Midwife, Ms B

A Report by the

Health and Disability Commissioner

(Case 05HDC17106)

Parties involved

Ms A	Consumer/complainant
Mr A	Complainant/consumer's husband
Baby A	Consumer's baby
Ms B	Provider/independent midwife
Dr C	Obstetric consultant
Dr D	Obstetric registrar
Ms E	Complaints Coordinator, DHD
Ms F	Midwife
District Health Board	A District Health Board
Public hospital	A Hospital

Complaint

On 22 November 2005 the Commissioner received a complaint from Mr and Ms A about the services provided by independent midwife Ms B. The issues investigated by the Commissioner arising from Mr and Ms A's complaint were identified as follows:

- *The adequacy and appropriateness of the antenatal care provided by Ms B to Ms A prior to the delivery of Baby A on 3 May 2005.*

- *The adequacy of the information provided by Ms B to Ms A during the antenatal period.*

- *The adequacy and appropriateness of the intrapartum care provided by Ms B to Ms A on 3 May 2005.*

- *The adequacy of the information provided by Ms B to Ms A during the intrapartum period.*

An investigation was commenced on 17 January 2006.

Information reviewed

Information was received from:

- Ms A
- Mr A
- Ms B
- Dr C
- Ms E, Complaints Coordinator, District Health Board
- Midwifery Council of New Zealand

Ms A's clinical records were obtained from the District Health Board. The relevant ACC treatment injury claim documentation was also reviewed. Independent expert advice was obtained from midwife Liz Brunton.

Information gathered during investigation

Background
In September 2004, Ms A, a 31-year-old overseas national who was pregnant with her first baby, contacted independent midwife Ms B to discuss engaging her as LMC (Lead Maternity Carer).

Ms A first met Ms B for an antenatal and booking appointment on 21 October 2004, when she was in the 13th week of her pregnancy. During this first visit, Ms A and Ms B began to formulate a birth plan.

Antenatal appointments
Ms B saw Ms A for antenatal checks at regular four-weekly intervals until she was 28 weeks pregnant, and thereafter every two weeks. On 1 November 2004 an ultrasound scan confirmed Ms A's delivery date as 28 April 2005, and that her pregnancy was progressing normally.

Ms A recalls:

> "I started to worry that my check-ups were too short and that symptoms and concerns I had were not dealt with properly. For example, I had carpal tunnel syndrome but no treatment whatsoever was offered to me. My weight, BP and urine were not checked at each visit. The midwife tried to tell me my dates were wrong (based on the late scan) …

> [She] explained every problem or issue [I] raised with the phrase 'that is normal' with little explanation of why this was normal."

Ms B recorded a total of 11 antenatal visits to Ms A. She recorded Ms A's gestation and blood pressure at every visit. The fetal heart observations were recorded at every visit after 17 weeks, as was the fetal position and size. Ms B performed and recorded urine analysis on seven visits only. She said that Ms A was not always able to provide a urine sample for testing. Ms A's weight was measured at nine out of the 11 visits, and her total weight gain was 15kg. Ms B agreed that she used the word "normal" at times to reassure Ms A, as there was nothing abnormal during this time to cause Ms B concern.

Ms B stated that Ms A had previously been treated for bilateral tendosynovitis (carpal tunnel syndrome) and had been given exercises and hand splints by a physiotherapist before she became pregnant. Ms B recalls suggesting a referral to a private physiotherapist when Ms A told her that she had pain in her wrists during the 35th week of her pregnancy. Ms A began to wear the hand splints and re-started the exercises.

Ms A completed her birth plan in consultation with Ms B. Ms A circled her options for her labour on the plan. It appears that, initially, she planned to use a TENS machine at the beginning of the labour for pain relief, and then proceed to an epidural if the TENS did not control her pain. However, the birth plan, dated 25 April 2005, shows that the epidural option was later deleted. The only option indicated was "TENS".

Ms B explained:

> "In addition to what is stated on the care plan, location of visits, schedule of visits, continuity of care, cultural safety, emergency contact numbers, referral to other services (as appropriate), education plan during pregnancy, tests, scans, hospital registration, LMC registration and commencing an ante-natal booklet. I also explain back-up midwife, smoking, alcohol and drugs cessation, warning signs of complications, ie miscarriage etc. …
>
> I would also discuss any concerns or questions that the clients had and any particular problems that arose during the booking visit. … At no point did I feel that [Ms A] needed an interpreter, her spoken and written English are perfect, she could very easily communicate anything she wished to me including medical terms."

When Ms A reached the 40th week of her pregnancy, Ms B requested a second scan for growth analysis and a biophysical profile. The scan, performed on 27 April 2005, showed that the baby was approximately 3852g in weight (8lbs 8 oz). The report concluded:

> "Normal appearances. Growth satisfactory for dates of 40+ wks. … (EDD [estimated date of delivery] 26-4-05.)"

Ms B advised that scan weight estimations can be plus or minus 500g. Ms B explained that as Mr A was short and Ms A was slightly taller and heavier than average for a woman of that nationality (165 cms tall and weighing 79 kg), she had no concerns about Ms A's ability to deliver her baby safely.

Labour

Ms A's labour started at midnight on 3 May 2005, in the 41st week of her pregnancy. Mr A rang Ms B at 2am to advise her that the labour had started. She told him the delivery was still many hours away. Mr A recalls that he contacted Ms B on two further occasions during the night, to be told that it was too early for Ms A to go to the hospital. Mr A stated that he contacted Ms B again at about 6am and was still advised to stay at home, but Mr and Ms A decided to go to the hospital.

Ms B stated:

> "I was first telephoned at around midnight on 03/05/05 by [Mr A] saying that [Ms A's] waters had broken but she had no contractions. They stated that the baby was still moving and that her liquor was clear. [Ms A] was then term plus 5 days. I explained that we would wait for a few hours for contractions to start before commencing active management (usually around 6 to 12 hours), ie being seen by the obstetric services for acceleration of labour. I received another call at around 2am with the same information. I said that we would wait for a while and that I would call and see them at home. I went back to sleep. I was telephoned at 7.20am by a midwife at [the Hospital] saying that [Ms and Mr A] had arrived unannounced at the delivery unit at 7.15am."

The Hospital clinical notes confirm that Mr and Ms A arrived at the delivery suite at 7.15am on 3 May 2005. Midwife Ms F admitted Ms A. She assessed Ms A's blood pressure and pulse and started CTG[1] monitoring of the fetal heart. Ms F recorded that Ms A was "distressed" on her arrival at the delivery suite. Her contractions were occurring 1 in 3 minutes and were of moderate strength. Ms F noted: "Apparently SROM [spontaneous rupture of membranes] at 2400 [midnight]. Nil liquor seen." Ms F noted her concern about the fetal heart rate on the CTG trace and positioned

[1] A cardiotocograph or CTG is the external electronic monitoring of the fetal heart rate. A CTG can indicate any abnormalities in fetal heart rhythm, which may indicate fetal distress. The Doppler unit converts fetal heart movements into audible beeping sounds and records this on graph paper.

Ms A onto her left side (an accepted manoeuvre for improving blood flow to the fetus), to await Ms B's arrival at the delivery suite.

At 7.30am Ms F recorded that the CTG trace had improved.

Ms F performed a vaginal examination on Ms A at 7.40am and found that her cervix was 4cm dilated and the fetal head was in the pelvis. The fetal heart rate was within normal limits at 130–140bpm (beats per minute).

At 8am Ms F recorded that Ms A was using Entonox gas for pain relief and felt tired. The CTG was now "satisfactory".

There is a discrepancy about the time Ms B arrived at delivery suite to take over Ms A's care. Mr and Ms A recall that she arrived at 9.00am. However, the clinical records (recorded by Ms F) show that Ms B arrived at 8.30am.

At her initial assessment, Ms B noted that Ms A was "very distressed and in an active and rapid labour — of which I was not aware until I arrived at delivery unit". Ms B performed a vaginal examination and found that the cervix was 7 cm dilated and the fetal head was still at the level of the pelvic spines,[2] where it had been when Ms F assessed Ms A at 7.40am. Ms B said that she explained to Ms A that her forewaters[3] had not gone but were bulging. Ms B said that she also explained about performing an ARM (artificial rupture of the uterine membrane) to expedite delivery and monitor the colour of the liquor. Ms A requested that Ms B undertake an ARM, which she did, noting that the draining liquor was "clear". (It appears from Ms B's decision to perform an ARM and Ms F's earlier comment that there was no liquor draining, that Ms A's impression that her membranes had ruptured spontaneously at midnight was incorrect.)

Ms A does not recall the ARM being performed or that any discussion about the procedure took place. She believes that Ms B did not tell her how far dilated she was at this time.

Ms B stated:

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[2] When the presenting part is at the level of the ischial spines, the outlet of the mother's pelvis, it is at an O station (synonymous with engagement). If the presenting part is above the spines, the distance is measured and described as minus stations, which range from -1cm to -4cm. If the presenting part is below the ischial spines, the distance is stated as plus stations (+1cm to +4cm). At a +3 or +4 station, the presenting part is at the perineum (synonymous with crowning).

[3] A bulge in the uterine membrane preceding the presenting part, containing uterine liquor.

> "Following the ARM, the cervix was 9cms dilated. I re-checked the VE [vaginal examination] for an umbilical cord, there was not one present (with explanation). The liquor was clear. Then occurred a sudden and prolonged bradycardia to 60 beats per minute lasting 2 minutes. During this time I turned [Ms A] onto her left side saying that the baby's heartbeat had dropped unexpectedly. I constantly reassured and explained to them at all times. I adjusted the CTG transducer to locate a better recording and pressed the emergency bell. By the time the obstetric team arrived the fetal heart rate had already recovered to its previous rate of between 125 and 130 beats per minute. At 8.45am, I changed fetal heart monitors from an FM 6 to a Corometric monitor as I felt the tracing was poor on the old monitor."

The obstetric house officer recorded that he attended Ms A at 8.30am with obstetric consultant Dr C and registrar Dr D. The team examined Ms A, found no evidence of cord prolapse, and reviewed the CTG trace. The obstetric house officer recorded the details of this assessment retrospectively at 1pm. He noted that the action plan, recommended by Dr C and Dr D, was that Ms B was to continue to monitor the CTG and call the obstetric team if she had further concerns.

Ms B took blood from Ms A, in case cross-matching for transfusion was needed, and commenced her on intravenous fluids. At 8.50am Ms B performed another vaginal examination and assessed Ms A's cervix to be almost fully dilated, with a remaining anterior rim of cervix. At 9.10am Ms B gave Ms A 100mg of pethidine and 10mg of Maxolon for the control of pain and nausea. Ms B's notes record that this was given because Ms A was "very distressed".

Ms A recalls that when Ms B asked her whether she wanted pethidine she asked "why", as she wanted an epidural. Ms A recalls being told that it was too late for an epidural and then agreeing to the administration of pethidine. Mr and Ms A later expressed concern that pethidine was offered when it was not part of the birth plan and is known to suppress a baby's breathing.

Ms B stated:

> "Prior to administration of pethidine at 09.10am, I requested [Ms A] to have an epidural as I thought this was the best option. She refused. I cannot force people to go against their personal wishes. I asked [Mr A] to explain this to [Ms A's] mother who was present and did not speak English. [Mr A] is fluent in [Ms A's language]. [Ms A] is fluent in both English and [her own language]. … I explained that [Ms A] needed some form of analgesia. She was in great pain and the TENS machine was not adequate analgesia. I explained that pethidine would help with the pain relief and that usually with a LOW dose of pethidine, any effect on the baby would quite likely have dissipated prior to the

> delivery, which was not imminent. I also explained about Neonatal Narcan [opoid antagonist], and prepared some next to the Resuscitaire [baby resuscitation table]. I drew up one ml, which is the usual practice, as the dose is judged on the estimated birth weight."

At 10am Ms B catheterised Ms A and repeated a vaginal examination. She determined that Ms A's cervix dilatation had not progressed since the 8.50am assessment.

At 10.50am Ms B recorded that Ms A's contractions had become "very infrequent". Ms B explained to Ms A that her contractions were diminishing and that she had been too long in the first stage of labour. Ms B discussed the use of Syntocinon, explaining that this drug would strengthen the contractions. Ms A remembers this discussion and says that she agreed to the Syntocinon as she understood that it would speed things up.

Ms B contacted Dr C to discuss commencing an intravenous Syntocinon infusion. Ms B's recollection of this conversation is as follows:

> "I stated that the contractions had receded, [Dr C] asked if she [Ms A] may need some Syntocinon, I said I think so, she said O.K."

Ms B explained that she took this conversation as permission to start and thought that Dr C would write in the notes when she had time, the delivery unit being very busy at that point.

Dr C stated:

> "I do remember precisely the conversation I had with [Ms B] with regards to the possible need for Syntocinon administration to augment labour. Unfortunately, I do not remember the time of that conversation. Whilst walking down the Labour and Birth Unit corridor, I was asked by [Ms B] the following question: 'If my patient needs a Syntocinon infusion, could I start it?' The way that the question was posed, I was in no doubt that there was no intention at that time to commence Syntocinon, but that it was being stated that there was the possibility of such a consideration arising and that my agreement to that was being sought. Hence I responded with a question: 'Do you think that your patient needs it at present?' (Or words to that effect.) [Ms B] stated that there was no need at that time but that she wished to know whether she could just proceed to its use if she subsequently felt it was necessary. I responded that if such a need arose, it would be necessary to consult with the team at that time to review the patient. As there was no indication at that time that there was a need to consider Syntocinon, I did not feel it necessary or appropriate to review the patient."

Following this discussion, at 10.50am Ms B commenced the intravenous Syntocinon infusion — 10 units in 500mls of saline 0.9%, as per the Hospital policy "Syntocinon Augmentation in Labour — Midwifery Management of — *Updated January 2003*" (**attached** as Appendix 1).

The Hospital Syntocinon policy specifies that in the case of a woman experiencing her first pregnancy the dose is commenced at 1mu/min (3mls/hr). The policy recommends that the dosage rate is doubled every 10 minutes until there are 3–4 contractions in 10 minutes, lasting approximately 40–60 seconds. The maximum dose is 40mu/min, and a medical management plan is to be documented for specific instructions above 40mu/min.

Ms B increased the dose of Syntocinon at 11.15am to 6mu/min, at 11.25am to 8mu/min and at 11.35am to 10mu/min. She assessed and recorded the fetal heart rate at each increase noting the rate to be between 122bpm and 166bpm. At 11.35am, Ms B noted: "Contractions still not increasing despite Syntocinon."

At 11.45am Ms B increased the Syntocinon dose to 12mu/min, 14mu/min at 11.55am and 16mu/min at 12.05pm. By this time over an hour had passed since the Syntocinon was commenced. The Hospital "Syntocinon Augmentation in Labour" policy states that the "Dose and rate of increase must be clearly charted by the doctor on second stage management plan … Following an hour of augmentation vaginal assessment is made by the Consultant or Registrar."

Ms B assessed the fetal heart rate at each increase as she had previously. The heart rate was noted to be within the previously recorded range. The Syntocinon policy states that constant attention is to be paid to the CTG. Any signs of fetal heart abnormalities must be reported to the Clinical Charge Midwife and Syntocinon discontinued until the signs have been assessed. Hospital also has a policy on "Fetal Heart Rate Surveillance — Management Of" issued in December 2004 (**attached** as Appendix 2).

Ms B monitored the CTG trace continuously. She "felt" that there were early decelerations, but nothing that warranted intervention of an emergency call to the obstetric team. Progress in second stage was "good" for a primigravida. Ms B advised that the monitor did not record the heart rate well during the contractions and that she auscultated at some points with a Sonic Aid and heard no decelerations.

Ms B stated:

> "[Baby A's] head delivered at 12.12pm. I checked for an umbilical cord around the baby's neck. There was no cord present. I waited for a contraction. I evaluated for an episiotomy [incision of perineum to enlarge the vaginal opening] and felt that one was not required. I adjusted Mum's position twice as

> she kept sitting up very upright to see the baby's head and I felt she would hurt his neck. I checked the maternal pulse, which was about 100. The baby's was around 88bpm. When no contraction arrived, I massaged the uterus to 'rub up' a contraction. I used continuous traction of the baby's head in order to deliver the anterior shoulder. I then used continuous traction with supra-pubic pressure (I explained to [Mr A] and he undertook this). I then attempted McRobert's manoeuvre unsuccessfully, with [Mr A] helping with holding the legs. I lowered [Ms A's] head down again as she kept sitting upright. I then assessed if internal rotation of the anterior shoulder was needed, it was not as the shoulders were in the anterior-posterior diameter. I then attempted to deliver the posterior arm by flexing the elbow across the chest wall. I was unable to do this. I then pressed the emergency bell at 12.22pm when I had attempted all first-aid manoeuvres that I knew. … I called for help when I had exhausted everything that experience had given me in 22 years of midwifery."

Ms A recalls being asked to push but was not aware of any sense of urgency.

The obstetric team arrived quickly. Dr D retrospectively recorded the events of the delivery of Ms A's baby. He noted that the emergency call was timed at 12.21pm. When the obstetric team entered the delivery room, they found a distressed patient in lithotomy (flexed leg) position. The baby's head, which was blue, could be seen at the opening of the vagina. Ms B told the team that the birth was complicated by shoulder dystocia,[4] and that she had tried unsuccessfully to effect delivery by a McRobert's manoeuvre[5] and by applying pressure on the mother's symphysis (pubic bone).

Dr D tried to deliver the baby by a "woodscrew" manoeuvre, which was unsuccessful. He then extracted the posterior shoulder with a midwife's assistance. Baby A was born at 12.23pm. He had no heartbeat and made no attempt to breathe. Dr D began to resuscitate him using an oxygen mask and chest compressions. The paediatric team arrived and continued the resuscitation with intubation and adrenaline.

The consultant paediatrician was called to provide advanced resuscitation. Baby A was taken to the neonatal intensive care unit at 12.45pm for further assessment and monitoring.

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[4] Shoulder dystocia is a problem that occurs at the second stage of labour when the fetal head is born but the shoulders are too broad to enter and be delivered through the pelvic outlet. The problem is increasing in incidence along with the increasing average weight of infants.

[5] McRobert's manoeuvre may assist in delivering the baby's anterior shoulder. The woman is positioned with her thighs sharply flexed on her abdomen, which widens the pelvic outlet.

Postnatal care
Baby A remained on mechanical ventilation for about 24 hours. When he was reviewed by the paediatricians at just over two hours of age, he was diagnosed as having Grade 2 hypoxic ischaemic encephalopathy. Hypoxic ischaemic encephalopathy is a term used to describe abnormal neurological function caused by lack of oxygen to the brain before or during the birth process.

Ms A was admitted to the postnatal ward and was visited by Ms B daily.

On 5 May, Ms A told one of the ward midwives that she had pain in her wrist, hand and arm, which was radiating to her shoulders. The midwife arranged for a physiotherapist to see Ms A that afternoon. The physiotherapist prescribed some exercises and two wrist braces.

Ms B continued to visit Ms A daily until she was discharged home on 11 May. Ms B next saw Ms A at her home, on 15 May, when Baby A was discharged home.

On 18 May, Ms B referred Ms A to a physiotherapist for assessment and treatment of her wrist pain. Ms B continued to visit until 10 June when she discharged Ms A and Baby A to the care of the Plunket nurses.

Follow-up actions
On 23 June 2005 Ms A and Mr A met with the District Health Board Clinical Director of the Newborn Intensive Care Unit, the Director of Obstetrics and Gynaecology, the Midwifery Leader, and the Complaints Coordinator, to discuss the circumstances of their son's birth. Mr and Ms A were informed that the conclusion reached, following an investigation into their concerns, was that Ms B did not follow normal procedures. The clinicians at the meeting informed Mr and Ms A that the on-call obstetric team on 3 May 2005 were not told about the abnormalities on the baby's heart rate tracing. They also stated that there was concern about the time Ms B took to deliver the baby, in particular the delay between the delivery of the head and the rest of the baby. They said that it is expected practice for the midwife to call the obstetric team immediately in this situation. Mr and Ms A were advised that Ms B would be referred to the Midwifery Council for consideration of a competence review.

A referral to the Midwifery Council was made on 24 June 2005. In the letter of referral the Midwifery Leader described the CTG tracing as being "non reassuring" and then becoming "ominous" in the final 30 minutes with what appeared to be a "pre terminal" tracing. She noted that Syntocinon was still being increased at the time of the pre-terminal tracing and commented that Ms B was unaware that the 9–10 minutes taken to delivery the baby's shoulders after the head was born, was "excessive and life threatening".

Midwifery Council
The Registrar for the Midwifery Council advised that in 2006 Ms B had not been fit to work for health reasons. In February 2007, Ms B appeared before the Council's Health Committee, presented medical certificates and was found to be fit to work, subject to conditions. Ms B was issued with a practising certificate until 31 March 2007 and is currently working at the Hospital. Her practice is being monitored and she was instructed to report to the Council's Health Committee six weeks after commencing work.

Ms B's response to complaint
Ms B stated:

> "I still believe that I acted appropriately at all times, that the shoulder dystocia was not expected until it occurred, that [Ms A] did not meet any of the usual criteria for a shoulder dystocia. It was my usual practice to have medical staff present if I anticipated this eventuality and with hindsight this was a case of unfortunate incidents which led up to a very traumatic delivery. I wish it had happened to someone else. My heart-felt sorrow is felt for [Mr and Mrs A] and [their] baby."

ACC
On 9 December 2005, ACC accepted Ms A's treatment injury claim. ACC obtained independent advice from midwife Robyn Maude and from paediatrician Dr D M Barry.

Ms Maude stated:

> "Prior to the birth the fetal heart recordings on the cardiotocograph (CTG) had been non-reassuring since the time of the artificial rupture of the membranes (ARM) at 0830 which resulted in a profound bradycardia[6] of about 7 minutes. There is no documented clinical reason for doing an ARM. The team of the day were consulted regarding the fetal heart deceleration[7] and a vaginal

[6] Fetal bradycardia occurs when the fetal heart rate is below 120 beats per minute (bpm) for 10 minutes. A moderate bradycardia of 100 to 119bpm is not considered serious and is probably due to the fetal head being compressed during labour. Marked bradycardia (under 100bpm) is a sign of hypoxia (oxygen deficiency) and is considered dangerous.

[7] Early decelerations or "dips" are periodic decreases in the fetal heart rate resulting from pressure on the fetal head during contractions. The deceleration follows the pattern of the contraction, beginning when the contraction begins and ending when the contraction ends, the lowest point of the deceleration occurring at the peak of the contraction. Late decelerations occur 30 to 40 seconds after the onset of the contraction and continue beyond the end of the contraction with the lowest point of the deceleration occurring near the end of the contraction. This is an ominous pattern because it suggests fetal compromise and may occur with abnormal uterine tone caused by Syntocinon administration. If Syntocinon is being used when this occurs, the rate should be slowed or stopped.

> examination was performed to rule out cord prolapse. The VE after the ARM revealed that the cervix had gone from 4–7cms and the descent of the head from station –2 to 0 in 40 minutes (demonstrating rapid progress).
>
> The CTG from 0930–1210 demonstrate fetal heart decelerations. There appears to have been no further discussions with the team regarding the continuance of a non-reassuring CTG. There may have been a 'corridor' conversation with the team about augmenting the labour with syntocinon. … A non-reassuring CTG warrants closer surveillance and it is usual practice to carry out fetal blood sampling to determine fetal wellbeing and to assist in decision-making around the need or desire to deliver the baby by sooner.
>
> Accurate assessment of the CTG should have triggered closer surveillance including the performance of fetal blood sampling. If this had been out of the range of normal then the baby may have been delivered earlier, possibly by Caesarean section. It is not possible to say definitely that earlier delivery would have seen a different outcome. Shoulder dystocia however, is largely unpredictable. There was a delay in calling for emergency assistance; however, once help arrived the baby was born using common SD [shoulder dystocia] emergency manoeuvres."

Dr Barry advised:

> "The clinical, laboratory and imaging evidence suggest that the child suffered hypoxic ischaemic encephalopathy and brain damage which potentially could have been averted by a more expeditious delivery."

Independent advice to Commissioner

The following expert advice was obtained from independent midwife Liz Brunton:

> "Regarding Ref: 05/17106
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> Thank you for asking me to provide expert advice to the Commissioner on the above claim.
>
> I have read and I agree to follow the Commissioner's Guidelines for Independent Advisors.
>
> I am a Registered Midwife and a Registered General and Obstetric Nurse and have a Bachelor Degree in Psychology/Nursing. I have worked as a midwife for 25 years.

I worked for 4 years in a hospital setting (post-natal and delivery suite) as a staff midwife and charge-nurse, 6 years in a Polytechnic Institution tutoring student midwives. Over the last 14 years I have worked as a self-employed Independent midwife (LMC). At the beginning of this year (2006) I commenced employment as a full time Lecturer of student midwives, at Massey University in Wellington. I also maintain a reduced case load of LMC based clients as part of my University employment requirements.

Analysis of the information supplied appears to be:

a. Inadequate documentation.
b. Discrepancies in time frames between information submitted by the client and by the midwife.
c. Discrepancies between the client and the midwife regarding the quality and amount of antenatal care.
d. Unexpected and undiagnosed shoulder dystocia following a fairly rapid normal labour of a first time mother.
e. Adequate management of the birth according to normal midwifery practice though there appears to be a delay in the diagnosis of shoulder dystocia and the call for assistance.

Expert Advice Required

To advise the Commissioner whether, in your professional opinion, the services provided to [Ms A] by midwife [Ms B] were of an appropriate standard. In particular:

1. *Did [Ms B] provide adequate and appropriate antenatal care?*

   [Ms B's] care appears to have been adequate and appropriate in terms of number of visits and physical assessment of mother's and baby's growth. Appropriate blood tests and scans were done.

   There appears to be a difference of opinion regarding the degree of understanding [Ms A] had of the explanations given by [Ms B].

   Midwifery care during a pregnancy is usually carried out at frequent intervals and adapted to the client's needs as required. There is a standard format of visits taking place at monthly intervals in the second trimester (14–28 weeks gestation), two weekly visits in the first part of the third trimester (28–36 weeks gestation) and weekly visits for the remainder of the pregnancy.

   [Ms B] states that she responded to [Ms A's] complaints regarding her carpal tunnel symptoms and advised wearing the splints which she had had

for a complaint prior to pregnancy. [Ms B] states that she also recommended a physiotherapy referral at 35 weeks gestation (p00024).

2. *Did [Ms B] provide adequate information in the antenatal period?*

I am unable to comment fully regarding the view that provision of quality midwifery information and support were adequate in the antenatal period.

I find it difficult to answer this question as there is such a lack of documentation.

[Ms B] makes comments regarding how and what information she would give a client at various visits (page 23 of supplied notes).... I am unable to discern what discussions took place from reading of the client case notes. The statement from [Ms A] would suggest that information shared was inadequate and her recollection of the length of each visit does not mirror [Ms B's] description.

The care plan and birth plan (pg. 30–31) has documentation that is minimal and a tick or D/C (discussed) does not necessarily signify understanding by the client of what was discussed. This may be sufficient where there is supportive documentation within the body of the notes. In this instance there is not an extended documentation of each ante-natal visit to highlight the discussion or comments regarding understanding by the client. Topics included in the plans are adequate.

The issue of referral and 'unexpected outcomes' is not completed.

The second birth plan has more substance but lacks any detail of 'referral' criteria for complications and there is debate regarding item 7 (pg 00032) regarding the use of an epidural.

[Ms B's] comment to [Ms A], that all was 'normal' is not an uncommon response when all parameters being measured appear to be with in the acceptable range. Understanding of this response would usually be backed by a depth of explanation but as there is no documentation to support that any discussion took place, it is difficult to judge adequacy of information.

[Ms A's] pregnancy appeared to have progressed within normal limits.

Standard One of the 'Standards for Midwifery Care' (1)(pg 8) states that the midwife, 'shares relevant information within the partnership' and [Ms B] states she did this (pg 00023) .

3. *Did [Ms B] provide adequate and appropriate care during labour and birth care?*

[Ms B] provided adequate and appropriate care for most of the labour and birth.

She responded appropriately to the phone calls at 12 midnight and 2am according to the information she was given. It is usual practice to provide phone consultation and await the onset of established labour before visiting a client having her first baby. According to information provided by the client to [Ms B], the labour had commenced but was not established at 2am. She responded promptly to the call from Delivery Suite at 7.20am and arrived as soon as she could. According to [Ms B], there were no further calls till the Delivery Suite rang her. [Ms A] and her partner recall one or two more phone calls.

It would be usual practice for the client to ring her midwife prior to going to hospital and this is usually organised during the pre-birth period although there is no documented evidence of this in the care plan or the midwifery notes.

Her response to the first deceleration by the baby was correct. From about 10.30 onwards there were signs of increasing distress from the baby and discontinuing the Syntocinon and referral to the Hospital Team would have been appropriate.

In light of the fetal distress and slow birth of the baby's head, it would have been more appropriate to suspect a problem and call for help earlier.

4. *Did [Ms B] adequately manage the labour and birth?*

[Ms B's] care during labour was within the scope of normal midwifery practice until the last hour when referral would have been appropriate.

It is not always usual practice to rupture membranes prior to full dilation but in the interests of promoting a labour, it is a useful tool. At 9 cm with a distressed client, ARM may enhance progress and promote birth and thus reduce the distress. Fetal bradycardia at this time may be a reaction by the baby to the loss of that supportive fluid cushion around the head, and from the descent of the baby's head through the pelvis. When there is good recovery of the fetal heart rate it is reasonable to accept that the fetal distress was a response to an invasive event and not absolutely indicative of a baby with ongoing distress.

[Ms B's] actions were appropriate at this time, ie [Ms A's] positioning, call for help and monitoring the baby's heart rate.

The use of pethidine was appropriate for the stage of labour. The labour had been quite progressive for a first time baby and there would have been an expectation the birth would happen within the hour and that it may have been completed by the time an epidural could be organised and inserted.

The use of Syntocinon in the labour was acceptable, to enhance uterine action and especially with a persistent anterior lip of cervix. This is an invasive practice and the authority to commence this procedure is not within the scope of midwifery practice. There appears to be some confusion regarding whether permission was given by the Registrar on the day, but it would be usual practice for the obstetric team to personally assess the client before a final decision to commence Syntocinon was made. The fact that the team had previously seen the client may have influenced [Ms B's] decision making.

The guidelines regarding Syntocinon augmentation provided within the notes (pg 00067) state, 'dose and rate of increase must be clearly charted by a doctor in the second stage management plan'. This was not done prior to commencement of the Syntocinon.

[Ms B] did not consult the obstetric team again until the baby's shoulders were stuck. There was evidence of fetal distress over the last hour and a half of the labour with changes in the base line heart rate, some late decelerations and loss of variability. Consultation would have been the preferred action during this time. (Jevitt, C. 2005)

Standard 6 of the Standards for Midwifery Practice (1)(pg 13) states the midwife: 'identifies deviations from normal, and after discussion with the woman, consults and refers as appropriate'.

[Ms B] did not consult when there was fetal distress later in the labour, minimal descent of the presenting part, and uterine inertia despite increasing dosage of Syntocinon. These symptoms can be part of a scenario of obstructed labour.

Her management of the mechanism for treating a shoulder dystocia was exactly correct. Her experience would have led her to believe that this baby would birth in response to her manoeuvres, unfortunately it is not possible to diagnose shoulder dystocia until it happens and prediction is not always exact. (2. Gherman, R, 2005 & 2006.)(3. ACOG 2002 pg 3)

[Ms B] is an experienced midwife and would have had the expectation that the interventions she performed would promote birth.

5. *Did [Ms B] provide adequate information during the labour and birth care?*

This is difficult to judge from the documentation and the midwife and the client's recall of events and information differ in their letters.

[Ms B] states that she 'constantly reassured them' (pg 00025) and due to the speed of the labour and distress of [Ms A] there would not have been time for lengthy explanations. From the letters it appears that [Ms B]

explained her actions and built on information she said she had supplied during the pre-birth visits.

From [Ms and Mr A's] comments, the information given by [Ms B] was inadequate, both during pregnancy, labour and birth.

6. *Is the record keeping adequate?*

Documentation is minimal and is not adequate. The labour was rapid and [Ms B] would have been very busy and this may explain the inadequacy.

There is no mention of the baby's distress according to the CTG monitoring.

There is no record of any discussion regarding, consent for any procedures, decision regarding administration of pethidine as opposed to an epidural and no comment regarding consultation to commence Syntocinon.

There is minimal information regarding [Ms A's] physical or emotional wellbeing in the later stages of labour.

7. What standards apply in this case?

Standard selections quoted are those which I believe were not achieved. Underscoring is my emphasis.

Standard one, from the New Zealand College of Midwifery Standards for Practice states:

– Facilitates open interactive communication and negotiates choices and decisions
– is culturally safe.

Standard two states:

– shares relevant information, including birth options, and is satisfied that the woman understands the implication of her choices
– documents decisions and her midwifery actions.

Standard six states:

– plans midwifery action on the basis of current and reliable knowledge and in accordance with Acts, Regulations and relevant policies.
– identifies deviations from the normal, and after discussion with the woman, consults and refers as appropriate.

9. Are there any aspects of the care provided by [Ms B] that you consider warrant additional comment?

10. No, shoulder dystocia is every midwife's worst anxiety. [Ms B] demonstrated well that she knew how to facilitate this type of birth. My concern is that she did not respond when the baby was showing a marked degree of distress and refer to the obstetric team. This would be of a moderate level of disapproval.

References

1. Midwives Handbook for Practice. NZCOM 2005. Christchurch
2. Ghernam, R.B. et al (2006). Shoulder Dystocia: The unpreventable obstetric emergency with empirical management guidelines.
3. American College of Obstetricians and Gynaecologists. (2002). Shoulder dystocia guidelines. www.guidelines.gov.summary/summary.aspx?ss=15&doc_id=3988&nbr=3127

3. Jevitt, C.M. (2005). Shoulder dystocia, common risk factors, and management. Journal of Midwifery and Women's Health 50 (6): 485–497 Nov–Dec 2005."

Additional expert advice
Ms Brunton responded to a request for further advice as follows:

"1. *How concerning is it that [Ms B] commenced Syntocinon in the way she did — ie, without clear authorisation and no obstetric assessment?*

It is not concerning if clear referral has taken place. If Syntocinon was commenced on the decision of the midwife, it is very concerning and outside the scope of midwifery practice.

It is not unusual for a midwife to commence Syntocinon following a verbal discussion with an obstetric practitioner though it is usual practice for the obstetrician to assess the client first. I believe that the hospital guidelines state clearly that the obstetric practitioner is to assess the client and write the medication orders.

2. *How concerning is it that [Ms B] did not seek obstetric review/assessment after an hour had elapsed from commencement of the Syntocinon infusion. The [Hospital] Syntocinon policy states that, 'Following an hour of augmentation, vaginal assessment is made by the Consultant or Registrar.'*

It is concerning as the guidelines were not maintained. In some units 2–3 hours is the criteria for a re-assessment time frame. It is not concerning if assessment was not made by one hour if contractions were beginning to become more frequent and the baby's heart rate was healthy.

3. *What should she have done when it became apparent that the baby's shoulders were stuck? Should she have rung the emergency bell immediately? [The District Health Board Midwifery Leader] described the delay in ringing the bell as "excessive and life threatening*".

   Yes, she should have called for help immediately she realised that there was a problem. Usual practice with suspected/actual shoulder dystocia is to try to facilitate the birth and ring for help at the same time. I believe the midwife demonstrated that she was competent in dealing with a shoulder dystocia and proceeded to do all the correct manipulations for this problem.

4. *There was a non-reassuring FHR episode at the time of the ARM at 8.30am. The obstetric team was consulted and a VE performed to rule out cord prolapse. From 9.30–12.10am there were further decelerations but no further obstetric consultation. At what point could [Ms B] have been reasonably expected to call the obstetric team given the abnormal tracing? Your comment was 'consultation would have been the preferred action at this time*'.

   …

   I believe there was sufficient indication of 'fetal distress' a couple of hours before the birth. Consultation 'should' have been made when there were persistent early to late decelerations and rising base line and reduced variability. It would have been good practice for the syntocinon to have been turned down and not up, to assess if the baby's distress was from an over stimulated uterus or to the baby's inability to cope with the labour."

Response to provisional opinion

On 20 April 2007, Ms B responded to the provisional opinion. She stated that she has completed the ALSO and Managing Emergencies in Clinical Practice courses. Ms B advised that she is now not working as a midwife owing to ill health. She provided a written apology to Ms A.

On 23 April 2007, the Midwifery Council Registrar advised that Ms B has not applied to renew her practising certificate.

Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights (the Code) 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.

RIGHT 6
Right to be Fully Informed

(1) Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including —
(a) An explanation of his or her condition; and
(b) An explanation of the options available, including an assessment of the expected risks, side effects, benefits, and costs of each option; …

Relevant Standards

New Zealand College of Midwives *Midwives' Handbook for Practice* (2002) states:

"Standard one

The midwife works in partnership with the woman.

Criteria

The midwife:

…

- facilitates open interactive communication and negotiates choices and decisions;

Standard six

Midwifery actions are prioritised and implemented appropriately with no midwifery action or omission placing the woman at risk.

Criteria

The midwife:

- plans midwifery actions on the basis of current and reliable knowledge and in accordance with Acts, Regulations and relevant policies.

…

- demonstrates competency to act effectively in any maternity emergency situation.

Opinion: Breach

Introduction
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 B complied with this obligation, but I consider that she did not manage the later stages of Ms A's labour appropriately and therefore breached the Code. The reasons for this view are set out below.

Intrapartum care — late labour
There are several aspects of Ms B's care during the latter stage of labour that are of concern. The first is the way in which the Syntocinon infusions were instigated and continued. At 10am when Ms B found that Ms A's labour had not progressed since 8.30am and her contractions had become infrequent, she contacted obstetric consultant Dr C (who had reviewed Ms A at 8.30am when Ms B was concerned about the CTG trace). Ms B discussed with Dr C the possibility of commencing Ms A on a Syntocinon infusion to augment her labour. Ms B took this discussion as confirmation that she could start the infusion. Dr C, however, believed that this was a preliminary enquiry only.

My independent midwife, Liz Brunton, advised that it would be usual practice for the obstetric team to assess the patient personally before a final decision is made. The authority to commence Syntocinon is not within the scope of midwifery practice. The fact that the team had previously seen Ms A may have influenced Ms B's decision to start the infusion herself at 10.50am without further assessment. However, she also failed to consult the obstetric team after Syntocinon was commenced. The guidelines regarding Syntocinon augmentation in labour state that the "dose and rate of increase must be clearly charted by the doctor on second stage management plan … Following an hour of augmentation vaginal assessment is made by the Consultant or Registrar."

Ms B did not follow these steps in the protocol, and no such assessment was carried out. Furthermore, although Ms B increased the dose in accordance with the dosage rates set out on the Hospital Syntocinon policy, and assessed and recorded the fetal heart rate at regular intervals, she did not identify the signs of fetal distress that should have resulted in the Syntocinon being stopped. Overall, I consider that Ms B's instigation and monitoring of Syntocinon was unsatisfactory.

As noted above, Ms B failed to identify and act on signs of fetal distress. Ms Brunton advised that there was evidence of fetal distress over the last hour and a half, with the CTG showing changes in the baseline heart rate, some late decelerations and loss of variability. The tracing has also been described as "ominous" and "pre-terminal".

ACC's expert, Robyn Maude, agreed that Ms A's CTG trace gave cause for concern from 9.30am. She said: "Accurate assessment of the CTG should have triggered closer

surveillance including the performance of fetal blood sampling." She advised that if Ms B had carried out these actions it would have assisted her in her decision-making about whether there was a need to deliver the baby earlier.

Experienced midwives should know that late decelerations are ominous because they suggest fetal compromise. Ms B 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. Ms Brunton 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 accept that it is not always possible to diagnose shoulder dystocia until it happens. However, in this situation the CTG tracing together with other factors indicate that Ms B should have consulted the obstetric team earlier. Ms Brunton advised that there were multiple signs of an obstructed labour — minimal descent of the presenting part (the baby's head), ineffective uterine contractions despite increasing the dosage of Syntocinon, and fetal distress. Ms Brunton advised that consultation with the obstetric team was the preferred option at this time and expressed a moderate level of disapproval that such consultation did not occur.

While I note Ms Brunton's advice that Ms B's management of the mechanism for treating a shoulder dystocia was "exactly correct", I am concerned that she delayed in implementing emergency measures for so long when it became apparent that the baby's shoulders were stuck. Ms Brunton advised that it is usual practice for a midwife encountering a suspected or actual shoulder dystocia to try to facilitate the birth and ring for assistance at the same time. Ms B should have called for help immediately she encountered problems.

The New Zealand College of Midwives *Handbook for Practice*, Standard Six, states that the midwife must prioritise and implement her actions appropriately so that no action or omission places the woman or baby at risk. I do not consider that Ms B's actions complied with this professional standard. She initiated and continued Syntocinon infusions without the required obstetric assessment, failed to recognise the signs that labour was obstructed and the baby's well-being compromised, and did not call for back-up in a timely manner. These omissions contributed to the tragic outcome for this mother and child. In my opinion, Ms B did not exercise reasonable care and skill and failed to comply with professional midwifery standards. She therefore breached Rights 4(1) and 4(2) of the Code.

Documentation

Ms B's documentation was minimal and inadequate. My advisor was unable to comment fully about the quality of the care Ms B provided to Ms A throughout her

pregnancy and labour because of the lack of documentation. Although the topics in the plans were adequate, the care plan and birth plan documentation is minimal and consists of a tick or a "D/C" (discussed), which does not necessarily indicate that the client has understood what was discussed. Ms Brunton advised that there was no extended documentation about each antenatal visit regarding the discussions, or comment about Ms A's understanding of what had been discussed. The issue of referral and "unexpected outcomes" was not completed.

Ms Brunton acknowledged that Ms A's labour was rapid and that the inadequate labour record may have been a result of Ms B's need to attend to her client. However, there is no mention of any discussion regarding consent for procedures, such as the Syntocinon infusion and the administration of pethidine. There is minimal information about Ms A's physical or emotional well-being in the later stages of the labour, and no comment about the decelerations evident on the CTG trace.

In these circumstances, Ms B failed to comply with professional standards for documentation and breached Right 4(2) of the Code.

Other comments

Syntocinon Augmentation policy
As discussed above, there was some confusion as to whether Dr C had authorised the Syntocinon infusion. Ms Brunton stated that it would be usual practice for the obstetric team to assess a client personally before a final decision to commence the infusion was made. Ms B's decision-making may have been influenced by the assessment the obstetric team made at 8.30am, in response to her request for a review because of the episode of bradycardia that accompanied the ARM. It is possible that if a review by the obstetric team had been undertaken at 10.30am, the abnormal CTG would have been picked up.

I note that the Hospital policy "Syntocinon Augmentation in Labour — Midwifery Management Of" states under the heading "Preparation": "Once the decision for augmentation has been made and documented the midwife with IV certification checks with a midwife or a doctor, Syntocinon 10 units/ and base IV fluid, 0.9% Normal Saline 500ml." Later under the heading "Introducing Syntocinon Augmentation for 2nd Stage", the policy specifies: "Following an hour of augmentation vaginal assessment is made by the Consultant or Registrar." There is no mention in the policy of the requirement or "usual practice" regarding the need for the obstetric team to assess the patient personally before commencement of the Syntocinon infusion.

I recommend that the Hospital review its Syntocinon Augmentation policy to determine whether this step needs to be added to the policy to prevent a recurrence of these events.

Opinion: No Breach

Antenatal care
Ms A was concerned that Ms B did not provide her with adequate antenatal care. She complained that the check-ups were too short and that Ms B did not pay sufficient attention to any symptoms and concerns she raised, such as her carpal tunnel syndrome. She said that Ms B explained every problem or issue with the phrase, "that is normal".

Ms B stated that she responded to Ms A's concerns about her carpal tunnel syndrome when she raised it in the 35th week of her pregnancy. Ms A started wearing the splints and re-started the exercises recommended by the physiotherapist, who saw her when the problem was first identified prior to her pregnancy. Ms B referred Ms A to a physiotherapist, four weeks after her delivery, for further review of the problem.

Ms Brunton advised that Ms B's care in terms of the number of visits and physical assessments she made of the baby's growth and Ms A's well-being were appropriate. There is a standard format for antenatal visits, monthly from 14 to 28 weeks, fortnightly from 28 to 36 weeks, and weekly visits thereafter. Midwifery care during a pregnancy is adapted to a mother's need as required. Ms Brunton advised that Ms B arranged for Ms A to have the appropriate blood tests and scans.

It appears that the antenatal care Ms B provided to Ms A fell short of Ms A's expectations. It should be of concern to a midwife that a patient feels that she did not receive enough support and care during her pregnancy. Even so, having noted Ms Brunton's advice I consider that this part of Ms B's care was adequate and appropriate. Therefore, in my opinion, Ms B did not breach the Code in her antenatal care of Ms A.

Early management of labour
Mr and Ms A stated that they telephoned Ms B four times between midnight (when they believe Ms A's labour started) and 6am, and were advised that it was too early for her to be admitted. At 6am Mr and Ms A decided to go to hospital.

Ms Brunton advised that Ms B responded appropriately to the telephone calls at midnight and at 2am. It is usual practice to provide telephone consultations and await the onset of established labour before visiting a woman having her first baby. The information provided indicates that labour did not establish until 2am. Ms B denies that she was called at 6am as Mr and Ms A state. Ms B responded promptly to the 7.20am call from delivery suite informing her that Ms A had been admitted.

Ms A appeared to be "very distressed" when Ms B first saw her at 8.30am in the Hospital delivery suite. Ms A had been admitted by one of the hospital midwives 1¼

hours earlier, in early labour. Ms B performed an initial examination to determine the progress of Ms A's labour, and ruptured the uterine membranes — an ARM.

Immediately following the ARM, Ms B detected a sudden and prolonged bradycardia on the CTG trace. She positioned Ms A so as to maximise blood flow to the fetus and rang for emergency obstetric back-up.

Ms Brunton stated that although it is not always usual practice to rupture membranes prior to full cervical dilatation, it is a useful tool in promoting labour. For a distressed client who is 9cm dilated, an ARM may enhance progress and promote birth and thereby reduce stress on the mother. Ms Brunton stated that fetal bradycardia at this time may have been the baby's reaction to the loss of the supportive cushion of liquor around the head and resulting descent through the pelvis. When there is good recovery of the fetal heart rate, it is reasonable to assume that this is a response to an invasive event and not an absolute indication of a baby with ongoing distress. Ms Brunton advised that Ms B's response to the first deceleration was correct.

Ms B's actions in the augmentation of labour and management of the later stages of the labour have been previously discussed and found to be suboptimal. However, I accept that her management of the early stages of Ms A's labour met professional standards and that, in this aspect of her care, Ms B did not breach the Code.

Information
Ms A complained that Ms B did not provide her with appropriate information during the antenatal period, labour and delivery. Under Right 6 of the Code, Ms A had the right to the information that a reasonable consumer would expect to receive in the circumstances.

Ms A said that every question or issue that she raised with Ms B during the antenatal period was responded to with the phrase, "That is normal." Ms A was also concerned that Ms B offered no treatment for her carpal tunnel syndrome. The records show that Ms B saw Ms A a total of 11 times during the antenatal period and recorded her observations of Ms A's and the baby's well-being. Ms B agreed that she used the word "normal" at times to reassure Ms A because she found nothing abnormal at any of the consultations. Ms A's carpal tunnel problem was not a new condition and had previously been treated by a physiotherapist with exercises and a splint. Ms B advised her to resume that treatment.

Ms Brunton advised that Ms B's comment to Ms A, that all was "normal", is not an uncommon response from a midwife when all the parameters being measured appear to be within the normal range. There is no supporting documentation to clarify how much explanation Ms B gave. Ms B claims that she gave full explanations and that Ms A, whose English was "perfect", was easily able to communicate about anything she wished, including the use of medical terms.

Ms A insists that Ms B did not fully inform her about the procedures she undertook during the labour and delivery. She does not recall the ARM being performed or that there was any discussion about this procedure. Ms B says she told Ms A that an ARM would expedite delivery and that the colour of the draining waters would provide information about the baby's well-being.

Ms A also complained that Ms B offered her pethidine when it was not part of her birth plan and was likely to suppress the baby's ability to breathe. Ms B advised that prior to administering the pethidine at 9.10am, she suggested an epidural anaesthetic to Ms A as she was in great pain and the TENS machine was not providing the pain relief she needed. Ms B said that she explained to Ms A, her husband and mother that the pethidine would help with her pain, and the low dose she intended to administer would dissipate before the baby was born.

Ms Brunton advised that Ms B's suggestion to use pethidine was appropriate. It is difficult to judge from the documentation and the information provided by Ms A and Ms B, and their recall of events, whether the information Ms B provided was adequate. Ms Brunton noted that given the speed that the labour progressed and the distress Ms A suffered it is likely that there was no time for lengthy discussions.

I agree with Ms Brunton that it is difficult to determine whether Ms B provided adequate information to Ms A during her labour and delivery, given the lack of supporting documentation about the discussions. Therefore, I am unable to make a finding on this matter.

Actions taken

Ms B has undertaken further midwifery study and provided a written apology to Ms A.

Follow-up actions

- A copy of this report will be sent to the Midwifery Council of New Zealand and the District Health Board.
- A copy of this report, with details identifying the parties removed, will be sent to the New Zealand College of Midwives, the Maternity Services Consumers Council, and the Federation of Women's Health Councils, Aotearoa, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix 1

Syntocinon Augmentation in Labour - Midwifery Management of - *Updated January 2003*

Issued by: CM/CMS Group, Authorised by: Midwifery Leader

Printed copies of this document are valid for Wednesday, May 10, 2006 .

Index
Overview
Dosage & Cautions
Observations Throughout Augmentation
Syntocinon Infusion via Gemini Pump

Protocols are reviewed regularly & updated as required. Printed copies of this document may not be valid. The electronic version & red stripe hard copy are the only controlled versions & in current use within

Overview

Purpose To ensure that the midwifery management of Syntocinon Augmentation in labour is carried out as per this recommended best practice.

Associated documents The table below indicates other documents associated with this process.

Type	Document Title(s)
Board Policy	Informed Consent
Hospital Policy	N/A

Preparation Once the decision for augmentation has been made and documented the midwife with IV certification checks with a midwife or a doctor, Syntocinon 10 units/ and base IV fluid, 0.9% normal Saline 500ml.

Ensure that the medication label is added, Gemini pump is primed, and ensure that the audible alarm is turned on.

Dosage and Cautions

Primigravida Dose is commenced at 1mu/min (3mls/hr). Double the rate every 10 minutes until there are 3-4 contractions in 10 minutes lasting approximately 40-60 seconds

Maximum dose is 40 mu/min. A medical management pla

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

	is to be documented for specific instructions above 40mu/min. Be prepared to reduce the dose: - If/when contractions are more frequent than 3-4 in 10 minutes and/or prolonged, i.e. lasting longer than 70 seconds. - Any sign of fetal heart abnormalities on CTG. These must be reported to the Clinical Charge Midwife. Syntocinon is discontinued until any signs of fetal distress are assessed by the Clinical Charge Midwife or doctor.
Multigravida and / or Women Who Have Had Prostaglandins	**Caution** As there is more likelihood of precipitate labour, malpresentation, and uterine rupture in this group, more caution is needed when increasing the dose and deciding maximum doses – seek advice from the Clinical Charge Midwife and the senior medical staff responsible for the care of the woman.
Women Who Have Had a Previous LSCS or Previous Uterine Wall Trauma	**Extreme Caution** Maximum dose and rate of increase is to be clearly documented by the medical staff responsible for the woman's care in the labour management plan.

Observations Throughout Augmentation

Monitoring	Regular FH rate and contraction monitoring is necessary throughout augmentation and this is achieved by palpation of contractions by hand, and regular 15 minute auscultation of FH, or CTG monitoring. Women who wish to mobilise can be accommodated by combining the use of both methods above. Telemetery may be used in early labour if mother wishes to be mobile and continuous FSE monitoring is indicated. Contractions must be frequently hand palpated as the monitor recording is affected by many variables, e.g. tightness of the belt, size of the abdomen. The midwife is to ensure that the uterus is relaxed between contractions. At commencement of monitoring tocograph must be calibrated to 20. If hypertonic uterine activity is detected – the use of Salbutamol may be required as an antidote when fetal distress is apparent. Descent of presenting part must be palpated and documented 4 hourly. Maintain bladder care. Constant attention is paid to the CTG and all abnormalities

	are reported and documented as are all treatment and change of care plans. Remember – the midwife is the monitor and not the machine.
Important	Augmentation of labour does not equate to extra use of analgesia and every case is assessed individually.
Recordings	In addition to the usual recordings required for documentation of Partogram, record doses of syntocinon on the CTG monitor paper. When using external fetal monitoring note also any positional changes which may affect contact or FH response e.g., left side, bed pan.
Introducing Syntocinon Augmentation for 2nd Stage	Dose and rate of increase must be clearly charted by the doctor in second stage management plan – usually commencing 2 mu/min doubling every 10 minutes to 12 mu/min. Following an hour of augmentation vaginal assessment is made by the Consultant or Registrar. ▪ FH must be monitored continuously and documented along with comprehensive documentation of the progress in labour.
3rd Stage	The third stage of labour is to be actively managed.

Syntocinon Infusion via Gemini Pump

Introduction	This information sheet has been written to advise staff of syntocinon infusion rates for Gemini pumps. Gemini pumps do not use mu/hr.

10 Units in 500 ml Normal Saline

ml/hr	mu/min
1	0.3
2	0.6
3	1.0
6	2.0
12	4.0
15	5.0
18	6.0
21	7.0
24	8.0
27	9.0

30	10.0
33	11.0
36	12.0
42	14.0
48	16.0
54	18.0
60	20.0
66	22.0
72	24.0
78	26.0
84	28.0
90	30.0
96	32.0
102	34.0
108	36.0
114	38.0
120	40.0

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

Appendix 2

Note: The electronic version of this guideline is the version currently in use. Any printed version can not be assumed to be current. Please remember to read our disclaimer.

FETAL HEART RATE SURVEILLANCE – MANAGEMENT OF

- Purpose
- Objective
- Process
- References
- Keywords

Purpose

To ensure Fetal Heart Surveillance is carried out appropriately and correctly, and that the woman's understanding of the procedures and their implications, enable her to make an informed choice re: monitoring the baby.

Objective

For a woman who is healthy and has had an otherwise uncomplicated pregnancy, Intermittent Auscultation should be offered and recommended in labour to monitor fetal wellbeing. (RANZCOG 2004, NICE 2001).

Intermittent Auscultation is defined as "intermittent surveillance of the FHR during labour, employing wither a Pinnard stethoscope or a hand-held Doppler device" (RANZCOG, 2004).

- During 1st stage of labour – auscultate every 15-30 mins for 1 min.
- In 2nd stage – auscultate after every contraction.
- If there are any audible concerns a CTG is recommended.

DO NOT USE CTG FOR INTERMITTENT AUSCULTATION

Process

The Fetal Heart recording and/or CTG should always be interpreted in the light of the clinical details in each case, in a timely manner and by an appropriately qualified Health Practitioner. The mnemonic DR C BRAVADO must be used to standardize recording and documentation of CTGs.

The table describes the process.

Stage	Description
1	Explain Intermittent Auscultation and Cardiotocography (CTG), the implications and indications for these monitoring procedures to the woman.
2	Obtain her verbal consent for monitoring and document.
3	Allow opportunity for her to empty her bladder.
4	Palpate abdomen to establish lie, presentation and position of fetus. Auscultate the FH with pinnard or sonicaid, document findings along with the maternal pulse.
5	Place call bell within easy reach.

Continued on next page

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FETAL HEART RATE SURVEILLANCE – MANAGEMENT OF

6	Describe to the woman aspects of the fetal heart which are being monitored, and deviations from normal and their effect on her management.
7	Place woman in a comfortable position, either supine with a pillow under her right hip, semi-recumbant or sitting.
8	When a CTG is required it is essential to record the following information on the trace: • woman's name and NHI number • date/time • maternal position • maternal pulse • any events during monitoring e.g. drugs administered, vaginal examinations etc.
9	Ask the woman to record fetal movements, for all non-stress tests, and if appropriate when in labour.
10	CTG should continue until 2 x fetal heart rate accelerations >15 bpm occur, and the CTG can be described as 'normal'. Continue with Intermittent Auscultation using a Pinnard or sonicaid. **Intermittent Auscultation** is defined as "intermittent surveillance of the FHR during labour, employing either a Pinnard stethoscope or a hand-held Doppler device" (RANZCOG, 2004). For a woman who is healthy and has had an otherwise uncomplicated pregnancy, Intermittent Auscultation should be offered and recommended in labour to monitor fetal wellbeing. (RANZCOG 2004, NICE 2001) • During 1st stage of labour – auscultate every 15-30 mins for 1 min • In 2nd stage – auscultate after every contraction. • If there are any audible concerns recommence CTG. DO NOT USE CTG FOR INTERMITTENT AUSCULTATION. If no accelerations are observed after 20 minutes, change the woman's position, offer iced water and document on trace. Continue to monitor. If a Non-reassuring trace continues contact the Obstetric Registrar/ Private Specialist for review.

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FETAL HEART RATE SURVEILLANCE – MANAGEMENT OF

Stage	Description
11	The mnemonic **DR C BRAVADO** must be used to describe a CTG recording. This is to standardize practice and ensure that the overall clinical picture is observed and clear management plan is made. <u>Characteristics of a normal CTG:</u>
DR	**D**efine **R**isks
C	**C**ontractions – are they present, how many in 10 minutes
BRA	**B**aseline **RA**te of 110-160 bpm observed during a period with no accelerations or decelerations.
V	**V**ariability: should be between 5-15 bpm.
A	**A**ccelerations x2 of at least 15 beats for at least 15 seconds in 20 minutes, or within 40 minutes at the most.
D	**D**ecelerations: In a normal CTG there should be none 3 types: • Early decelerations: uniform in appearance, repetitive, lowest point of FH is at the peak of the contraction with quick recovery to baseline by the end of the contraction • Variable decelerations: Intermittent periodic slowing of FHR, relationship to contraction is variable in timing. Shape of deceleration is important; often shouldering either side of the deceleration is noted • Late decelerations: Uniform, repetitive, slowing of the FHR with onset mid to end of the contraction and nadir (deepest point) more than 20 seconds after the peak of the contraction.
O	**O**verall assessment: The CTG must be interpreted as REASSURING or NON-REASSURING at the time that it is completed. Please state and clearly document the future management plan. References: ALSO (2004) Advanced Life Support in Obstetrics, American Academy of Physicians RANZCOG (2004) Clinical Guidelines: Intrapartum Fetal Surveillance, RANZCOG National Institute of Clinical Excellence (2001) The Use of Electronic Fetal Monitoring, NICE

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FETAL HEART RATE SURVEILLANCE – MANAGEMENT OF

Stage	Description
12	Continuous Electronic Fetal Monitoring (CEFM) should be recommended when: • Risk factors for fetal compromise are detected antenatally e.g. Oligohydramnios, APH, Prolonged rupture of membranes; • If appropriate at the onset of labour e.g. Abnormal auscultation of FHR, Induction of Labour; • If any intrapartum risk factor develops e.g. Use of Syntocinon, Labour Dystocia, Epidural analgesia (RANZCOG, 2004/ NICE, 2001). All women undergoing CEFM should be reviewed at least every 15mins by their caregiver and a record made in the clinical notes/ partogram.
13	Inform senior medical staff and request review if: • CTG is Non-Reassuring • no accelerations are observed within maximum 40 minutes • baseline tachycardia >160bpm • baseline bradycardia < 110bpm • late decelerations or severe variable decelerations occur.
14	On completion, ensure the Trace is filed in the Clinical Record on the CTG Mount form (CC47). Document findings in Clinical Record or Partogram.

References

ALSO (2004) Advanced Life Support in Obstetrics, American Academy of Physicians

NATIONAL INSTITUTE OF CLINICAL EXCELLENCE (2001) The Use of Electronic Feal Monitoring: The use and interpretation of Cardiotocography in Intrapartum Fetal Surveillance (Guideline C), NICE, UK

RANZCOG (2004) CLINICAL GUIDELINES: INTRAPARTUM FETAL SURVEILLANCE, RANZCOG, Australasia.

Keywords

Intrapartum, Labour, Fetal Surveillance, CTG, Fetal monitoring.

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