Midwife, Ms B

A District Health Board

A Report by the

Health and Disability Commissioner

(Case 07HDC15908)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Complaint and investigation

On 5 September 2007 the Health and Disability Commissioner (HDC) received a complaint from Mr and Mrs A about the services provided to Mrs A and their son, Baby A. The following issues were identified for investigation:

- *The appropriateness of the care provided to Mrs A and Baby A by midwife Ms B.*
- *The appropriateness of the care provided to Mrs A and Baby A by a District Health Board in 2007.*

An investigation was commenced on 14 November 2007.

The parties involved in the investigation were:

Mrs A	Consumer
Baby A	Consumer
Ms B	Midwife/Lead Maternity Carer
Dr E	Clinical Leader
The District Health Board	Provider

Additional information was obtained from:

Mr A	Complainant/husband
Dr C	Consultant (Obstetrics and Gynaecology)
Dr D	Registrar (Obstetrics and Gynaecology)

Independent expert advice was obtained from midwife Nimisha Waller (see Appendix A) and obstetrician and gynaecologist Dr Kenneth Clark (see Appendix B).

Information gathered during investigation

In 2006, Mrs A, then aged 29, became pregnant with her first baby. Mr and Mrs A decided that they wanted to have a home birth.

Mrs A obtained the services of independent midwife Ms B as her Lead Maternity Carer (LMC). Ms B has been a practising midwife for nearly 40 years. She has experience working in a hospital setting and has practised as an independent midwife since 1991.

Antenatal care

In the clinical records, Ms B noted that Mrs A had a history of polycystic ovaries and had taken two years to conceive.

Ms B saw Mrs A regularly throughout the antenatal period — approximately once a month until a month before her estimated delivery date, then more regularly. The records show that Mrs A's pregnancy progressed normally.

Mr and Mrs A advised that they were happy with the care provided by Ms B during this period and "they were confident in her ability".

Due date
On her due date Mrs A had not yet progressed into labour. On assessment, Ms B noted no concerns and did not consider any further investigations were necessary at this time. Her clinical records state:

> "[Mrs A] is doing so well — her [blood pressure] is stable.
>
> [Mrs A] says baby is quieter but I have felt 5 good [fetal movements] in 7 minutes — so I think [Mrs A] is not feeling them.
>
> [cardiotocograph (CTG)] [1] on Thursday & sweep"[2]

Three days later
Three days later, Mrs A had a CTG which Ms B documented was "fantastic". She also documented that Mrs A was having lots of fetal movements and her blood pressure was 118/80mmHg.[3]

Four days later
Four days later Mrs A was 41/40 gestation.[4] Ms B advised that she had a long discussion with Mr and Mrs A about the process of induction, as well as post-maturity and the associated risks, including stillbirth. The clinical records state:

> "[Mrs A] is 41/40 today — we have gone through the whole process of induction etc. today — pros & cons — risks.
>
> — considers alternatives — & really wants a baby now …"

Ms B felt that because Mrs A was well, and the baby was moving normally, there was no reason for concern. Ms B booked Mrs A for an induction in four days time, but noted that Mr and Mrs A were still hopeful for a homebirth.

[1] Used to measure the fetal heart rate.

[2] The process whereby 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.

[3] Normal BP ranges between 90/60–140/90mmHg.

[4] 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 41weeks' gestation.

Two days later
Two days later, Ms B saw Mrs A for a CTG. At this appointment, Mr and Mrs A advised Ms B that they wanted to delay induction (planned for the following day), and wait a little longer for a spontaneous delivery. Ms B considered that the CTG was reassuring and Mrs A was having excellent fetal movements. Mr and Mrs A were informed of the risks of not inducing labour at this stage.[5] Ms B advised that she had given clear instructions about the importance of good fetal movements and she was confident that Mrs A was monitoring them. The clinical records state:

> "[Mr and Mrs A] have decided not to be induced tomorrow. They are very aware of all implications — CTG today is excellent …"

Ms B advised that induction is recommended at 40 weeks plus 10 days' gestation. Therefore, because of Mrs A's gestational age, the induction was rescheduled for three days after the original booking.

The day after the CTG, Ms B documented that "all is well". She noted that Mrs A's blood pressure was 132/82, she was having good fetal movements, and the fetal heart rate was between 136 and 140 beats per minute (bpm).[6]

Six days later - labour
At approximately 1am, Mrs A woke and found that she had some leakage, but went back to sleep. Contractions then started at approximately 1.30am. Mrs A called Ms B at approximately 3am, advising that the contractions were now 1:6.[7] The clinical records note that Mrs A called Ms B again a short time later. Ms B arrived at Mr and Mrs A's house at 3.45am.

At 4.30am, Ms B documented that the contractions were 1:5. She noted that Mrs A was having to work quite hard.

At 5am, Mrs A's contractions were 1:4–5. At 6am, Ms B carried out a vaginal examination. She noted that the cervix was fully effaced[8] and 2cm dilated. Because the baby's head was high (–3cm above the ischial spine[9]) Ms B was unable to assess the fetal position, but documented that the fetal heart rate was 130–140bpm.

At 6.45am, Ms B again observed that Mrs A was working very hard, and that the fetal heart rate was 140–156bpm. At 7.30am, she noted that Mrs A had become distressed

[5] The risks of not inducing labour at this stage include stillbirth.

[6] Normal fetal heart rate is between 120 and 160 beats per minute.

[7] This is a ratio of the number of contractions per minute. In this case they were one contraction every six minutes.

[8] The thinning of the cervix before birth.

[9] This is a measurement used to assess the relationship of the presenting part of the fetus to the level of the ischial spines (outlet) of the mother's pelvis. When the presenting part is at the level of the ischial spines, it is at 0 station (synonymous with engagement). If the presenting part is above the spines, the measurement is negative, and ranges from 1cm to 4cm.

and was hyperventilating. The fetal heart rate was 150–156bpm. Ms B then arranged for Mrs A to be transferred to the delivery suite at the public hospital for pain relief and further assessment.

Delivery suite
Mr and Mrs A arrived at the delivery suite at approximately 8am. Shortly after their arrival Ms B discussed Mrs A's case with the duty registrar, Dr D, the on-call consultant, Dr C, and the clinical leader, Dr E. During this discussion, Ms B outlined Mrs A's history and requested permission for an epidural to be inserted.

At interview, Dr C and Dr E recalled that the discussion was very informal. Dr E explained that there is no obligation for independent midwives to consult with the obstetric staff when they bring in a woman for delivery. Independent midwives are self-employed practitioners and make their own decisions. It is common for independent midwives to bring a woman to the delivery suite, birth the baby and take the woman home without the consultants knowing anything about the woman's clinical history. Dr E said that the obstetric staff "have no right to be involved in the care of these patients unless they are asked". Nevertheless, the DHB does encourage the independent midwives and obstetricians to share their cases. For example, Dr C confirmed that it is usual for her to have several informal discussions throughout the day with the independent midwives in the unit, to offer advice and support. However, a formal consultation would occur only if the midwife had concerns.

In this case, Dr C noted from the admissions board that Mrs A was 42 weeks and 3 days into her pregnancy and advised Ms B that she did not consider that a home birth would be appropriate given the late stage of pregnancy. Dr C recommended that Mrs A be induced and continuously monitored. Ms B agreed. Dr C recalls asking Ms B if everything was "ok" and that Ms B said Mrs A was progressing well.

Dr C advised that because this was not a formal consultation, and at no time was care handed over, the conversation was not documented. Dr C documented her recollection of the conversation in retrospect later that afternoon after she was called in for Mrs A's delivery. In her retrospective account Dr C documented:

> "… I suggested because of 'post term' it's a high risk pregnancy.
>
> needs continuous CTG
>
> & even if there is no ruptured membrane, we need to do [artificial rupture of membranes] & commence Syntocinon.[10]
>
> …
>
> [plan] inform any concern [with] fetal heart since high risk. The midwife agreed to do the above."

The DHB maternity policy for pain relief during pregnancy states:

[10] Syntocinon is a hormone used to stimulate contractions of the uterus and help start labour.

> "Before [an] Epidural is inserted a maternal and [fetal] assessment must be done. … [Fetal] wellbeing must include a 20 min tracing, performed immediately before the Epidural is inserted. An Obstetrician must be consulted before an epidural is inserted."

Dr D recalls that, during that initial conversation, an epidural was agreed to on the proviso that Ms B first obtain a 30-minute CTG that was normal. However, Ms B did not perform a 20-minute tracing first. She stated:

> "The protocol for insertion of epidural at [the DHB] is to always consult with the Obstetrician for the day regarding the indication for this, which I did."

Dr E confirmed that it is required practice for an independent midwife to consult an obstetrician prior to an epidural being inserted. While the anaesthetist must carry out his or her own assessment, this is only to assess the maternal well-being. An obstetrician is therefore consulted in relation to the fetal well-being. Dr E commented that this puts obstetricians in a difficult position as they are expected to approve an epidural for a woman about whom they know nothing. The consultation is generally a verbal discussion in which the LMC provides an outline of the case. Based on the information provided by the LMC, the obstetrician makes a decision on whether to review the woman. Dr E advised that the obstetrician relies on the LMC to advise if there are any concerns. This conversation is not normally documented.

Dr C confirmed that DHB staff do not personally check the CTG tracing every time they are asked to approve an epidural, nor do they have the resources to do so.

Following the discussion with the obstetric staff, Ms B contacted the anaesthetist. The epidural was subsequently inserted by the anaesthetist at 8.45am. Ms B advised that prior to the insertion of the epidural she listened to the fetal heart rate using a hand-held Doppler[11] and found that it was satisfactory. However, there is no record of any fetal heart rate check in the clinical records. Ms B documented at 9am that Mrs A was much more comfortable.

At approximately 9am, Dr D introduced himself to Mr and Mrs A. At this time, he noted that the epidural had been sited, but the CTG had not yet been completed. When Dr D asked about the fetal heartbeat, Ms B reassured him that it was normal. He reiterated to Ms B the need for a continuous reactive CTG before commencing Syntocinon.

Ms B advised that it is standard practice for a CTG to be commenced when an epidural is inserted and Syntocinon is started. However, she explained that the CTG belt is always taken off when the epidural is inserted. Ms B advised that in this case, the CTG belt was attached immediately after the epidural was inserted.

[11] A hand-held Doppler device can be used to measure fetal heart rate intermittently and does not produce a trace.

The first continuous CTG was commenced at 9.12am.

10am
At 10am, Ms B documented that there had been "quite marked deceleration immediately following epidural, but CTG then settled". She advised that Dr D also reviewed the CTG at this time and was satisfied that the tracing was reassuring. She says that he told her that it is not uncommon to see decelerations following an epidural insertion and advised her to adjust the epidural and continue to monitor using the CTG. Ms B documented in the clinical records that Dr D was "aware", but this is crossed out and rewritten as "sighted CTG". Ms B explained that she made this change at the time of entry as she thought that she should make it clear that Dr D had sighted the deceleration and was happy for her to continue.

Mr and Mrs A also recall Dr D coming in and introducing himself at about 10am, after the CTG was commenced and shortly after the epidural was started. They remember Dr D looking at the CTG and talking about the epidural at this time. Mrs A recalls being reassured that everything was progressing well.

In contrast, Dr D denies seeing the CTG trace at 10am. He advised HDC that sometime between 9.45am and 10am, while he was in the gynaecology clinic dictating letters, Ms B approached him and informed him that there had been some early decelerations on the CTG associated with the commencement of the epidural. However, he advised that Ms B did not show him a copy of the CTG at 10am, and he did not return to the delivery suite until later that afternoon.

Shortly after this conversation, it appears that Ms B commenced the Syntocinon infusion. She recalls asking Dr C in the tea room whether it would be appropriate to introduce a high dose. The clinical records state:

> "Syntocinon as per regime and after further discussion [with] [Dr C] — she is happy for [Syntocinon] to go to 30mls/min if baby OK."

Ms B advised that she also mentioned to Dr C that the CTG had shown some early type 1 decelerations.[12] However, Dr C does not recall being consulted about starting Syntocinon or being advised that type 1 decelerations had been seen. The only interaction she recalls with Ms B was seeing Ms B in the tea room and asking how Mrs A was progressing. Ms B told her that Mrs A was progressing well and that Dr D had already seen her.

Dr C advised that the approval for Syntocinon is much the same as for an epidural whereby the LMC consults an obstetrician. The obstetrician bases the decision for approval on the information provided by the LMC. Dr C said that she would have gone to check the CTG herself if she had been told that Mrs A was experiencing type 1 decelerations so early in her labour, as these are unusual.

[12] *Decelerations* or "dips" are periodic decreases in the fetal heart rate. Type 1 decelerations are the result of pressure on the fetal head during contractions. This type of deceleration is normal.

12.45pm
Dr D advised that he was in theatre from 12.15pm until 2.30pm, which has been confirmed by the DHB. He recalls that during this time a call was received on his pager and was answered by one of the theatre nurses. A message was left for him to contact the delivery unit following the operation. No indication of urgency was given, and the caller hung up before the theatre nurse had an opportunity to ask. The DHB advised that staff are unable to recall who took the message, due to the amount of time that has elapsed.

Although Ms B advised that it is her recollection that she spoke directly to Dr D at this time, due to the passage of time she is unable to be sure. At interview, Ms B advised that, at this time, she informed Dr D that Mrs A was still having some decelerations. The clinical records document "Type [1] deceleration persist Dr [D] aware". Ms B advised that she did this "as a courtesy".

Ms B also carried out an assessment at this time. It showed that progress of labour was slow and Mrs A was now starting to struggle.

Ms B contacted the anaesthetist at 1.15pm for advice about Mrs A's pain management. The anaesthetist advised that Ms B could give an epidural top-up every hour if indicated.

Ms B confirmed that she did not formally consult the obstetric staff about Mrs A. She explained that she has never had a problem consulting obstetricians if she thinks there is a problem, and that this situation was no different. If she had thought there was a problem in this case, she would have asked the doctors to come and have a look.

Dr E advised that Mrs A was not Dr D's patient as care was never formally handed over. He stated that the conversations between Ms B and the obstetric staff occurred as a courtesy. If Dr D had had concerns, he would have become involved. However, he was reassured throughout the day that Mrs A was progressing well.

2.10pm–4.30pm
Ms B advised that she spoke to Dr D in the delivery suite office again at 2.10pm, to check that he was happy for her to continue administering the Syntocinon, and asked him to check the CTG. She recalls Dr D asking her to review Mrs A at 2.30pm to see what was happening. At 2.10pm Ms B documented:

> "Dr [D] notified of status — Continue as we are — for assessment at 1430 — I have asked Dr [D] to review [Mrs A] is fine while her pain is controlled."

At 2.30pm, Ms B carried out a vaginal examination, noting that Mrs A was 6–7cm dilated. Dr D recalls that shortly after 2.30pm Ms B approached him again and advised that the CTG was showing some decreased variability. They then both returned to Mrs A's room to review the CTG. Dr D stated that when he saw the CTG he was "alarmed", noting that the CTG had been "grossly and progressively abnormal since about 9.12am". At 2.45pm, Dr D recorded in the clinical records that the CTG

was showing the baseline heart rate was 160bpm, variability was less than 5, with no accelerations and late decelerations with slow recovery. He recommended an urgent scalp pH.

Dr D advised that after he noted the abnormalities on the CTG he explained to Mr and Mrs A that an urgent scalp pH was needed, because he was concerned for the baby's well-being. Mr and Mrs A verbally consented to this procedure. He then left to prepare for the scalp pH and to page the on-call consultant. However, Ms B followed him into the corridor and told him that "there was no way" that she was going to allow him to perform the scalp pH without Mrs A having an epidural top-up. Dr D stated that he "insisted the urgency of the matter" to Ms B. Ms B advised that delivery was imminent and Dr D proceeded to prepare the equipment for the scalp pH.

Ms B agrees that she did request that she be allowed to give Mrs A an epidural top-up before Dr D obtain the scalp pH because it can be a very painful procedure. However, she recalls that she did not get any sense of urgency from Dr D. He returned to the delivery unit office and "was at pains to explain the [fetal blood sample] procedure to [a] staff member who had not previously had to perform it".

Mr and Mrs A agree that there did not appear to be any real urgency from either Ms B or Dr D at this time.

At 3.05pm, Ms B documented that she administered an epidural top-up. She also documented that she had asked Dr D to wait to carry out the scalp pH until she could reassess the effectiveness of the top-up. At 3.15pm, Ms B documented "[baby heart beat] is OK — although [decelerations] persist — baseline".

The clinical records written by Dr D at 3.15pm state:

> "… Advised LMC that I really need to do a Fetal Scalp pH on this baby as the CTG looks pathological to me and these are not shallow early [decelerations] as earlier told. The CTG has had variable [decelerations] from since 09.10am and all the while I have been re-assured that these were early [decelerations] with otherwise reassuring other components of the baby. …"

Dr D performed the scalp pH at approximately 3.30pm. The result showed a pH of 6.811.[13] Dr D returned to Mrs A's room and explained that the results indicated that the baby was in serious distress and that an urgent delivery was required.

Delivery

Dr D then proceeded to attempt an instrumental delivery. Delivery with Ventouse was initially attempted, but the suction cup loosened after the first pull. Baby A was then delivered using forceps, with two pulls.

[13] Normal fetal scalp pH is considered to be between 7.25–7.35. A low pH generally indicates that the fetus is poorly oxygenated.

On delivery at 4.04pm, Baby A was found to have the umbilical cord wrapped tightly around his neck three times and was floppy, pale, and blue in the face. He was then passed onto the neonatal team. The (retrospective) record by the senior house officer states that on assessment no pulse was palpable and no heartbeat could be heard on auscultation. Resuscitation was commenced, but was unsuccessful. Baby A was declared dead at 4.30pm.

Ms B delivered the placenta and stitched the episiotomy.[14]

Ms B
Ms B advised HDC that she tried to support Mr and Mrs A following the baby's death, staying with them immediately after delivery and then visiting them every day with the support of her colleague.

Ms B stopped visiting after she had explained to Mr and Mrs A that she had failed to correctly interpret the CTG. Ms B's colleague continued to provide postnatal care.

Ms B stopped practising as a midwife immediately following this incident. She stated:

> "I felt responsible and accountable for my actions which I believe contributed to this tragedy. I cannot begin to express my personal sadness and grief for [Mr and Mrs A] and their family and friends.
>
> I acknowledge that I failed to recognise that [Baby A] was experiencing difficulties during [Mrs A's] labour. I am devastated that I observed the CTG monitor through the day and failed to identify the seriousness of the readings".

The DHB
The DHB advised that the LMC is responsible for his or her own professional practice. However, for several years the DHB offered LMCs the opportunity to access the educational and training sessions offered to its midwifery staff. Furthermore, best practice policies were developed in consultation with the LMCs who use its facility. When any new independent practitioner applies for access to the DHB facility he or she is encouraged to familiarise themself with these policies.

The DHB advised that historically secondary obstetric services were outsourced with obstetricians employed by a private company and gynaecologists employed by the DHB. As a result, there was a degree of breakdown in communication between maternity providers. However, in 2006 the DHB made significant changes to the clinical and managerial leadership which have "significantly improved relationships and the interface between independent practitioners (LMCs) and hospital secondary care services". In particular, it has assisted in open discussion and communication between LMCs, core clinical staff and DHB midwifery staff. The DHB now has a fortnightly perinatal meeting with LMCs and hospital staff to discuss issues of

[14] A surgical incision in the perineum.

practice with an educational focus. It also has monthly meetings with LMC and DHB midwifery staff to discuss pertinent issues.

The DHB policy for transfer of clinical responsibility to secondary services states:

> "When consultation occurs with a Specialist (or delegated person) any decision regarding on going clinical roles and responsibilities will be documented and will involve a three way process between the Specialist, LMC and woman."

The DHB stated:

> "We are disappointed that despite significant changes in the culture of our service that the Independent Practitioner caring for [Mrs A] did not fully convey to either core midwifery or medical staff the seriousness or urgency of [the baby's] situation."

Following this incident the DHB carried out a review of its services. As an outcome of this review a number of further recommendations were made. These included improving communication and teamwork, asking for second opinions, and reviewing the CTG monitoring policy, CTG training, and partogram[15] as a standard of care. The DHB advised that most of these initiatives were under way at the time of this incident, but it has triggered re-evaluation of what progress had been made.

Notwithstanding the steps it has taken to improve communication between LMCs, and DHB staff, the DHB emphasised that Mrs A was under the care of Ms B, not the DHB. It stated:

> "On the morning of the Delivery Suite ward round [Mrs A] was noted to be in the Delivery Suite and [Ms B] briefly explained the reason that she was there. As a courtesy some suggestions were made by [Dr C] (the consultant on call for the day) as to what she thought might be appropriate management of [Mrs A]. These suggestions did not imply that clinical responsibility for [Mrs A] had been assumed by [Dr C] or any other member of the DHB staff."

Mr and Mrs A

Mr and Mrs A advised that up until Mrs A's admission to hospital, they were happy with the care they had received. However, they believe that the care deteriorated following Mrs A's admission. They believe that this related directly to the inadequate policies in place at the hospital for communication between independent midwives and hospital staff. They stated:

> "We blindly assumed that once admitted to hospital the LMC and hospital staff would work together to ensure the safety of both mother and baby, we were mistaken."

[15] A partogram is a visual/graphical representation of related values or events (such as the fetal heart rate, cervical dilation) over the course of labour.

While they are happy to see that the hospital has since taken steps to improve the communication between providers and the policies for monitoring and review, they are concerned and upset that this did not occur during Mrs A's admission. They would like reassurance that these changes will actually occur.

Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights are applicable to this complaint:

RIGHT 4

Right to Services of an Appropriate Standard

(1) Every consumer has the right to have services provided with reasonable care and skill.
(2) Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards.
…
(5) Every consumer has the right to co-operation among providers to ensure quality and continuity of services.

Discussion

Antenatal — progress of labour
At 41 weeks' gestation, Ms B was confident that both mother and baby were well. Ms B discussed the associated risks of post-maturity and the process of induction with Mr and Mrs A. They agreed to schedule an induction. However, Mr and Mrs A still hoped for a home birth.

At 41 weeks 3 days' gestation, another CTG was carried out. At this time, Mr and Mrs A advised Ms B that they had decided to wait a little longer before being induced. Ms B advised that she had no concerns for mother or baby. She was confident that Mrs A was clear about the importance of fetal movements and the risks of post-maturity, and therefore agreed to delay the induction.

My expert advisor, Nimisha Waller, advised that in her view the care provided during this period was "reasonable".

Epidural
Shortly after Mrs A's arrival in delivery suite at approximately 8am, Ms B discussed her case with the obstetrics team. Ms B outlined Mrs A's history and requested permission for an epidural to be inserted. This was agreed to on the proviso she obtained a normal 30-minute continuous CTG trace, in accordance with the DHB policy.

Ms B advised that prior to the insertion of the epidural she listened to the fetal heart rate using the hand-held Doppler, and found it satisfactory. The epidural was inserted at 8.45am. The clinical records indicate that the first continuous CTG was commenced at 9.12am.

It appears that Ms B appropriately discussed, and requested permission for, the insertion of the epidural when she first arrived in the delivery suite at approximately 8am. While it appears that Ms B listened to the fetal heart rate using a hand-held Doppler device, there is no evidence that a continuous CTG was commenced until after the epidural was inserted. It seems clear that this was specifically requested. Furthermore, it is a requirement of the DHB policy for "pain relief in labour".

Interpretation of CTG
Throughout the day Ms B interpreted the CTG as showing type 1 decelerations. Ms B has acknowledged that she failed to recognise the abnormalities on the CTG throughout the day. She stated, "I am devastated that I observed the CTG monitor through the day and failed to identify the seriousness of the readings."

Ms Waller advised that, from when it was commenced at 9.12am, the CTG was "initially non-reassuring and becomes pathological (one [or] more parameters are non-reassuring or abnormal) as labour progresses". In Ms Waller's opinion, Ms B's failure to correctly interpret the CTG would be viewed with moderate to severe disapproval.

Documentation
Documentation is a fundamental requirement of good care. It is particularly important in ensuring continuity of care. The DHB policy for transfer of clinical responsibility to secondary services states:

> "When consultation occurs with a Specialist (or delegated person) any decision regarding on going clinical roles and responsibilities will be documented and will involve a three way process between the Specialist, LMC and woman."

Despite a number of discussions with the obstetric team, there is limited documentation about the content of these discussions in the clinical records. I note Ms Waller's comment that "documentation of the consultation would have helped to clarify the roles and responsibilities …".

Clinical responsibility
The DHB advised that obstetric staff were not responsible for Mrs A's care. The DHB stated:

> "As a courtesy some suggestions were made by [Dr C] (the consultant on call for the day) as to what she thought might be appropriate management for [Mrs A]. These suggestions did not imply that clinical responsibility for [Mrs A] had been assumed by [Dr C] or any other member of the DHB staff."

In Ms Waller's opinion, clinical responsibility was assumed by the obstetric staff when permission was given to insert an epidural. Ms Waller agrees that it is accepted practice for a midwife to get verbal permission for an epidural and Syntocinon without first requiring an obstetric review. However, because these are medical interventions and beyond the scope of practice of a midwife, Ms Waller considers that the obstetric team had a responsibility to review Mrs A at some stage to ensure that everything was progressing appropriately. It is Ms Waller's view that they did not require an invitation to be involved in Mrs A's care. She stated:

> "Once the approval for epidural was given by the medical staff at [the DHB] and this was inserted [Mrs A's] care was no longer primary."

In accordance with the Guidelines for Consultation with Obstetric and Related Specialist Medical Services[16] (the referral guidelines), post-maturity, epidural, prolonged first stage of labour, and fetal heart rate abnormalities are considered a Level 2 referral (refer to Appendix C). Under level 2, the LMC "must recommend to the woman (or to the parents in the case of a baby) that a consultation with a specialist is warranted given that her pregnancy, labour, birth or puerperium (or the baby) is or may be affected by the condition".

However, the referral guidelines specifically state that "the specialist will not automatically assume responsibility for ongoing care" with a Level 2 referral. Whether a referral is necessary will depend on the circumstances of the case and the hospital's protocols. In a recent case (07HDC14036),[17] a DHB advised that even in certain Level 3 referral situations, the LMC may ultimately remain responsible for the woman's care.

Dr Kenneth Clark, my obstetric advisor, considered that the referral guidelines mean that if there may be a need for handover of care, and thus a requirement for specialist services, a three-way conversation should occur so that roles and responsibilities can be decided. However, to fulfil its obligations under the guidelines, the obstetric team relies on the LMC to provide adequate and accurate information about the woman so that they can assess whether there may be a requirement for specialist obstetric services and the nature of the consultation that is required. Dr Clark noted that the consultation may be "verbal (with or without assessment of investigation or monitoring results such as a CTG tracing) or in the form of attending the woman with

[16] Issued under section 88 of the New Zealand Public Health and Disability Act 2000 (effective from 1 July 2002).

[17] 31 October 2008.

history taking, examination, and assimilation of monitoring records and investigation results as required".

Dr Clark considered that, from the information furnished to them, the obstetric team responded appropriately. It is his view that they did not have a responsibility to review Mrs A and initiate a three-way discussion with Ms B and Mrs A until approximately 2.45pm. He stated:

> "… [I]t is my opinion that the team was not able to adequately address its responsibilities, given the failure of the LMC, Ms B, to provide the team with accurate information. A major error was made by Ms B in the interpretation of the CTG tracing soon after it was commenced and this error was perpetuated thereafter."

However, Dr Clark advised that the clinical team did have a responsibility to ensure that, when they were consulted in relation to the management of Mrs A, this was conducted by an individual with sufficient expertise. I note Dr Clark's advice that after the fetal blood sample came back indicating severe fetal compromise, the most senior member of the team should have been involved. Dr Clark stated:

> "This was a true clinical emergency with a need for expedition of delivery within the bounds of safety for the mother and without adding extra risk to the baby. The most senior team member, [Dr C], should have been involved from that point."

Interface between midwives and obstetricians
In his advice Dr Clark commented that as a result of Section 88, which has seen midwives given greater professional autonomy, there has been a resultant "tension between professional groups" due to the differing clinical approaches. Dr Clark commented that this "does play a part in every day behaviour in clinical settings".

While the DHB acknowledges some of the longstanding problems faced by its service, it advised that it has made significant changes to the structure of its maternity service which have "significantly improved relationships and the interface between independent practitioners (LMCs) and hospital secondary care services". Furthermore, in light of this incident, it has made further recommendations to improve the communication and teamwork within its service.

Opinion: Ms B — Breach

I do not have any concerns about Ms B's decision to delay Mrs A's induction of labour. I am satisfied that Ms B made the risks associated with post-maturity clear to Mr and Mrs A and that she carefully assessed and considered the risks of delaying the induction.

Ms B failed to provide services in accordance with professional standards by not carrying out a continuous CTG trace prior to inserting an epidural. As noted by Ms Waller, if the baby's heart rate is normal with intermittent auscultation (eg, using a hand-held Doppler), some practitioners consider that it is not necessary to perform a continuous CTG. Variation in practice is also recognised in the referral guidelines, which state that "[t]he practitioner needs to make clinical judgements depending on each situation and some situations may require a course of action which differs from these guidelines". However, Mrs A was post-mature, had been in labour since 3am, and was distressed and in pain. Ms Waller advised that peers would view not performing a continuous CTG in these circumstances with mild to moderate disapproval. In my view Ms B breached Right 4(2) the Code by failing to comply with professional standards.

Ms B also failed to exercise reasonable care and skill in interpreting Mrs A's CTG. As a result, Ms B failed to recognise a progressively non-reassuring and pathological CTG. In failing to correctly interpret the CTG, Ms B did not provide the obstetric team with appropriate and accurate information. Standard six of the New Zealand College of Midwives publication *Midwives Handbook for Practice* (2005) states that the midwife "identifies deviations from normal, and … consults and refers as appropriate". Standard seven states that the midwife "in situations where another dimension of care is needed, ensures negotiation takes place with other care providers to clarify who has the responsibility of care".

Ms B should have been able to identify a non-reassuring CTG and then communicate this to clinical staff. Clearly, Ms B did not do this. As noted in case 05HDC17106:[18]

> "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. It would have been good practice for the Syntocinon to be turned down, not up, to assess whether the baby's distress was caused by an overstimulated uterus or his inability to cope with the labour."

I conclude that Ms B breached Right 4(2) of the Code by failing to appropriately interpret the CTG. It follows that she also breached Right 4(5) of the Code by failing to refer Mrs A's care to the secondary care team.

While Ms B has regularly documented her assessments of Mrs A, there were a number of conversations between Ms B and clinicians that were not documented. By failing to adequately document her discussions with the obstetric team, it is my view that Ms B breached Right 4(2) of the Code.

[18] Refer: http://www.hdc.org.nz/files/hdc/opinions/00hdc08628.pdf, 30 July 2002.

Opinion: The District Health Board — No breach

Ms B provided maternity care to Mrs A throughout her pregnancy as an independent LMC. Although Mrs A was transferred to the DHB maternity unit to progress her labour, her care was not automatically transferred to the hospital staff. Independent midwives have access agreements with local hospitals which allow them to use the facilities without necessarily transferring care. As Dr E noted, women often labour and deliver at the hospital under the care of their LMC with no input from the hospital's obstetric team.

In this case my expert advisors have disagreed on the issue of whether the obstetric team should have become involved in Mrs A's care before 2.30pm.

While my midwifery advisor, Ms Waller, acknowledges Ms B's failure to correctly interpret the CTG, she is critical of the failure of the obstetric team to review Mrs A, despite their giving permission for an epidural and Syntocinon to be started. Ms Waller considered that once approval had been given for an epidural Mrs A's care "was no longer primary". Ms Waller commented that the administration of an epidural and Syntocinon are medical interventions, beyond the scope of practice of a midwife.

In contrast, my obstetric advisor, Dr Clark, considers that the obstetric team responded appropriately to the information they were given. Dr Clark explained that an obstetrician relies on being provided with "adequate and accurate" information by the LMC so that he or she can make a decision about the level of obstetric involvement required. In this case, Ms B reassured the obstetric team, when she requested permission for an epidural and Syntocinon, that Mrs A was fine and progressing well. It was not until approximately 2.30pm that the registrar was provided with information that suggested that obstetric intervention was warranted.

Drs E and C confirmed that it is common for the obstetric team to collaborate informally with LMCs using the delivery suite, and that it is neither feasible nor appropriate for every woman to receive an obstetric review. The hospital staff rely on the LMC to accurately describe the patient's condition so that they can assess whether a formal consultation is required.

I accept that it would not be practical for obstetric staff to personally review all patients who request an epidural under the care of their LMC, particularly when the LMC is an experienced practitioner. The successful interface between independent LMCs and hospital teams relies on the LMC recognising that there is an issue that requires advice, and seeking consultation. A decision is then made whether a review and three-way conversation is warranted under the guidelines. In my view, this is a pragmatic approach that recognises the clinical competence of all involved and ensures resources are used efficiently. If the converse were true, and obstetric teams

were expected to personally review all patients "just in case", this would undermine the mutual trust and respect that should exist between professional groups in these circumstances.

I have received differing accounts in relation to whether Ms B raised any concerns during Mrs A's labour.

Ms B believes she advised the obstetric team of what she thought were type 1 decelerations on the CTG on more than one occasion throughout the day. She maintains that Dr D sighted the CTG tracing shortly after 10am and he reassured her that an early deceleration was normal after an epidural had been inserted. Mr and Mrs A also recall Dr D reviewing the CTG at that time. Ms B believes she reported type 1 decelerations to Dr D again at 12.45pm.

However, Dr D denies that he reviewed the CTG at any stage before 2.30pm and has established that he was in theatre between 12.15pm and 2.30pm. He does not recall a conversation with Ms B while he was in theatre, but only a message to call the delivery suite when he was free. Ms B has acknowledged that she is unable to be sure whether she spoke to Dr D directly, given the time that has elapsed.

Ms B believes she also advised Dr C of type 1 decelerations when she requested permission to administer Syntocinon. However, Dr C does not recall any mention of decelerations and believes her usual practice would have been to review Mrs A if they had been mentioned.

Ms B has made it very clear that she never considered that there was any problem and she did not ask the obstetric team to review Mrs A. Ms B advised that she informed Dr D of her observations as a "courtesy". Even if Dr D did provide reassurance at the start of the CTG tracing, Dr Clark has advised that "'type 1 decelerations' or 'early decelerations' as they are known are not considered an abnormality in themselves within the context of active labour".

On balance, I am satisfied that the obstetric team was not adequately informed of any abnormalities in Mrs A's labour and therefore had no obligation to initiate a three-way discussion under the referral guidelines. Accordingly, the DHB did not breach the Code.

Other comment

Collaboration

Although both Dr D and Ms B have acknowledged that their conversation at 10am was simply a "courtesy", I am aware that Mrs A was 42 weeks and 3 days into her pregnancy by the time she presented in labour, and Dr C had already commented that she required close monitoring. In my view, the 10am conversation would have been a good opportunity for an open discussion between Dr D and Ms B about ongoing

monitoring and review. Co-operation and collaboration is central to ensuring the provision of quality care. As noted in case 04HDC05503:[19]

> "Women in New Zealand … believe that a 'safety net' is in place if they choose to deliver their baby in a public hospital. That belief is illusory if there are barriers (including fraught relationships) to LMCs communicating important information to fellow health professionals who may be called to assist."

I note Dr Clark's comments in relation to the culture that sometimes exists between obstetricians and LMCs operating under section 88. Dr Clark stated:

> "The manner in which the current legislation is interpreted, and the models of care embraced by professions, do influence communication patterns between health professionals."

I acknowledge the steps the DHB has taken to address the communication issues between hospital staff and independent LMCs. The Ministry of Health is also seeking to develop a common understanding of the referral guidelines as part of a proposed Maternity Action Plan[20] for 2008–2012. That would certainly be a step in the right direction.

Delivery
Dr Clark was critical of Dr D's decision not to contact a more senior member of his team once he realised that the CTG had been showing abnormal results for some time. Dr D has explained that he did intend to page the on-call consultant, but became preoccupied with the fetal scalp pH test, then the need for an urgent delivery. It is understandable that Dr D focused on assessing the situation and preparing for the delivery; however, I note Dr Clark's comments that this was a clinical emergency and that the most senior member of the team should have been called. As Dr Clark has pointed out, it is not clear whether the failure to contact Dr C has its basis in systems issues and problems with team dynamics, or sits with Dr D. I trust all involved will reflect on Dr Clark's comments.

Recommendations

The DHB
I recommend that the DHB provide HDC with an updated report on the changes it made following this incident, by **31 January 2009**.

I also recommend that the DHB remind all junior clinical staff of the importance of involving a senior team member in any clinical emergency.

[19] Refer: http://www.hdc.org.nz/files/hdc/opinions/04hdc05503midwives-www.pdf, 28 November 2006.
[20] http://www.moh.govt.nz/moh.nsf/indexmh/draft-maternity-action-plan-2008-2012-oct08.

Follow-up actions

- A copy of this report will be sent to the Midwifery Council of New Zealand, with a recommendation that the Council consider whether a review of Ms B's competence is warranted should she seek to return to practice.

- A copy of this report, with details identifying the parties removed, will be sent to the Director General of Health, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, and the Maternity Services Consumer Council, and will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A — Expert midwifery advice

Report by Midwifery advisor Nimisha Waller

I have been asked to provide an opinion to the Commissioner on case number 07/15908, and that I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

My qualifications are RN (includes General and Obstetrics), RM, ADM, Dip Ed (UK) and Master in Midwifery (VUW, 2006). I have been a midwife for 23 years, the last 11 years in New Zealand. I have worked in community and hospital tertiary settings as well as in education both here and in the UK. I am currently a Senior Lecturer in Midwifery at Auckland University of Technology and take a small caseload of women as a Lead Maternity Carer.

[At this point Ms Waller refers to the information provided to her by HDC. This information has been removed for the sake of brevity.]

…

I have been asked to provide expert advice to the following:

To advise the Commissioner whether, in my opinion, [Ms B] and [the DHB] provided an appropriate standard of care to [Mrs A] and [Baby A].

My response to the advice required is as follows:

Please comment generally on the standard of care provided to [Mrs A] by [Ms B] and [the DHB].

Antenatal
The antenatal record shows the antenatal visits that took place between [Ms B] and [Mrs A].

[At 40 weeks gestation] [Mrs A] was not able to feel baby's movements. At the scheduled antenatal check on the same day [Ms B] was able to palpate many movements which [Mrs A] also noted. Therefore a CTG was not discussed or undertaken. This is reasonable. If [Ms B] had not been able to palpate adequate movements then a CTG to assess baby's well being needed to be considered/undertaken.

[At 41 weeks] there was a discussion about induction, post-maturity and the risks associated with post-maturity. [Mrs A] was booked for induction [at] (41 weeks + 3 days) due to prolonged pregnancy and marginal blood pressure. The Section 88 Referral guideline (MOH, 2000) states prolonged pregnancy (code 4024) as Level 2 referral i.e. that the LMC must recommend that a consultation with specialist is warranted. There is no guideline or protocol in the file from [the DHB] regarding

prolonged pregnancy however, in some DHBs the induction of labour is booked following consultation with the obstetrician while in other DHBs induction of labour for prolonged pregnancy can be booked by the midwives. Within different DHBs there is variation regarding the gestation at which induction of labour should take place. Some DHBs have guidelines to induce labour at 41 weeks and 3 days. Other DHBs' guidelines suggest induction of labour at 42 weeks as long as there are no concerns for the mother or baby.

A CTG was undertaken [when] [Mrs A] was 40 weeks and 3 days. This is a reassuring CTG. There is a debate about when practitioners should start monitoring the baby's well being in prolonged pregnancy. There is evidence that in low risk pregnancies monitoring does not need to occur till 42 weeks though most practitioners undertake CTGs and Biophysical profiles to assess baby's wellbeing between 41–42 weeks of pregnancy. The Biophysical profile is done by using an ultrasound and assesses four parameters in relation to the baby — breathing movements, reflexes, tone and liquor volume (fluid around the baby). Each parameter is given a score from 0–2 so a maximum score of 8 out of 8 is reassuring. As the guideline for prolonged pregnancy from [the DHB] is not in the file it is not clear whether a Biophysical profile is suggested as an option for monitoring the wellbeing of the baby in prolonged pregnancy. It is likely that as the CTG at this time was reassuring that the Biophysical profile would be reassuring as well. Whether the Biophysical profile was considered or not is unlikely to have altered the outcome for [Baby A].

[At 41 weeks and 3 days] a CTG was performed to assess the baby's wellbeing. [Mr and Mrs A] decided to wait a little longer before being induced as [Mrs A] felt that she and the baby were fine. [Ms B] did not have any reason to doubt that as the CTG was reassuring, there were excellent foetal movements and [Mrs A's] blood pressure was stable. A plan was made to reschedule the induction [3 days later than the original booking].

The standard of care provided to [Mrs A] during the antenatal period is reasonable.

Labour and birth

[Mrs A's] contractions commenced [at 03.00hrs] and she was visited by [Ms B] at home at 04.30hrs. A vaginal examination at 06.00hrs showed findings of cervix being fully effaced and 2cm dilated. The presenting part (head) was high at 3cm above the ischial spines which showed the baby's head was not engaged. [Mrs A] was transferred to [Hospital] at 07.30hrs for pain relief.

[Mrs A] and [Ms B] arrived at [the] delivery suite at 08.00hrs. At that time there were two obstetricians and one registrar and other hospital staff present in the office. [Ms B] presented information relating to [Mrs A] and requested an epidural for [Mrs A] as she was in early labour and not progressing quickly.

The protocol for insertion of epidural at [the DHB] is to consult with the Obstetrician for the day regarding the indication for epidural which [Ms B] did. However, this

consultation was not documented in the clinical records though this is usually done by [Ms B]. Documentation of the consultation would have helped to clarify the roles and responsibilities for the [hospital] staff as it appears from their response that they did not feel they had been invited to be part of [Mrs A's] intra-partum (labour and birth) care though they had agreed to [Mrs A] having an epidural analgesia once an initial CTG to assess baby's well being had been performed.

[Dr C] had also suggested to [Ms B] that as [Mrs A] was 42 weeks pregnant she was high risk and artificial rupture of membranes (ARM), syntocinon infusion and continuous CTG monitoring needed to be considered i.e. that [Mrs A's] labour needed to be induced if she was not in spontaneous labour. Though this discussion by the [hospital] medical staff could be considered as a suggestion for [Ms B] one would expect that agreeing for [Ms B] to organise an Epidural for [Mrs A] would have been sufficient to inform the medical staff that [Mrs A] was now requiring secondary care. Therefore they did not require an invitation to be involved in [Mrs A's] labour care as [Dr C] states in her [letter to Mr A].

The verbal instruction of doing a CTG prior to insertion of epidural analgesia, suggesting an ARM and commencing syntocinon would ideally be followed up with written instruction i.e. that either [Dr C] or [Dr D] would have introduced themselves to [Mr and Mrs A] and documented their instructions. However, in reality these instructions are often given verbally by practitioners to each other and not documented.

From the documentation and [Ms B's] report it is evident that the CTG that was commenced following epidural insertion was not interpreted accurately. Variable decelerations in the CTG have been documented as Type 1 decelerations. There was a failure by [Ms B] in not recognising that the CTG throughout labour was non-reassuring and changed to pathological as labour progressed.

According to [Ms B] the registrar viewed the CTG trace at 10.00hrs [letter dated 26 October 2007] and at 12.45hrs [Ms B] sought out the registrar in the office and mentioned presence of persistent decelerations but may have said that they were Type 1. These interactions are documented by [Ms B] in clinical records and there is no evidence that this documentation were retrospective. [Ms B] further states in her letter to [HDC dated 26 October 2007] that she initially documented that the Registrar was "aware" but changed it to "sighted" as she felt it would be clearer that he had seen the deceleration earlier and was agreeable to continuing.

[Dr C] in her letter to the Commissioner [dated 19 October 2007] states that the registrar reviewed the trace once in the morning on midwives request and was apparently assured by the midwife for the rest of the day that the trace was reassuring. [Ms B] has misinterpreted the CTG findings.

[Dr D] in his letter [dated 10 October 2007] says that though he went to room 5 and introduced himself to Mr and [Mrs A] he did not sight the CTG that needed to be done

prior to epidural insertion at this point nor review the current running CTG as [Mrs A] was just at the time being positioned on the monitor.

[Dr D] was a junior registrar at the time and he may have trusted [Ms B's] comments (as an experienced midwife) that the CTG prior to epidural insertion was reassuring. However, it is important that if you as a practitioner do visit and review the woman that is under secondary care, it is necessary that all assessments relating to mother and baby are reviewed. If the assessments results are not available then time needs to be made to return and review them later. [Dr D] in his report [dated 10 October 2007] says that if there was a problem he was going to be on the floor over the next few minutes as he had other patients to review. He therefore had the opportunity to come back and review the CTG once it was commenced. However, it is unlikely that anything of concern would have been picked up at this stage. [Mr A] in his letter to the Commissioner [letter of complaint, September 2007] says that [Mrs A] had two visits by the registrar and yet neither the registrar nor the LMC picked up on signs of [the baby] being distressed until it was too late.

[Dr C] was on the floor several times during the day and conducted examinations for other patients at the midwives' request but at no time was she made aware of [Mrs A's] labour and CTG trace. [Ms B] apparently did speak with [Dr C] to clarify if it was acceptable to increase syntocinon infusion to its maximum standard dose of 30mu/min and that the CTGs did have some decelerations which she thought were Type 1 or early decelerations. As [Dr C] had earlier instructed [Ms B] to induce [Mrs A's] labour as her pregnancy was high risk one would ideally expect her to have gone to introduce herself to [Mr and Mrs A] and review the use of syntocinon to its maximum standard dose. In reality such reviews are undertaken by the registrar in the unit. However, [Dr D] was a junior registrar at the time [Mrs A] was in labour and as [the Service Manager for the Women and Children's Service] says [in her letter dated 21 December 2007] he was under the supervision of the Consultant on call.

In [the Service Manager for the Women and Children's Service's] response to HDC [letter dated 21 December 2007] says that their records show that [Dr D] was rostered and saw women in clinic on [that] morning. There is discrepancy regarding whether [Dr D] reviewed or even sighted the CTG. However, from all the documentation it appears that [Dr D] did go and review [Mrs A] in the morning at [Ms B's] request.

At 14.10hrs [Ms B] notified the registrar that there continued to be decelerations and inco-ordinate contractions. She asked if it was alright to continue using syntocinon and asked him to check the CTG. She was advised to assess [Mrs A's] progress in labour by vaginal examination at 14.30hrs to see what was happening. Again [Dr D] may have been reassured in the way [Ms B] may have communicated the type of decelerations that were present but there was an opportunity for him to review [Mrs A] and the CTG (as this hadn't happened earlier) or get [Dr C] to review as [Mrs A] had now been at [the hospital] for six hours and was considered to be high risk at admission.

The registrar arrived at 14.45hrs and viewed the CTG. The registrar did not advise [Ms B] that the decelerations were not type 1. There was no sense of urgency and therefore [Ms B] attempted to make [Mrs A] comfortable and requested an epidural top up. The Fetal blood sampling was not attempted till 15.30hrs — 45 minutes after the review of the CTG by [Dr D]. If [Dr D] was concerned as he states he was he needed to articulate the need for urgency and discuss with [Ms B] that fetal blood sampling was a priority than an epidural top up. However, it is difficult to do an invasive procedure when pain relief is not adequate.

The lack of clear communication between [Ms B], [Dr D] and [Dr C] contributed to [Baby A's] outcome. The role of the LMC midwife is to articulate clearly her needs for the woman she is providing midwifery care to. This was done by [Ms B] at admission regarding the request for epidural for [Mrs A]. The communication regarding the CTG findings was not articulated well as [Ms B] failed to recognise a non reassuring CTG and she has admitted this in her response to the Commissioner.

Once the approval for epidural was given by the medical staff at [the hospital] and this was inserted [Mrs A's] care was no longer primary. Epidural analgesia is clearly considered secondary care in the Section 88 Referral guideline (MOH, 2000). This states epidural (code 5009) as Level 2 referral i.e. that the LMC must recommend that a consultation with specialist is warranted. [Ms B] consulted regarding this in line with referral guidelines as well as [the DHB] guidelines. [Mrs A] also required syntocinon infusion which again comes under secondary care (Code 5021). The clinical responsibility was therefore with the medical staff at [the hospital] though this may not have been documented explicitly in the clinical records nor stated explicitly at the time of conversations between [Ms B] and the medical staff at [the hospital].

[The Service Manager for the Women and Children's Service] [in her letter dated 21 December 2007] says that if hospital staff invite themselves into the care of an independent midwife's client it raises consent and privacy issues. [Mrs A] was requiring secondary care (Epidural analgesia and syntocinon infusion) and therefore issues of consent and privacy are not applicable. During antenatal preparation and formulation of birth plan women are informed that there would be input from medical staff if care changes from primary to secondary.

The standard of care provided by both [Ms B] and [the DHB] was not reasonable. The co-ordination of care and the primary responsibility of clear communication lay with the LMC midwife [Ms B]. However, when care became secondary the [the DHB] medical staffs had the clinical responsibility for [Mrs A's] care and they also needed to continue to ensure good communication was maintained with primary LMC and the woman. This would have ensured that the transition from one service to another was seamless. Peers would view this with moderate to severe disapproval.

What standards apply in this case?

For the LMC [Ms B] the standards that apply are the NZCOM Standards for Practice (NZCOM, 2005) as well as Section 88 of the New Zealand Public Health and Disability Act 2000 referral guidelines (MOH, 2000) and the policies and protocols of [the DHB] where she [had an] access agreement to use the facility.

For the [the DHB] the standards that apply are the Section 88 of the New Zealand Public Health and Disability Act 2000 facility specification (MOH, 2000).

Were those standards complied with?

The NZCOM Standards for Practice that [Ms B] did not comply with are as follows:

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

Standard Seven — in situations where another dimension of care is needed, ensures negotiation takes place with other care providers to clarify who has the responsibility of care.

The Section 88 of the New Zealand Public Health and Disability Act 2000 referral guidelines (MOH, 2000) state that when there is a consultation with the specialist the woman must be made aware of the consultation and there should be a three way discussion between the LMC, the woman and the specialist. In the documentation there is no evidence of the three way discussion with LMC, [Mr and Mrs A] and the specialist at the [hospital] [that day]. The 3 way discussion regarding the consult has not been instigated by either [Ms B] or the specialist at the [hospital].

[Ms B] did not follow the guideline relating to Pain relief in labour in relation to epidural that recommends a 20 minute CTG prior to insertion of epidural analgesia. This may be because [Mrs A] was distressed and required immediate pain relief and the anaesthetist arrived soon after being contacted. However, [Ms B] needed to document her rationale for not undertaking a CTG prior to epidural analgesia. If the CTG had been done I am not sure whether the outcome for [Baby A] would have been any different as there was failure to recognise abnormal CTG in labour soon after epidural was inserted.

Not complying with the standards can be viewed with moderate disapproval for both the LMC and the [the DHB] as it affects woman's ability to access seamless maternity care. The trust the woman and her family/whanau have is destroyed when the care they are accessing is not seamless.

Please comment on the adequacy of [Ms B's] management of [Mrs A's] labour. In particular:

a. Her assessment of the CTG trace

The copy of the CTG shows that continuous monitoring of the baby's heart rate commenced at 09.12hrs and continued till 03.50pm. The copy of the CTG is of poor quality as scales used to interpret the baseline are faint. At 09.40hrs it appears that the baseline is low and the comment has been made "LOC mother" indicating that there was loss of contact and the baseline was the heart rate of the mother. This may be the case however to differentiate between maternal and the baby's heart rate it would have been useful to have documented the maternal pulse on the CTG. The CTG from the time it was commenced at 09.12hrs till [Baby A] was born is initially non-reassuring and becomes pathological (one and more parameters are non-reassuring or abnormal) as labour progresses. The baseline appears to be between 160–165bpm (normal is 110–160bpm), variability initially is reduced (that is it is less than 5bpm) and becomes absent as labour progresses (normal is 5–25bpm). There are variable decelerations (that is not early or Type 1 charted by [Ms B]). There are no accelerations, however, if the CTG is otherwise normal that is it has a normal baseline, normal variability and no decelerations then absence of accelerations is of uncertain significance.

From the clinical records the assessment of the CTG by [Ms B] throughout labour shows some concern regarding the decelerations that she identifies as Type 1 but does not recognise that it had later become pathological until about 14.40hrs. [Ms B] states she made an error of judgement in the interpretation of the CTG during [Mrs A's] labour. Peers would view this with moderate to severe disapproval.

b. The management of the epidural procedure

[Ms B] did consult with the obstetric team on her arrival to [the hospital] about [Mrs A's] request for an epidural for pain relief. This is in line with the [the hospital's] guideline regarding Pain relief in labour. The guideline states that 20 minutes CTG to assess baby's wellbeing must be performed immediately before epidural is inserted. [Dr D] states that he had asked [Ms B] to perform 30 minute CTG prior to insertion of epidural for pain relief. The CTG prior to insertion of epidural at 08.45hrs is not in the file. From [Ms B's] documentation it is not clear whether a CTG was performed or not prior to insertion of epidural analgesia. The undertaking of a CTG prior to epidural insertion is a guideline and if the baby's heart rate is normal with intermittent auscultation practitioners may choose not to perform a CTG and this can be considered to be reasonable by some practitioners. However, [Mrs A's] pregnancy was prolonged (42 weeks), she had been in labour since 03.00hrs and she was distressed. Peers would view not performing a CTG to assess baby's wellbeing prior to epidural insertion with mild to moderate disapproval.

c. Her consultation with the obstetrician

See Question 1.

Please comment on the responsibility, if any, [the DHB] staff had in the management of [Mrs A's] labour.
Some comments have been made under Question 1.

[Dr C] was present in the morning when [Ms B] first requested an epidural for [Mrs A]. [Dr C] led some general discussion around the issue and wisdom of considering a homebirth for a prolonged pregnancy. Ideally the concerns [Dr C] had regarding homebirth should have been in the first instance discussed with [Ms B]. Leading a general discussion regarding homebirth in prolonged pregnancy when [Ms B] had just arrived at the hospital with [Mrs A] who was requesting an epidural can be perceived as behaviour that is meant to undermine a practitioner and does not bode well for collegial relationship.

[Mrs A] required secondary care and therefore the clinical responsibility was with the [the DHB] staff even though [Ms B] was the midwifery LMC. The [DHB] staff were able to go and review [Mrs A's] management plan at any time. It appears from the documentation that [Ms B] did have conversation with [the DHB] staff regarding her concerns with deceleration of baby's heart rate — though this was interpreted as Type 1. However, when repeated concerns are raised one would expect the secondary staff to instigate a review — in this instance the review of [Mrs A's] and the baby's wellbeing in labour.

[In the DHB's response] it stated that as a result of what happened to [Baby A], second opinions are now actively sought throughout the unit, most noticeably in Delivery suite at [the hospital]. It is heartening to know that this is now embraced as part of practice and is seen as collegial support and safe practice. However, it leaves one wondering what the environment was when [Ms B] arrived at [the hospital] with [Mrs A] in relation to obtaining a second opinion. There is no mention of the birthing unit staff in particular the midwifery co-ordinator of the birthing unit who can often be a resource in ensuring good communication occurs during primary and secondary interface.

Any other information you consider relevant
Following [Baby A's] death [Ms B] did try to support [Mr and Mrs A] in their grief staying with them immediately afterwards and visiting them everyday with support of [her colleague]. [Ms B] stopped visiting [six days later] following explanation to them that she had failed to correctly interpret the CTG and would no longer work as a midwife. [Her colleague] continued [to provide postnatal care]. It needs to be noted that [Ms B] had reflected on her practice. Once she identified her role in the error she informed [Mr and Mrs A] of her failure and handed over the care to [her colleague] so that [Mr and Mrs A] could continue to receive unbiased care and support at this difficult time. As practitioners you are aware that there is a potential to make a human error of judgement in practice and you hope that it does not happen to you.

Further comments

Documentation
Some of the DHBs use a stamp or a sticker to increase clarity in relation to who is clinically responsible for the woman's care when secondary care input is required. When a stamp or a sticker is not available practitioners have a responsibility to document clearly where clinical responsibility lies and whether the midwifery care would be provided by the LMC midwife or the DHB midwife. This decision should be a three way discussion between the woman, the LMC and secondary services [Section 88].

Cord round the neck tightly three times
From the documentation it appears that [Baby A] had cord tightly round the neck three times. This is unpredictable and not diagnosed until the time of birth. However, the foetal heart rate irregularities were present from the commencement of the CTG monitoring which needed to be acted on appropriately.

Use of Partogram
As stated [in the DHB's response] Partogram is a means of assessing the progress in labour and not using it for normal births is reasonable as long as the relevant documentation occurs in the clinical records. As stated Partogram does not provide accurate information about the baby's condition — the quarter to half hourly documentation of baby's heart rate only gives an indication of the heart rate but does not indicate whether baby's heart rate variability is normal, or any accelerations or decelerations are present or absent.

The CTG trace gives more information about the baby's condition. If the trace is not monitored well by the external transducer then a foetal scalp electrode (clip on the baby's head) can be applied to get a continuous monitoring. The CTG enclosed shows a good recording and therefore not applying a foetal scalp electrode during [Mrs A's] labour is reasonable.

Future pregnancy
[Dr C writes] that if [Mr and Mrs A] wish the [hospital] could care for them in the next pregnancy with regular scans to monitor the baby's growth and that the safest birthing options would be discussed by [hospital] staff in the antenatal period. This leaves one with a perception that there was a problem with [Baby A's] growth (3260gms at birth) and that safe birthing options were not discussed by [Ms B]. Practitioners need to be aware that such comments can result in further distress for all concerned and they do not provide reassurances or guarantees that may be difficult to meet.

Summary
The information provided in the file shows that [Ms B] made a human error of judgement in not recognizing [Baby A's] distress during labour. The standard of care provided by [the DHB] staff needs further consideration as [Mrs A] on admission

required secondary care. The [hospital] medical staff had the clinical responsibility of [Mrs A's] labour care. [The DHB] staff and LMC need to address the communication challenges they face to ensure women have seamless transition from primary to secondary maternity care.

References:

MOH (2000), *Maternity Services Notice Section 88 of the New Zealand Public Health and Disability Act.* MOH.

New Zealand College of Midwives (2005), *Handbook for Practice*, NZCOM, Christchurch.

Additional comment from Ms Waller

In relation to the normal process for a midwife to obtain permission to commence Syntocinon, Ms Waller advised that it is appropriate for the midwife to telephone the obstetrician and get permission verbally. However, Ms Waller advised that because this is a Level 2 referral the clinical responsibility is automatically assumed by the secondary care team. Therefore, Ms Waller would expect the obstetrician to review the woman at some stage after the Syntocinon was commenced, to check that everything was progressing well.

Appendix B — Expert obstetric advice

Report by Obstetric and Gynaecology advisor Dr Kenneth Clark

I have been asked to provide an opinion to the Commissioner on case number 07/15908, and I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I am a specialist Obstetrician and Gynaecologist in active practice at MidCentral Health, Palmerston North. The unit within which I work is a medium sized secondary care facility and is accredited for specialist training, with registrars forming a significant part of the service. My relevant qualifications are as follows — MBChB (Otago), Fellow RANZCOG, Fellow RCOG. I am the immediate past-President of RANZCOG and have been active over the last 15 years in facilitating relationships between professional groups and promoting debate as to models of care in women's health in New Zealand. I also hold the position of Medical Director/Chief Medical Officer at MidCentral Health. My full Curriculum Vitae is available if required.

Information reviewed:

[At this point Dr Clark refers to the information provided by HDC. This information has been removed for the sake of brevity.]

…

MOH Maternity Services Notice Pursuant to Section 88 of the New Zealand Public Health and Disability Act 2000 [refer to Appendix C for relevant sections].

[At this point Dr Clark refers to the summary of the care provided to [Mrs A] provided by this Office. This has been removed to prevent repetition.]

1. What responsibility, if any, the clinical team had in the management of [Mrs A]?

The Specialist clinical team had the following broad responsibilities in the management of [Mrs A]:

a. Availability for consultation (on repeated occasions if required).
b. Availability and capacity to receive a handover of care from the Lead Maternity Carer if required.
c. Availability and capacity for emergency intervention if required (in essence another form of handover of care).

In respect to all of these responsibilities the Specialist clinical team needed to ensure that its responses were:

i) Timely.

ii) Conducted by individuals with sufficient expertise and seniority. Where consultation was undertaken by the registrar, [Dr D], under delegation from the Specialist Obstetrician, [Dr C], there was a requirement for involvement of the Specialist if the clinical circumstances would be best addressed by the most senior member of the team.

iii) Undertaken with open, respectful communication with the Lead Maternity Carer (LMC), [Ms B], and with [Mrs A]. Such communication and decision making/recommendations as to appropriate actions, needed to be clear, unambiguous, evidence based, and formed in cognizance of the Lead Maternity Carer's professional capabilities. All communication and clinical advice needed to be carried out with due regard for national legislation in effect at that time (MOH Maternity Services Notice Pursuant to Section 88 of the New Zealand Public Health and Disability Act 2000) and to relevant local policies and procedures in use at the facility. Particular reference is required to Appendix 1 of the Maternity Services Notice, that is, 'Guidelines for Consultation with Obstetric and related specialist Medical Services'.
In order for the specialist team to fulfil its responsibilities it was able to expect that the LMC, [Ms B], would when consulting provide to the team adequate and accurate information to a standard expected of such a professional. On the basis of the information provided by the LMC the team could then construct reasonable advice and recommendations and decide on the nature of consultation — that is, verbal (with or without assessment of investigation or monitoring results such as a CTG tracing) or in the form of attending the woman with history taking, examination, and assimilation of monitoring records and investigation results as required.

When the actions of the [the] DHB Obstetric Specialist team are measured against the standards listed above I would wish to make the following observations:

The Specialist team was able to fulfil responsibilities a), b) and c). As to the team's performance against these responsibilities as per the criteria listed above:

i) The responses made were timely. Even given the clear documentation of the Registrar's other clinical commitments on that day, there is no reason to believe that [Dr C] was not available at short notice if [Dr D] was not able to respond to the LMC's requests for input.

ii) As to provision of sufficient expertise and escalation to a more senior member of the team if required — after the LMC [Ms B's] initial consultation with [Dr C] (at approximately 0810) it was reasonable for the Registrar, [Dr D], to be delegated the responsibility of being the team's point of further consultation. However, it appears that [Dr D] did not

contact [Dr C] when he assessed [Mrs A] at approximately 1445 — at this time he 'discovered' the extremely abnormal CTG monitoring record. He then performed a fetal blood sample, finding the pH to be 6.811, a level indicating severe fetal compromise with a substantial risk of imminent fetal death. This was a true clinical emergency with a need for expedition of delivery within the bounds of safety for the mother and without adding extra risk to the baby. The most senior team member, [Dr C], should have been involved from that point. I am not able to ascertain whether the failure to contact [Dr C] has its basis in system issues and problems with team dynamics, or sits with [Dr D]. It is my opinion that this represents a major failure of the clinical team to meet the standard of care and skill reasonably expected in these circumstances and would incur moderate to severe peer group disapproval.

iii) As to communication and the subsequent forming of recommendations and advice — later in this report I will comment on the appropriate timing of a three-way conversation with the LMC and [Mrs A], however in general it is my opinion that the Specialist clinical team did communicate with the LMC and [Mrs A] to an acceptable standard. What is more, it is my opinion that the team was not able to adequately address its responsibilities, given the failure of the LMC, [Ms B], to provide the team with accurate information. A major error was made by [Ms B] in the interpretation of the CTG tracing soon after it was commenced and this error was perpetuated thereafter.

A caveat to my opinion is the differing versions of events — in relation to both details of timing and to the exact content and nature of consultation — given by [Ms B] and [Dr D]. It is not possible or proper for me to come to any conclusion as to the veracity of their statements.

2. *What responsibility the clinical team had to initiate a three-way conversation with the LMC and [Mrs A]. At what stage should this have been done?*

Put simply, the team had a responsibility to initiate a three-way consultation when it believed that there may be a requirement for specialist Obstetric services. Within Appendix 1 of the MOH Maternity Services Notice (page 31) it states that 'where a consultation occurs the decision regarding ongoing clinical roles/responsibilities must involve a three-way discussion between the specialist, the Lead Maternity Carer and the woman concerned'. It is my assessment of this statement that if there may be a need for handover of care, and thereby a requirement for specialist services, then a three-way conversation should occur.

In this circumstance, where did that point fall? On the day of her labour [Mrs A] had the following relevant conditions — post maturity (prolonged pregnancy), prolonged first stage of labour (poor progress), a need for an epidural for pain relief, and fetal heart rate abnormalities. Post maturity and the need for an epidural were evident at the

time of [Mrs A's] admission to the Labour Ward. Poor progress in the first stage of labour was not but became evident over the ensuing six hours. Fetal heart rate abnormalities were present and recorded from the commencement of the CTG tracing at 0912 (time recorded on the recording itself) however the LMC, [Ms B], felt that there were only 'type 1 decelerations' and that the tracing was generally reassuring. From both the actual clinical notes and the statements of [Ms B] and [Dr D] it does not appear that the CTG abnormalities were recognized as such until 1430 or thereabouts. 'Type 1 decelerations' or 'early decelerations' as they are known are not considered an abnormality in themselves within the context of active labour.

Again, turning to page 31–34 of the MOH Maternity Services Notice, Appendix 1, the four conditions listed above are all assigned level 2 status, that is, 'the LMC must recommend to the woman that a consultation with a specialist is warranted'. At 0800 or thereabouts two of these conditions were made known to the Specialist team by way of a consultation. By 1430 or thereabouts all four conditions were made known to the Specialist team by way of consultation.

It is my considered opinion that, given the information furnished to them, the specialist team should have initiated a three-way conversation at 1445 or thereabouts. In essence, such a conversation did take place at this time.

3. Other comments.

My opinions as stated are founded on the clinical records and statements provided and are set against the Maternity Services Notice in effect at the time of the case. I wish, though, to make mention of the culture that has developed in many, if not all, maternity facilities in New Zealand since the legislature changes dating from the early 1990s. Such changes have seen profound alterations in the role of the midwife with equally significant impacts on midwifery–medical interaction. The increased professional autonomy of the midwife, particularly when fulfilling the Lead Maternity Carer role, has, I believe, had the effect of 'demedicalising' many aspects of the obstetric management of pregnancy, labour and birth for some women and has undoubtedly strengthened the role of the midwife in the provision of primary Obstetric care in New Zealand. Over time most Obstetricians have accepted that they must respect an LMC's professional autonomy, however some Obstetricians have developed a mindset whereby they feel that they are now simply 'the ambulance at the bottom of the cliff' and must await the LMC's invitation before reviewing and intervening if required. This is set against the usual medical paradigm of constant and proactive risk assessment with early intervention if necessary.

I make no value judgement about the situation as described, nor is there substantial evidence to indicate whether continuity of care, intervention rates, and perinatal and maternity morbidity and mortality have been altered by this major change to the model of care operating in New Zealand. Equally, a philosophical evaluation of the merits or otherwise of a 'wellness' model of care versus a medical 'sickness' model is of little help in the assessment of this particular case except in as much as the tension between

professional groups resulting from the differences in approach does play a part in every day behaviour in clinical settings. The manner in which the current legislation is interpreted, and the models of care embraced by professions, do influence communication patterns between health professionals.

Whilst not relevant to this case the revised Maternity Services Notice (July 2007) does go some way towards improving matters. Within this Notice there is greater emphasis on clinical competencies being matched to the pregnant woman's needs and there is also a greater appreciation of the need for an LMC to be cognisant of Obstetric facilities' clinical policies and procedures.

Additional advice from Dr Kenneth Clark

In relation to the responsibility of the obstetrician when asked to give permission for an epidural, Dr Clark advised that the obstetrician relies on the information provided by the LMC. If the LMC advises that everything is normal it would be common for the obstetrician to approve an epidural verbally without reviewing the woman.

In relation to Syntocinon, Dr Clark said that if everything is normal, this would also be the normal practice. However, if the LMC advises of a risk factor, the obstetrician would generally review the woman first.

Appendix C

Other relevant standards

Section 88 of the New Zealand Public Health and Disability Act 2000 (effective from 1 July 2002):

"… **APPENDIX 1**

GUIDELINES FOR CONSULTATION WITH OBSTETRIC AND RELATED SPECIALIST MEDICAL SERVICES

1.0 PURPOSE OF GUIDELINES

This document provides guidelines for best practice based on expert opinion and available evidence. It is the intention that the guidelines be used to facilitate consultation and integration of care, giving confidence to providers, women and their families.

For the purposes of these guidelines, referral to specialist services includes both referral to Secondary Maternity or to a specialist, as defined in this Notice. …

2.0 CIRCUMSTANCES WHERE GUIDELINES MAY BE VARIED

The guidelines acknowledge that General Practitioners, General Practitioner Obstetricians and Midwives have a different range of skills. The guidelines are not intended to restrict good clinical practice. There may be some flexibility in the use of these guidelines:

(a) The practitioner needs to make clinical judgments depending on each situation and some situations may require a course of action which differs from these guidelines. The practitioner will need to be able to justify her/his actions should s/he be required to do so by their professional body.

It is expected that the principles of informed consent will be followed with regard to these guidelines. If a woman elects not to follow the recommended course of action, it is expected that the practitioner will take the appropriate actions such as seeking advice, documenting discussions and exercising wise judgment as to the ongoing provision of care.

(b) It is also recognised that there may be some circumstances where the requirement to recommend consultation places an unnecessary restriction on experienced practitioners, particularly where there is no immediate access to specialist services. The individual practitioner can come to an appropriate arrangement with the specialist.

It is agreed that, in accordance with good professional practice, a practitioner must record in the notes the reasons for the variation from the guidelines.

…

5.0 LEVELS OF REFERRAL

These Guidelines define three levels of referral and consequent action:

Level 1

The Lead Maternity Carer **may recommend** to the woman (or parents 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 may be affected by the condition. *Where a consultation occurs, the decision regarding ongoing clinical roles/responsibilities must involve a three way discussion between the specialist, the Lead Maternity Carer and the woman concerned. This should include discussion on any need for and timing of specialist review.* The specialist will not automatically assume responsibility for ongoing care. This will depend on the clinical situation and the wishes of the individual woman.

Level 2
The Lead Maternity Carer **must recommend** to the woman (or parents in the case of the baby) **that a consultation with a specialist is warranted** given that her pregnancy, labour, birth or puerperium (or the baby) is or may be affected by the condition. *Where a consultation occurs, the decision regarding ongoing clinical roles/responsibilities must involve a three way discussion between the specialist, the Lead Maternity Carer and the woman concerned. This should include discussion on any need for and timing of specialist review.* The specialist will not automatically assume responsibility for ongoing care. This will depend on the clinical situation and the wishes of the individual woman.

Level 3
The Lead Maternity Carer **must recommend** to the woman (or parents in the case of the baby) **that the responsibility for her care be transferred** to a specialist given that her pregnancy and labour, birth or puerperium (or the baby) is or may be affected by the condition. *The decision regarding ongoing clinical roles/responsibilities must involve a three-way discussion between the specialist, the Lead Maternity Carer and the woman concerned.* In most circumstances the specialist will assume ongoing responsibility and the role of the primary practitioner will be agreed between those involved. This should include discussion about timing of transfer back to the primary practitioner.

…

CODE	CONDITION	DESCRIPTION	
	CURRENT PREGNANCY		
4024	Prolonged pregnancy	41 weeks, > 41 weeks – assessment, discussion & plan	2
	LABOUR & BIRTH — FIRST & SECOND STAGE		
5009	Epidural		2
5011	Foetal heart rate abnormalities		2
5023	Prolonged second stage of labour	> 2 hours nullipara or > 1 hour multipara with no progress	2

…"