upset and frustrated. The midwife notes the FHR to be satisfactory (noted by way of a tick) with a rate of 140 bpm, and palpated mild abdominal tightening were felt to be weak. [Ms A] requested a vaginal examination that the midwife felt was not warranted but agreed to perform. The cervix was found to be very posterior, 2cms long, soft and the baby's head to be high (noted as an arrow pointing up). The midwife moved the cervix forward and was able to admit 1 finger tightly to the external os of the cervix (which equals about 1cm dilatation). She tried to stretch the cervix and noted a show (but there is no documentation of a yellow/green discharge at this time). The findings of abdominal and vaginal assessment are consistent with what is known as latent labour. Latent labour is a period of time when the woman experiences uterine tightening or contractions that may be regular or irregular, but usually of short duration, and a vaginal show. It can be a very confusing time for women, especially those having their first baby, and it is common for women to need time, support and reassurance for labour to establish and become progressive.

[At 40^{2} weeks] [Ms A] was thought to be in early labour. The baby was noted to be in right occipito-posterior (ROP) position with good fetal movements and a FHR of 142 bpm. A VE revealed the cervix to be 2cms dilated and ½cm long and while it is not noted in the antenatal record, the midwife later writes in a timeline table, present in the bundle of notes available to me, that there was no show and the membranes were intact. This cervical change indicates progress from the previous examination and [Ms A] was advised to take Panadol and a warm bath or shower and to relax. She was advised that the midwife LMC was on leave over the weekend.

On 10.30am [at 40^{3} weeks] gestation [Ms A] was seen by the midwife at [the] Maternity Unit as she was thought to be in labour. The FHR was noted to be 140 bpm and there were irregular contractions, stronger than the previous day, coming every 4-6 minutes and lasting 60 seconds. On VE, her cervix was found to be 90% effaced, stretchy and 2cms dilated. The midwife performed a stretch and sweep and noted there was no show, but some discharge — the discharge is not described. In the midwife's timeline table she notes the membranes were intact.

Later [that day] at 1530 hrs, [Ms A] was admitted to [Hospital] with a history of strongly contracting since 0800. It is documented that there was no show and the membranes were intact. The registrar notes related to her assessment at 1650 hrs in relation to an urgent call to review the CTG records a yellow discharge on pad ?meconium. This is the first time the discharge has been described as yellow or the possibility that it represents meconium staining.

Between [the due date and the date of delivery] (1030hrs) [Ms A] received 3 vaginal examinations from her midwife and there was no documentation of a yellow vaginal discharge. While the midwife has documented the presence of a show from [six days prior to due date], she has not recorded the presence of a yellow vaginal discharge in [Ms A's] antenatal notes. Nor does she make reference to any yellow vaginal discharge in her timeline table. The first documentation of a vaginal discharge was at the 1030am assessment at BDMU on the [day of delivery] — this discharge is not described.

If the midwife had been aware of a yellow vaginal discharge, the usual response would have been to ascertain, as much as possible, the nature of the vaginal discharge i.e. increased leucorrhoea, infection, and show or ruptured membranes. This would be done by questioning the woman as to the possibility of the waters breaking and whether there was an itch associated with the discharge. Sometimes a vaginal examination using a speculum is performed to determine whether there is any fluid pooling around the cervical entrance and a swab taken if indicated. As none of these assessments were made, it could be assumed that the midwife did not witness any yellow vaginal discharge or had not been made aware of the possibility. If the midwife had been informed by the woman of the presence of a yellow/green vaginal discharge since the [due date] and had not undertaken further assessment, this would be a departure from accepted midwifery practice.

There remains a discrepancy between the recollection of the midwife and the recollection of the woman is relation to the presence of a yellow discharge that is unable to be resolved from the documentation I have before me.

Did [Ms C] manage [Ms A] appropriately given the appearance of her CTG from 1530hrs on [the day of delivery]?

Following admission to [Hospital] on [the day of delivery] at l530hrs, the CTG was commenced at 1537hrs and is described by midwife [Ms C] as, '"Baseline 150, a bit of a sleepy trace - good variability with a contraction. Contracting 1:6 very short duration'.

Using the RANZCOG fetal surveillance guidelines, my assessment of the first 24 minutes of CTG is as follows:

Date	**Time**	**Variables**	**Assessment**
[day of delivery]	1537 - 1601	Contractions	irregular
		Baseline rate	155 bpm
		Variability	3 - 5 bpm Reduced
		Accelerations	none

		Decelerations	Complicated variable decelerations lasting 2-2½ minutes duration
		Overall assessment	**Abnormal with features very likely to be associated with fetal compromise and require immediate management, which may include urgent delivery**

The midwife's assessment of this strip of CTG trace is therefore completely incorrect and deeply concerning given the appropriate action, outlined in the guidelines, is for immediate action and possible urgent delivery.

There was another 45 minutes of CTG tracing demonstrating a rising baseline fetal heart rate (FHR), reduced/absent baseline variability and continuing complicated, prolonged, variable decelerations before midwife [Ms C] sought the advice of a senior midwife in the delivery suite. In her timeline table, midwife [Ms C] states that at 4.45 (1645hrs) both she and the charge midwife manager "noted **a** deceleration in the fetal heart rate which was non-reassuring so we called the obstetrician". There had, however, been FHR decelerations present on the CTG from the moment it was put on – 1hr and 8 minutes previously.

In midwife [Ms C's] timeline table she notes at 4.00pm that the FHR was 140 bpm, which is also documented in the VE section of the maternal partogram, and that on VE she could not feel the membranes in front of the fetal head. She notes a yellowish discharge and appears to have questioned [Ms A] about the timing of a possible spontaneous rupture of the membranes. The note regarding the FHR being 140 bpm is clearly inaccurate given the assessment above, the actual FHR on the CTG trace and FHR noted in the woman's notes (150 bpm).

Midwife [Ms C] clearly does not understand and cannot interpret electronic fetal heart monitoring (CTGs). According to the Access Agreement, midwives are responsible for having the appropriate clinical competencies contained therein (including the interpretation of CTGs) if they provide a woman with any of the procedures listed in the document, and they must inform the facility of this competency (Section 88, p. 1109). Midwife [Ms C's] failure to interpret the CTG of [Ms A] on admission to the maternity unit contributed to a delay in seeking help for this woman and baby and is a serious departure from accepted midwifery practice.

Antenatal care

It is also important to make note of the antenatal care leading up to the birth of this baby and how it may have contributed to decisions made or not made. Retrospectively, we now know the baby was very small for a term baby (birth weight 2280gms, <3rd centile) and is described as having intra uterine growth restriction (IUGR).

One of the key drivers for keeping a closer eye on the fetal growth was the knowledge that [Ms A] and her mother were smokers and that [Ms A] continued to smoke throughout pregnancy. Smoking is a well known cause of fetal IUGR, making close monitoring of fetal growth antenatally all the more important.

There are areas of antenatal documentation and assessment that are missing from midwife [Ms C's] notes. The maternal height and weight at booking allow the midwife to determine the woman's body mass index (BMI), which is required by the MOH on registration of the woman by an LMC. This information also provides important 'flags' for ongoing care and decision-making and can also be entered into a personalised GROW chart for the woman which enable the midwife to track the fetal growth throughout pregnancy (www.gestation.net). The use of the GROW chart requires the measurement of the symphiso-fundal height from 24 weeks gestation so it can be plotted on the GROW chart. Palpation of the maternal abdomen and estimation of fetal growth clinically by measuring the fundal height have always been a routine part of the antenatal assessment. Over recent decades this measurement has been conducted using a tape measure. Whilst not yet mandatory in New Zealand, individual growth charts are strongly recommended by the PPMRC 3rd Report 20082009, and [t]his information has been 'out there' for some time:

> GROW (gestation related optimal weight) charts:
> In order to improve the detection and outcomes of small for gestational age (SGA) babies:
>
> - LMCs should create GROW charts for women booking their services, and establish the existence or otherwise of previous SGA pregnancies, in order to manage current risk
> - fundal height measurements should be plotted on a woman's individualised growth chart (see, for example, the Gestation Network's website, www.gestation.net)
> - all women suspected to be carrying an SGA baby should have an ultrasound to check the baby's growth, and be referred appropriately if an SGA baby is confirmed (p. 5).

[Ms C's] antenatal notes for [Ms A] do not include symphisio-fundal height measurements. What they do record under the clinical column is an = sign next to the calculated gestation column, which should be interpreted as meaning the fundal height is clinically equal to the estimated gestation. This is a very subjective guesstimate at best. Retrospectively we now know that [Ms A's] baby had IUGR, which in all likelihood could have been detected on an individualised GROW chart and the appropriate action and referrals made.

The Competencies for a midwife, in particular competency #2 (Midwifery Council of New Zealand), requires that she 'applies comprehensive theoretical and scientific knowledge with the affective and technical skills needed to provide effective and safe midwifery care'. The Standards for Practice (NZCOM, 2008), no's 6 and 10 require the midwife to 'plan midwifery actions on the basis of

current and reliable knowledge...' and 'participates in on-going midwifery education and professional development' and 'shares research findings and incorporates these into midwifery practice'.

By not using all the assessment tools and information available, midwife [Ms C] may have missed the opportunity to make an early referral for scan and/or consultation regarding the baby's growth. Babies with IUGR are known to also have reduced liquor volume and do not tolerate the stress of labour well.

Note taking

I am concerned with the level of note taking antenatally in the woman's obstetric records, especially the running notes. The only narrative entries available are for the [due date] and [day of delivery], with the birth plan written on [the day of delivery]when [Ms A] was already 3 days past her EDD. The notes on the bottom of page 3 beginning with the words 'discussed smoking at length...' and over to page 4, appear to have been written retrospectively after the birth, because the writing style and potentially the pen used are different from the entry immediately prior. I believe there are elements of retrospective writing in the timeline table created by midwife [Ms C] as well. All retrospective entries require notation to that effect and are dated and signed; this has not occurred.

In summary

The antenatal care for [Ms A], whilst meeting the standard for number of visits and routine investigations, may have potentially missed some important aspects of surveillance in view of [Ms A's] smoking. An individualised GROW chart plotting regular symphisio-fundal height measurements may have alerted the midwife to consider further investigation and referral for consultation. It may also have alerted the midwife to pay closer attention to the fetal well-being once [Ms A] began signs of latent labour.

Latent labour is difficult for the woman and her family, but [Ms A] was seen and advised appropriately. However, whilst not routinely indicated in well women with uncomplicated pregnancies, a CTG may have been a useful assessment tool at this time, given her smoking history and the length of her latent labour. Fetal movements have been noted.

The admission CTG was clearly very abnormal and was not interpreted as such by midwife [Ms C], potentially contributing to a delay in seeking assistance.

[The comments following were deleted as not being relevant to the care provided by [Ms C].]

References

Maternity Services. (2007). Notice pursuant to section 88 of the New Zealand Public Health and Disability Act 2000. MOH

RANZCOG. (2006). Intrapartum fetal surveillance. 2nd ed.

Perinatal and Maternal Mortality in New Zealand 2007. Third report to the Minister of Health July 2008 to June 2009.

Appendix One — Information Reviewed

[This section has been removed for brevity.]"

Further advice

On 15 March 2012, Ms Maude provided the following further expert advice:

"The purpose of this advice is revise my preliminary report as necessary, in light of further documentation provided and to answer the following questions:

1. Were the midwifery services provided to [Ms A] appropriate?
2. What standards apply in this case?
3. Were those standards complied with?
4. Whether [Ms C] provided appropriate advice on pain relief to [Ms A] during the antenatal period?
5. Whether the remedial actions subsequently undertaken by [Ms C] as a result of this complaint are appropriate?
6. Please outline any further recommendations you may have to address the issues raised by this case.

1. Were the midwifery services provided to [Ms A] appropriate?

In my preliminary report, I commented on aspects of the antenatal assessment and documentation that were absent from the contemporaneous notes in [Ms A's] medical records supplied to me for this review. The aspects of care that I commented on were:

- Recording of the maternal height, weight and BMI on booking
- Use of an individualised GROW chart
- Measurement of symphysial-fundal height at antenatal visits (to be plotted on the GROW chart and in the maternal antenatal record)
- Note taking during antenatal visits

I have considered the responses from midwife [Ms C's] and the NZCOM legal office to these criticisms. The standards that apply to these aspects of care include: **Standard Seven: The midwife is accountable to the woman, to herself, to the midwifery profession and to the wider community for her practice.** Relevant criteria include: The midwife clearly documents her decisions and professional actions, and ensures her practice is based on relevant and recent research.

In regard to the first three bullet points, midwife [Ms C] has reported that she did measure fundal height with a tape measure during antenatal visits, but acknowledged that this was not clear in her notes. I accept this report, but would urge midwife [Ms C] to record the symphysial-fundal height in centimetres in the column of the antenatal record titled 'Clin.' rather than using the '=' sign. This measurement should also be recorded on the individualised GROW chart for each client.

Midwife [Ms C] has reflected on her assessment and documentation deficiencies and discussed this at Midwifery Standards Review (MSR) and undertaken training in communication and documentation. She has indicated that she will be using the GROW chart in future, which requires the maternal height, weight, BMI and ethnicity to be recorded. Midwife [Ms C] has indicated that she is focused on improving her note-taking in the future. She is to be acknowledged for her pro-active approach on these matters.

Whilst not mentioned in the preliminary report, it is my opinion that the management of [Ms A's] latent labour was less than ideal. There were several clues that should have provided alerts for midwife [Ms C] to undertake a more comprehensive physical and risk assessment during the 2 weeks of apparent latent labour. These alerts include [Ms A's] smoking status, the persistent OT/OP position of the fetus and the high fetal head at term. These last two aspects are correlated to the long period of time in latent labour. [Ms A] was seen by her midwife on several occasions, however, in the circumstances, I would have considered that assessment of fetal well-being by use of CTG was warranted. It is possible that an antenatal CTG during this phase might have demonstrated a non-reassuring finding prompting further evaluation and consultation.

The care that midwife [Ms C] provided did not meet the standards of antenatal care expected and would be viewed by her peers with mild to moderate disapproval.

In relation to the CTG monitoring, I stand by my original report. I have noted the comments made by midwife [Ms C] in her letter dated 11 Sept 2011 (page 0200 of the bundle). In point one, she comments: "I should probably have requested the O&G consultant to attend some 30 minutes earlier". The CTG was applied at 1537hrs and as I have described in the preliminary report, the tracing indicated it was abnormal from the time it was applied. The trace was seen by the charge midwife manager at 1645hrs. Even if midwife [Ms C] had called the O&G consultant 30 minutes earlier i.e. at 1615hrs, there would still have been 45 minutes of abnormal CTG where no action was taken.

I acknowledge that midwife [Ms C], on reflection and at the advice of her peers, has undertaken a RANZCOG Fetal Surveillance Education Programme (FSEP) training day since the initial report. The FSEP has a comprehensive test at the end of each training day and the participant is provided with her score along with feedback on the areas where there could be improvement. I would suggest that midwife [Ms C] reflect on her results at her next MSR and that if her score was low (in my opinion below 70%) she should repeat the FSEP within six months (or until the score reaches an adequate level).

The standard that applies to this aspect of the care is: **Standard Six: Midwifery actions are prioritised and implemented appropriately with no midwifery action or [omission] placing the woman at risk.** Relevant criteria include: The midwife plans midwifery actions on the basis of current and reliable knowledge and in accordance with Acts, Regulations and relevant policies, and the midwife identifies deviations from the normal and after discussion with the woman,

consults and refers as appropriate (NZCOM, p. 20). Midwifery Council of New Zealand (MCNZ) competencies for entry to the register of midwives also apply. **Competency Two: The midwife applies comprehensive theoretical and scientific knowledge with the affective and technical skills needed to provide effective and safe midwifery care**. Criteria 2.1, 2.2, 2.3, 2.4 and 2.5 are relevant.

As stated in my preliminary report, Midwife [Ms C's] failure to interpret the CTG of [Ms A] on admission to the maternity unit contributed to a delay in seeking help for this woman and baby and is a serious departure from accepted midwifery practice. I have considered the departure from the standard of care to be serious because I believe it is the responsibility of any midwife who chooses to use technology, such as electronic fetal heart rate monitoring (CTG), to have the basic knowledge required to accurately use the technology, interpret the findings and to appropriately refer. It would make sense for the departure from the standard in this instance to be viewed by peers with serious disapproval. However, the frequency with which errors of judgement by midwives in relation to the use and interpretation of CTG traces appears in adverse outcomes leads me to believe that the use and interpretation of CTG is an area of practice that needs closer attention. Over recent years, the interpretation of CTGs has moved from the use of pattern-recognition to assist interpretation to one that is based on a physiological approach. Many 'older' practitioners, including doctors, still use the pattern recognition approach, leading to conflict in interpretation and action. For this reason, the departure from the standard of care is likely, in the real world, to be viewed with only mild to moderate disapproval by midwife [Ms C's] peers.

2. Whether [Ms C] (nee [Ms C]) provided appropriate advice on pain relief to [Ms A] during the antenatal period?

The management of latent labour is difficult – there is a need to balance leaving things to take their natural course and intervention. MWs usually offer a range of advice to women such as the use of paracetamol, bath, rest, exercise, eat/drinking, acupuncture/acupressure, heat packs, back rubbing and talking with the woman about what to expect. Use of paracetamol 1 gms 4hourly (not exceeding 4gms in 24hrs) is an appropriate analgesic to offer during early labour. Sometimes the use of medication such as paracetamol is more of a psychological benefit than a physical benefit – people respond to 'doing something'. While paracetamol is not expected to take away the pain of labour, in the early stages it might be enough to enable the woman to relax a bit more easily and possibly sleep a little. The pain relief options were appropriate, accompanied by the other options offered.

3. Whether the remedial actions subsequently undertaken by [Ms C] as a result of this complaint are appropriate?

I think [Ms C] has made considerable attempts to address the shortcomings outlined in the original report and is to be commended for her proactive approach. It is clear that she has genuinely reflected on this case and taken steps to ensure her care in the future is exemplary. Please also refer to comments previously in relation to follow-up of FSEP results. These remedial actions are appropriate.

4. Please outline any further recommendations you may have to address the issues raised by this case.

Whilst I appreciate that the use of GROW charts has not been established as a standard of practice, despite the considerable body of evidence to support its use, it is my opinion that this evidence is already being translated into practice by many midwives, doctors and hospitals. I am aware that the Midwifery Council of New Zealand's current recertification programme cycle includes assessment of fetal well-being incorporating GROW charts, fetal monitoring and other aspects. I am also aware that the NZCOM is currently consulting around their 'assessment of fetal well-being' consensus statement. It is my opinion that while these both go some way to providing midwives with guidance for practice, midwives do not have to wait for a directive from the regulatory or professional bodies to incorporate evidence based practice into their everyday care of women and babies. Indeed this view is supported by the Standards of Practice and Competencies for entry to register of midwives.

I would recommend that GROW charts are implemented for all pregnant women and that education programmes support the implementation process. One barrier to use within the hospital systems is often the IT systems. Therefore, these barriers need to be investigated. GROW charts are a risk management strategy.

The inclusion of assessment of fetal well-being in the MCNZ recertification three year cycle is an important step; however, I believe that midwives should have a more formalised education process around CTG use and interpretation. I do not promote the use of CTG monitoring for essentially well women with uncomplicated pregnancies – the evidence from research indicates that it may be harmful, but the evidence also reveals that CTG usage during labour and birth is high in many of our institutional maternity units and therefore professionally we need to ensure a high degree of competency with this method.

[This section has been removed for brevity.]"