Midwife, Ms C

A Public Hospital

A Report by the

Health and Disability Commissioner

(Case 03HDC02673)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Ms A	Consumer / Complainant
Mr B	Complainant / Ms A's partner
Ms C	Provider / Midwife
Mr and Mrs D	Consumer's parents
Ms E	Consumer's sister-in-law
Ms F	Midwife
Ms G	Midwife
Ms H	Neonatal nurse practitioner
Dr I	Paediatrician
Dr J	Paediatrician
Ms K	OSH Health and Safety Inspector

Complaint

On 24 February 2003 Ms A and Mr B complained to this Office about the standard of midwifery services provided to Ms A and their baby daughter by Ms C. Ms A and Mr B's complaint was summarised as follows:

Ms C, midwife, did not provide services to the baby of an appropriate standard. In particular, Ms C:

- *did not adequately manage the baby's delivery (with the result that the baby fell to the floor sustaining injuries to her head)*
- *failed to record an accurate and full account of the delivery*
- *provided inaccurate information about the circumstances of the baby's birth to staff at a public hospital.*

An investigation was commenced on 1 September 2003.

Information reviewed

- Information received from:
  - Ms A
  - Mr B
  - Mrs D
  - Mr D
  - Ms E
  - Ms C
  - Ms F

  - Ms G

- Ms A's clinical records
- Occupational Safety and Health report on the maternity unit's birthing pools
- Copy of the ACC file
- Independent expert midwifery advice provided by Ms Liz Brunton
- Independent paediatric advice provided by Dr Johan Morreau

Information gathered during investigation

Overview

Ms A delivered her first baby on 17 October 2002 at a maternity unit. Ms C, a hospital-based midwife, was Ms A's Lead Maternity Carer (LMC).

During the labour at the maternity unit, Ms A asked to use the birthing pool provided for the comfort of labouring women. When it became apparent that Ms A was close to giving birth, she was assisted from the pool by her mother and partner. As Ms A stepped from the pool her baby was delivered before any of the parties present were prepared. The baby's family believe that she fell to the floor hitting her head on the pool footstool as she fell. The baby was found to be limp and not breathing. She was resuscitated and taken to the public hospital for assessment and follow-up treatment by the paediatric team. A skull X-ray and CT scans revealed that there was no evidence of head injury. However, the baby was found to have neurological impairment due to severe diffuse hypoxic ischaemic injury (brain damage caused by lack of oxygen).

Background

Antenatal care
Ms A had a longstanding history of endometriosis, but was well throughout her first pregnancy, except for a domestic incident on 27 August 2002 when she was 32 weeks' gestation. As a result of this incident, Ms A was admitted to the public hospital and an ultrasound scan was performed, which showed no obvious uterine trauma. Ms A and her foetus did not appear to be adversely affected by the incident.

Ms C, a midwife employed by the public hospital, was Ms A's LMC and cared for her throughout her pregnancy.

The term 'Lead Maternity Carer' refers to the 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 birth.

First stage labour – 17 October
At 8pm on 17 October 2002 Ms A contacted Ms C to say that she had been having contractions throughout the day and that she was experiencing contractions occurring

every three minutes, lasting about two minutes, but her membranes had not ruptured. Ms C informed me that on listening to Ms A's account of her pains she thought: "Ok, there is a possibility of a little anxiety there as well." Ms C said that she spoke to Ms A for about five minutes at this time, and during the conversation Ms A did not pause to 'breathe' through a contraction. Ms C said that she judged that the contractions were not as frequent and as long as Ms A reported, but as she was anxious, Ms C arranged to meet her at the public hospital's maternity unit for an assessment.

Ms C informed me that she had completed a birth plan with Ms A and Mr B in the first trimester of Ms A's pregnancy. (A copy of the birth plan was not provided to me.) She said that Ms A and Mr B had told her that they wanted the delivery to take place at the suburban maternity unit. Ms C said the only reason she suggested they meet at the public hospital was that she was unsure whether Ms A was in labour, and the hospital's maternity unit was closer to where Ms A and Mr B lived.

Ms C stated that when she arrived at the hospital's maternity unit at 8.30pm Ms A, her partner Mr B, mother Mrs D, and sister-in-law Ms E had already arrived. Ms A had been admitted by one of the maternity unit staff, and a CTG (cardiotocograph), to monitor the baby's well-being and maternal uterine contractions, was in progress.

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

Ms A was not distressed by the contractions and was very excited about the prospect of having her baby. Ms C assessed that the contractions were mild to moderate strength, in an inco-ordinate pattern occurring about every five to eight minutes, and lasting about 50 seconds. The baby was in the posterior position (with its spine lying proximal to Ms A's spine). The head was the presenting part and engaged in the pelvis. Ms C judged that the labour was progressing well and advised Ms A to remain in the maternity unit. She informed Ms A that walking would encourage a more coordinated pattern to the contractions, and told her that she would perform a further vaginal examination in two hours to assess the progress of the labour.

Mrs D was upset about Ms C's initial assessment of her daughter. She said:

> "My daughter was not checked, not given an internal. She was put on a machine and the heartbeat of the baby and the pulse and everything was taken and then she was told to walk the corridor for an hour. On our return from the corridor, my daughter was dilated 6cm, and I would say that she was pretty close to that 6cm before we actually started walking."

Ms A informed me that she walked briskly up and down the corridor with members of her family for about an hour. The clinical records show that Ms C assessed Ms A's progress at 9.30pm and noted that her walking had resulted in stronger contractions, which had increased to one every four minutes.

Ms C informed me that Mr B asked about going to the suburban maternity unit and that she suggested that they stay at the hospital's maternity unit. She told them she would perform another vaginal examination and suggested that they reassess their options following the examination.

At 10pm Ms C assessed the foetal heart rate at 140 to 150 beats per minute (bpm) and, as planned, performed a vaginal examination to assess the progress of the labour. She found that the cervix was dilated 5-6cm. The baby was in a transverse position (backbone towards Ms A's side) and her head was presenting at Station -1. The uterine membranes were intact and well applied to the baby's head. The foetal heart rate was within normal parameters.

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

Decision to transfer to the maternity unit
There is a discrepancy in the information provided about the decision to move Ms A to the suburban maternity unit.

Ms C informed me:

> "[The findings on examination at 10pm] encouraged [Ms A] and [Mr B]. [Mr B] immediately insisted on transfer to [the suburban maternity unit]. There was no clinical reason to advise against this, though I pointed out, and it is well documented in the notes, that the pain relief options were restricted, that if an epidural was requested, or if any concerns arose with regards to the labour, that a transfer by ambulance would be necessary back to [the public hospital], and also that there were no neonatal facilities. [Ms A] and [Mr B] accepted these conditions."

Ms C recorded her vaginal examination findings on the Partogram. The contemporaneous clinical records support Ms C's statement that she discussed with Ms A and Mr B the contraindications of delivering at the suburban maternity unit.

Ms A said that after an hour of walking Ms C examined her and said: "It's 6cm [cervix dilated 6cm]. We have to move. We have to go to the suburban maternity unit." Ms A said that she was concerned about driving across to the suburban maternity unit in case she delivered the baby on the journey.

However, there is evidence that Ms A had planned to labour at the suburban maternity unit. Ms A informed me that in the last weeks of her pregnancy she had gone to the suburban maternity unit to check out the facilities in preparation for the delivery of her baby and that she asked about having a water birth. Ms A said that she was told about the birthing pool at

the suburban maternity unit and particularly remembers being told about the importance of the water temperature being maintained at 35ºC.

Mrs D stated:

> "I considered that when [Ms C] told us that we would be moving straight away to [the suburban maternity unit], I sort of panicked as to wondering how my daughter was going to be transported there."

Mrs D informed me that she asked her daughter why she was having a water birth. She was concerned because she had never seen a water birth and knew nothing about it.

Ms C recorded that Ms A travelled to the suburban maternity unit with Mr B in their car at 10.45pm. Ms C followed. They arrived at the suburban maternity unit at 11.15pm.

The suburban maternity unit
On arrival at the suburban maternity unit Ms C assessed Ms A and noted that the contractions had increased to one every three minutes, she was coping well and the foetal heart rate was within normal parameters.

Ms A informed me that shortly after she arrived at the suburban maternity unit she went to the toilet. Ms C accompanied her and told her: "I want you to listen very carefully. If your Mum says anything, you're to try to ignore her. If she tells you to push, don't push. You just focus on what I am telling you." Ms A stated that as her labour progressed she initially sat on a beanbag and then got on to the bed.

Ms C found Mr B's manner difficult throughout the labour as he appeared to be agitated and upsetting to the other family members. To help ease the situation she asked Mr B to fill the birthing pool. Ms C said that Ms A had indicated in her birth plan that she would like to try labouring in the water. Ms C explained that being in the water can be "very nice pain relief".

Ms C knew that Ms A was progressing well and she reasoned that by the time the pool had been filled to the correct level (about 15 minutes) and it was the correct temperature, Ms A should be ready to have her baby. Ms C recalled that Mr B asked several times during the filling of the pool whether there was sufficient water. She told him that the water needed to be deep enough to support Ms A and the temperature needed to be 37ºC. She instructed Mr B to use the thermometer that floats in the water to check the water temperature.

At 12.15am on 18 October Ms C reassessed the foetal heart rate at 132 to 136 bpm. She noted that Ms A was "involuntary pushing". Ms C encouraged her not to push.

Second stage of labour
At about 12.30am Ms A expressed a strong urge to push and her uterine membrane spontaneously ruptured. Ms C performed a further vaginal examination and found that the cervix was fully dilated and the baby at station -1 to -0. Ms C recorded that Ms A was asking to use the birthing pool for relaxation.

Ms A informed me: "I honestly did not want my baby born on that bed after my waters had broken on the bed, so I asked if I could hop into the bath."

Ms A was assisted into the pool. Ms C noted that Ms A was comfortable in the pool and started active pushing at 1am. The foetal heart rate was assessed after each contraction and recorded as within normal range between 110 to 160 bpm. Ms C set up the delivery trolley and explained to everyone that she wanted to be ready. The bed on the other side of the room to the birthing pool had been pulled out from the wall so that there was easy access to the call bell.

Mrs D crouched beside the pool to assist her daughter. She recalled that after her daughter had been in the pool for about an hour Ms C said that the water was getting cold and Ms A should get out. However, Ms A and Mr B recalled that Ms A asked to get out of the pool as she was getting cold. At this time Ms A had a strong contraction, and Mrs D saw the baby's hair at the perineum. Mrs D pointed this out to Ms C who asked: "Are you sure?" Ms E said that she saw it too. At about 1.18am Ms C applied the foetal heart monitor to assess the foetal heart rate for the duration of the contraction and then told Ms A to get out of the pool.

Ms C informed me:

> "[Ms A] had had a couple of pushes during her time in the bath; she probably would have pushed twice. She was starting to make effective pushing noises. That wasn't a worry because there was no bulging at the perineum. I would have observed the perineum. I would have felt the perineum and I would have assessed that it was safe for her to get out of the bath and transfer to the bed."

Delivery
Mrs D recalled that she and Mr B, one on either side, assisted Ms A to get out of the pool. Mr B supported Mrs D's recollection of how Ms A was assisted from the pool. He stated that while this was happening, Ms C was standing at the instrument trolley preparing the equipment, with her back to the pool and Ms A.

Ms A, Mr B, Mrs D and Ms E are unanimous in their recollection that, as Ms A stepped over the side of the pool on to the footstool, she cried out: "Something is happening." Immediately after Ms A cried out the baby was delivered.

There is considerable discrepancy about the circumstances of the baby's delivery.

Ms A stated: "She just fell, she just fell to the floor. … [on] the step, and [Mr B] picked her up."

Mr B stated:

> "[Ms A] says 'It's coming, it's coming', and I looked down. I says, 'Whoah, whoah, the baby's coming', and then from there, from my eyes from vertical, what I saw was that [the baby] came down, hit the step, the bungee of the cord sort of jolted a little bit like when she pulled it up and then she ended up on the floor.

…

All I could see was the back of her going down. I looked down. And said 'Whoah', but by that time it was too late. … I yelled out, but then I picked her up and I said '… she's dead'. .. I picked her up off the floor. It took me three seconds actually to get my hands under [the baby] cos she was slippery, it took me about two or three goes. I had to make sure I had her – get her so she was more or less in my forearms and picked her up, and I noticed that while I picked her up her body had arched. … I picked her up and I put her on the table. By that time everyone was hysterical. Her Grandmother, remained semi-calm."

Mrs D stated:

"[Ms A] said 'Something's happened'. [Ms C] turned. [Ms E] ran from over there [the far side of the pool]. Before [Ms A] could say it again I tried to grab her to stop it, but the baby came. … The baby came out head first, she hit the step and went bang onto her back, slid and hit the floor. The umbilical cord pulled her back up and then she went straight down again. Straight down again on her head, because I was standing right here. … The back of her neck hit [the step]."

Ms C stated:

"When we assisted [Ms A] from the pool, … [Mr B] was [standing to [Ms A's] right, [Ms C] to Ms A's left], and so we both took an arm and [Ms A], actually quite quickly, got out of the bath. [She] stood on the footstool – stood on the floor – and I wrapped a towel round her shoulders. Well, I'm not sure where her feet were when I wrapped the towel round her shoulders.

...

[Mr B] stayed on that side and he was supporting [Ms A] at that stage. So I stepped back to let [Ms A] come down off the step. She said: 'Something's coming.' So I actually had warning that something was happening. I went to [a crouch position beside Ms A] which is your first reaction. At that stage the baby was born, and I caught the baby. The baby did not hit the floor, did not hit the stool, did not hit the birthing pool. I could feel at the very moment of birth that there was something wrong with the baby. Because it was very floppy. So I brought the baby up to the delivery trolley. I held the baby onto the delivery trolley with my hip, because there wasn't much room in there."

All parties thought the baby was dead. She was lifted on to the delivery table and Ms C manually stimulated her and asked the family to call for assistance. Ms C's notes written retrospectively record:

"Baby caught as falling by midwife. Baby pale, no spontaneous resps. Cord pulsating. Cord clamped & cut by midwife. Assistance called. Transferred to resus table and O2 administered via bag & mask. Heart rate approx 60 b/min – cardiac massage commenced. Ambulance called for."

However, Ms C later stated that she clamped the cord and encouraged Mr B to cut the cord. She thought that it was important for him to do this as she did not expect the baby to survive.

Ms C asked that the call bell be activated to call assistance. Ms E was initially unable to find the call bell cord hanging from the ceiling over the bed. The on-duty midwives at the maternity unit, Ms G and Ms F, were both at the nurses' station, which is about 60 feet along the corridor from Room 13 where Ms A was labouring, when they heard a long call bell sound from the room, indicating an emergency.

Ms F said that they immediately went to the room. The door was closed when they arrived. When they pushed open the door, Ms C turned to them holding the baby. Ms F recalled that she told Ms G to accompany Ms C in taking the baby to the resuscitation room. The resuscitation room at the suburban maternity unit is halfway between Room 13 and the nurses' station, on the opposite side of the corridor. Ms F told Ms C that she would stay with Ms A. Ms C and Ms G took the baby through to the resuscitation room accompanied by Mr B and Ms E.

Delivery of placenta
There is discrepancy in the information about how the placenta was delivered.

Mrs D recalled that her daughter was crying and screaming and asking what was happening with her baby. Mrs D reassured her daughter and helped her down off the birthing pool steps. Ms A took one step forward and said: "Something's happening again." Mrs D told her daughter that it was the placenta coming away. She said that after the placenta was delivered onto the floor, she got down on to her hands and knees to check that there was nothing else and took her daughter over to the bed. Mrs D said that as she was helping Ms A on to the bed, another midwife came through the door and observed that the placenta had been delivered. The midwife went into the en suite toilet to fetch a container, picked the placenta up off the floor, deposited it into the container, and then said to Mrs D: "Here is your placenta, I believe you are taking it home."

Ms F recalled that Ms A was standing beside the bed when she entered the room, and she and Mrs D helped Ms A on to the bed. Ms F recalled that the placenta had not been delivered when she was called to assist and that she said to Ms A, "Let's get this placenta out." She said that the placenta was delivered quite quickly after Ms A was on the bed, and said that she did not have to apply any traction. She asked Ms A to give a little cough, and gave the placenta a "little pull" to deliver it. Ms F said she then checked Ms A's perineum for any tears, cleaned her and changed her nightgown, before fetching a wheelchair and assisting her to go to the resuscitation room to see the baby.

Ms F commented that the family were mistaken in their belief that the placenta had been delivered prior to her arrival. There was blood on the floor, which they might have thought was the placenta. Ms F said that when she had attended to Ms A she went out to the car park to tell Mr D to come into the unit as his daughter and family needed his support.

Again there is discrepancy in the information supplied by the various parties. Mrs D informed me that she went to the car park to bring her husband, who was waiting in the car, into the suburban maternity unit.

Resuscitation of baby
Ms C and Ms G instituted resuscitative measures on the baby in the resuscitation room. Ms C said that while Ms G was successfully "bagging" (using an Ambubag, an artificial resuscitation device to deliver air to the lungs) to assist the baby to breathe, she went to telephone for an ambulance. She then returned to assist Ms G. Ms C used a stethoscope to listen to the baby's heartbeat, which was less than 60 bpm and not strong. Ms C commenced cardiac massage. She and Ms G continued the cardiac massage and bagging until the ambulance arrived about six to seven minutes later.

The baby's Apgar score was 1 at 1 minute, 1 at 5 minutes and 3 at 10 minutes. (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.)

The ambulance officer recorded that when he arrived at the suburban maternity unit to assist in the resuscitation, Ms C told him that the baby initially breathed at birth but within a few minutes went into respiratory arrest. He noted that despite CPR being in progress when he arrived, the baby was in cardiac arrest when he assessed her. The ambulance officer found that she was fully cyanosed (blue colour indicating lack of oxygen) with no spontaneous respirations, cardiac output or heart sounds. The ambulance officer connected the baby to the electrocardiograph (ECG) leads used to record heart rhythm. The initial ECG showed that she was in asystole (no heartbeat) but after cardiac massage was continued and she was intubated – a tube introduced into her airway – and oxygen connected at 1.30am, a normal heartbeat of 120 bpm with output was established. The ambulance officer noted that the baby's colour slowly improved and she started spontaneous respiratory movement at 1.40am, ten minutes after the ambulance officers commenced resuscitative measures.

Ms C telephoned the public hospital's Neonatal Unit (NNU) to inform them of the situation and prepared for the transport of the baby.

Mr B stated that he told the ambulance officers how the baby fell on her head on the floor. He said: "Not once in front of us did [Ms C] mention that she caught [the baby]." Mr B asked to accompany Ms A in the ambulance to hospital. Ms A wanted him to go with her, but the ambulance officer told him that Ms C would be going in the ambulance with Ms A, and that he would have to follow in his own car.

The public hospital
Ms C, Ms A and the baby arrived at the NNU at 2.05am on 18 October. Ms C stated that when she handed over care to the neonatal nurse practitioner, Ms H, she informed her that Mr B was alleging that the baby had been delivered onto the floor. Ms H advised that she would arrange for a skull X-ray for the baby.

Ms H recorded in the clinical records that the baby had been delivered while her mother was moving to the bed and that the baby had dropped to the floor. A comprehensive initial physical assessment of the baby was conducted on her arrival at the unit and she was seen by Dr I, paediatrician, who ordered monitoring of the baby's urinary output, blood tests and an ultrasound scan and X-ray of her head. The skull X-ray reported no evidence of fracture.

An acting charge nurse noted:

> "Parents visiting thru out night. I feel further explanation is urgently required for these parents, [Ms A] and [Mr B]. Appearing not to fully comprehend the procedures and medical explanations. Parents wish to have a blessing today with a Maori chaplain."

(Dr I left New Zealand later in 2002 and was not interviewed.)

The baby was taken for an ultrasound scan of her head during the afternoon of 18 October but no abnormality was detected. The paediatric staff were informed of the result.

At 6.30pm the baby was noted to be flailing her arms and jerking her hands. She was reported as having a raised temperature of 38ºC and commenced on antibiotics and phenobarbitone to control her jerking movements.

On 19 October the nursing notes record that the baby had developed involuntary cycling movements of her legs and lip smacking. Phenobarbitone was again given, which effectively controlled these involuntary movements. A physical examination showed that her anterior fontanelle (soft spot at the front of the skull) was normal, being soft and flat, and there was no "ping-ponging", depressions or swelling noted. Ms H recorded:

> "Possible head injury r/t delivery/fall to floor. … Update – midwife reports infant delivered as pt was moving from bath to bed, baby caught by midwife. FDC reports baby fell and hit steps."

(Ms H returned overseas later in 2002 and was not interviewed.)

Mrs D informed me that on the second day the baby was examined by another paediatrician who explained to her that the baby was being treated for lack of oxygen to the brain. Mrs D replied that she assumed this was caused by the fall. When Mrs D told him that the baby had fallen onto her head at birth, the paediatrician said that this information was not in his notes. Mrs D told him to talk to the midwife to get the details.

At 10.35am on 22 October, Dr J, paediatrician, met with Ms A and Mr B to discuss the baby. Dr J recorded the details of Ms A's labour and delivery as it was described to him by the couple. Dr J noted:

> "CT scan
> Normal provisional report
> Discussed that this doesn't mean baby will not have normal outcome. A combination of factors will help determine long term outcome.

Management:
– Plan to stop phenobarb in next few days
– Do blood level."

The baby was diagnosed as suffering from seizures, with evidence of spastic quadriparesis (muscular weakness in all limbs with associated spasm).

Postnatal care
Ms C continued to care for Ms A until 28 days after the baby's birth. On 22 October Ms C recorded that Ms A had been discharged from hospital. As Ms A was not sure that she wanted to return home at that time, Ms C arranged accommodation for her at the old nurses' home. However, Ms A decided to return home on 23 October. Ms C noted that she was postnatally well and becoming increasingly involved in the baby's care.

On 29 October the baby was ready to be discharged home, but was found to have contracted Rotovirus and had to remain in the hospital for further review.

On 25 November Ms C recorded:

"Post natally well. Breasts comfortable, lactation well established. Lochia ceased. Is happy for discharge from LMC care. Having weekly visits from [a paediatric service] nurse. Not wanting contraception – aware of awhitea + Family Planning facilities. Formally discharged from LMC."

The baby's care following discharge was supervised by a home care nurse from the paediatric service. The baby was also assessed by a paediatric physiotherapist, who referred her to a visiting neurodevelopmental therapist for review and follow-up. On 18 March 2003 the visiting neurodevelopmental therapist informed the paediatrician who was monitoring the baby's progress, that "I will continue to visit [the baby] on a 2-3 weekly basis to offer support and therapy ideas. At [Ms A's] request I have referred [the baby] to [an] Early Intervention Service for input and support from an Early Intervention teacher."

Additional information

ACC

On 18 April 2003 Mr B and Ms A lodged a medical misadventure claim with ACC.

On 15 December 2003 ACC MMU informed Mr B and Ms A that their claim had been declined. Mr B and Ms A lodged an appeal against the decision. The appeal hearing was held on 30 March 2004. ACC advised on 3 May 2004 that its decision to decline the claim had been upheld.

ACC independent advice

ACC obtained independent expert advice from an obstetrician, who advised:

> "Quite clearly a physical injury has occurred to [the baby]. There is however, no evidence that this injury was as the result of medical treatment. There is no evidence that [the baby] sustained a head injury at birth causing the severe problems that were seen at birth.
>
> The baby had evidence of severe birth asphyxia with hypoxic ischaemic encephalopathy and early onset seizures. If [the baby] was delivered onto the floor, this appeared not to be the cause of her condition based on the clinical findings and special investigations performed. It is far more likely that there was hypoxia in utero compounded by [the baby] showing signs of compromise to her growth prior to delivery.
>
> On the balance of probabilities, the cause of [the baby's] cerebral palsy is much more likely to have an antenatal/intrapartum cause than speculation around an injury at the time of delivery caused by a midwife failing to catch a baby and a head injury causing the cerebral palsy."

Response of Dr J, paediatrician, to ACC

Dr J advised ACC as follows:

> "As a paediatrician in the neonatal unit at [the public hospital], I was involved in treating [the baby] from 21-10-02 to 27-10-02. She was admitted to the unit on 18-10-02 under the care of [Dr I], paediatrician and I took over her care 3 days later. She remained in the neonatal unit until 20-10-02 and was transferred to the general paediatric ward at the paediatric service until 4-11-02 where she was under the care of the hospital paediatricians.
>
> …
>
> [The baby] was born by normal vaginal delivery, first stage of labour was recorded as 8.5hrs and second stage 20 mins. [Ms A] was afebrile, there was no foetal distress recorded and the liquor was clear with no meconium staining.
>
> According to the midwifery notes (in hospital folder), [the baby] was delivered as [Ms A] was transferring from the bath to the bed and was caught by the midwife and the cord was clamped and cut by the midwife. However, events described by [the baby's] father differed. He stated that [Ms A] was in the bath for 20–30 mins prior to the delivery and she then wanted to get out as she was cold. As she was getting out she stood up and said, 'It's coming' and delivered the baby and the placenta on the floor. Father stated that [the baby] hit the floor quite hard, the midwife was in the room. He picked [the baby] up and cut the cord himself. [The baby] was pale and lifeless and she was then resuscitated on the radiant warmer. She weighed 2450g [5lbs 6oz].

Resuscitation at birth

Initial heart rate was recorded as 60 beats/min. Bag and mask ventilation with oxygen were commenced, help was summoned (including an ambulance) and cardiac massage was started. Apgar scores at 1 and 5 minutes were 1 and 1 respectively with a slow heart rate only and no spontaneous respiration. Ambulance staff arrived at 6 minutes of age. [The baby] was intubated, the heart rate improved to 126/min. According to the ambulance staff note, there was no heart beat when they arrived. Cardiac massage was later discontinued and the 10 minute Apgar was 3, there was still no spontaneous respiration. By 21 mins of age some respiratory effort was noted and by the time of arrival at [the public hospital] at about 47 mins of age, [the baby's] breathing was established.

…

[The baby] was admitted to the neonatal unit at 0206am 18-10-02 following cardio-respiratory arrest at [the suburban maternity unit] (born at 0119am 18-10-02). …

Initial examination and management of the baby – the public hospital

This was carried out by [Ms H], a neonatal nurse practitioner and later by [Dr I], paediatrician. [The baby] was hypotonic, intubated and being hand-bagged. She was term, weighed 2455g (below 3rd centile) head circumference was 34cm (10th–50th centile) and length 49cm (10th–50th centile), indicating asymmetrical growth retardation [delay in aspects of growth]. She was pale in colour, had no dysmorphic [abnormal] features and in particular there was no external evidence of trauma to her head, there were no swellings or depressions noted. Temperature was 36.1ºC. Her respiratory system showed gasping type of respiration, there were transmitted breath sounds from the upper airway but the chest was clear. Cardiovascular examination revealed heart rate of 140/min, normal pulses, normal heart sounds, blood pressure was 72/46mm Hg. Central nervous system examination showed her initially to be hypotonic and lethargic, her anterior fontanelle was normal. Examination of the abdominal, genitourinary and skeletal systems were unremarkable.

…

Progress and management

<u>Birth asphyxia and presumed hypoxic ischaemic encephalopathy</u>

…

Neurologically, [the baby] became irritable and hypertonic with extensor arching, abnormal posturing, rhythmical sucking movements and lip smacking by 3 hrs of age. She was able to be extubated to continuous positive airway pressure by approximately 4 hrs of age. Phenobarbitone 20mg/kg was given intravenously followed by another 10mg/kg later in the day. The lip smacking resolved.

Investigations at this stage were skull X-ray and head ultrasound (performed on day 1). These were normal with no evidence of trauma. …

By one week of age she continued to display abnormal neurological signs. She had a weak grasp and Moro reflex. There was marked head lag with some increased upper limb tone. Her suck was weak and she required tube feeding. Seizure activity was controlled with phenobarbitone.

[The baby] continued to display abnormal neurological signs, slowly established breast feeds, received maintenance phenobarbitone and had an MRI performed which showed features consistent with moderate to severe hypoxic ischaemic encephalopathy. An EEG performed in November 2002 was normal.

…

Other comments

In summary, [the baby] had evidence of severe birth asphyxia with hypoxic ischaemic encephalopathy and early onset of seizures. If [the baby] was delivered on the floor, this appeared not to be the cause of her condition based on the findings of the physical examination and the results of the special investigations performed. It is most likely there was hypoxia in utero, compounded by [the baby] showing signs of compromise to her growth prior to delivery. Events prior to delivery require further investigation to try to establish when the insult took place."

Response of Mrs D to HDC

Mrs D informed me:

"The business of what happened, to me, this was an accident – an accident at birth. But that could happen to anybody, walking from the toilet they can deliver their baby onto the floor, coming from the hallway they can deliver their baby onto the floor. But preventing – trying to prevent the accident from happening is a better way of looking at it than having this hate inside of you and blaming and blaming. …

At the end of the day they [Ms A and Mr B] were so under stress and not being told what was going on at the hospital. We got told by the paediatrician at the hospital on the first night that if she makes it through the first 24 hours it will be a miracle. So I sort of expected the worst. We went home, and in the morning I started to look for undertakers. You know we are hundreds of miles away, and if we were going to take that baby, we had to take it home right. …

I asked them what she was being treated for and they told me, 'Lack of oxygen to the brain'. That was their answer to me and I said, 'Well that's from the fall.' The paediatrician said to me, 'What fall?' So I explained to him what happened and said, 'You need to talk with the midwife and find out.' …

> All I got was stress because nobody talked to us. Nobody told us at the hospital what was going on and it wasn't until the third day when I said to this other paediatrician, because she must have had three or four of them, 'When will you do a CT scan? We want to know the damage.' … They did it but they didn't tell us what the results were – they told [Ms A] and [Mr B]. [Ms A] wouldn't have really understood you know, what they were talking about. They should have taken us all into a room and said, 'This is what we found and this is what is going to happen.' You know – nothing – really nothing. [The public hospital] has a real big name where I come from, you know, if you say you have been to [the] hospital – '[the public hospital]!' Down here in [the city] it might be different but where we come from it's big. Our little hospital in [my hometown] is more friendlier than what [the public hospital] is ever going to be. At least they tell you what is going on and help us with our problems and how they can be resolved. They said to my daughter, 'Well your daughter's going to stay in ICU but you can go.' We don't do that up there with our family. We stay with them until they are better. I couldn't handle that. I waited down here for two weeks before I left to go home, until I knew she was absolutely stable and then I went home."

Occupational Safety and Health (OSH) report – The maternity unit's birthing pool

Ms K, Health and Safety Inspector, visited the suburban maternity unit on 4 August 2003 in response to a complaint from Mr B on 29 July 2003 about the incident involving Ms A and their baby on 17 October 2002.

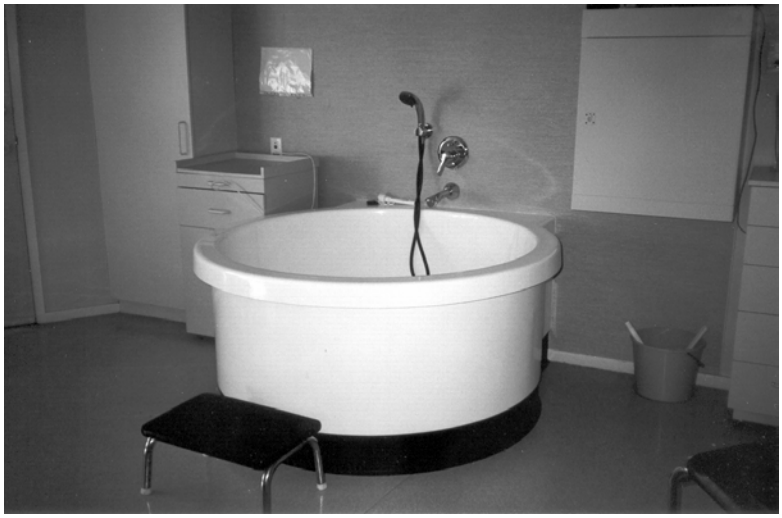
Ms K inspected the birthing pool at the suburban maternity unit with a charge midwife.

Ms K noted the absence of handrails and a fixed step for patients to use when entering and exiting the pool, which she considered exposed the patients and midwives to the risk of injury. The charge midwife informed Ms K that there had been one or two reported incidents of midwives sustaining back strains when assisting patients in the pool. Ms K took photographs of the birthing pool.

On 19 August Ms K returned to the suburban maternity unit and met with a manager of women's health, and an occupational health nurse. Ms K discussed her concerns with the manager and the occupational health nurse and they agreed to some basic modifications. The manager informed Ms K that the pools at all the three suburban maternity units in the region not be used until the modifications were made. A period of two weeks was estimated to be necessary to complete the modifications.

The birthing pool at the suburban maternity unit was fitted with a fixed step, hand supports and widened lip to the pool.

Photograph of the maternity unit's birthing pool Ms K took on 4 August in its original condition



Photograph Ms K took of the maternity unit's birthing pool showing the completed modifications

Independent advice to Commissioner

Midwifery advice
The following expert advice was obtained from Ms Liz Brunton, an independent midwife:

"Regarding Ref: 03/02673/…

Thank you for asking me to provide expert advice to the Commissioner on the above claim. I have read and I agree to follow the Commissioner's Guidelines for Independent Advisors.

I am a Registered Midwife and a Registered General and Obstetric Nurse and have a Bachelor Degree in Psychology/Nursing. I have worked as a midwife for 24 years.

I worked for 4 years in a hospital setting (post-natal and delivery suite) as a staff midwife and charge-nurse, 6 years in a Polytechnic Institution tutoring student midwives and for the last 14 years I have worked as a self-employed Independent midwife.

The main issues of enquiry for this case appear to me to be:

A) A differing explanation of the actual birth and whether the symptoms that [the baby] is exhibiting now were attributed to the birth or were a consequence of some other cause.

B) That there was an alleged inadequacy in the Midwife's care which led to problems and subsequent damage to [the baby].

The referral instructions from the Commissioner were:

To advise the Commissioner whether, in your professional opinion, [Ms C] provided [Ms A] with services of an appropriate standard. In particular

1 Was [Ms C's] management of [Ms A's] labour at [the public hospital] appropriate?
2 If not, what else should [Ms C] have done?
3 Was there any indication on the CTG trace during that time that the foetus' wellbeing was compromised?
4 Was there any reason why [Ms A] should not have been transferred to [the suburban maternity unit] at 11.30pm when she was 5-6 cm dilated?
5 Was [Ms C's] management of [Ms A's] labour at [the suburban maternity unit] appropriate?
6 If not, what else should [Ms C] have done?
7 What is the incidence of a precipitate delivery such as occurred to [Ms A]?
8 What is the likely cause of a precipitate delivery?
9 Was there any aspect of [Ms C's] management of the labour that could have caused the baby to be delivered in such a poor state?
10 Were [Ms C's] clinical records relating to the labour and delivery of an acceptable standard?

Are there any other relevant professional or ethical standards that apply and, in your opinion, were they complied with?

Are there any other comments you consider to this case that may be of assistance.

Supporting Information I have received is listed in Appendix A

Background information sent (Appendix B) outlines the events of [Ms A's] labour, birth and initial care of [the baby].

Comment to 'Expert advice required'

1. *Was [Ms C's] management of [Ms A's] labour at [the public hospital] appropriate?*

I believe that the management of [Ms A's] labour, provided by [Ms C], at [the public hospital] was appropriate.

There is no indication from the information provided that there is any care which is below a standard that one would reasonably expect.

It is not unusual to monitor and observe a labour pattern prior to carrying out a vaginal assessment, especially with a history of an irregular labour pattern so typical of a baby in a 'posterior' position.

Discussion of care/procedures and consent by all parties appears to have been attended to.

2. *If not, what else should [Ms C] have done?*

[Ms C] provided appropriate care.

3. *Was there any indication on the CTG trace during that time that the foetus' wellbeing was compromised?*

CTG tracing demonstrates no evidence of fetal compromise. I am unable to see printed numbers on the CTG trace but assume the base line was about 140-150 which is within normal parameters.

4. *Was there any reason why [Ms A] should not have been transferred to [the suburban maternity unit] at 11.30pm when she was 5-6 cm dilated?*

There was no reason why [Ms A] could not be transferred to [the suburban maternity unit] at this stage of labour. She had demonstrated slow progress up to this stage and there would not be an expectation of rapid dilatation even though she was now in established labour. There is no mention of the thickness/length of the cervix but at 5-6 cm dilation one could reasonably expect at least another 3-6 hours of labour.

The distance was not great and would be similar to a client transferring from home to hospital after spending the initial stages of labour at home where a midwife would have been assessing the client in her own home.

Parameters of safety appear to have been maintained.

[Ms A] had informed choice, appears to have requested to transfer to [the suburban maternity unit] and was supported by professional advice.

5. Was [Ms C's] management of [Ms A's] labour at [the suburban maternity unit] appropriate?

[Ms C's] management of [Ms A's] labour was well within the standard of care to be expected. Regular monitoring of the baby's heart beat was done and recorded. Physical and emotion support of [Ms A] and her whanau was provided. Assessment of labour progress was made at appropriate intervals. Preparation of equipment and environment for the birth was attended to. Entering the Birth-pool at full dilatation is within the bounds of normality and safety. Exiting the pool when no perineal distension by the baby's head is visible plus recent assessment showing the head to still be above the pelvic spines, is safe. It is usual for there to be a significant time period (1-2 hours) from commencement of pushing to birth of the baby in a primigravid woman. Usually the baby's head will descend and retract down the birth canal until 'crowning' (the baby's head descends below the symphysis-pubic arch and does not retract). Once this occurs birth may be 1-5 contractions away depending on the effectiveness of the pushing.

6. If not, what else should [Ms C] have done?

No other obvious management appeared to be required. Hypothetically [Ms C] could have re-assessed [Ms A] vaginally prior to leaving the pool. As there was no indication of imminent birth and that this can sometimes be an irritating procedure to a client, [Ms C] was justified in not carrying out a vaginal assessment.

7 What is the incidence of a precipitate delivery such as occurred to [Ms A]?

A precipitate delivery such as occurred to [Ms A] is not usual for a primagravid woman. Usually there is obvious discomfort as the perineum is stretched and there is usually a time requirement to enable the perineum to stretch to allow the head/baby to be born without undue tearing. I am aware that the baby was small due to IUGR (Intrauterine Growth Retardation) and [Ms A] did not have a perineal tear.

It is unusual for a primagravid woman to have a second stage less than 30 minutes and the average would be about 1-2 hours. [Ms A's] second stage was of 49 minutes but her active pushing appeared to be about 19 minutes.

Percentages for precipitate birth in a primagravid would be no greater than about 1% or less.

I have not found any recent studies regarding precipitate births; most studies talk of precipitate labour (see appendix C). This was not a precipitate labour but the article does mention fetal outcomes.

8. What is the likely cause of a precipitate delivery?

The cause of a precipitate birth could be anything, often unknown.

Some causes include multiparity, over stimulation of uterus by medication, excessive maternal effort, rapid rotation at the pelvic outlet of the baby from posterior to anterior position, genetic potential for rapid labour/birth, prematurity, episiotomy.

9. Was there any aspect of [Ms C's] management of the labour that could have caused the baby to be delivered in such a poor state?

There appears to be no aspect of [Ms C's] management of labour that could have caused the baby to be in such a poor state at birth.

Her assessments of progress of labour were in line with safe and professional practice. Her care in line with the information she had.

Assessment of the fetal heart rate was adequate and at no time did the baby show signs of distress which may have alerted [Ms C] to anticipate a 'flat' baby.

Rapid births do happen and can, especially if there has been no visible sign of progress, catch the care givers by surprise. This is not necessarily an indication of negligent care.

The care provided by [Ms C] during labour was well within the standard of care expected of a safe midwife practitioner.

10. Were [Ms C's] records relating to the labour and delivery of an acceptable standard?

Yes, the clinical records were of an adequate standard. Writing is legible with no spaces for additions or changes. Notation/vocabulary is appropriate to the topic. Frequency of recording/writing is appropriate to the various stages of labour. Sufficient detail is included to have a clear picture of events up to the birth. The birth notation is adequate for a description of the birth as stated by [Ms C]. With a flat baby it was surprising that anything was written at the time. The notes then become retrospective and no longer deal with labour and birth.

Are there any other relevant professional or ethical standards that apply and, in your opinion, were they complied with?

No

Are there any other comments you consider relevant to this case that may be of assistance?

Though [Ms A] had given up smoking [the baby] was still IUGR. This would put her more at risk to be affected by the birth process. With a rapid descent through the last half of the pelvis and not establishing respirations immediately, she was at risk for hypoxia and consequent cerebral insult. This would be a possible cause for [the baby's] subsequent disabilities. The fact that [the baby] had a seizure on day 1 and did not have obvious head injuries would support the hypoxia theory.

The issue of the birth is confusing and descriptions of the birth by family and midwife differ quite dramatically. There appears to be more variance between the family's recollections but the emotional demands of the day may have caused a different interpretation over time. The midwives' recollection appears more consistent.

Some issues of confusion:

– The family state that [Mrs D] (maternal grandmother) was assisting [Ms A] out of the bath, and the midwife, [Ms C] states that she was helping and that [Mrs D] was at the side of the room.
– [Mrs D] states that [Ms A] stood on the rim of the pool, not the stool.
– [the baby] either did hit the stool/floor, or did not; it is not something one could miss.
– Staff came in response to bell call, not yelling from the door.
– The placenta birthed by [Ms A] and [Mrs D] yet the [the suburban maternity unit] Midwife describes how she assisted its birth.
– No obvious physical trauma injuries were found by paediatrician and [the baby's] head and scan/X-Ray showed no injury.

Appendix A

- Letter of complaint from [Ms A] and [Mr B], dated 19 February 2003, marked with an 'A'. (Pages 1–2)
- Letter to the Commissioner and supporting documentation from [Ms A and Mr B's] solicitor, dated 16 May 2003, marked with a 'B'. (Pages 3–30)
- Faxed statement from [Mr B], received 17 July 2003, marked with a 'C'. (Pages 31–34)
- Letter to the Commissioner and supporting documentation from Ms A and Mr B's solicitor], dated 25 August 2003, marked with a 'D'. (Pages 35–45)
- Notes taken during a telephone interview with [Mr B] on 17 September 2003, marked with an 'E'. (Pages 46–48)
- Letter from [the public hospital] to the Commissioner and statement from [Ms C], dated 30 September 2003, marked with an 'F'. (Pages 49–54)
- Transcript of the interview of [Ms C] and accompanying photographs on 15 October 2003, marked with a 'G'. (Pages 55–93)
- Transcript of the interview with [Ms G], midwife, on 15 October 2002, marked with an 'H'. (Pages 94–105)

- Transcript of the interview with [Ms A] and accompanying photographs on 31 October 2002, marked with an 'I'. (Pages 106–126)
- Transcript of the interview with [Mr B] and accompanying photographs on 31 October 2002, marked with a 'J'. (Pages 127–143)
- Transcript of the interview with [Mrs D] and accompanying photographs on 31 October 2002, marked with a 'K'. (Pages 144–159)
- Notes taken during a telephone interview with [Ms F], midwife, on 26 November 2003, marked with an 'M'. (Pages 160–161)
- Copy of the clinical records for [Ms A] and [the baby] received from [the public hospital] 1 October 2003, marked with an 'N'. (Pages 162–340).

Appendix B

[Ms A] had a longstanding history of endometriosis, but was well throughout her first pregnancy except for a domestic incident on 27 August 2002 when she was 32 weeks' gestation. As a result of this incident [Ms A] was admitted to [the public hospital] where a USS was performed, which showed no obvious uterine trauma. [Ms A] and her foetus did not appear to be adversely affected by the incident.

[Ms C], a midwife employed by [the public hospital], was [Ms A's] LMC and cared for her throughout her pregnancy.

At 8pm on 17 October 2002 [Ms A] contacted [Ms C] to say that she had been having contractions throughout the day, but her membranes had not ruptured. [Ms C] arranged for [Ms A] to be admitted to [the public hospital] for an assessment. [Ms A] was accompanied to the hospital by her partner, [Mr B]; her mother, [Mrs D]; and sister-in-law, [Ms E].

[Ms C] monitored [Ms A's] contractions with a CTG monitor, and assessed that her contractions were mild to moderate, inco-ordinate, occurring about every 5 to 8 minutes lasting about 50 seconds. [Ms C] performed a VE and assessed that the baby was an OP presentation, and that [Ms A] was making good progress.

At 10pm [Ms C] performed another VE and found that [Ms A] was 5-6cm dilated and the decision was made to transfer to [the suburban maternity unit]. (There is a discrepancy in the information relating to the transfer. [Ms C] states that [Mr B] insisted on the transfer, and the family state that [Ms C] recommended the transfer.)

[Ms A], her family and [Ms C] arrived at [the suburban maternity unit] at about 11.30pm. [Ms A] was settled and encouraged with her labour while [Ms C] monitored the baby's heartbeat and the contractions. At about half past midnight [Ms A's] uterine membrane spontaneously ruptured. [Ms A] requested to get into the birthing pool that [Mr B] had prepared.

[Ms A] had several contractions while in the pool and [Ms C] listened to the foetal heart rate. At about 1.18am [Ms A] stated that she wanted to get out of the pool. She was assisted from the pool. (There is a discrepancy here, as the family stated that [Mrs

D] and [Mr B] assisted [Ms A] and that [Ms C] was standing with her back to them at the delivery trolley, whereas [Ms C] stated that she and [Mr B] assisted [Ms A] from the pool.) As she was stepping from the pool, [Ms A] called out that something was happening, and the baby was expelled. [Ms C] stated that she knelt quickly and caught the baby. The family stated that the baby fell to the floor hitting its head on the footstool as it fell.

All parties thought that the baby was dead. She was lifted onto the delivery table and [Ms C] manually stimulated her and asked the family to call for assistance. When [Ms G] and [Ms F], [the suburban maternity unit] midwives, arrived in the room, [Ms C] and [Ms G] took the baby through to the resuscitation room accompanied by [Mr B] and [Ms E]. [Ms F] remained in the room with [Ms A] and her mother and delivered the placenta.

The baby accompanied by [Ms C] and [Ms A] was transferred to [the public hospital]. The receiving paediatric staff were informed that the family alleged that the baby fell onto the floor. A physical examination revealed no bruising or other injuries. X-rays and a CT scan revealed no trauma. [The baby] was found to display abnormal neurological signs consistent with severe hypoxic ischaemic encephalopathy.

Appendix C

Ann Chir Gynaecol. 1978;67(4):150-3.

Precipitate labour.

Erkkola R, Nikkanen V.

In Turku University Central Hospital there were 4976 deliveries in the years 1974-75. Among them there were 106 spontaneous, nonaugmented labours with a duration of two hours or less, giving an incidence of 2.1% precipitate labour. The most important aetiological factor was multiparity. 35% of precipitate labours commenced with spontaneous rupture of the membranes. The incidence of prematurity after precipitate labour was 8.5% and thus significantly (p less than 0.05) higher than in a control group, where mothers were matched according to age and parity. After precipitate labour the newborn fared as well as those in the control groups. It is our conclusion therefore, that precipitate labour need not be considered as an intrapartum risk factor, when neonatal well-being is considered.

PMID: 736486 [PubMed - indexed for MEDLINE]."

Paediatric advice

The following expert advice was obtained from Dr Johan Morreau, an independent paediatrician:

"Thank you for the opportunity to provide the Health and Disability Commissioner with an opinion regarding the above. I have had opportunity to read in sequence:

1. The summary provided to me by [the] Investigator, Health and Disability Commission
2. Letter of complaint from [Ms A] and [Mr B] dated 19 February 2003
3. Clinical records for [Ms A] and [the baby] as provided by the [the public hospital]
4. Letter from [Mr B]
5. Letter from the [the public hospital] to the Health and Disability Commissioner including the statement from [Ms C], Midwife in charge of the case

I made a particular point of reading the original clinical notes, in sequence, prior to reading the range of reports as written either for outpatient follow-up purposes or as a response to the complaint etc.

Of significance is that [the baby] is the product of a pregnancy that was, to a large extent, normal although complicated by:

1. Maternal admission at 32 weeks' gestation following an episode of domestic violence
2. Maternal smoking (?10 per day is one figure recorded) although it is difficult to determine the extent of this.

[The baby's] mother, [Ms A], went into spontaneous labour on 17 October 2002, was initially assessed at the [the public hospital] Delivery Suite where she was thought to be carrying an average sized baby in an occipitotransverse position. The fetal heart rate was defined as being normal. Clinical notes documented at that time indicate that [Ms A] and her partner, [Mr B] were keen to transfer to the [the suburban maternity unit] for completion of the labour and delivery.

Transfer occurred, labour progressed and the fetal heart, which is well documented on a regular basis, is measured as being normal during contractions. Membranes ruptured prior to delivery and this demonstrated clear amniotic fluid.

At around 0030 hours on 18 October 2002 full dilatation is achieved and the bath is used for 'relaxation'. The fetal heart continues to be measured as normal during and after each contraction and [Ms A] is reported as pushing effectively.

At 0118 hours, while transferring from bath to bed, baby delivers spontaneously and the clinical notes describe [the baby] as having been caught by the Midwife as she was being delivered and that she was 'flat'. [The baby] was taken to the resuscitation table limp, pale with no spontaneous respiration and her well documented slow heart rate (bradycardia). [Ms C], with the assistance of available midwifery support, commenced intermittent positive pressure ventilation with a bag and mask and oxygen and because of the bradycardia (60 per minute) also commenced (appropriately) cardiac massage. Ambulance support arrived at six minutes of age (indicating that help had been requested promptly) and [the baby] was intubated at six minutes of age. Some spontaneous breathing occurred during this time and ventilation was then maintained. Following intubation there was an immediate improvement in heart rate, which normalised and baby was transferred to the Neonatal Unit at [the public hospital] for ongoing care.

Apgars of 1 at 1 minute, 1 at 5 minutes and 3 at 10 minutes are recorded.

At 0205 hours [the baby] arrived at the Special Care Baby Unit [of the public hospital] and ongoing care was then provided there.

Of significance is that at arrival baby was intubated, hypotonic (floppy) and pale. [The baby] was placed on a ventilator, relevant vascular lines were placed, an initial blood glucose was 12.5 (reflecting the stress of the situation) and an initial arterial blood gas showed a pH of 6.98 and a base deficit of -27. The latter reflects severe birth asphyxia secondary to hypoxia (lack of oxygen supplied to vital organs). Standard care is then provided and predictably [the baby] then begins to demonstrate the classical signs of hypoxic damage to the brain as manifested by extensor posturing, reflex repetitive lip smacking and mouthing movements as well as cyclical movements of the limbs. Within 24 hours concern exists regarding neonatal convulsion and appropriately an anticonvulsant Phenobarbitone is commenced. Poor urinary output and a low serum sodium reflect a possible diagnosis of excessive inappropriate anti-diuretic hormone production which also usually follows significant hypoxic injury to the brain.

In the interim concerns have been raised by family that [the baby] was in fact not caught by the Midwife at the time of delivery but that as her mother [Ms A] was straddling the bath, baby fell around 80cms hitting the small step (for the mother to get into the bath) on the way down. As a result of this, although there was no clinical indication of trauma at examination, a skull x-ray was performed (normal).

Following on from the above [the baby's] sequence of events was typical for that of a severely asphyxiated newborn, ie.

- Ventilation was able to be discontinued as baby's systemic condition improved and convulsions largely resolved
- Significant difficulties occur in establishing adequate breast feeding
- Neurological examination remains consistently abnormal with ongoing hypotonia, poor head control and some abnormal spontaneous / reflexive movements as well as possible convulsion. As a response to this firstly, a cranial ultrasound is performed, subsequently a CT scan of the brain, an EEG and at a later stage an MRI of the brain which confirms evidence of moderate to severe diffuse hypoxic ischemic injury to the brain. This diffuse injury is characteristic of hypoxia rather than the direct trauma of a fall.

The currently described clinical situation for [the baby] of:

1. Significant developmental problems
2. Spastic quadriplegia

is completely consistent with and commonly arises following the well defined clinical picture of hypoxic encephalopathy that [the baby] has experienced.

Of clinical significance also is that [the baby] had a birthweight of 2.45 Kg at term which is well below the 3rd percentile. This compares with a head circumference of

35cms which is on the 50th percentile and a length of 53cm which is at the mid point between the 50th and 90th percentile. The cause of this intrauterine growth retardation (IUGR) is, in our community, most commonly maternal smoking. IUGR makes a child more vulnerable to problems in labour, birth asphyxia and the resulting hypoxic encephalopathy that [the baby] has had.

I understand that there has been significant debate regarding the likely cause of the above. At a clinical level, while there was no documented fetal distress or abnormally stained amniotic fluid (meconium) prior to delivery, in the context of significant IUGR and a baby that was in terminal apnoea at the time of delivery, it is likely that this hypoxia occurred in the minutes just prior to birth. It is of significance that a further six minutes elapsed prior to an improvement in [the baby's] oxygen status and heart rate (which increases once the oxygenation improves).

Given the lack of trauma evidenced at birth or subsequently, there is no clinical evidence to suggest trauma as having been the underlying problem. Whether the baby was caught or had the 80cm fall is not likely to be important with regard to [the baby's] current neurological status, which is from my assessment due to hypoxic ischaemic encephalopathy (brain damage from lack of oxygen before and soon after birth).

With regard to the specific questions for which advice was requested I do not believe that the spontaneous delivery and fall caused this, rather the asphyxia that preceded and followed it. There was no evidence of injury following the fall and while it is not uncommon for a baby who falls on to a hard surface to have significant injury, eg. skull fracture, I think it unlikely that this was the issue here.

Given the clinical presentation the investigations performed were reasonable and clinical signs were of birth asphyxia rather than neck injury. There would have been indication for performing x-ray of the neck only if there had been clinical concerns about neck injury and there is nothing recorded in the notes to suggest that this was ever the case.

The clinical diagnosis of hypoxic ischaemic encephalopathy can be made on the basis of the initial clinical presentation, examination and blood tests as well as the ongoing and sequential clinical examination and behaviour of the child. This diagnosis is usually made by a Specialist Paediatrician with experience in neonatology and would not ordinarily be referred to a Neurologist unless there were particular difficulties in managing convulsion beyond the neonatal period.

I have no concerns regarding the assessment or care provided to [the baby] during her stay at the [public hospital's] Neonatal Unit.

ADDITIONAL COMMENT

1. The above is a tragic case and these can occur without fault being identified. My observation is of a very stressed family situation, the non identification of significant intra-uterine growth retardation (difficult to identify clinically – although an Obstetrician or Midwife would be the best professionals to comment on

this) and difficulties in identifying fetal distress in labour, also difficult and not uncommon. One needs to identify the high risk IUGR pregnancy first to then monitor the labour in a more intensive situation / manner with baby then delivered in a high rather than low risk birthing environment with available neonatal resuscitation support etc.

2. Although not a Midwife, my observations are of reasonable decisions and care provided at each point of time but where because of the undiagnosed intra-uterine growth retardation, baby was in fact high rather than low risk, suffered an undiagnosed birth asphyxia and the defined issues already detailed.
3. Smoking in pregnancy is a serious public health hazard and families, midwives and 'low risk' Birthing Units need to understand that while the equipment available may be satisfactory, birthing in hospitals with systems set up for intensive monitoring in labour, more specialized neonatal resuscitation adds significantly to the safety of the at risk baby.
4. I would recommend future pregnancy be cared for in a specialist secondary hospital system."

Response to Provisional Opinion

In response to my provisional opinion, Ms A stated:

> "I will go along with it [the Commissioner's decision]. I could say a million things, but it's not going to change the way I feel. It's not going to change the way they lied. I'm not going to query everything they said. My daughter fell. What I want to know is, could it have made a difference to the way she was treated. The fact that she has a good mother has got her as far as she has."

Code of Health and Disability Services Consumers' Rights

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

RIGHT 4
Right to Services of an Appropriate Standard

1) Every consumer has the right to have services provided with reasonable care and skill.

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

...

5) Every consumer has the right to co-operation among providers to ensure quality and continuity of services.

Other standards

New Zealand College of Midwives (Inc) **Midwives Handbook for Practice (2002)**

"**The scope of practice of the midwife**

The Midwife must be able to give the necessary supervision, care and advice to women prior to, and during pregnancy, labour and the post-partum period, to conduct deliveries on her own responsibility and to care for the newborn and the infant.

This care includes preventative measures, detecting complications in mother and child, accessing medical assistance when necessary and carrying out emergency measures. She has an important task in health counselling and education, not only for women, but also within the family and the community. The work should involve pre-conceptual and antenatal education and preparation for parenthood, and extends to certain areas of women's health, family planning and child care. She may practise in any setting, including the home, hospital and community.

CODE OF ETHICS

Responsibilities to Clients

…

j) Midwives have a responsibility to ensure that no action or omission on their part places the woman at risk."

Opinion: No breach – Ms C

Management of delivery

Ms A and Mr B are concerned that LMC midwife Ms C did not manage Ms A's delivery adequately, with the result that their baby was born as Ms A stepped from the birthing pool and fell onto the floor. Their baby was later found to have a neurological problem, and Ms A and Mr B believe that the manner of the delivery caused the neurological condition.

Rights 4(1) and 4(2) of the Code of Health and Disability Services Consumers' Rights (the Code) state that every consumer has the right to have services provided with reasonable care and skill, and in compliance with legal and professional standards.

The public hospital – 17 October 2002

Ms C, an LMC midwife employed by the public hospital, cared for Ms A throughout her pregnancy and agreed to deliver the baby. Ms A was generally well during her pregnancy, and had expressed a wish to try the birthing pool at the suburban maternity unit. Ms A travelled to the maternity unit to familiarise herself with the facilities and discuss with the staff the use of the pool.

Ms A's labour commenced on 17 October 2002. She contacted Ms C at 8pm to inform Ms C that her labour had started. Ms C arranged for Ms A to meet her at the public hospital (which was closer to Ms A's home than the suburban maternity unit) for an assessment of the progress of her labour.

When Ms C examined Ms A at 8.30pm she found her to be in early labour and her contractions were inco-ordinate. The baby was in a posterior position which can mean that the labour will be protracted. The baby's heartbeat was satisfactory when assessed at that time. Ms C advised Ms A to walk between contractions, to encourage a more coordinated contraction pattern, and stated her plan to perform a vaginal examination within two hours to estimate the progress of the labour. Ms A and her mother expressed their concern that Ms C did not perform an internal vaginal examination earlier.

My independent midwife advisor stated that it is not unusual to monitor and observe a labour pattern prior to carrying out a vaginal assessment, especially when the mother's labour is characterised by an irregular labour pattern typical of a baby in the posterior position. My expert advised that the CTG trace (to monitor the foetal heart rate) that Ms C ran for 20 minutes from 8.40pm demonstrates no evidence of foetal compromise.

Transfer to the suburban maternity unit

There is dispute about whether it was Ms C or Mr B who made the suggestion for Ms A to transfer to the suburban maternity unit. Ms C stated that when Mr B asked, at 9.30pm, when they could go over to the suburban maternity unit, she suggested they should stay at the public hospital for the birth; when Mr B became more persistent she agreed to perform a vaginal examination to assess progress and said that they could then discuss their options. When Ms C performed the vaginal examination at 10pm she found that Ms A had progressed to 6cm dilatation and her contractions were one every four minutes. On this basis she agreed to the transfer.

Ms A, her mother, and Mr B stated that Ms C insisted on the transfer, and said that they were concerned about making the journey safely at that stage of the labour. I am unable to conclude whose decision it was to transfer, but I think it is likely that it was Ms A's preference to transfer, as she and her mother confirmed that she had planned from early in her pregnancy to try labouring in the birthing pool, and Ms A stated that she had visited the suburban maternity unit to view the facilities and discuss the use of the pool.

My midwifery expert stated that there was no reason why Ms A could not be transferred to the suburban maternity unit at the stage of her labour at 10pm. Ms A had demonstrated slow progress up to that time, and even though the labour was established, Ms C would not be expecting a rapid dilatation of the cervix to 10cm or full dilatation, and would have expected Ms A to be in labour for at least another three to six hours. The distance between

the public hospital and the suburban maternity unit is not great (about 30 minutes' drive) and the move was similar to a woman transferring from her home to the hospital after spending the initial stages of her labour at home under the supervision of a midwife. I am satisfied that the parameters of safety were maintained in relation of Ms A's transfer to the maternity unit.

Labour at the suburban maternity unit
On arrival at the suburban maternity unit at 11.15pm Ms C reassessed Ms A and found that the rate of her contractions had increased to one every three minutes. Ms A was coping well with her contractions, and the baby's heart rate was satisfactory. The birthing pool was filled and at 12.30am, when Ms A's cervix was fully dilated and she had entered the second stage of her labour, she was assisted into the pool to ease the pain of her contractions. Ms C listened to the baby's heartbeat after each contraction and recorded that the heart rate was within normal range, between 110 and 160 beats per minute.

Shortly after 1am the water in the pool was getting cold and Ms A decided to get out. At this time Ms A had a strong contraction. Ms A's mother and sister-in-law saw the baby's head at the perineum. Ms C listened to the baby's heart rate for the duration of the contraction and when the contraction eased suggested that Ms A get out.

My midwifery advisor stated that Ms C regularly monitored and recorded the baby's heartbeat, and provided Ms A and her whanau with physical and emotional support. My expert stated that Ms C's management of Ms A's labour was well within the standard of care to be expected. I am advised that entering the birthing pool at full dilatation is within the bounds of normality and safety. A baby's head descends and retracts down the birth canal during the latter stages of labour until 'crowning', when the baby's head descends but does not retract. Once this occurs birth is usually only one to five contractions away.

Delivery at 1.18am on 18 October 2002
There is variance in the recollections of the birth itself. Ms C states that she was on the left-hand side of Ms A (with Mr B on Ms A's right) assisting her to get out of the pool. Ms C recalls that as Ms A stepped onto the footstool she cried out that something was happening, which caused Ms C to drop to a crouch in time to catch the baby. Mr B, Ms A, her mother, and Ms E (her sister-in-law) all state that Mrs D and Mr B were assisting Ms A from the pool while Ms C (with her back to the pool and the family) was readying the instruments on the trolley for the delivery, when Ms A called out in alarm immediately before the baby was born, and the baby fell head first onto the footstool before sliding to the floor.

There is also variance in the recollections of the family members. Mrs D states that her daughter was standing on the top lip of the pool when the baby was born. However, Mr B states that Ms A was standing on the footstool beside him. They both describe the baby falling head first onto the stool before bouncing up with the tension from the umbilical cord and then falling a second time before sliding to the floor. Mr B states that he overcame his shock to pick up his daughter from the floor. He describes his attempts to pick up the baby, who was slick with uterine products. His first impression was that she was dead.

Ms C recalls that when she first touched the baby she thought that she had been still-born. Ms C's notes written retrospectively record: "Baby caught as falling by midwife" and "cord clamped & cut by midwife". However, Ms C later stated that she clamped the cord and encouraged Mr B to cut the cord. She thought that it was important for him to do this as she did not expect the baby to survive.

The baby was transferred to the instrument trolley. Ms C started to manually stimulate the baby to start her breathing and asked the family to call for assistance. Ms E, who was standing some distance apart from the family members at the pool, crossed the room and rang the nurse call bell. The two on-duty midwives, Ms G and Ms F, arrived in the room within seconds. Ms G assisted Ms C (accompanied by Mr B and Ms E) to take the baby to the Resuscitation Room a short distance down the corridor, while Ms F stayed in the delivery room with Ms A and her mother.

My midwifery expert advised that there appears to be no aspect of Ms C's management of Ms A's labour that could have caused the baby to be delivered in such a poor state, and that Ms C's management of Ms A's labour was in line with safe and professional practice and well within the standard of care expected of a safe midwifery practitioner. Her assessments of the foetal heart rate were adequate and at no time did the baby show signs of distress that might have alerted Ms C to anticipate a "flat" baby. Rapid births do sometimes happen and can catch caregivers by surprise, but this is not necessarily an indication of negligent care.

My midwifery expert advised that although Ms A had stopped smoking, the baby still had intrauterine growth retardation, which would have put her at more risk to be affected by the birth process. The baby had a rapid descent through the last half of the pelvis and did not start to breathe immediately. All of these factors meant that she was at risk for hypoxia and the consequent cerebral insult.

Resuscitation and transfer to the public hospital's NNU
Ms C and Ms G artificially resuscitated the baby until the ambulance team arrived six to seven minutes after being called, and took over. Ms C reported to the ambulance team that the baby had initially breathed at birth, but within a few minutes went into respiratory arrest. Despite Ms C and Ms G instituting CPR, the baby was in cardiac arrest when assessed by the ambulance team. Cardiac massage was continued, she was intubated and at 1.30am cardiac output was established and the baby's heart rate was recorded at 120 beats per minute. Her colour slowly improved and she started to breathe spontaneously at 1.40am. Ms A and the baby, accompanied by Ms C, were transferred by ambulance to public hospital's NNU.

Assessment and treatment in NNU
On arrival at NNU at 2.05am, the baby was assessed by Ms H, neonatal nurse practitioner. Mr B alleges that his concerns about the manner of the baby's birth were not communicated to the NNU staff. However, Ms H recorded that Ms C informed her Mr B was concerned that the baby had fallen to the floor when she was born and as a result of this information an initial comprehensive physical assessment of the baby was undertaken.

Later that morning the baby was assessed by Dr I, paediatrician, who ordered skull X-rays and an ultrasound examination of her head and blood tests to identify the cause of the baby's condition. A physical examination of the baby revealed no obvious physical injury to her head, such as cuts or bruising or swelling of the fontanelle, and the X-ray and ultrasound did not detect any abnormalities. However, she had developed cycling movements of her legs and lip smacking, indicative of hypoxic ischaemia (lack of oxygen to the brain). The blood tests returned a finding consistent with hypoxic ischaemia. Ms A and Mr B were informed of the results of the tests.

The baby was commenced on phenobarbitone to control her seizures and she was reviewed and monitored by Dr J and another paediatrician. On 29 October the baby was discharged home with a referral to a home care nurse, neurodevelopmental therapist and a paediatric physiotherapist from the paediatric service for continued monitoring and supervision. The baby was also referred to an Early Intervention teacher.

My independent paediatric advisor stated:

> "I have no concerns regarding the assessment or care provided to [the baby] during her stay at the [public hospital's] Neonatal Unit."

Clinical records

Ms A and Mr B allege that Ms C made false statements in her clinical records about the circumstances of the baby's birth, in an attempt to avoid being blamed for the injuries that the baby suffered.

My midwifery advisor stated that a precipitate (unusually fast) delivery such as occurred to Ms A is not usual for a primigravid (woman having her first baby). My expert advised that it is unusual for a primigravid's second stage of labour to be less than 30 minutes and the average is one to two hours, and noted that Ms A's second stage was 49 minutes but she was actively pushing for only 19 minutes. My midwifery expert stated that the percentages for a precipitate birth in a primigravid would be no greater than 1%, and some of the causes for this condition are multiparity (numerous pregnancies), over- stimulation of the uterus by medication, excessive maternal effort, prematurity, episiotomy and rapid rotation of the baby from posterior to anterior position. None of these conditions was relevant to Ms A's situation with the possible exception of the baby's position. She had been in a posterior position earlier in the labour, and it is possible that she rapidly rotated, but it should be noted that she was smaller than normal because of intrauterine growth retardation.

As discussed above, Ms C noted that she caught the baby before she fell to the floor. This is in direct conflict with Ms A and three members of the baby's family, who clearly remember that Ms C was not in a position to catch the baby, but was some distance from Ms A, attending to the equipment on the delivery trolley. Ms C has been consistent in her recollection of events and has not deviated from her impression that she caught the baby.

It is difficult to resolve this conflict of evidence. As my midwifery expert commented:

> "The issue of the birth is confusing and descriptions of the birth by family and midwife differ quite dramatically. There appears to be variance between the family's recollections but the emotional demands of the day may have caused a different interpretation over time."

I accept that the baby was born precipitately and suffered a fall. However, there is no evidence that the fall caused her hypoxic ischaemia. It appears that rapid births can and do happen, catching the caregivers by surprise, but this is not necessarily an indication of negligent care. This was an unexpected event.

Ms A and Mr B allege that a further example of Ms C's inaccuracy about events is that she also recorded that she cut the cord, when it was Mr B who cut the cord. The baby's birth was an extremely stressful event for all involved. Mr B graphically described the situation after he lifted the baby when he said, "Everyone was hysterical." It is therefore not surprising that the description of events by the various people involved differed greatly. Despite the shock of the precipitate birth and a 'flat' baby, Ms C was sufficiently professional to ask for assistance to be summoned and to initiate the baby's resuscitation. It seems that when Ms C retrospectively wrote her notes, she made genuine errors in her recollection rather than deliberately falsifying her records in an attempt to deceive, as is alleged.

My midwifery expert stated that Ms C's clinical records were of an adequate standard. Her writing was legible and there were no spaces for additions or changes. Her recording was appropriate to each of the various stages of labour with sufficient detail to give a clear picture of the events leading up to the birth. My expert commented that with the circumstances of the birth, and the actions that were required to cope with the baby after her birth, it would have been surprising if Ms C had written anything at the time; of necessity the notes of the birth and subsequent events were written retrospectively.

Conclusion

The records and the advice from my independent midwifery expert indicate that Ms C provided an appropriate standard of midwifery care during labour and delivery, and her recording of clinical information met expected standards. Accordingly, Ms C did not breach Rights 4(1) and 4(2) of the Code.

Information provided to other health professionals about the birth

Mr B was concerned that Ms C did not tell the ambulance staff (who arrived at the suburban maternity unit in response to the call to assist) that the baby had fallen to the floor at birth, hitting her head on the birthing pool footstool. He alleges that the staff at NNU did not know about the circumstances of the baby's birth until he informed them. Mr B believes that if this information had been adequately communicated earlier, the appropriate investigations would have been performed, which would have correctly identified trauma as the cause of the baby's condition.

The Code states that every consumer has the right to co-operation among providers to ensure quality and continuity of services. This obviously includes sharing information about accidents and falls.

Ms C informed me that when she arrived at NNU she told Ms H that the family were alleging that the baby fell to the floor at delivery. This is supported by Ms H's admission records where she noted that the baby was delivered as her mother was moving to the bed and that the baby had dropped to the floor. The baby was thoroughly examined for evidence of physical injury consistent with the described fall, but none was found.

Later that morning the paediatrician, Dr I, recorded concerns about the possibility that there could be injuries to the baby's head, and ordered skull X-rays and an ultrasound scan of her head. The results of these examinations were reported to the paediatric staff on the afternoon of 18 October, and showed no abnormalities.

The clinical notes record that further examination of the baby's head was performed and the fontanelle in the front of her skull was normal, being soft and flat, with no "ping-ponging" depressions or swellings which, if present, would have indicated traumatic brain injury.

A series of blood tests performed on the baby identified that there was every indication, when viewed alongside her clinical picture of cycling leg movements, lip smacking, seizures and muscular weakness in all limbs with associated spasm, that she had suffered a cerebral insult probably from lack of oxygen at some time during her birth. My independent paediatrician commented:

> "The baby's sequence of events was typical for that of a severely asphyxiated newborn, i.e.
>
> - Ventilation was able to be discontinued as baby's systemic condition improved and convulsions largely resolved
> - Significant difficulties occur in establishing adequate breast feeding
> - Neurological examination remains consistently abnormal with ongoing hypertonia, poor head control and some abnormal spontaneous/reflexive movements as well as possible convulsion. As a response to this firstly, a cranial ultrasound is performed, subsequently a CT scan of the brain, an EEG and at a later stage an MRI of the brain which confirms evidence of moderate to severe diffuse hypoxic ischaemic injury to the brain. This diffuse injury is characteristic of hypoxia rather than the direct trauma of a fall."

The baby had a low birth weight and her head circumference and length were smaller than average, signs of intrauterine growth retardation. My paediatric expert advised:

> "The cause of intrauterine growth retardation (IUGR) is, in our community, most commonly maternal smoking. IUGR makes a child more vulnerable to problems in labour, birth asphyxia and the resulting hypoxic encephalopathy that [the baby] has had."

My expert stated that whether the baby was caught or fell 80cm is not likely to be important with regard to her current condition, which he believes to be due to hypoxic ischaemic encephalopathy. There is no evidence that the baby suffered any injury from the fall or that Ms C attempted to hide the fact that the family believed that an injury had taken place, to prevent the baby from receiving the assessments and treatment she needed. Accordingly, in relation to informing other health professionals about the possibility of a fall and birth injury, Ms C did not breach Right 4(5) of the Code.

Opinion: No breach – The public hospital

Vicarious liability
In addition to any direct liability for a breach of the Code, employers are vicariously liable under section 72(2) of the Health and Disability Commissioner Act 1994 (the Act) for ensuring that employees comply with the Code. Under section 72(5) it is a defence for an employing authority to prove that it took such steps as were reasonably practicable to prevent the employee breaching the Code.

Ms C was employed as midwife by the public hospital. As an employer, the hospital is potentially vicariously liable for any breaches of the Code by Ms C.

Since Ms C did not breach the Code, there is no issue of vicarious liability on the part of the public hospital in relation to Ms C.

Comment

Mrs D was disappointed with the manner in which the public hospital managed her family's distress and grief, and informed them of the treatment plan for the baby. The NNU clinical staff informed Ms A and Mr B of the results of the investigations conducted to establish the cause of the baby's condition. However, Mrs D contends that, due to the circumstances, the young couple were unable to fully comprehend the information provided, and the whole family should have been involved in these meetings. Mrs D drew comparisons between the assistance her local hospital provides to families in these situations and her experience at the public hospital.

I recommend that the public hospital consider the comments made by Mrs D about the manner of communicating with whanau in situations where there are extended family members available who could be a resource to assist stressed and grieving young parents to understand their newborn's condition, and that the comments are communicated to the staff at NNU for incorporation into relevant policies and practice.

Finally, I note Dr Morreau's comments that the baby's is a tragic case and that such cases occur without fault being identified. When there is an unexpected outcome during the

birth of a much wanted baby, it is understandable that parents may want someone held responsible and, at the very least, an explanation for what happened.

I accept Dr Morreau's comments that no one is at fault for want happened to the baby and emphasise that, in my opinion, Ms C did not breach the Code when she cared for Ms A during her labour.

Follow-up actions

- A copy of my final report will be sent to the Nursing Council and the Midwifery Council.

- A copy of my final report, with identifying details 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.