Midwife, Ms B

A Report by the Health and Disability Commissioner

(Case 04HDC01133)



Parties involved

Ms A Complainant
Baby A Complaint's son
Ms B Provider/midwife
Mr C Complainant's partner
Mrs D Complainant's mother
Ms E Complainant's sister

Ms F Complainant's support person
Ms G Complainant's support person

Ms H Student midwife

Ms I Maternity Clinic midwife
Ms J Maternity Clinic midwife
Ms K Maternity Clinic midwife
Ms L Maternity Clinic midwife

Complaint

On 23 January 2004 the Commissioner received a complaint from Ms A about services provided by independent midwife Ms B. The following issues were identified for investigation:

- Whether the labour of Ms A, and the delivery of Baby A and the placenta, on 15 September 2003, was appropriately managed
- Whether the temperature of the birthing pool was adequately monitored
- Whether Ms A's request to transfer to a public hospital was inappropriately denied
- Whether inaccurate retrospective changes were made to Ms A's records.

An investigation was commenced on 26 March 2004.

Information reviewed

- Letter of complaint from Ms A, dated 22 January 2004
- Further information from Ms A obtained during telephone interviews on 11 March 2004, 12 May 2004 and 30 August 2004
- Statement from Ms F, received 23 November 2004
- Statement from the manager of the maternity clinic, regarding the maternity clinic policies, dated 13 June 2004
- Telephone interview with Mrs D on 30 August 2004

- Ms A's antenatal records and medical notes from the maternity clinic and the public hospital.
- Ms B's response to the complaint, dated 15 April 2004
- A full copy of Ms A's ACC Medical Misadventure file
- Copy of statements submitted by Ms A, Mrs D, Ms F and Ms G to ACC Review hearing on 20 September 2004

Independent expert advice was provided by Terryl Muir, independent midwifery advisor.

Introduction

Ms A engaged independent midwife Ms B to deliver her first baby, expected in September 2003. Ms A requested a natural labour and delivery. She had arranged for five support persons, close family and friends, to be in attendance during her labour and delivery. She initially laboured at home before transferring to the maternity clinic to continue her labour using the birthing pool and nitrous oxide for comfort and pain relief, and to deliver her baby.

There is discrepancy in the information gathered about the delivery. The two main issues in dispute are whether the water in the pool was too warm, and when Ms A requested to transfer to the public hospital for the delivery. Ms A's baby was delivered at the maternity clinic at 10pm on 15 September with a heart rate of 60 beats per minute and no respiratory effort. He was resuscitated and transferred to the public hospital Neonatal Intensive Care Unit where he was found to have suffered severe neurological damage. Baby A's claim to ACC for medical misadventure was accepted as a medical mishap on the basis that he had suffered an extremely rare outcome of treatment properly given.

Ms A had agreed that a second-year student midwife, Ms H, would be present at the birth and assist Ms B as necessary. In line with standard practice at a midwifery school, Ms H wrote a report on the case (within days of the event) for her tutor.

Information gathered during investigation

Background – antenatal care

Ms A, aged 33 years, was approximately 11 weeks into her first pregnancy when she first met Ms B and arranged for her to be her Lead Maternity Carer (LMC). Ms B is an experienced midwife LMC, with 10 years' experience as an independent midwife. Ms A had already had a scan and preliminary blood tests ordered by her general practitioner, and arranged to see Ms B again after her partner, Mr C, returned from overseas. Mr C left New Zealand shortly after Baby A's birth, and has not been interviewed by my Office.

On 30 April 2003 Ms B saw Ms A, who was in the 19th week of her pregnancy, for her initial booking visit. Ms A was noted to be healthy, and her expected date of delivery was 26 September 2003. Ms B saw Ms A for further antenatal checks at 23, 27, 30 and 32 weeks' gestation. No problems were reported at these visits except for some back pain.

In response to my provisional opinion, Ms B stated that when Ms A expressed interest in using the birthing pool at the maternity clinic, she provided her with copies of articles on water births and loaned her several books on the subject. However, Ms B did not record in the birth plan that this was discussed, or document the details of the information that was provided to Ms A.

Following her antenatal check at 32 weeks, Ms A was admitted to hospital and treated for severe upper right quadrant abdominal pain, but a CT scan and blood tests failed to determine the cause of the pain. Ms A was given pethidine for the pain and she discharged herself when her pain settled.

Ms B was due to go on holiday at this time and offered to check Ms A before she went on leave. Ms A declined, stating that she had been checked at the hospital, was fine and wanted to rest. Ms A stated that she knew the contact details for the back-up midwife and would contact her if necessary. She did not contact the back-up midwife while Ms B was away.

When Ms B returned from holiday she visited Ms A (at 37 weeks' gestation) to discuss the birth plan. The birth plan noted that the baby was to be born at the maternity clinic, and that five support persons would be present at the birth. It was also noted that a Doppler² device would be used to monitor the baby, and that a student midwife, Ms H, would be present at the birth.



¹ "Lead Maternity Carer" refers to a general practitioner, midwife or obstetric specialist who has been selected by a woman to provide her with comprehensive maternity care, including the management of her labour and delivery.

² A Doppler unit is an external electronic device for monitoring the foetal heart rate. The unit converts foetal heart movements into audible beeping sounds and records this on graph paper.

There was one further antenatal visit four days later. Ms A's support persons were present. Ms A told Ms B that she was passing urine more frequently than normal but did not think she had a urinary infection as she had no other symptoms. She declined a urine test.

Onset and progress of labour at home

The labour notes record that Ms A's labour started at 4am on 14 September with mild contractions and a show at 10am. Her contractions were well established by midnight, and gradually became stronger through the morning of 15 September.

At 6am on 15 September, Ms A went to her mother's house, and telephoned Ms B between 8am and 9am. Ms A smoked half a joint of marijuana between 7am and 11am for pain relief.

Ms B recalled:

"[Ms A's] labour started at 38+ weeks. I visited her at home at midday on 15th September. She told me that her labour had become more noticeable at midnight. She had a show and her membranes were intact. When I saw her she was experiencing contractions about every five to six minutes. There did not seem to be a regular pattern to them and they were lasting for 30 seconds.

[Ms A] requested a vaginal examination as she was anxious to know where she was in the process. It is not my common practice to perform vaginal examinations at this early stage of labour as it can be very discouraging. Her cervix was 4cms dilated, the canal length was 0.5 cms long, it was soft and effacing and the descent of the baby was at station 0.³ ... I explained my findings and while encouraging her that labour had started I explained that this was early labour. The baby's heart rate was 122-150 [beats per minute], membranes were intact and the baby was in a LOA [left occipital anterior] position. At this visit [Ms A] and [Mr C] told me that she had been using marijuana which was helping with the pain. We discussed this and I stated that it was not advisable. It is not usual to stay with a client at this stage of labour. I also told them that I had to take my son to the airport later in the day. I explained that I had made alternative arrangements for this if they required me to attend."

Ms A disputed Ms B's comments about the use of marijuana for pain relief. Ms A recalled that during her discussions with Ms B about her birth plan and pain relief, Ms B said, "Off the record, a lot of my girls smoke marijuana for pain relief." Ms A said she thought that was "okay".

Ms B's documentation of her visit at midday states "will phone at [2.30pm]".

31 August 2005

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³ "Station" refers to the relationship of the presenting part of the foetus 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 "station 0" (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).

Ms A said that Ms B told her that she could be gone all day, and left her mobile number so she could be contacted if necessary. Before leaving, Ms B asked Ms A whether she would be all right. Ms A replied that she didn't know how she was going to be. She believed that Ms B knew what she was doing, and although she "felt okay" about Ms B leaving, she felt she had no choice in the matter and wondered whether she would be all right.

Ms A's mother, Mrs D, recalled that Ms B said she was not likely to be needed, and gave no indication of when she would be back.

There is discrepancy about how many times Ms B checked on Ms A's status. Mrs D recalled:

"[Ms B] said that she would ring and that she would come straight back if she was needed. In fact, she rang once during the afternoon and returned again about 5pm."

Ms B advised me that she had telephone contact with Ms A and Mr C throughout the day while she was away and they discussed Ms A's progress – "how [Ms A] was coping, baby movements, contractions, state of membranes etc". Ms B stated that during each telephone contact she enquired whether they needed her to attend, and they said that they were coping well and did not require her assistance.

In response to my provisional opinion, Ms B advised me that, for most of the afternoon, she was seven minutes' drive away from Ms A's house, and that she was always within an "average 20 minutes" drive away. She advised that arrangements had been made and communicated to Ms A that her back-up midwife was available if necessary.

Ms F, one of Ms A's support persons, recalled taking a telephone call from Ms B at about 2.30pm (this is consistent with a statement in Ms B's records — "will phone at 14.30 hrs"). Ms B asked Ms F what Ms A was doing. Ms F told her that Ms A was walking around. Ms B responded that she would be there shortly. Ms F told Ms B that Ms A was "in a lot of pain" and Ms B replied, "You have a lot of time." Ms F said she felt Ms B was "quite off-hand" and that she was not taking her report of Ms A's pain seriously.

There is no record of the telephone conversations Ms B recalls having with Ms A or Mr C. According to Ms B, late in the afternoon Ms A and Mr C requested that she attend.

In her response to my provisional opinion, Ms A reiterated that Ms B telephoned her once, at 2:30pm, and returned when she had finished at the airport, not because Ms A had requested her attendance.

Transfer to the maternity clinic

Ms B advised me that when she attended Ms A at 5pm "she was in strong labour, contractions coming every two minutes lasting 30-50 seconds". She noted that Ms A's uterine membranes were intact and the foetal heart rate was recorded as being between 136-140 bpm (beats per minute). It was agreed that Ms A would transfer to the maternity clinic to use the pool and nitrous oxide for comfort.

Ms A arrived at the maternity clinic at 5.30pm. The labour notes record that she had "lots of contractions in the car" and used nitrous oxide soon after her admission. Ms A was accompanied to the maternity clinic by her support persons.

Ms H, the student midwife, received a call from Ms B at about 5.30pm to inform her that Ms A's labour was progressing and that they were transferring to the maternity clinic. Ms H arrived at the maternity clinic at about 6.15pm and found that Ms A was already in the pool and using nitrous oxide to help her cope with the contractions.

Temperature of birthing pool

The clinical records show that at 6pm Ms A was experiencing contractions every two to three minutes and was relieved to get into the pool. The foetal heart rate was recorded as 146 to 150 bpm.

The temperature of the pool at the time Ms A entered was not recorded in the notes, and there is a discrepancy in the parties' recollections regarding the initial temperature of the pool and how the temperature was monitored.

Ms B advised me that when Ms A first entered the pool she measured the temperature of the water using a thermometer that was floating in the pool. She recalled that the temperature was 36.5 degrees.

Ms A recalled Ms B taking the temperature when she entered the pool, and that the temperature was 37 degrees. She advised ACC that Ms B took the temperature of the pool using a big floating thermometer, and that the thermometer was taken out of the water and not put in again.

Ms A stated:

"The temperature was not taken again during the birthing process. The pool cooled down so water from the pool was bucketed out and unregulated hot tap water was used to warm the pool up. My temperature was not taken, nor was the foetal temperature taken. The pool therefore could have been hotter than 37 degrees leading to an elevated temperature for both me and the baby ..."

Ms A advised ACC that Ms B tested the water in the pool with her elbow, but did not refer again to the thermometer. She recalled being very hot in the pool, and complaining about the temperature.

Ms F recalled that Ms A kept saying that she was hot and wanted to get out of the pool. She said Ms A looked flushed and hot, and that Mr C, who was also in the pool, commented that he felt hot also. Ms F recalled that Ms B encouraged Ms A to stay in the pool, and kept saying the water was getting cold and adding more hot water. Ms F could not remember Ms B checking the water temperature.

The ACC review report noted that Ms A's other support persons (Ms G, Ms E, and Mrs D) gave evidence confirming Ms A's and Ms F's account of events. In particular, they observed that Ms A was very hot and had to be continually cooled with flannels and cold water.

In contrast, Ms B advised:

"My recollection is that there was a thermometer floating in the water for most of the time that [Ms A] remained in the pool. My normal practice would be to refer to the thermometer frequently. I am aware of the importance of the water temperature. I care for approximately 40 women each year and 90% of these women labour in the water with 60% of these women birthing in the water. I consider that I am well experienced and practised in water births and have attended various seminars and read widely on the topic. In my experience when women bathe during pregnancy they almost always have their bath temperature higher then 36.5 degrees. [Ms A's] condition was continually assessed by observing her condition and by verbal inquiry.

As well as monitoring the baby's heartbeat and reading the temperature in the pool I manually assessed the water temperature and closely observed [Ms A] for signs of overheating eg excessive flushing, sweating and feeling hot to touch. It is my normal practice to do all of the above ...

[Ms A] was not in the pool continuously during labour she got out on various occasions, twice for a vaginal examination and twice to go to the toilet. At no stage did she ever comment that the pool temperature was too hot, indeed at approximately 9.15pm she said that it was too cold. I then assessed the water temperature with my arm as per my usual practice and warmed the water temperature by adding some warm water. [Ms A's] temperature was measured 28 minutes following the birth and it was 36.8 degrees (well within normal parameters)."

Ms B's notes for this period of Ms A's labour show that Ms A got out of the pool at 7.30pm to pass urine, at 8pm for a vaginal examination, and at 8.50pm for a further vaginal examination. At 9.15pm Ms B noted, "Water in pool being warmed." However, there is no record made of the temperature of the water at this time. At 9.25pm Ms B recorded that Ms A was out of the pool to push with her contractions.

Ms B stated that she was not aware of any guidelines regarding appropriate temperature of birthing pools at the maternity clinic. She stated:

"In my experience women use water during labour in very individual ways and at various points in labour. The breadth and depth of women's individual needs start to become apparent when they are allowed to labour at their own pace rather than being manipulated by care giver guidelines."

Ms B referred to Diane Garland's book, *Waterbirth, An Attitude to Care*, in which the author states that if a woman's time spent in the water is limited according to centimetres dilated and water temperature, she is not seen as a unique individual.

The manager of the maternity clinic advised that the maternity clinic has had a policy on the water birthing pool since November 1999. She said that all the maternity clinic policies are available to LMCs who, as part of their access agreement with the maternity clinic, agree to comply with the policies. The maternity clinic water birthing pool policy (attached as Appendix B) includes:

Observe and record foetal and maternal wellbeing throughout time in the water. These observations should be as per any normal labour.

. . .

• As birth approaches the temperature of the water should be brought up to 36.5c – 37c. **Note:** During labour the water temperature for maternal comfort is 28.0c – 35.0c. Regular documentation of the water temperature is necessary."

Monitoring of labour

Ms A complained that Ms B gave her instructions to push long before her cervix was fully dilated. She further advised that after she had been pushing for four hours Ms B performed a vaginal examination and found that she was only 6cm dilated.

Ms B advised that although Ms A had been giving small, involuntary pushes, at no time did she instruct Ms A to push, but rather, in line with her usual practice, she encouraged her to "follow her body". Ms B stated that she monitored the baby's heart rate with a hand-held Doppler throughout the labour.

At 6.15pm Ms B noted in her records that Ms A was starting to feel a lot of pressure, and was using nitrous oxide as she was "a little pushy" with contractions. The foetal heart rate was not recorded.

At 7pm Ms B noted that the contractions were very strong, "almost on top of each other", still with lots of pressure. The foetal heart rate was recorded as 152 to 160bpm.

At about 7pm Ms A vomited and asked Ms B to arrange for her to transfer to the public hospital. She believes that Ms B did not heed her request. Ms A stated:

"Just after 7.00pm when I was being swabbed with cold flannels trying to cool off, [Ms G], who had brought six beers to celebrate after the birth offered to open one as they were cold, to give me a sip. [Ms B] saw this and didn't object. I took one sip but was feeling really hot and dizzy and promptly vomited. It was at this stage I began to panic and screamed to go to [the public hospital]."

Ms H recalled that Ms A was eating crackers, cheese and gherkins, drinking water and Ribena. At one stage she had a "couple of sips of beer from a stubbie that was shared amongst her people". However, in their responses to my provisional opinion, both Ms B and Ms A confirmed that this occurred earlier in the labour.

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Ms A said that at this time she was hot and attempted to get out of the pool, but she was told to "get back in the pool". Ms A said that Ms B was discourteous to her, and told her to "stop screaming" as she was making too much noise.

Ms G informed the ACC review hearing:

"Before the internal examination took place, [Ms A's] contractions worsened. She asked for pethidine which she did not receive. She was clearly not coping with the contractions and as each one came, she was screaming in pain. [Ms B] raised her voice on several occasions, telling her to stop screaming and put her energy into pushing. [Ms B] was clearly unhappy with [Ms A] screaming."

There is no record in the clinical notes that Ms A was distressed. At 7.30pm Ms B recorded that Ms A was very relaxed between contractions, the contractions were "very intense" and she was "giving pushes with contractions". Ms B later added to her contemporaneous notes inserting the word "small" in front of the word "pushes". The foetal heart rate was noted to be 140 bpm at this time.

The notes record that at 7.50pm Ms A felt sick and vomited a small amount, but not that she had requested a transfer. Ms B added a retrospective note recording the foetal heart rate as 156 bpm. Ms B did not sign or date her retrospective notes.

Ms B performed a vaginal examination at 8pm. Ms A's cervix was 6 centimetres dilated and fully effaced, and the baby's head at station +1. An artificial rupture of membranes (ARM) was performed. Ms B recorded that "a moderate amount of pink stained liquor drained". She stated that "the vaginal examinations showed good progress of labour as measured by effacement, descent and station not just dilatation".

Ms A, her mother, Ms F and Ms G recalled that when the uterine membranes were ruptured, there was "a rush of blood" – contrary to Ms B's contemporaneous notes describing the liquor.

Ms F (in a record she made of the events of the labour and delivery two days later) stated that Ms A was in excruciating pain at approximately 8pm and said she wanted to go to the public hospital. Ms F recalled that Ms B tried to discourage Ms A from transferring.

Ms B recorded that at 8.30pm Ms A was becoming distressed, feeling she "can't do this anymore". Ms B stated:

"My recollection is that around this time [Ms A] started to lose control and was screaming and thrashing around in the pool. In an attempt to calm her, as is my normal practice, I gently encouraged her not to waste energy by screaming and to try to direct the noises

⁴ The shortening or thinning of the muscular cervical canal. The canal is approximately 1 to 2cm long and with effacement virtually disappears. In women having their first baby effacement is accomplished before dilatation of the cervix occurs. When effacement is complete dilatation progresses rapidly.



from lower in her body. I do not believe I told [Ms A] to stop screaming or that she was making too much noise, such instructions would be far from my normal practice."

Ms B retrospectively added to the 8.30pm record a foetal heart recording of 146 to 150 bpm. At the top of the following page where she noted that Ms A was requesting pethidine at this time for pain relief, it appears that she intended to add a foetal heart rate recording, as she noted "BHB" (baby's heartbeat). The foetal heart rate was recorded, retrospectively, as being 136 to 140 bpm. The following entry in the records indicates that Ms A changed her mind about the pethidine.

Ms B stated:

"I left the room to get the pethidine ... when I came back into the room [Ms A] said she had decided not to have the pethidine and wanted to transfer to [the public hospital]. She was in fact acting very transitional and I asked if I could examine her. [Ms A's] cervix was 10cms dilated and the baby's head was very low. I explained it was far too late for pain relief now, and [Ms A] and her family stated that they were happy to stay at [the maternity clinic] for the birth."

In her response to my provisional opinion, Ms A advised me that she was very panicked by this stage in her labour and was not happy about the decision to stay at the maternity clinic.

Ms B's clinical record for 8.50pm was also changed. She appears to have initially made an error when she recorded that Ms A had got "out of bed" for a vaginal examination. She amended that part of the record to read that Ms A had "got out of pool onto the bed", for the examination. (Again Ms B did not indicate that this change was made retrospectively.) The record shows that at this time Ms A was fully dilated and had started pushing, and that the baby had descended to station +1. The foetal heart rate was 146 to 150 bpm. Ms B retrospectively recorded that Ms A had decided to remain at the maternity clinic for the delivery.

Because Ms B had advised against pethidine for pain relief at this late stage in the labour, Ms A got back into the birthing pool at 9pm (following the vaginal examination). In her response to my provisional opinion, Ms A explained that she had been standing up for contractions but was instructed by Ms B to re-enter the pool, despite feeling panicked and too hot. At 9.15pm Ms B recorded a foetal heart deceleration to 108 bpm, but that it "picked up to 128 quickly". The record notes that the water in the pool was being warmed, but the temperature is not recorded.

At 9.20pm the contemporaneous notes record the foetal heart rate as 136 to 142 bpm. Ms B added retrospectively, "with and just following contraction".

The contemporaneous labour notes record that the foetal heart rate was 138 to 146 bpm at 9.35pm. However, a retrospective note records that the foetal heart rate was 136 to 140 bpm at 9.35pm. At 9.50pm the contemporaneous notes record that the foetal heart rate was 156 bpm.

Foetal tachycardia

According to the labour notes, Ms A left the birthing pool for the final time at 9.25pm. Ms B later added a foetal heart rate recording of 136 to 142 bpm to this note. Ms A stated that about 25 minutes before her baby was born Ms B took a foetal heart rate recording using the handheld Doppler. Ms A recalls that the reading was 215 bpm. She said that Ms B looked at the reading making the comment "that can't be right, machines and I don't see eye to eye", and put the monitor back in her pocket.

Ms B stated that "at no time was there a foetal heart rate of 215 or any more decelerations". She said that if it appears that the Doppler has indicated an incorrect reading she checks it by listening to the foetal heart rate against a watch or clock second hand. Ms B stated that the Doppler she carries is too large to fit into a pocket.

In her response to my provisional opinion, Ms A stated:

"I did not say she put it in her pocket – she thrust it aside and at no time after this did she take the FHR with a Doppler or any other device. We were all frantic to know if the FHR had dropped so were very aware that no other recordings were taken."

Ms H's recollections of labour Ms H recalled:

"Approximately at 2000 hours [8pm] [Ms A] did not think her waters had broken and requested an ARM to find out how far she was from birthing. [Ms A] got out of the pool and went to the delivery bed. [Ms B] examined her and told her that she was 6cm dilated. [Ms B] then proceeded to do an ARM. A small amount of clear liquor and a small amount of 'show' was evident.

[Ms A] wanted to go back and labour in the pool as she did not think she could cope without the water and the Entonox, and did so. Although she was disappointed with only being 6cm she was well supported by her family that she was doing well and they were proud of her.

Foetal heart monitoring was done with an underwater Doppler. At one point during a long contraction the foetal heart dropped and [Ms B] recorded it and waited for the end of a long contraction to monitor the foetal heart again. The next recording the heart rate had increased. I cannot recall at what time this was conducted but it was immediately recorded by [Ms B] in the clinical notes.

[Ms B] told [Ms A] that she needed to focus her efforts to get this baby born. [Ms A] was flaying and screaming at the intensity of the contractions. [Ms B] advised [Ms A] to deliver out of the pool. However, [Ms A] did not want to leave the pool and demanded pethidine to help with the pain. She also requested to go to [the public hospital] to get 'stronger stuff' to cope. [Ms A] stated that she was even prepared to have a Caesarean section to get the baby out. [Ms B] said that she could have pethidine at the maternity clinic if she needed it, but an epidural can only be given at [the public hospital] and that

would depend on how far she had dilated, she would need to check her again. [Ms A] stated that she wanted the pethidine NOW. [Ms B] had to go up to second floor to get the pethidine and showed me how to call [the maternity clinic] midwife on the phone if I needed help while she was away.

[Ms A] became very agitated while [Ms B] was out of the room and tried to get out of the pool. I and her family told her to stay in the pool and we firmly got her to sit down to prevent slipping. As she was not coping well with the contractions, and was flaying wildly, I was concerned that she might fall if she attempted to get out of the pool and it was safer for her to stay in the pool until I could get support from another midwife.

[Ms A] demanded that I order an ambulance straightaway. Her family stayed with her by the pool while I went to the phone to call [the maternity clinic] midwife to tell her the situation and to find [Ms B] to come down immediately. As I was talking to [the maternity clinic] midwife, [Ms B] arrived in the room and I told [the maternity clinic] midwife not to worry, [Ms B] was here and I would hand over to her.

[Ms B] asked [Ms A], 'Do you want the pethidine now?' [Ms A] said, 'No. I want to go to [the public hospital]'. [Ms B] told her she would need to do another VE [vaginal examination] to see how far she was dilated. [Ms B] checked and told [Ms A] she had a small lip of cervix, but that she had progressed fast during that period and it was likely that if she transferred her now she would have the baby in the ambulance. ... [Ms A] agreed to get out of the pool to birth her baby. She got out of the pool and immediately went into the squat position. [Ms B] asked me to get the birth stool that was outside the birthing room. I did so."

Delivery

At 10.00pm a baby boy was born. Baby A had no respirations at birth, was blue, and his heart rate was 60 bpm. Ms B recalled:

"I immediately started bagging him and rang the emergency bell. Help arrived within one minute of his birth. [The maternity clinic] team took over the resuscitation of the baby and I continued to care for [Ms A]."

In response to Ms B's emergency call, the maternity clinic staff members Ms L, Ms J, Ms I, registered nurse/midwives, and Ms K, midwife, responded to the call and arrived to assist. Ms K informed ACC:

"I was behind [Ms I] when we entered the room. I saw the baby was born and lying on its back on [Ms A's] chest. The baby's colour was pale, dusky and with no chest or other movement. I glanced at the clock and it said 2201hr.

[Ms I] opened the delivery pack and commenced to cut and clamp the umbilical cord. While she did this I checked the Resuscitaire ensuring that it was ready to receive baby. The Ambu-bag for resuscitation was over on the mother's bed but was not being used on

the baby. I transferred it back to the Resuscitaire, checked the flow of O_2 and set it to 8 litres.

As the baby was being transferred to the Resuscitaire, I asked [Ms B] if there had been any meconium⁵ passed by the baby before birth which can indicate foetal distress and she said that there had not been any.

I started effectively bagging the baby with Ambu-bag with a flow of 8 litres of O₂. Baby was showing no signs of trying to breathe so [Ms I] continued with the bag while I listened to the baby's heart rate with a stethoscope. This was 80 bpm.

[Ms I] continued to bag the baby who slowly started to pink up, still pale however. Rechecked the heart rate = 120 bpm. I asked [Ms J] to draw up Vitamin K which I injected IM into baby's thigh. Baby did not respond to this. I then took baby's rectal temperature and found this to be 38°C, which is very warm for a neonate. Because of this temperature I asked [Ms B] what the mother's temperature had been (in labour) and she said she did not know, as she had not taken it.

. . .

During the beginning minutes of resus of baby, [Ms J] phoned [a paediatrician], – explained briefly the circumstances and he was on his way to [the maternity clinic]. I phoned the NICU (Neonatal Intensive Care Unit @ [the public hospital]) and spoke to the neonatal nurse practitioner ... and indicated that a baby from [the maternity clinic] would be coming over soon and I would be in touch.

. . .

I waited until the NICU transport team arrived and care of the baby was handed over to the NNP and neonatal nurse who had come. The baby at this stage was still attached to the Ambu-bag via ETT [endotracheal tube] and was breathing, gasping with stable O₂ saturations. I had noticed the baby was beginning to have occasional episodes of legs and arms going stiff, and baby's arms crossing over in front of chest, which can be a sign of fitting. This was mentioned to [a paediatrician] and the NNP."

Baby A's Apgar⁶ scores were recorded as 1 at one minute and 2 at five minutes. At 10.04pm his heart rate had increased to 140bpm, but he was still not breathing normally. His temperature was recorded as 38°C seven minutes following birth.

⁶ An Apgar score is used to ascertain and record the condition of the baby, looking at colour, respiratory effort, heart rate, muscle tone and reflex response, with a maximum score of 10.



⁵ Meconium is the first faecal material evacuated from the foetus' or newborn's rectum, and appears green to very dark green. It is normal for meconium to be expelled within the first one to two days of birth. Meconium can be present in the amniotic fluid as a green staining. Although not always a sign of foetal distress, meconium in the amniotic fluid is highly correlated with its occurrence. Meconium in the amniotic fluid reveals that the foetus has had an episode of loss of sphincter control.

Ms H stated that at about 10pm while she was routinely checking the neonatal resuscitation table Ms B's pager sounded. Ms H answered the pager for Ms B and was informed that another of Ms B's clients had gone into labour and the signs indicated that she needed the presence of a midwife. Ms B directed Ms H to notify the back-up midwife. Ms H left the room for three to four minutes to do so. When she returned, Baby A had been born and was on Ms A's stomach.

Ms H recalled:

"I saw [Ms B] rubbing the baby's back and blowing on the baby's face while trying to involve the mother. I brought over the oxygen tank and switched it on. [Ms B] asked me to alert [the maternity clinic] staff and to unpack the delivery pack, which I did. Within 20 seconds three midwives appeared. [Ms B] said, 'Baby's flat', asked for the clamp and one of [the maternity clinic] midwives cut the cord. The baby was taken to the resus table. One midwife bagged the baby, another was listening to its heart rate, a third midwife was flicking the heel and rubbing to stimulate the response. The third midwife then administered Vitamin K. She asked if the mother's consent had been given and I confirmed that this was consented to on the birth plan notes that Vitamin K be given if needed. I attended to recording within the clinical notes the events that progressed during the next hour. At one point the clinical notes were taken away for photocopying so that a copy could go to NICU [the neonatal intensive care unit]. I continued recording on a paper towel until someone brought me more loose leaf clinical note to write formal record."

The ambulance staff arrived at 10.09pm and took over the resuscitation. The paediatrician arrived at 10.16pm.

Ms B advised me that Baby A was placed under a radiant heater from one minute following his birth, which may have slightly raised his temperature.

Delivery of placenta and catheterisation

Ms A stated that Ms B inappropriately tugged on the placenta cord in order to deliver it. She recalled that one of the maternity clinic midwives said, "Stop pulling on that you will detach the umbilical cord and she could haemorrhage," and grabbed Ms B's hand to stop what she was doing. Ms A was also concerned that Ms B attempted unsuccessfully to catheterise her four times before she was transferred to the public hospital.

Ms B explained:

"I administered syntocinon to [Ms A] 5 minutes after the birth in order to actively manage the third stage. It is common practice when actively managing the third stage to apply controlled cord traction (that is, gently pulling on the cord). Thirty minutes after the birth the placenta had not birthed. I was not surprised as it was a very stressful time for [Ms A]

however her blood pressure, pulse and temperature were all normal. At this stage, in order to try and achieve progress, I suggested to [Ms A] that we get her up to the toilet to see if she could pass urine and or birth the placenta, her blood loss was minimal. This proved to be unsuccessful so I attempted a catheterisation which was unsuccessful as by this stage she was very swollen and (understandably) very tense. A Midwife from [the maternity clinic] then attempted to catheterise [Ms A] and was also unsuccessful. An IV line was inserted and we transferred to [the public hospital] arriving there at 11.30pm."

There is discrepancy in the information provided about events at this time. Ms L informed ACC:

"[Ms I], [Ms J] and [Ms K] attended to the baby. I co-ordinated services and attended to the woman ([Ms A]).

. . .

I asked [Ms B] if the woman had had an ecbolic as the placenta was in situ. [Ms A] had heavy lochia. I asked [Ms B] to give IM syntometrine. The placenta was unable to be delivered. A luer was sited and 30 units syntocinon was commenced in 500mls normal saline. [Ms A] was unable to pass urine but a catheter could not be inserted due to the trauma to the perineum.

An ambulance was ordered to transport [Ms A] to [the public hospital]."

Ms J informed ACC that Ms B asked her the process for transferring a patient to the public hospital. Ms J advised Ms B that the procedure was to notify the hospital's team of an intended transfer.

Ms B stated that the public hospital staff gave Ms A pethidine, before inserting a urinary drainage catheter, and then manually removed her placenta.

Ms A's baby, Baby A, was transferred to the public hospital's Neonatal Intensive Care Unit. Baby A has very severe physical and intellectual disabilities.

Retrospective changes to labour notes

One aspect of Ms A's complaint was that Ms B made inaccurate retrospective changes to the labour records. In particular, Ms A alleged that after Baby A's birth, Ms B made additional heart rate recordings in the notes, in order to create the impression that the baby's heart rate had been listened to more frequently than it actually had.

Two copies of Ms B's clinical notes were provided to support this allegation. One copy was a contemporaneous record, recording events as they occurred up until the moment of Baby A's delivery. The presence of the maternity clinic midwives is noted on the record, at the time of the delivery, in handwriting that is different from Ms B's.

The other copy is Ms B's "completed" record. It is the same record as above, but with events from the moment of Baby A's delivery included in full. Ms B has not indicated on the

records that the alterations and additions were made retrospectively. The alterations are discussed above in the *Monitoring of labour* section of my report.

Ms B stated:

"During the resuscitation of [Baby A] and before I transferred [Ms A] to [the public hospital], my incomplete labour notes were taken and photocopied without my consent and without my knowledge by the maternity clinic staff. I completed the notes at [the public hospital] before I left the premises on the 16th September 2003."

Ms B stated that had she known that the maternity clinic staff were photocopying the notes she would have informed them that they were incomplete. Ms B completed her record of Ms A's labour at the public hospital, correcting the records for 8.50pm and 9.20pm, and adding the foetal heart rate recordings, which she had noted at the time on a piece of paper towel, "because I was not near my notes and my hands were wet". When she had transferred the notes to the clinical records Ms B destroyed the scrap of paper towel.

In response to my provisional opinion, Ms A advised:

"Although [Ms B] completed the notes on Apgar scores etc at [the public hospital] that night she could not/ did not provide the altered labour notes until approximately 2 weeks after the birth in time for my obstetric review with [my obstetrician GP]. I believe the intention of the retrospective notes were to normalise and trivialise anything that would have signified fetal/maternal distress during labour."

ACC claim

Ms A filed a claim with the Accident Compensation Corporation (ACC) for medical misadventure. An original decision by ACC to decline the claim was overturned at review and it was accepted that the claim met the criteria for "medical mishap".

Various health professionals consulted by ACC offered different opinions about the cause of the outcome for Baby A, and the standard of care. It should be noted that my investigation has focused on whether Ms B provided an appropriate standard of care to Ms A, rather than whether Baby A's disabilities resulted from the treatment provided. I have therefore taken into account only those aspects of ACC's expert midwifery advice that focused on the standard of care provided by Ms B.

 $Independent\ midwifery\ advice-First\ independent\ advisor$

ACC initially sought independent midwifery advice from the first independent advisor. The sections of the first independent advisor's report relating to Ms B's standard of care are as follows:⁷

⁷ In response to my provisional opinion, Ms B requested that I also include ACC's independent advisor's comments on Ms B's approach to the temperature of the birthing pool.



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16

"...Water temperature and [Baby A's] pyrexia

. . .

Estimating how long [Ms A] has been in the pool is a little difficult as the records of each time she entered and got out of the pool are incomplete. What is known is that she had four sessions in the pool with some breaks. The last session was for 25 minutes and the baby was born 35 minutes after [Ms A] got out of the pool for the last time.

. . .

In [Ms B's] report she states that she checked the water temperature and that it was 36.5°. Although that is not recorded in the notes, [Ms A] commented at [the public hospital's] meeting on 11 November that the midwife had checked the temperature. If the water had not been reheated till 9.15pm it could not have been too hot. There does appear to be a difference in opinion between [Ms B] and [Ms A] as to whether [Ms A] was too hot. The midwife's letter stated that the water was warmed because [Ms A] was finding the water too cold. It was highly unlikely that the water would have been warmed because [Ms A] was feeling too hot. Women who do not use birth pools also commonly feel hot and use cool flannels to the face. This is not considered harmful to the baby. [Ms A] was out of the bath ten minutes after the water was warmed. In the absence of recorded documentation in the clinical notes as to the temperature of the water and the pulse of the mother, any decision on my part is problematic. In a sense, it is one person's word against another. It is therefore important to examine the clinical documentation carefully.

. . .

In summary, the water temperature was checked before [Ms A] entered the pool at 4pm. This was corroborated by [Ms A] in her meeting at [the public hospital] on 11 November. It was clear from this that the midwife understood the importance of water temperature so was unlikely to prepare the bath excessively hot.

Monitoring of the labour

After the first home visit at 1200hrs on 15 August, [Ms B] had concluded that [Ms A] was still in early labour as the contractions were still irregular. However they were recorded as being every 5-6 minutes and she was 4cms dilated. She had also been having contractions since midnight. I consider that not to return for another 5 hrs to be an overly long time, but that this is in all probability not related to the baby's outcome. That [Ms A] was only 6cms dilated 8 hrs later was slow progress although the baby's head had descended and the cervix had thinned. The decision to intervene and to rupture the membranes was the appropriate first line intervention given this progress, and it did result in her being fully dilated 50 minutes later.

The baby's heart rate was assessed at the home visit. It was noted in the documentation between half hourly and hourly during the first stage of labour. It increased to between

every 5 minutes and 25 minutes once the membranes had been ruptured and during the second stage of labour. I consider this as being minimal but note that there is a lack of evidence regarding appropriate timing of foetal heart auscultation in labour, apart from problems associated with continuous CTG in low risk pregnancies. I also note that three of these foetal heart recordings were in the amended documentation and I cannot assess when this was done. The foetal heart was within normal limits at each recording and given the low risk status of the pregnancy there was no indication that intense monitoring was required. Given the normal heart rate of the baby throughout the labour there is no indication that the level of foetal heart auscultation provided contributed to the baby's outcome. I could find no instance in the documentation where the midwife failed to act on any sign of possible foetal distress.

Amendments of the documentation

There were several additions to the documentation that were made after the notes were photocopied, immediately prior to the emergency transfer and, it appears while the midwife was still attending to [Ms A]. In general a midwife checks and completes the documentation after the birth is complete and the mother has been attended to. It is absolutely normal to do so and I would not consider that any additions at this stage constitute notes written 'in retrospect'. Health practitioners busy providing care (eg obstetricians) do not write their notes at the same time they are providing the care, but soon after the event. I note that there was another copy of incomplete notes faxed on 8 October but it is difficult to ascertain where these incomplete notes came from. Once a copy has been made one cannot tell the origin of any further copies. However this is an issue which may need addressing further with the midwife.

In summary I can find no indication, on the balance of probabilities, that the actions of the midwife, [Ms B] were causative of the outcome for the baby. I have some concern about the 5hrs of labour [Ms A] was left unattended at home but this relates to the support and care of [Ms A] and is not implicated in the outcome for the baby. There were no organisational issues of concern."

Independent midwifery advice - Second independent advisor

ACC obtained further independent advice from a second independent midwife advisor, who advised that Ms A's claim to ACC did not qualify as medical error resulting from improper treatment. The second independent advisor advised:

"... [Ms A's] treatment in labour was normal for a well woman. By 'well woman' I mean she had no known pre-existing conditions or abnormality pertaining to herself or the baby. Nor was her labour unusual for a woman having her first birth. Her treatment in labour was appropriate for a normal physiological labour where labour was progressing and the baby showed no abnormal foetal heart recordings.

The significance of foetal heart recordings and liquor

The membranes were ruptured within four hours of the birth and the liquor, though blood stained, was not meconium stained. Generally a distressed baby would have passed

meconium into the liquor. A distressed baby would also generally have shown an unusual foetal heart rate pattern. The only mention of any significant change in the heart rate in the notes was at 2115 hours. This happened when [Baby A's] heart rate dropped to 108bpm but it increased within a short time to 128, still slower than the range previously mentioned of from 130 to 150 and on occasions 160bpm. The slowing heart rate pattern with a quick recovery is typical of the second stage of labour when pressure on the baby's head as it descends slows the heart rate momentarily during the peak of a contraction.

The reported range of the foetal heart pattern through labour was also within normal range. [Baby A's] father has reported another much higher foetal heart (215bpm) on the hand-held sonicaid. This discrepancy would seem significant to someone not familiar with obstetrical technology. However with obstetrical transducers it is common to have a doubling or halving of the foetal heart rate – otherwise known as an artefact. The reported reading of 215bpm appears to be double that of the slower pattern reported twenty minutes earlier. A falling heart rate, which returns quickly to the normal baseline, is common in second stage. If, however, the heart rate was really 215bpm rather than an artefact one has to wonder what reason or incentive [Ms B] had to ignore it. Generally the midwife listening and hearing the beat of a regular and, to her, familiar baby heart rate is able to confirm artefacts and know when the true rate does not match the numbers on the sonicaid readout. [Ms A] says, 'she discarded the monitor'. However, there are three recordings charted after this time. I presume these were taken with a Pinard's stethoscope.

I note however that the foetal heart was not recorded with any regularity. Although there is no set rule, a good standard for recording the heart rate would be at least taking it every twenty minutes to every half hour in the first stage and after every expulsive pushing contraction in second stage. [Ms B's] foetal heart recordings were irregularly and inadequately recorded. There appears to be a gap between taking and recording some of [Baby A's] heart rates. It is disappointing that four recordings were added later rather than at the time. Most of what was being added is helpful history such as 'out of pool onto bed' or about foetal heart recordings being 'taken with and just after contractions'.

[Ms B's] explanation of the changed records accords with my experience of events surrounding such crises: my incomplete notes were taken and photocopied without my consent and without my knowledge by [the maternity clinic] staff. I completed the notes at [the public hospital] before I left the premises on the 16th September 2003. She goes on to say, 'I highlighted those notes which were not included on the incomplete set.' However, [Ms B] must surely know that whenever notes are made after an event they must be clearly marked 'retrospective'. Her explanation that the notes were copied without her consent makes no difference to the inappropriateness of adding in detail to the records as if they are concurrent, rather than adding notes marked clearly as 'retrospective' additions'"

With regard to the pool temperature, ACC's second independent advisor advised:

"There are standards regarding pool temperature. The recommended pool temperature is 35°-37°C in the first stage and 37°-37.5°C in second stage. (Johnson, P., 1996, Charles, C., 1998.) [Baby A's] father, [Mr C], commented that he recalled the temperature being measured on admission. [Ms B] states that the pool temperature at that time was 36.5°C although she did not record that measurement in the notes. [Ms B] should have taken the pool temperature 'regularly' according to best practice guidelines and charted these measurements (Johnson, P., 1996, Charles, C., 1998). Equally it is good general practice to check the mother's temperature before entering the pool and once she leaves the pool (Burns, E., and Kitzinger, S., 1998). Charles (1998) suggests hourly maternal temperatures whilst in the pool.

. . .

Although best practice guidelines quite rightly would have us taking and recording the temperature of both the water and the mother, an experienced practitioner does develop tacit knowledge which though not good enough objectively, would mean she is sensitive to the environmental influences around the woman and her baby-pool temperature and mother's overheating is part of that skill base. As [Ms B] says, 'As well as monitoring the baby's heart beat, I manually assessed the water temperature and observed [Ms A] for signs of over heating e.g. excessive flushing, sweating and feeling hot to touch. It is my normal practice to do all of the above'. There is little objective data about the maternal or pool temperatures but that which we have does not suggest the pool was too hot or that [Ms A] had a high temperature."

With regard to Ms A's progress in labour, ACC's second independent advisor advised:

"By 8pm [Ms A] was showing signs of transition in labour between the first and second stage with nausea and vomiting. After an internal examination, she did not want to continue without pain relief – all very normal responses to the transitional stage of labour. [Ms A] had managed a long period of desultory labour and a good length of active phase labour with a head well descended in the pelvis, remarkably well. It was appropriate to examine [Ms A] at this stage because of the nature of her distress and the time she had been in labour since the previous examination.

At the examination the midwife ruptured the membranes. There was then rapid progress from 6cms to full dilation in 50 minutes from 8pm to 8.50pm – rupturing membranes can sometimes cause such a rapid change. The head was well descended throughout and would have caused the feeling of wanting to push long before full dilatation. Many women grunt and push involuntarily when the head is so low for so long. The advice [Ms A] (letter 25.02.04) refers to of being instructed by her midwife to 'push if you feel like it' is a common instruction and is somewhat different to being instructed to push without the condition. The involuntary urge to push is distinguishable from the voluntary grunting as a result of feelings of pressure and can at times be diagnostic for the midwife about the progress of labour. Had these instructions or the pushing been inappropriate the cervix would not have dilated up so quickly and may instead have created an oedematous cervix. Instead the labour rapidly progressed from 6cms to full dilation.

At the time the membranes were ruptured the liquor was pink-stained. This is not unusual and is generally a result of the cervix bleeding slightly as it dilates. The texture and amount will show whether this is normal or not. The liquor in this case was described as a 'moderate' amount of pink-stained. It is difficult from this description to judge whether it should have been a matter for concern. Blood often appears to be a much greater amount than it actually is and it is common to over rather than under estimate blood volume. I would expect a moderate amount of blood stained liquor after rupturing the membranes on account of the rapid rate of progress [Ms A] made to full dilation. The second stage progress seemed very normal for a first birth ..."

Independent advice to Commissioner

The following expert advice was obtained from Ms Terryl Muir, independent midwifery advisor:

"[Ms A] 33years G3P0 EDD 26/09/03

[Mr C] – partner [Ms B] – midwife

Medical history normal

30/4/03 The first antenatal visit to [Ms A] by [Ms B] was at 19

weeks. BP checked, this was normal. Urinalysis

normal. Movements present.

The antenatal check is appropriate and within normal guidelines.

25/05/03 23 weeks: Palpation, urinalysis, blood pressure

performed, foetal heart listened to and movements

discussed.

The antenatal check is appropriate and within normal guidelines. 4 weeks between visits at this stage is appropriate

24/06/03 27 weeks: Palpation, urinalysis, blood pressure

performed, foetal heart listened to and movements

discussed.

The antenatal check is appropriate and within normal guidelines. 4 weeks between visits at this stage is also appropriate

18/07/03

30 weeks: Palpation, urinalysis, blood pressure performed, foetal heart listened to and movements discussed.

The antenatal check is appropriate and within normal guidelines. 3 weeks between visits at this stage is appropriate

31/07/03

32 weeks: Palpation, urinalysis, blood pressure performed, foetal heart listened to and movements discussed.

The antenatal check is appropriate and within normal guidelines. 2 weeks between visits at this stage is also appropriate. [Ms A] was admitted to hospital shortly after this visit with abdominal pain, which subsequently settled. [Ms B] phoned to arrange a visit upon [Ms A's] return home, [Ms A] declined this visit.

[Ms B] went on holiday, [Ms A] was told to contact [a back-up midwife]. She did not. [Ms B] has written [the back-up midwife's] phone number and cellphone number on [Ms A's] maternity notes, I presume that either [Ms A] had the notes or the phone numbers.

04/09/03

37 weeks: Palpation, urinalysis, blood pressure performed, foetal heart listened to and movements discussed. Birth plan discussed.

The antenatal check is appropriate. The timing of the visits are inconsistent and do not seem to follow any rationale. Since booking [Ms B] saw [Ms A] at intervals of 4 weeks, 4 weeks, 3 weeks, 2 weeks, 5 weeks and then 4 days.

The NZCOM Midwives Handbook for practice decision points for pregnancy are noted as being:

1st: within 16 weeks

2nd: 24 weeks

3rd: 30 weeks 4th: 36 weeks

5th: 38 weeks

of book to the second

6th: 42 weeks

Certainly for low-risk women there has been a move away from traditional routine antenatal checks to reduced antenatal visits that provide a more individualised and flexible approach to care (Bennett & Brown, 1999). However, with this approach the midwife must be available 24 hours/day 7 days/week and the woman should be provided with information which enables her to assess the well-being of herself and her baby. The midwife must make appropriate arrangements with a back up midwife if she is going to be away (Section 88). This generally means that the woman will meet the back up midwife and that the back up midwife will continue with any visits during her absence. This does

not appear to have occurred in this instance. If [the back-up midwife] was expecting a call from [Ms A] I am surprised she did not try to contact her when no call arrived.

I note in the birth plan that a water birth was not discussed nor is there any documentation of information being given to [Ms A] about water birth. This should be done and informed consent obtained.

NZCOM handbook: Standard Two

The midwife shares all relevant information and is satisfied the woman understands all implications.

NZCOM Consensus Statement, (2002). 'The use of water in labour and Birth': Midwives offering water immersion for labour and for birth are responsible for ensuring the information given to women is accurate and up to date.

08/09/03

37.4 weeks: Palpation, urinalysis, blood pressure performed, foetal heart listened to and movements discussed. Support people present for the visit.

The antenatal check is appropriate, 4 days between visits is rather quick with no apparent reason other than the long gap prior to 37 weeks. This is not unreasonable.

14/09/03

38.4 weeks. Labour started at 0400hours 14/09/03. [Ms A] had a show at 1000hours 14/09/03. Contractions were well established by midnight.

15/09/03

1200 hours

The contractions were coming every 5 minutes and were lasting 30 seconds. [Ms B] felt that [Ms A] was coping well. [Ms A] was using heat, massage and breathing to help her cope with the contractions. The membranes were intact. The baby was in an anterior position and the baby's head had descended into the pelvis, it is recorded as being at station 0. The foetal heart rate was 132-150. On vaginal examination, [Ms A] was 4cm dilated with a cervix that was almost fully effaced (thinned). [Ms B] went to the airport to pick up her [son]. She was unavailable all afternoon.

The assessment is adequate; [Ms B] has determined the labour well and has determined [Ms A's] general state. I disagree that [Ms A] was in early labour. I believe that [Ms A] was in established labour.

Labour is considered to be established when contractions are regular, occurring at 10-minute intervals or less, rhythmic, and progressive in strength (Bennett & Brown, 1999).

Leading to progressive effacement and dilatation of the cervix (Enkin, Kierse, Renfrew & Neilson, 1996). And dilation has progressed pas[t] 3cm (NZ Guidelines Group, 2003).

[Ms A] was contracting every 5 minutes and was 4cm dilated with a fully effaced cervix, this is significant progress for any labouring woman.

The LMC is responsible for all primary care from the time of established labour, which includes initial assessment of the women and regular monitoring of the progress of the women and baby (Section 88). The NZCOM handbook for practice, second decision point in labour states that the midwife will check how the woman is feeling about the labour and whether she wants on-going support from her midwife.

There is no universal guideline for asking a midwife to come and be in constant attendance or for hospital admission. Rather the 'best time' is left for the woman to decide (Enkin et al., 1996).

The important decision here was whether or not [Ms A] felt she could ask [Ms B] to stay or whether she had no choice. For [Ms B] to leave and not be available at short notice is not appropriate care during what was established labour. Section 88 states that the LMC is required to make every effort to attend a woman within, on average, 20 minutes. I am not sure if [Ms B] would have been able to attend [Ms A] within that time frame if the labour had progressed quickly. I presume that [Ms A] was contactable by cell phone, which was appropriate.

1700 hours

[Ms B] returned as [Ms A] requested her to. [Ms B] comments that [Ms A] has been working hard during the day. The contractions were now strong and painful, coming every 1-2 minutes and lasting between 30-50 seconds. The membranes were still intact. A decision was made to transfer to [the maternity clinic] to use the pool and entonox for pain relief. The foetal heart rate was 136-140.

1730 hours

[Ms A], [Mr C] and [Ms B] arrived at [the maternity clinic]. [Ms A] was having lots of contractions. [Ms A] started using entonox as soon as she arrived at [the maternity clinic]. [Ms B] felt labour was well advanced.

The monitoring of [Ms A's] labour was outside of expected guidelines. There is no record of any blood pressure assessment, any temperature or pulse taken. While the labour and birth may have appeared normal at this stage, there is an expectation that an initial set of observations will be done. They were not.

'Enkin: Monitoring progress of Labour

Adequate attention must be paid to her (the woman's) physical condition. In most circumstances this will include at least, assessment of her BP, pulse and temperature. Although such assessments have become traditional, there is little agreement to how frequently they should be performed In the presence of suspected abnormality such assessments should be made as frequently as necessary ... It is questionable whether any useful purpose is served by routinely repeated observations of these parameters in healthy women in apparently normal labour.'

1800 hours

[Ms A] got into the pool. Pool temperature 37°C. Contractions coming every 2-3 minutes. Foetal heart rate 146-150. [Ms A] passed urine.

[Ms B] has documented that she felt labour was 'well advanced'; she has only listened to the FH once in the last hour. [Ms A's] temperature should be checked prior to her getting in the pool. The pool temperature was checked but not recorded.

NZCOM Consensus Statement, (2002). 'The use of water in labour and Birth':

- 1. Baseline assessments of both maternal and baby wellbeing should be done prior to entering the bath/pool and assessments continued throughout the time in water as for any normal labour.
- 2. The water temperature should be kept as cool as the woman finds comfortable during the first stage of labour (around 35° C) and increased to no more than 37° C for the baby's birth.
- 3. Too cool may stimulate a breathing response in the baby, too hot may cause dehydration.
- 4. If maternal temperature rises more than 1°C above the baseline temperature then the water should be cooled or the woman encouraged to leave the bath/pool. Women need to be aware of this in advance.
- 5. Water temperature should be recorded as the woman enters the bath/pool and regularly during the time she remains in the pool.
- 6. The depth of the water must ensure the baby is wholly immersed in water at birth. Exposure to cool air may stimulate a breathing response.
- 7. Careful documentation should be kept of maternal and water temperatures, FHR and the approximate surface area of the woman's body submerged.

Midwives offering water immersion for labour and for birth are responsible for ensuring their practice is based on relevant and recent research. (NZCOM Handbook, Standard Seven). The NZCOM Consensus Statement 'The use of water in labour and Birth' was published in July 2002 and was based on research dated between 1995 and 2002. The use of water in labour was not managed within expected guidelines.

1815 hours

[Ms A] is feeling pressure and pushy. She continues to use entonox.

This is quite common in labour, it is a good sign that labour is progressing.

1900 hours

The contractions are now on top of each other. The FHR was 152-160.

It is 1 hour since the foetal heart was listened to.

NZCOM handbook: Labour

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

Myles: Textbook for Midwives

It is usual to record the pulse rate every 1-2 hours during early labour and 15-30 minutes when labour is more advanced The foetal heart rate is assessed intermittently or continuously.

How often is left to the midwife to decide and depends on how the labour is progressing and the condition of the mother and baby. It is generally accepted to listen to the foetal heart rate ½ hourly during established labour and for at least 15 seconds, and to consider continuous monitoring if any abnormality is noted. The foetal heart rate is assessed after every/every alternate contraction during the second stage of labour. The FHR has not been listened to enough.

1930 hours

[Ms A] is having small pushes with contractions. The FHR was 140. [Ms A] passed urine.

It is common for women to want to push prior to being fully dilated. This pushing does not appear to be directed by [Ms B], rather it appears to be involuntary. The care given is appropriate. It is 30 minutes since the foetal heart was listened to. This is within acceptable guidelines.

This is the first occurrence of the notes being altered, the word 'small' does not exist in the original version. While not acceptable practice, it appears that Ms B has added this word as a description of the type of pushing that [Ms A] was doing rather the covering up any error in judgement.

1950 hours

[Ms A] is feeling sick and vomited small amounts. A FHR of 156 has been added later.

It is not acceptable practice to add to the notes, in this instance the addition is unacceptable for the following reasons:

- 1. The accuracy of the recording could not be guaranteed a day later.
- 2. If it was taken it should have been documented at the time, Ms B had no reason for not having done this.

2000 hours

[Ms B] performed a vaginal examination. [Ms A] was 6cm dilated. The cervix had completely thinned out. [Ms B] ruptured [Ms A's] membranes, there was a moderate amount of pink stained liquor.

It is common for there to be blood present in the amniotic fluid immediately following an amniotomy (ARM). The bleeding is generally from the friable vessels in the cervix. The bleeding does not appear to have been abnormal or a reason for concern.

2030 hours

[Ms A] was becoming distressed with the labour contractions and was requesting pethidine. The FHR was taken twice 146-150 during one occasion, 136-140 during the other. [Ms A] got back into the pool.

Both FHR recordings have been written in retrospect, neither has been acknowledged as such. It is not acceptable practice to add to the notes, in this instance the addition is unacceptable as the accuracy of the recording can not be guaranteed a day later and [Ms B] had no reason for not having done this at the time. In the original notes she has mentioned listening to the foetal heart rate for the latter recording although the actual recording was never documented.

It is one hour since the FHR was checked, [Ms A's] BP, pulse and temperature have not been taken at all despite the fact that [Ms A] has been in labour for 16½ hours and Ms B has performed an amniotomy for slow progress in labour. Continual regular assessment of the woman and baby has not occurred. The monitoring of mother and baby was not within accepted guidelines at this point of the labour.

2040 hours [Ms A] was requesting transfer.

2050 hours [Ms A] got out of the pool and was examined by [Ms

B] on the bed. [Ms A] was fully dilated. The baby's head was at station +1. The FHR was 146-150. Decision made to stay at [the maternity clinic] to have the baby (underlined words not in original version).

It is 40 minutes since the FHR was listened to, the mother's condition has not been assessed at all. The progress of labour has been adequately assessed. It would not be wise to transfer at full dilation unless labour was not progressing. It was appropriate for [Ms B] to recommend staying at [the maternity clinic] and encouraging [Ms A] to push.

This is another occurrence of the notes being altered. The word 'out of bed' has been replaced with 'out of pool onto bed for VE'. While not acceptable practice, it appears that [Ms B] has added these words as a description of what happened rather the covering up any error in care. The underlined words that were added appear to be a summary of a discussion that took place rather than [Ms B] writing something that never occurred. However, words written in retrospect should always be acknowledged. By adding to her notes [Ms B] is acknowledging that her documentation is below acceptable standards.

2100 hours [Ms A] got back into the pool.

2115 hours [Ms A] was pushing well. The FHR was 108-128. [Ms

A] felt that the pool was too cold. Some water was

removed from the pool and hot water added.

It is 25 minutes since the FHR was checked. [Ms A] has been in second stage all this time. The FHR should be monitored at 5-10 minute intervals during second stage. The pool temperature should have been checked. The care given is not within accepted guidelines.

2120 hours FHR 136-142. [Ms B] has added 'with and just

following contraction'.

While not acceptable practice, it appears that [Ms B] has added these words as a description of what happened rather the covering up any error in care. By adding to her notes [Ms B] is acknowledging that her documentation is below acceptable standards.

2125 hours [Ms A] got out of the pool. Now squatting, the

perineum is stretching. The FHR was 136-142.

2135 hours [Ms A] is now pushing on her hands and knees. The

FHR was taken twice. 138-146 during one occasion, 136-140 during the other. [Ms A] saw the foetal heart

rate at 215.

The FHR at 2125 hours and the second reading at 2135 hours have been added to the next day. The additions are unacceptable as the accuracy of the recording could not be guaranteed a day later and if it was taken it should have been documented at the time. [Ms B] had no reason for not having done this at the time.

The FHR has been listened to from 5-10 minute intervals since 2115 hours, the monitoring of the FHR during this time is appropriate. The numbers on the sonicaid occasionally record high numbers when in fact the FHR is normal. It is entirely possible that the sonicaid showed a reading of 215, this would not necessarily mean that the FHR was 215. A midwife would be able to distinguish an incorrect reading immediately by comparing it to what she was hearing.

2150 hours A peep of the head was seen during pushes. The FHR

was 156.

[Ms A] has been in second stage for one hour, she has made good progress.

2200 hours [Baby A] was born, heart rate (HR) 60, no respirations,

colour blue. [Ms B] called for help immediately. Birth

weight 2875g.

The time of [Baby A's] birth and his condition were written in retrospect. In this occasion it is perfectly normal and common practice. The midwife is unable to deliver the baby and write in the notes contemporaneously. The second midwife will usually leave a gap in the

page for the midwife to write in later. Generally the notes would be written up within the next 1-2 hours. In this case, there was an emergency situation and a transfer occurred, it is possible that the first time [Ms B] had an opportunity to complete the note was the next day.

2201 hours	[Baby A] made a gasp, apgar score 1 at 1 minute. Three midwives appeared and assisted in the resuscitation of [Baby A].
2202 hours	[Baby A's] HR 80
2203 hours	[Baby A] was pinking up. IM vitamin K given.
2204 hours	[Baby A] was suctioned. Fully bagged. HR 140. Still not breathing.
2205 hours	[Baby A's] apgar score at 5minutes was 2.
	[Ms B] gave Syntocinon 10u to [Ms A] at the request
	of midwife [Ms L], this was given to actively manage

the third stage of labour.

2207 hours [Baby A's] temperature was 38°C

The first stage of labour was almost 21 hours long. The second stage of labour was 1 hour and 10 minutes. Both are within normal limits for a woman having her first baby. There wasn't any foetal distress noticed. [Baby A's] condition at birth is a surprise. However, the need for resuscitation is not recognised prior to birth in approximately half of all infants requiring resuscitation (Enkin et al., 1996).

Time is not always indicative of effective or ineffective labour, in the presence of good uterine contractions, good maternal and foetal condition, progressive dilation and effacement of the cervix and descent of the foetal head, considerable flexibility in duration should be allowed (Enkin et al., 1996).

The average length of the first stage of labour is:

Primigravida: 12-14 hours

Multigravida: 2-10 hours (Bennett & Brown, 1999)

The average length of the second stage of labour is:

Primigravida: 1-2 hours

Multigravida: 10-30 minutes (Bennett & Brown, 1999)

It is unlikely that the resuscitaire caused [Baby A's] temperature to go up so quickly. When the midwives arrived to help [Baby A] was lying on [Ms A's] chest uncovered. [Baby A] was born at 2200 hours. The first midwife arrived in the room at 2201 hours. By the time the cord was clamped and cut and [Baby A] was taken to the resuscitaire it was probably 2202 hours. I do not believe his temperature would have gone up due to overheating in such a short time (2202 – 2207hours). Babies usually cool immediately after birth and during resuscitation. Without knowing the temperature of the pool and [Ms A's] temperature I am unable to give an explanation as to the reason for [Baby A's] high temperature. It is unlikely that [Baby A] became infected during labour as the membranes were only ruptured 2 hours prior to delivery. If the temperature of the pool was high, I would expect there to have been maternal and foetal tachycardia. The maternal pulse was never taken in labour. It is possible that the FHR of 215 was correct, just as it is possible it was incorrect.

2208 hours [Baby A's] HR 167, 100% oxygen being given

2209 hours The ambulance arrived, [Baby A] was ventilated. [Ms A] commented that [Ms B] tugged on the cord.

After an oxytocic drug has been given, the third stage is to be managed actively. Active management involves the administration of an oxytocic drug, early cord clamping and delivery of the placenta using controlled cord traction (CCT) (Johnson & Taylor, 2000).

CCT: (Johnson & Taylor, 2000)

- Place your non-dominant hand on the fundus and await a contraction and signs of placental separation.
- Place your non-dominant hand above the symphysis pubis, with thumb and fingers stretched across the abdomen, palm facing inwards.
- Grasp the cord (close to the vulva is best) with your dominant hand. It is best to use an artery forcep for this. As the cord lengthens move the artery forcep closer to the vulva. You can wrap the cord around your fingers instead of using an artery forcep.
- Apply steady downward traction (CCT) on the cord and at the same time push the uterus upward towards the umbilicus (to reduce the incidence of uterine inversion).
- If resistance is felt, stop, wait for a minute and then try again.

Steady downward traction on the cord would feel like tugging on the cord when a placenta was not separated. If [Ms B] felt resistance she would stop, wait for a minute and then try again. The management is appropriate for the circumstances.

2225 hours	[Baby A's] HR 98
2225 hours	[Ms A's] BP 120/60 temperature – 36.8°C
2230 hours	[Baby A's] temperature 37.8°C
2233 hours	[Ms A] was examined vaginally by midwife [Ms L],
	she could not feel the placenta
2243 hours	[Ms A] went to the toilet and was unable to pass urine.
2247 hours	[Ms A] had an IV line inserted, IV fluids were
	commenced which contained 30u syntocinon in 500mls normal saline
2254 hours	[Ms B] attempted to cathetorise [Ms A] but was unable
	to

It is common for catheterisation to be difficult immediately following delivery due to bruising or lacerations to the external orifice of the urethra and surrounding labia (Bennett & Brown, 1999). It would be reasonable to attempt this 3-4 times, as it was important to try and insert the catheter.

2306 hours	[Ms A's] BP – 156/80; pulse – 96; minimal blood loss
	apparent
2330 hours	[Ms A] arrived at [the public hospital]. She was given
	50mg pethidine IV and catheterised.
2335 hours	The placenta was removed manually. The bleeding was
	minimal. The placenta was small, pale and weighed
	276g.

The placenta usually weighs about 1/6th of the baby's weight at term. [Baby A's] placenta should have weighed about 480g. The accuracy of this weight does depend on whether the cord remains clamped or not as to the amount of foetal blood retained in the placenta. The placenta is much smaller than would be expected.

16/09/03	[Ms B] did a postnatal visit
17/09/03	[Ms A] and [Mr C] requested not to see [Ms B]. [Ms
	B] obliged their wishes.

References:

- Bennett, V. & Brown, I. (1999). *Myles Textbook for Midwives* (13th ed.). London: Harcourt and Brace Company Limited.
- Enkin, M., Kierse, M., Renfrew, M. & Neilson, J. (1999). *A Guide to Effective Care in Pregnancy & Childbirth* (2nd ed.). New York: Oxford University Press.
- Johnson, R. & Taylor, W. (2000). Skills for midwifery practice. London. Churchill Livingstone.

- NZCOM Consensus Statements.
- NZ Guidelines Group, 2003."

Responses to first provisional opinion

Ms B forwarded a response to my provisional opinion through her legal advisor, who provided the following information:

"It is accepted by [Ms B] that she has been slow to recognize and understand the concerns held by others as to her practices. Acknowledgment can only be genuine when there is understanding and sometimes this process does not happen overnight. It should be said, in [Ms B's] defense, that she has never sought expert opinions to 'bolster' her position. The experts who have found her care to be reasonable in the circumstances were engaged by ACC. It is fair to say that [Ms B's] understanding and acknowledgment [of] her shortcomings has taken longer to attain because of the presence of these opinions and the original ACC and then the reviewer's decisions. These are not insignificant factors in the scheme of things.

In her response to the Commissioner ... she indicated that she was now aware of the Consensus Statement on the use of water in labour (which her practice had generally followed) and she was consequently more aware about incorporating this into her practice. She accepts that her recordings were minimal. She now ensures that her recordings are appropriate and within accepted guidelines. She now understands how [she] can improve her practice with regard to monitoring and documentation. She does point out that if she had any concerns at the time she would certainly have increased [her] observations and recordings in all aspects. She is now committed however, to doing so, even when she does not have concerns.

[Ms B] has expressed concern that the Commissioner considers she has shown a 'total failure' to acknowledge responsibility for what happened. She wishes to assure those involved in this case that she took matters raised very seriously even before any investigation took place. She was so concerned about the outcome for [Ms A] and her baby that she took a number of steps to review her own practice and to learn from what happened. She advised as follows:

'I discussed this case in detail with the midwives collective that I belong to and looked at it as a learning opportunity for me and my colleagues. I discussed this case and reviewed all my actions in detail with a very experienced midwife who I use as my mentor for midwifery issues where I have any concern about my practice. I tried very soon after the birth to have a full debriefing with [Ms A], and on two other occasions, to discuss any concerns she might have. Unfortunately this discussion did not take place and I respect her decision. Of my own volition I sought an Independent Review of the case (certificate previously forwarded) which is a service available through the College of Midwives to

assist midwives to review and learn from cases they have been involved with. At that review, held 5 November 2003, the panel indicated to me that they believed I had provided a reasonable standard of care. At my annual review of practice that year I once again discussed this case and presented it as an issue that I wanted to use for further learning about my practice. (This is also a matter of record.)

In the light of all the above, together with information from the original ACC investigation of the case, the review of ACC's decision, and now the report from the Commissioner, I have used all of this wealth of material as an excellent learning opportunity to reflect upon and change my practice'."

Code of Health and Disability Services Consumers' Rights

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

RIGHT 4 Right to Services of an Appropriate Standard

...

2) Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards.

Other Standards

Standards of Practice, New Zealand College of Midwives Handbook for Practice (2002):

"Standard Four:

The midwife maintains purposeful, ongoing, updated records and makes them available to the woman and other relevant persons.

Criteria

The midwife:

. . .

• Ensures information is legible, signed and dated at each entry."

Opinion: Breach — Ms B

Labour at home – management and support

Ms B visited Ms A at midday on 15 September 2003 to assess her progress in labour and recorded that the contractions were approximately five to six minutes apart, her cervix was 4cm dilated, soft and effacing, and the baby had descended to station 0 in the pelvis. Ms B advised Ms A that she was in early labour.

Ms B explained that it is not usual to stay with a woman at this early stage of labour. Accordingly, she felt it was appropriate to leave Ms A while she undertook personal commitments. She told Ms A that she had made arrangements to take her son to the airport later that day, but would not do so if Ms A was unhappy about this. Ms A agreed because she felt she had no choice in the matter. Ms B left Ms A her mobile telephone number so she could be contacted if necessary. Ms B believes that she telephoned to check on Ms A a number of times during the afternoon. Ms A and her support person advised me that Ms B telephoned to check on Ms A's progress only once during the course of the afternoon. When she arrived back at the house at 5pm, she found Ms A in strong labour.

In her response to the provisional opinion, Ms B advised that she was available by telephone at any time, was "mostly less than 20 minutes away by car", and that "arrangements had been made and communicated to Ms A that the back-up midwife was always available for Ms A to call". Ms B stated that she was sorry if Ms A felt she had "no choice". She advised me that she did not pick up on any concerns but acknowledges that she "may have misread the situation" and is "sorry for that".

My midwifery advisor, Ms Terryl Muir, disagreed with Ms B's conclusion that Ms A was in early labour when she saw her at midday. Ms Muir advised that labour is considered to be established when the contractions are regular, occurring at 10-minute intervals or less, rhythmic, and progressive in strength, leading to progressive effacement and dilatation of the cervix, and dilation has progressed past 3 cm. Ms Muir stated that using this criteria, in her opinion Ms A was in established labour at midday. Accordingly, it was not appropriate for Ms B to leave Ms A and not to be readily available to monitor the progress of the labour from that time. Ms Muir advised that, according to the section 88 maternity guidelines, the LMC is required to make every effort to attend a woman within, on average, 20 minutes of receiving a call, and doubted that Ms B would have been able to attend Ms A within that time frame if the labour had progressed quickly.

The NZCOM Handbook for Practice specifies that the midwife will check how the woman is feeling about the labour and whether she wants ongoing support. Ms Muir advised that it was important for Ms A to feel that she could ask Ms B to stay; it appears that Ms A did not feel that she had that option.

In her response to the provisional opinion, Ms B stated that she "strongly disagrees" with Ms Muir's opinion that Ms A was in established labour at midday. Ms B stated that although Ms A's cervix was 4cm dilated, her contractions were irregular and short, lasting only 30

seconds. Ms B submitted, as an indication that Ms A was not in strong labour, that she was eating crackers, cheese and gherkins, and said that as the "midwife on the spot" she was in a better position to judge whether Ms A was in labour or not. Ms H recorded Ms A as having this snack at 7pm, but Ms A confirmed, in her response to my provisional opinion, that this occurred earlier in her labour. Ms B further submitted that the two ACC experts did not consider that Ms A was in established labour at midday.

ACC's second independent advisor did not give detailed consideration of Ms A's treatment in labour but summarised her general view that Ms A's "treatment in labour was appropriate for a normal physiological labour where labour was progressing and the baby showed no abnormal foetal heart recordings". ACC's first independent advisor, however, did comment on this phase of the labour. She noted Ms B's conclusion that Ms A was in early labour because the contractions were irregular, but went on to say: "However they were recorded as being every 5-6 minutes and she was 4cm dilated. She had also been having contractions since midnight. I consider that [for Ms B] not to return for another 5 hours to be an overly long time."

In my view, ACC's first independent advisor's advice is consistent with that of Ms Muir. In circumstances where Ms A was having strong contractions every five to six minutes and was 4cm dilated, it was unacceptable to leave her unattended for five hours.

Ms B acknowledges that she may have misread Ms A's level of concern about the situation when she arranged to leave Ms A in the care of her family and friends between midday and 5pm, to attend to a personal matter. Although Ms B understood that she had provided Ms A with information about how to contact the back-up midwife, there is no indication that Ms A considered contacting the back-up midwife, as it was her understanding that Ms B would be caring for her. Ms B was an experienced midwife who had contracted to provide care to a first-time mother. Ms A had no previous experience of childbirth and was understandably concerned about being left unattended and not knowing how she was progressing. While I accept that Ms B may have been able to attend within 20 minutes if her presence had been specifically requested, I agree with ACC's first independent advisor and Ms Muir that five hours was an "overly long time" for Ms B not to monitor and assess Ms A's labour. In these circumstances, Ms B did not provide services in accordance with professional standards, and therefore breached Right 4(2) of the Code.

Monitoring at the maternity clinic

My expert advisor advised me that the LMC is responsible for the regular monitoring of the progress of the woman and baby during labour. The maternal pulse rate should be recorded every one to two hours during early labour and every 15 to 30 minutes when labour is more advanced. The foetal heart rate can either be assessed intermittently or continuously – the frequency is a matter for the midwife to judge, depending on the progress of labour and the condition of the mother and the baby. It is generally accepted that the foetal heart rate should be listened to half-hourly and for at least 15 seconds during established labour, and that continuous monitoring should be considered if any abnormality is detected.

Ms Muir advised me that Ms B's monitoring of Ms A's labour was outside of expected guidelines. Ms Muir stated that although Ms A's pregnancy had appeared normal, there is an expectation that when labour starts, an initial set of observations will be done, which should include the maternal blood pressure, temperature and pulse. When Ms A arrived at the maternity clinic (by which stage Ms B recognised that Ms A was in established labour), no baseline measures of her blood pressure, temperature or pulse were taken. Nor were they taken at any other time throughout the labour.

Ms Muir also expressed concern about the frequency with which Ms B listened to the foetal heart. As previously noted, although there is latitude for the midwife regarding monitoring depending on the condition of the mother and the baby, there is an accepted practice about the frequency of foetal heart rate recording during the stages of labour.

During second stage the foetal heart rate should be listened to after every alternate contraction. Ms Muir advised that at 8.30pm the foetal heart rate had not been checked for one hour and that overall Ms B did not listen to the foetal heart rate frequently enough. Ms Muir's advice on the inadequacy of Ms B's recording of the foetal heart rate concurs with that of the ACC advisors. ACC's first independent advisor advised that Ms B's recording was "minimal". ACC's second independent advisor stated, "Ms B's foetal heart recordings were irregular and inadequately recorded." All of the advisors noted that Ms B added extra recordings retrospectively – a matter addressed later in this report.

In her response to the provisional opinion, Ms B stated that she is open to being corrected that she did not record the foetal heart rate often enough, but said that she did not have any concerns at the time, and if she had been concerned she would have recorded it more frequently. Ms B challenged my reliance on the NZCOM Consensus Statement in my provisional opinion and stated, "It is authoritative as to best practice but will not necessarily determine reasonable care and practice in every given circumstance." She said that ACC's first independent advisor acknowledged that "there is a lack of evidence regarding appropriate timing of foetal heart rate auscultation in labour" and this was supported by the comments made by ACC's second independent advisor, who advised ACC that there was "no set rule for recording the [foetal] heart rate".

I accept that ACC's first independent advisor referred to a lack of evidence about how often the foetal heart rate should be observed, but note that she still described Ms B's half-hourly to hourly recordings as "minimal". ACC's second independent advisor observed that "although there is no set rule, a good standard for recording the heart rate would be at least taking it every twenty minutes to every half hour in the first stage and after every expulsive pushing contraction in second stage", which is consistent with Ms Muir's advice on what is considered reasonable practice. Furthermore, ACC's second independent advisor noted that "[t]here appears to be a gap between [Ms B] taking and recording some of [Baby A's] heart rates".

In circumstances where there are no set protocols on intermittent auscultation, I am guided by expert advice on what is accepted as reasonable practice. I accept the midwifery advice that

Ms B's monitoring of mother and baby was not within accepted guidelines. Accordingly, in failing to adequately monitor Ms A and her baby, Ms B breached Right 4(2) of the Code.

Monitoring of pool use

Ms A expressed concern that the pool temperature was too high, with the result that her temperature and that of Baby A was elevated, which increased the severity of the cerebral anoxia Baby A suffered during the birth process. Ms A and her support persons recall that she was overheated while in the pool.

Ms B advised me that she was aware of the importance of water temperature and considers herself well experienced in water births. She says she continually assessed Ms A by observing her condition and by verbal inquiry. In Ms B's experience, women often bathe in temperatures higher than 36.5 degrees during pregnancy.

In her advice regarding the use of the birthing pool in Ms A's labour, Ms Muir referred to the NZCOM Consensus Statement (2002), "The use of water in labour and Birth" (see Appendix A). This statement says that baseline assessments of both maternal and baby well-being are recommended prior to the labouring woman entering the birthing pool. The guidelines also note that careful documentation should be kept of maternal and water temperatures, foetal heart rate, and the approximate surface area of the woman's body submerged. Baseline assessments of maternal and foetal well-being should continue to be normal. The water temperature should be kept as cool as the woman finds comfortable during the first stage of labour (around 35°C) and increased to no more than 37°C for the baby's birth. If the maternal temperature rises more than 1°C above the baseline temperature, the water should be cooled or the woman encouraged to leave the pool. Ms Muir advised me that Ms B assessed the foetal heart rate and Ms A's contractions prior to her entering the pool. However, she did not take and record Ms A's baseline assessments (including her temperature), nor did she record the pool temperature.

In response to my provisional opinion, Ms B cited the expert advice to ACC about the temperature of the birthing pool. ACC's first independent advisor noted that "women who do not use birthing pools also commonly feel hot and use flannels to cool the face". ACC's second independent advisor also stated that "this report by [Ms A] of flushing as she progresses through labour conforms to the normal evidence of women at this stage of labour".

However, it is important to put the ACC expert advice into context. The midwifery advisors at ACC were trying to subjectively establish whether the temperature of the pool contributed to Baby A's difficulties at birth. In the absence of accurate recordings on the clinical notes, both advisors were forced to make factual assumptions about the temperature of the water so they could determine whether there was any causal link between this and the baby's injuries.

Unlike ACC, I am not required to establish a causal link between the health services that are provided and the outcome of a case. Rather, I must carry out an objective assessment of the standard of care that is expected of a reasonable midwife who is using a birthing pool to support a woman in labour. Ms Muir has provided expert advice on this objective standard

and advised that the midwife is expected to monitor and record the pool's temperature and the mother's baseline assessments. ACC's first independent advisor implied that usual practice had not been followed when she stated that "in the absence of recorded documentation in the clinical notes as to the temperature of the water and the pulse of the mother, any decision on my part is problematic". ACC's second independent advisor also advised that a failure to take and record the temperature of both the water and the mother was "not good enough objectively".

Clearly it is vital that the pool temperature and maternal and foetal assessments are fully monitored and recorded when using a birthing pool. Such monitoring did not happen in this case. Ms Muir advised that the temperature of the water should have been checked prior to Ms A entering the pool, and when the water was warmed. Ms B stated that she was aware of the importance of the water temperature, and said that she checked (but did not record) the water temperature when Ms A first entered the pool. There is conflicting information about whether a floating thermometer was in the pool and whether the water temperature was intermittently checked throughout the time Ms A was in the pool.

Ms B stated that she was not aware that the maternity clinic had guidelines regarding the appropriate temperature of birthing pools. However, the maternity clinic has had guidelines regarding the temperature of its birthing pools since November 1999. The guidelines state that "[r]egular documentation of the water temperature is necessary". The maternity clinic Manager stated that every LMC with a maternity clinic access agreement is expected to be familiar with and follow the maternity clinic guidelines.

It is clear that no record was kept of the pool temperature, and that the water temperature was not checked on the two to three occasions when the pool was topped up with additional hot water. There is no evidence that there was regular monitoring of Ms A's temperature.

Overall, Ms B's use of the birthing pool during labour was not managed within expected guidelines, and accordingly Ms B breached Right 4(2) of the Code.

Retrospective changes to the notes

I have concerns about the retrospective changes that were made to Ms A's notes.

Ms B's incomplete labour notes were photocopied by the maternity clinic midwives, so that a clinical record could accompany Baby A to NICU. Ms B stated that this happened without her knowledge. She said that during the course of the labour she recorded the foetal heart rate on pieces of paper, and later transferred this information to the clinical record. She completed her notes before leaving the public hospital after accompanying Ms A for follow-up care. I accept that these actions were reasonable in the circumstances. Ms B could not be expected to simultaneously attend to Ms A during Baby A's delivery and write in the notes. Nor could she record the events immediately following Baby A's birth in what was an emergency situation.

However, the two copies of the notes supplied to me show that Ms B also made additions to the earlier contemporaneous record of events prior to Baby A's delivery, but did not mark these as "retrospective".

The NZCOM Handbook for Practice specifies that the midwife must maintain purposeful, ongoing updated records which are legible, signed and dated at each entry. The NZCOM Consensus Statement, "The use of water in labour and birth" (2002), states that the midwife should carefully document the observations and recording recommended while the woman is using the pool.

Ms Muir advised me that Ms B's alterations to the notes were not acceptable:

"By adding to her notes [Ms B] is acknowledging that her documentation is below acceptable standards."

Ms Muir expressed concern about the additions of foetal heart rate recordings. If recordings were taken, ideally they should have been documented in the records at the time. I accept that Ms B, due to the urgency of events, noted her recordings on a "scrap of paper towel" which she later destroyed. It is possible that Ms B listened to the baby's heart rate more frequently than was originally recorded, but this cannot be confirmed. By not recording the heart rate readings at the time they were taken, and by adding recordings later, Ms B has left herself open to the allegation that the heart rate was not listened to as frequently as recorded, and that the additional recordings are a falsified record.

By not clearly labelling her records as "retrospective", Ms B acted contrary to the standards outlined in the 2002 NZCOM Consensus Statement and the NZCOM Handbook for Practice, and accordingly breached Right 4(2) of the Code.

Summary

In summary, Ms B's midwifery services in this case were substandard in several respects. She did not provide Ms A with adequate support in the early stages of her labour and failed to monitor Ms A and her baby adequately during the labour – in particular, in relation to the time Ms A spent in the birthing pool when the water temperature was not recorded. She also made retrospective changes to the clinical records without annotating that they had been made after the event. The picture that emerges is one of a midwife who takes the philosophy of non-interference beyond the outer limits of acceptable practice. I am also concerned by Ms B's failure to acknowledge her shortcomings, and her unconvincing reference to a woman's needs as a "unique individual" as justification for the failure to practise safely within relevant guidelines.

Ms B requested that I discuss "the status of Consensus statements and whether a non-compliance will always result in a breach of the Code and why, given they are based on best practice principles".

The Code states that every consumer has the right to have services provided with reasonable care and skill and that comply with legal, professional, ethical and other relevant standards.

In this case, Ms B has queried whether the NZCOM Consensus Statement (2002), "The use of water in labour and Birth", and the NZCOM Handbook for Practice are "standards" under the Code.

In my view, the NZCOM Consensus Statement and Practice Handbook are examples of recommended practice, rather than statements of best practice. The purpose of guidelines is to advise providers on what is generally considered acceptable practice. When such guidelines are widely publicised and adopted by a professional group as recommended practice, they are usually considered to be professional standards under the Code.

There may, however, be exceptional cases where it is acceptable for a provider to act outside established guidelines. It is for that reason that I routinely ask expert advisors to consider specific cases under investigation and to advise me whether there are any circumstances that would warrant a departure from accepted guidelines. In this case, the expert advice has confirmed that the standard of care fell below that expected of a reasonable midwife, and there were no exceptional circumstances that warranted a departure from the NZCOM guidelines.

Opinion: No Breach — Ms B

Request for transfer to the public hospital

There is dispute about when Ms A first requested transfer to the public hospital. Ms A advised that it was about 7.30pm when she "started to get in a panic" and requested transfer. Ms F estimated it was approximately 8pm.

Ms B recalled that Ms A first requested transfer at 8.40pm, when she decided she no longer wanted pethidine. Ms H confirmed that the request was made at the time Ms A requested the pethidine, at 8.30pm.

The labour record confirms a request for transfer at 8.40pm. Ms Muir advised that it would have been inappropriate for Ms A to have been transferred at this stage, when she was entering the second stage of labour. In my view there is insufficient evidence to indicate that there was a delayed response to Ms A's request for transfer.

Management of labour

- Pushing prior to full dilatation

Ms A advised me that Ms B "instructed her" to push before she was fully dilated.

Ms B recorded that Ms A was starting to feel "a little pushy with contractions" at 6.15pm. At 7.30pm she noted that Ms A was "giving pushes with contractions" and later inserted the word "small" to describe the pushing. A vaginal examination half an hour later showed that Ms A was 6cm dilated, and a further examination at 8.50pm showed she was fully dilated. However, Ms B advised me that Ms A did not "actively" push until her cervix was fully

dilated, and described the pushes that Ms A had been giving prior to that as "small involuntary pushes". She said that it is not her usual practice to instruct the labouring woman to push, but to encourage her to "follow her body".

Ms Muir advised me that it is common for women to want to push prior to being fully dilated. The pushing does not appear to be have been directed by Ms B, but to have been involuntary. I have also noted the comments of ACC's second independent advisor, that if the pushing had been inappropriate "the cervix would not have dilated up so quickly and may instead have created an oedematous cervix". Ms Muir advised me that this aspect of Ms B's care was appropriate. I accept this advice. In my opinion there is no evidence to indicate that the pushing that Ms A did prior to reaching full dilation was inappropriate or should have been discouraged by Ms B.

- Heart rate reading of 215 beats per minute

Ms A advised me that Ms B disregarded a heart rate reading of 215 bpm which "could have been valuable information that could have assisted in Baby A getting help sooner". Ms F stated that when Ms B noted the tachycardia she made a comment about a reading that "couldn't be right" because it was so high.

Ms B denied that there was a foetal heart reading of 215 bpm. She said that at times her handheld monitor will "temporarily display an incorrect reading"; when this happens her normal practice is to "check the accuracy of the monitor by listening to the baby's heart rate and then counting with a second hand for one minute".

Ms Muir advised:

"[T]he monitoring of the FHR during this time was appropriate. The numbers on the sonicaid occasionally record high numbers when in fact, the FHR is normal. It is entirely possible that the sonicaid showed a reading of 215, this would not necessarily mean that the FHR was 215. A midwife would be able to distinguish an incorrect reading immediately by comparing it to what she was hearing [previously]."

I am satisfied that even if the sonicaid displayed a reading of 215 bpm, there is no evidence that the reading was correct or inappropriately responded to.

- Third stage of labour and catheterisation

Ms A advised me that Ms B pulled on the placenta cord in order to deliver it, and that this was inappropriate. Ms B was unsuccessful in her four attempts to catheterise Ms A.

Ms B explained that the placenta did not deliver naturally after delivery. It was necessary to actively manage the third stage by applying controlled cord traction, gently pulling on the cord. Catheterisation was difficult to achieve because Ms A was very swollen and, "understandably", very stressed.

Ms Muir advised that it is necessary to actively manage the delivery of the placenta (the third stage of labour) when an oxytoxic drug has been given, as in this case. The usual procedure for delivery of a placenta in such cases involves steady downward traction and would feel like "tugging on the cord" when the placenta has not completely separated. When the midwife experiences resistance she stops, waits for a minute and then tries again. Ms Muir advised that Ms B's management was appropriate in the circumstances.

Ms Muir also commented: "It is common for catheterisation to be difficult immediately following delivery due to bruising or lacerations to the external orifice of the urethra and surrounding labia." It was reasonable for Ms B to try to catheterise Ms A three to four times, because it was important to try to insert a catheter in these circumstances.

I accept Ms Muir's advice that Ms B's management of Ms A's third stage of delivery and catheterisation was reasonable.

Actions taken

Ms B has provided an apology, which will be forwarded to Ms A.

I note that on 24 May 2005 I recommended to the Council that it review Ms B's competence. A competence review was carried out on 10 August 2005. As a result of the review, the Midwifery Council has recommended that Ms B suspend her practice while she undergoes a competence programme. Ms B has advised me that she accepts the suspension but will not participate in a competence programme as she no longer intends to practise as a midwife.

Follow-up actions

- This matter will be referred to the Director of Proceedings in accordance with section 45(2)(f) of the Health and Disability Commissioner Act 1994 for the purpose of deciding whether any proceedings should be taken.
- A copy of this report will be sent to the Midwifery Council of New Zealand.
- A copy of this report, with identifying features removed, will be sent to the New Zealand College of Midwives and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes, upon completion of the Director of Proceedings' process.

Addendum

The Director of Proceedings considered this matter and decided not to issue proceedings before the Health Practitioners Disciplinary Tribunal or the Human Rights Review Tribunal.

Appendix A

NZCOM CONSENSUS STATEMENT

The use of water in labour and birth

This Consensus Statement was ratified at NZCOM AGM July 2002

The New Zealand College of Midwives (Inc) supports immersion of women in warm water during labour as a method of pain management. There is no evidence that remaining in water for the birth of the baby leads to adverse outcomes for the mother or baby where the labour has been within normal parameters.

Definition:

Water birth means where a baby is born fully submerged into water.

Rationale:

- Evidence supports immersion in warm water as an effective form of pain relief that reduces the use of narcotics.
- There is no evidence to suggest that immersion in water during labour or birth in water leads to any detrimental effects for either the mother or her baby.
- Evidence that immersion in water during labour reduces the length of active labour is inconclusive.
- Evidence that birth in water reduces perineal trauma or blood loss is inconclusive.

Guidelines:

Midwives offering water immersion for labour and for birth are responsible for ensuring the information given to women is accurate and up to date. The following guidelines are recommended:

- There are no adverse factors noted in foetal or maternal wellbeing during labour.
- Baseline assessments of both maternal and baby wellbeing should be done prior to entering the bath/pool and assessments continued throughout the time in water as for any normal labour.
- Vaginal examinations can be performed with the woman in water.
- Pethidine should not be given to women labouring in water.
- The water temperature should be kept as cool as the woman finds comfortable during the first stage of labour (around 35°C) and increased to no more than 37°C for the baby's birth.
- If maternal temperature rises more than 1°C above the baseline temperature then the water should be cooled or the woman encouraged to leave the bath/pool. Women need to be aware of this in advance.
- Water temperature should be recorded as the woman enters the bath/pool and regularly during the time she remains in the pool.

- Careful documentation should be kept of maternal and water temperatures, FHR and the approximate surface area of the woman's body submerged.
- The cord should not be clamped and cut until after the birth of the baby's body.
- The baby should be brought to the surface immediately, with the head facing down to assist the drainage of water from the baby's mouth and nose.
- The baby's body can remain in the water to maintain warmth, unless the baby's condition dictates otherwise. (Note: babies born in water may take slightly longer to establish respirations than those born into air. Maintain close observation of colour, heart rate and respirations.)
- Third stage should be managed physiologically as for any other low risk birth. If oxytocin is required or third stage is prolonged the woman is assisted to leave the bath/pool.
- Midwives must ensure that baths and pipes are thoroughly cleaned after use.

References:

Title: <u>Labour and delivery in the birthing pool</u>

Author: Forde, C, Creighton, S, Batty, A, Howden, J, Summers-Ma, S, and

Ridgeway, G

Title: Warm tub bathing during labour: maternal and neonatal effects

Authors: Ohlsson, G, Buchave, P, Leandersson, U, Nordstrom, L, Rydhstrom, H, and

Sjolin, I

Source: Acta Obstetricia et Gynecologica Scandinavica, Vol 80, pp 311 – 314, 2001

Title: <u>Immersion in water in the first stage of labour: a randomised controlled trial</u>

Authors: Eckert, K, Turnbull, D, and MacLennan, A Source: Birth, Volume 28, No 2, pp 84–93, June 2001

Title: <u>Immersion in water during first stage of labour</u>

Author: Homer, C

Source: Letter to the editor, Birth, Vol. 29, No 1, March, 2002

Title: Waterbirths: a comparative study. A prospective study on more than 2000

waterbirths

Authors: Geissbuhler, V and Eberhard, J

Source: Foetal Diagnosis Therapy, Vol. 15, pp. 291 – 300, 2000

Title: <u>Immersion in water in pregnancy, labour and birth</u>

Author: Nikodem, VC

Source: Cochrane Database Systematic Review, 2000

Title: Perinatal mortality and morbidity among babies delivered in water:

surveillance study and postal survey

Authors: Gilbert, R and Tookey, P

Source: British Medical Journal, 319 (7208), pp. 483 – 487, 1999

Title: Birth under water – to breathe or not to breathe

Author: Johnson, P

Source: British Journal of Obstetrics and Gynaecology, 103, 202-208, 1996

Title: Labour and birth in water: temperature of pool is important

Authors: Deans, AC and Steer, PJ

Source: British Medical Journal. 311:390-391, 1995

Title: Waterbirth – An attitude to care

Author: Garland, D

Source: Books for Midwives, 1995. Chesire

Title: Foetal hypothermia risk from warm water immersion

Author: Charles, C

Source: British Journal of Midwifery

water birth.2002

The purpose of New Zealand College of Midwives Consensus Statements is to provide women, midwives and the maternity services with the profession's position on any given situation. The guidelines are designed to educate and support best practice.

All position statements are regularly reviewed and updated in line with evidence-based practice.

Appendix B



POLICY STATEMENT:

All women birthing at will be cared for in a competent, safe manner by competent practitioners

All women receive information in order to make an informed choice regarding all aspects of their care.

LEGISLATION:

- Section 88
- Nurses Amendment act 1990

OTHER DOCUMENTATION:

- · Midwifery Standards for Practice 2002
- Good Health Wanganui 1996
- informed consent Policy

REFERENCES:

Good Health Wanganui 1996

STANDARDS:

- All Staff and Practitioners who have access to will practice within the Section 88 Guidelines and the midwifery standards for Practice.
- The use of the birthpool or the spa bath in labour facilitates relaxation and is a natural form of pain relief. Waterbirth is a safe option for clients who meet the criteria below.
 - Normal Pregnancy of 37 weeks gestation onwards.
 - No Adverse factors noted in fetal or maternal wellbeing during pregnancy or labour.
 - · That it is the Clients informed choice.
 - A client's strong desire for a waterbirth should not cloud your professional Judgement.
 - Practitioners must be experienced in management of normal birth and have the ability to recognize deviations from the norm.

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- New Practitioners to waterbirth should observe a number of waterbirths then
 be supervised until confident in their ability to manage a waterbirth and
 emergency situations should they arise.
- Observe and record fetal and maternal wellbeing throughout time in the water.
 These observations should be as per any normal labour.
- In most circumstances vaginal examinations can be performed when the client is in the water.
- As birth approaches the temperature of the water should be brought up to 36.5 c 37c. Note: During labour the water temperature for maternal comfort is 28.0c 35.0c. Regular documentation of the water temperature is necessary.
- · Episiotomy should not be performed in the pool.
- The level of the water should be changed according to the position adopted by the women. This is to ensure that the baby is born under the water.
- Traditional control of the head during crowning may be unnecessary due to
 counter pressure of the water enabling the women to push more steadily, also
 the water increases the elasticity of the skin. However observations should be
 made and some control of the head up to the crowning may be necessary to
 prevent perineal trauma.
- Prior to the birth of the body under no circumstances should the cord be clamped and cut under the water.
- The baby should be brought to the surface within one minute. The head should be facing down, so that water can drain from the baby's mouth and nose.
- The baby's body should remain in the water to reduce the cooling effect, unless the baby's condition dictates otherwise. Note Waterbirth baby's tend to take a little longer to establish respiration's than air/land babies.
- The 3rd stage is managed physiologically. If the 3rd stage is prolonged it may
 be beneficial to change position or remove client from the bath.
- · If an oxytocic is required it should be given once the client is out of the bath.



- Assessing maternal blood loss comes with experience. Assess maternal condition and if any doubts remove client from pool / spa and action appropriately.
- · No aromatherapy oils should be added to water.
- Women using the pool /spa should not be given pethidine, or if pethidine has been given women not to birth in the pool /spa for at least four hours post administration.
- Ensure that the cleaning of the spa bath is strictly adhered to, as per protocol.

Tips.

- · Uterine action will be enhanced if women enter pool / spa bath in established labour.
- Use pool / spa for short periods only in early labour as mobility is important at this stage.
- · Women may use pool / spa in conjunction with entonox.

Note.

Hepatitis B or C clients can use the pool / spa at the discretion of the practitioner caring for the client. Any practitioners who chooses to offer this service are placing themselves at risk of contamination. It is there responsibility to ensure that others are not placed at

Practitioners must:

- · Clean up any body substances spills immediately.
- Empty and clean the bath as per protocol.
- Notify other health professionals involved in care of client / baby of hepatitis positive status.

SUCCESS INDICATORS:

Monthly audits of clinical notes will show that all standards within this policy are adhered to and documented.