

District Health Board
Obstetrician and Gynaecologist, Dr C

A Report by the
Health and Disability Commissioner

(Case 15HDC01415)



Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. Mrs A was pregnant with twins. At 4.30am, at 35 weeks and three days' gestation, Mrs A's membranes ruptured spontaneously and she went into labour. She was admitted to the birthing unit at the public hospital (the hospital) at 5.40am. The consultant obstetrician on call that day was Dr C.
2. Continuous cardiotocograph¹ (CTG) monitoring of the twin fetal heart rates (FHRs) was commenced and continued throughout the labour.
3. At 3.10pm Mrs A's cervix was fully dilated. Between 4pm and 5.30pm the twins were showing some variable decelerations of their FHR. Syntocinon² was increased on several occasions.
4. At around 5.30pm Mrs A was prepared for a forceps delivery. Retrospectively, Dr C documented that this was for slow progress in the second stage of labour.
5. At 5.54pm Twin 1 was born by forceps delivery. Dr C told HDC that because the head was high, she decided to increase the Syntocinon infusion again to increase the frequency of contractions.
6. At 6.03pm the membranes of Twin 2 were ruptured. Dr C told HDC that the amniotic fluid was clear and there was no meconium.³
7. Between 6.03pm and 6.31pm Twin 2's FHR was recorded in the notes frequently by a registered midwife. At 6.05pm a deceleration was noted at being down to 66 with recovery to 105bpm. The FHR was then noted to be between 100 and 144bpm until the last recording of 110bpm at 6.31pm.
8. Dr C told HDC that although the fetal heart rates were monitored continuously, there were occasions, especially during pushing, on which there was loss of contact with the monitor. As such, this meant that she was unsure of the accuracy of the CTG trace, but they used a fetal Doppler monitor⁴ to auscultate the babies' heart rates.
9. Twin 2 was born at 6.32pm, 38 minutes after Twin 1 had been delivered. The umbilical cord, which was noted to be engorged, was around the baby's neck, and he was flat and floppy with no respiratory effort and no audible heartbeat. Notwithstanding clinicians' and midwives' resuscitation efforts, at 7pm Twin 2 died.
10. Dr C recorded brief notes in relation to her care of Mrs A that day. The notes contain no comment regarding Twin 2's FHR after 5.30pm. At 8am the following day, Dr C

¹ Cardiotocography (CTG) is the recording of the fetal heartbeat and the uterine contractions during pregnancy. The machine used to perform the monitoring is called a "cardiotocograph" or an "electronic fetal monitor" (EFM).

² Syntocinon is a synthetic version of oxytocin, a hormone that causes the muscles of the uterus to contract. It may be used to induce labour or to augment labour (increase the strength and frequency of contractions).

³ Meconium, a dark green liquid normally passed by the newborn baby, can indicate fetal distress when present in amniotic fluid while the baby is still in the uterus.

⁴ Ultrasound monitor used to auscultate (listen to) the fetal heart.

recorded, “CTG reassuring throughout labour”, and “2nd Stage — No fetal heart concerns”.

District health board internal case review

11. Following these events, the district health board (DHB) held an internal case review, and a draft Case Review document was prepared. It identified a number of deficiencies in the care of Mrs A during her labour, and in the care of Twin 2 following his delivery. Following the complaint to HDC, the DHB finalised its Case Review. The report, entitled “In-depth Case Review”, is dated 13 October 2015.
12. Dr C has since retired from medical practice and is no longer registered with the Medical Council.

Findings

13. For failing to recognise the CTG abnormalities and to take appropriate action during the second stage of Mrs A’s labour, it was found that Dr C breached Right 4(1) of the Code of Health and Disability Services Consumers’ Rights (the Code).⁵
14. Criticism was also made of Dr C’s limited documentation in this case.
15. Adverse comment was made regarding the DHB failing to respond appropriately to the adverse events that occurred during the second stage of Mrs A’s labour.

Recommendations

16. Should Dr C return to practice, it is recommended that the Medical Council of New Zealand consider whether a review of Dr C’s competence is warranted, and report back to HDC.
17. It is also recommended that Dr C provide a written apology to Mr and Mrs A for her breach of the Code.
18. In accordance with the proposed recommendation in the provisional report, Dr C provided confirmation of completion of the RANZCOG (Royal Australian and New Zealand College of Obstetricians and Gynaecologists) Fetal Surveillance course.
19. In accordance with the proposed recommendation in the provisional report, the DHB provided HDC with a further update on the recommendations it had made previously.

Complaint and investigation

20. The Commissioner received a complaint from Mr and Mrs A about the services provided to Mrs A by Dr C and the DHB. The following issues were identified for investigation:

⁵ Right 4(1) of the Code states: “Every consumer has the right to have services provided with reasonable care and skill.”

- *The appropriateness of the care provided to Mrs A by Dr C.*
- *The appropriateness of the care provided to Mrs A by the DHB.*

21. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
Mr A	Complainant
DHB	Provider
Dr C	Provider, obstetrician and gynaecologist

22. Further information was received from:

RM B	Registered midwife
RM D	Registered midwife

23. Independent expert advice was obtained from an obstetrician and gynaecologist, Dr John Short (**Appendix A**).

Information gathered during investigation

A twin pregnancy

24. In 2012, Mrs A and her husband were expecting fraternal twins.⁶ This was Mrs A's first pregnancy, following in vitro fertilisation treatment.⁷ Antenatal care was provided by the DHB's Department of Obstetrics and the team of midwives at the hospital.
25. At 31 weeks' gestation, Mrs A was assessed for reduced fetal movements and tightenings. She was then transferred to another hospital with a query of premature labour. After treatment and review, the tightenings settled and she was sent home. Mrs A was advised that she would require antibiotics in labour, as she had shown a positive Group B Streptococcus swab.⁸
26. Regular antenatal reviews and ultrasound scans had been undertaken throughout the pregnancy. A scan at 34 weeks' gestation showed both twins lying head down with satisfactory growth and normal Doppler flows.⁹

⁶ Twins that are produced from different fertilised eggs and may not have the same sex or appearance (known as dichorionic diamniotic).

⁷ An assisted reproductive technology commonly referred to as IVF. IVF is the process of fertilisation by extracting eggs, retrieving a sperm sample, and then manually combining an egg and sperm in a laboratory dish. The embryo or embryos are then transferred to the uterus.

⁸ Intravenous antibiotics were given to Mrs A in labour from 11.15am onwards for Group B Streptococcus prophylaxis.

⁹ Doppler flow is a type of ultrasound. It uses sound waves to measure the flow of blood through a blood vessel. The results are shown on a computer screen in lines called waveforms. A Doppler flow study is used during pregnancy to check the health of the unborn baby.

27. Mrs A was reviewed for decreased fetal movements at the hospital, and each time the CTG monitoring and review were reassuring.

Hospital admission and monitoring during labour

28. At 4.30am, at 35 weeks and three days' gestation, Mrs A's membranes ruptured spontaneously and she went into labour. She contacted the hospital and was admitted to the Birthing Unit at 5.40am. The consultant obstetrician on call that day was Dr C. There were no other consultant obstetricians on call.
29. Continuous CTG monitoring of the twin FHRs was commenced following Mrs A's admission, and continued throughout her labour. The paediatric team was notified of Mrs A's labour and expected twin delivery, and clinicians and midwives were aware that the babies would be going to the Special Care Baby Unit (SCBU) following delivery.

First stage of labour

30. At 6.40am, a vaginal examination showed that Mrs A's cervix was 3cm dilated and 75% effaced, and that Twin 1, who was to be delivered first, was in a cephalic presentation at station -2.¹⁰
31. From 7.15am, registered midwife (RM) RM B led Mrs A's midwifery care, and completed the majority of the documentation, with assistance at times from other midwives and clinicians. Maternal observations were taken throughout the labour and were within the normal range.
32. At 8.00am, RM B completed a CTG assessment in the notes and recorded that the CTG was normal, with all assessment features reassuring.¹¹
33. At 9.15am, the attending anaesthetic registrar sited an epidural and commenced an anaesthetic infusion. The FHRs were recorded as 140 and 150bpm, and noted to be reactive.
34. At 10am, Dr C performed a vaginal examination and noted that the cervix was "6cm dilated thin soft well effaced" and that Twin 1 was presenting at station -1.¹² Dr C told HDC that at this time Mrs A was "well into" labour, the epidural was working well, and she was having slightly irregular but good contractions. Further, that both babies' heartbeats were normal, and clinically Dr C had no cause for concern.
35. At 10.30am, RM B recorded in respect of the CTG monitoring for each twin that variability was 5-15 and good, and that accelerations were seen and no decelerations

¹⁰ "Station" is a term used to describe the descent of the baby's head into the pelvis. The station is measured in centimetres. An imaginary line is drawn between the two bones in the pelvis known as the ischial spines. This is the "zero" line, and when the baby's head reaches this line it is considered to be at "zero station". When the baby is above this imaginary line it is at a "minus" station. When the baby is below, it is at a "plus" station. Stations are measured from -5 at the pelvic inlet to +4 at the pelvic outlet.

¹¹ A normal CTG associated with a low probability of fetal compromise has the following features: baseline rate of 110-160 bpm; baseline variability of 6-25 bpm; accelerations; and no decelerations.

¹² With the head of the baby presenting to the cervix.

were noted. Contractions were noted to be one in every two to three minutes and lasting a strong 60 seconds.

36. At 12.00pm, RM B noted: “FH x2 reactive traces.” A further vaginal examination at 12.15pm revealed that the cervix was 7cm dilated. The FHRs were noted to be 130 and 140, both with variability of 5–25bpm, with accelerations seen and no decelerations. Following a telephone consultation with Dr C, at 12.45pm RM B commenced augmentation with a Syntocinon infusion at 3mls/hr, and the FHRs were recorded as reactive and 145 and 135bpm. The contemporaneous documentation in the notes does not indicate the rationale for the Syntocinon, although the notes do record that contractions were then lasting only 30–45 seconds.
37. At 1pm, contractions were recorded as one in every one to two minutes and strong. At 2.30pm, both FHRs were noted to have variability of 5–15bpm, with accelerations seen; the rates were 155–160 and 140bpm, and Twin 2 is recorded as having no decelerations.

Second stage of labour

38. At 3.10pm, Mrs A’s cervix was fully dilated. The SCBU staff were advised of this. Twin 1 was noted to be presenting at station 0 to +1. RM B recorded that Twin 2 had some early¹³ quick FHR decelerations.
39. At 3.20pm, RM B noted that Mrs A was seen by Dr C. The recorded plan was to allow the head of Twin 1 to come further down, and then for Mrs A to start pushing. From around this time, Dr C remained in the Birthing Unit, either in Mrs A’s room or in the office across the corridor.
40. Mrs A commenced pushing with contractions at 4pm, and at 4.15pm RM B noted that both twins’ FHRs were showing some variable decelerations with “good recoveries to variable [FHR] baselines x2”. At this time the Syntocinon was increased to 6ml/hr and later to 9ml/hr on Dr C’s instructions.
41. Dr C remained in the room. At 4.45pm, the FHRs were recorded as 160 and 150bpm, and the Syntocinon was increased to 15ml/hr. At 5.00pm, Twin 1 was noted to have a tachycardia¹⁴ of 175bpm. Twin 2’s heartbeat was 145bpm.
42. At 5.30pm, Mrs A was noted to be pushing well but getting tired. In response to the “information gathered” part of my provisional report, Mrs A said that her level of exhaustion should have been described more excessively than just “tired”. She recalls that she was experiencing partial black-outs when pushing.
43. Twin 1’s FHR continued to be tachycardic at 170bpm. Twin 2’s FHR was recorded as 110bpm, and decelerations down to 90bpm were noted with slow recovery. Dr C told

¹³ Early decelerations commence with a contraction and may be a sign of fetal head compression during uterine contraction, resulting in vagal stimulation and slowing of the heart rate, rather than fetal distress. Late decelerations commence on or after the peak of a contraction and are often a sign of some degree of fetal hypoxia.

¹⁴ A rapid FHR above 160bpm.

HDC that at that time there was occasional bradycardia,¹⁵ but with recovery noted.

44. Mrs A was prepared for a forceps delivery. Retrospectively, Dr C documented that this was for slow progress in the second stage of labour.

Delivery of Twin 1

45. At 5.54pm, Twin 1 was born by forceps delivery performed by Dr C. The notes record that this was an “easy pull”. Twin 1 was transferred to SCBU. Her apgars were five at one minute, seven at five minutes and nine at 10 minutes.

Delivery of Twin 2

46. After the delivery of Twin 1, Dr C performed an ultrasound scan to make sure that Twin 2 was presenting head first. Dr C told HDC that because the head was high, she decided to increase the Syntocinon infusion to 18ml/hr to increase the frequency of contractions.

47. At 6.03pm, RM B ruptured the membranes of Twin 2. Dr C told HDC that it was reassuring to see that the amniotic fluid was clear and there was no meconium.

48. Between 6.03pm and 6.31pm, Twin 2’s FHR was recorded in the notes frequently by an RM. At 6.05pm, the RM noted a deceleration down to 66 with recovery to 105bpm. The FHR was then noted to be between 100 and 144bpm until the last recording of 110bpm at 6.31pm.

49. Dr C told HDC that although the fetal heart rates were monitored continuously, on occasion, especially during pushing, there was a loss of contact with the monitor. As such, this meant that she was unsure of the accuracy of the CTG trace. She told HDC:

“[Given] the intermittent loss of the CTG recording, we relied on Doppler auscultation and I was reassured that we could see the baby’s head and hear the fetal heartbeat. For these reasons, I did not consider at the time that I had any reason to suggest a forceps, Ventouse, or emergency caesarean section for the second baby, which descended well in occipital posterior position, making good progress with contractions.”

50. At 6.20pm, Dr C inserted a urinary catheter to empty Mrs A’s bladder, and Twin 2 was born spontaneously in the occipital posterior position at 6.32pm, 38 minutes after Twin 1 had been delivered. The umbilical cord, which was noted to be engorged, was around the baby’s neck, and he was flat and floppy with no respiratory effort and no audible heartbeat. After being placed briefly upon his mother’s chest he was taken by midwives and a paediatric senior house officer to a resuscitaire unit, and emergency neonatal resuscitation efforts were commenced.

51. The consultant paediatrician on call was not present initially. He had been called in between the delivery of the twins, and arrived to assist eight minutes after Twin 2 was born. Notwithstanding the clinicians’ and midwives’ resuscitation efforts, at 7pm, 25 minutes following his delivery, Twin 2 died.

¹⁵ Abnormally low heart rate.

52. At 7pm, Dr C recorded brief notes in relation to her care of Mrs A that day. The notes contained no comment regarding Twin 2's FHR after 5.30pm. At 8am the following day, Dr C recorded, "CTG reassuring throughout labour", and "2nd Stage — No fetal heart concerns".

Recording of FHR

53. Dr C told HDC that because of intermittent loss of the CTG recording during the second stage of labour, a fetal Doppler monitor was also used to auscultate the babies' heart rates, which were recorded from time to time in the notes.
54. The CTG recording was made available to HDC. It is on thermal paper and of very poor quality, extremely faded, and difficult to interpret. The recording shows changes in the twins' FHRs from 5pm.
55. The DHB had the CTG and labour care reviewed by an independent obstetrician, Dr E. Dr E advised that both twins' FHRs showed normal variability and accelerations and no decelerations for almost the entire first stage of labour.
56. Dr E noted that 10 minutes after Mrs A began to push in the second stage, both FHRs became elevated. Then, from 4.10pm, Dr E considered that Twin 2's FHR showed progressively deeper and wider variable decelerations with contractions, and Twin 1's FHR increased to a baseline of 180bpm with reduced variability and small variable decelerations.
57. Dr E advised that both FHRs were then abnormal, and that between 4.20pm and 6.30pm intervention was required to deliver the twins. Dr E stated that as a vaginal delivery was not imminent at that time, the Syntocinon should have been discontinued and an emergency (within 30 minutes) Caesarean section arranged.
58. Dr E noted that there was progressive loss of contact with Twin 2's FHR during the second stage, and she raised the concern that at one time the maternal heart rate rather than the FHR may have been heard.
59. Dr E stated that following the delivery of Twin 1, the CTG deteriorated. There was then a large deceleration in Twin 2's FHR to 60bpm, followed by a slow undulating FHR with absent variability, slowly rising to 120bpm until the recording ended nine minutes before Twin 2 was born. Dr E advised that the FHR had the appearance of a terminal bradycardia. Overall, Dr E considered that significant second stage FHR changes of both twins went unrecognised.

Other information

Umbilical cord blood gas sample

60. The purpose of an umbilical cord blood gas sample is to provide an objective assessment of the metabolic condition of a baby at birth, and it can provide evidence indicating hypoxia during labour or birth. The DHB advised HDC that at the time of these events it was not standard practice within the DHB to take a cord blood gas sample, although it was available if requested. RM D was present before Twin 2's birth, ready to take the cord blood gas sample, but the DHB told HDC that due to an

oversight the sample was not collected following Twin 2's birth.

61. The DHB said that the failure to obtain the sample on this occasion would not have altered the clinical outcome.

Post mortem findings

62. A post mortem examination was performed on Twin 2 with the permission of his parents.

63. The final diagnosis was intrapartum asphyxia.¹⁶ The report notes that there was widespread evidence of an acute asphyxia event. In addition, the report details evidence of "white matter gliosis¹⁷ that was likely to be an antenatal event", and that gliosis cannot be identified by antenatal screening. The report advises that this is a poorly understood pathology that occurs in the brain in the late second and third trimester and is thought to reflect a hypoxic¹⁸ environment in utero.¹⁹ The report further notes that it was likely that Twin 2's very poor condition at birth was a combination of a degree of compromise before the onset of labour (in the latter stage of pregnancy) and a further compromise during labour "that was clinically declared with the onset of decelerations in labour".

Meeting to discuss post mortem results

64. Mr and Mrs A met with Dr C and the consultant paediatrician to discuss the post mortem findings. Mr and Mrs A told HDC:

"From this meeting we felt and were told that [Twin 2] had an in utero event that caused his death, which pointed at an underperforming placenta. We accepted this information and at no point did the hospital accept any responsibility."

65. Dr C wrote to Mr and Mrs A's GP on the day of the meeting confirming that they had been given two copies of the post mortem report in case they had any more questions, and recording: "They are satisfied with the explanation and are satisfied with the management of events during the birth."

66. In response to the "information gathered" part of my provisional report, Mr and Mrs A said:

"At the time of the meeting, we were only given an explanation about the post mortem report, nothing in relation to the events that took place, the failings and what had been discussed at an initial review. As non-medical experts, we put our trust in the on call obstetrician ... and felt we had no other option other than to be satisfied with the findings."

67. Dr C told HDC: "At no time did I intentionally mean to mislead [Mr and Mrs A] when we met to discuss the post-mortem findings."

¹⁶ Lack of oxygen lasting long enough to cause physical harm, usually to the brain.

¹⁷ Gliosis is the reactive response of the glial cells in the central nervous system following a trauma or injury to the brain.

¹⁸ Inadequate supply of oxygen to the body tissues.

¹⁹ In the uterus; before birth.

DHB internal case review

68. Following these events, the DHB held an internal case review meeting the following month. A draft Case Review document was prepared. It identified a number of deficiencies in the care of Mrs A during her labour, and in the care of Twin 2 following his delivery. These included the failure to take cord blood gases (not being policy at the time) and to refer Twin 2's death to the Coroner, and that the DHB Twin Delivery Guideline in use at the time of these events was out of date.
69. Mr and Mrs A told HDC:
- “We were made aware that there would be an internal review with all those involved, but this is as much information as we were provided and we were not made aware that we are entitled to the resulting information, and [n]or did we know that we could be included in such reviews.”
70. Although some of the matters raised in the draft Case Review were discussed at meetings, the document was not finalised before the complaint by Mr and Mrs A to HDC, and its draft recommendations were not forwarded to the Child Health Continuing Quality Improvement meeting at the DHB. There was no meeting to consult or share findings with Mr and Mrs A.
71. Following the complaint to HDC, the DHB finalised its draft Case Review. The report, entitled “In-depth Case Review”, is dated 13 October 2015.
72. The DHB told HDC: “Although the DHB takes pride in the process we use when investigating an adverse event this clearly was not the case with [Twin 2's] initial review.”
73. The DHB has since sent a letter of apology to Mr and Mrs A, together with copies of the finalised Case Review and a memorandum from its Clinical Director of Child Health addressing the steps involved in Twin 2's management at the time of his birth. The DHB has also offered to meet with Mr and Mrs A to discuss the DHB's findings should they wish to do so.

Changes to the DHB policies and processes following these events

74. The DHB has acknowledged several issues from its review of this case, and has identified the steps it has taken as a result, including in the following areas:
- a) A review and update of its Twin Vaginal Delivery Guideline, with a recommendation to further review the essential procedure guidelines on an urgent basis.
 - b) The development and implementation of an Umbilical Cord Blood Gas protocol.
 - c) The attendance of DHB staff at educational forums.
 - d) The purchase of a second newborn resuscitaire unit, with training on set-up of the unit.
 - e) Ongoing scenario training in relation to newborn resuscitation.

- f) An educational session for clinical staff with the Chief Coroner, and plans to transition to an electronic coronial referral system for improved efficiency.
- g) Newborn life support (NLS) teaching involving midwives, newborn nursing staff, and all paediatric doctors, and regular simulation neonatal training.
- h) All senior house officers on paediatric roster attend an NLS training day prior to commencing night duty. Further to this, paediatric house officers are offered Advanced Paediatric Life Support training.

Further information: Dr C

Documentation

75. Dr C told HDC that the lack of detail in her notes was not reflective of her usual note-keeping practice, but that she was the only on-call consultant obstetrician and gynaecologist on duty that afternoon, and she had to attend to other patients urgently, including another high risk birth, following the delivery of Mrs A's twins. Dr C said that the notes made the following morning were, in her view, consistent with Medical Council of New Zealand guidelines on record-keeping, as they were made as soon as possible after the events being recorded.

CTG interpretation and delivery of Twin 2

76. Dr C has acknowledged that there were some deficiencies in her interpretation of the CTG in this case, and she apologises for this.
77. Dr C said that on reflection it was not reasonable to expect that Mrs A would be able to achieve a spontaneous second twin birth safely without assistance. Dr C noted factors that she was taking into account at the time, including that the second twin had descended well into the pelvis, and that, in her view, Mrs A was pushing well and the FHR was reassuring on continuous auscultation. In response to my provisional report, Dr C said that she was aware of, and concerned about, the slowing heart rate, "but on Doppler it was recovering reassuringly".
78. Dr C also indicated that she deferred expediting the birth of Twin 2 because of prematurity and the posterior occipito position. She stated: "It [is] always much easier interpreting a CTG trace retrospectively, and knowing what the outcome was, as compared with making clinical decisions in a 'live' clinical situation."
79. In January 2016, Dr C completed an Acid Base and Fetal Physiology course, in February 2016 a CTG training course, and, in November 2016, an RANZCOG Fetal Surveillance workshop. Dr C said that it became her practice to use a scalp clip²⁰ for second twins.
80. Dr C has since retired from medical practice and is no longer registered with the Medical Council of New Zealand. She said that she does not intend to return to medical practice in the future.

²⁰ A fetal scalp electrode, which is placed on a baby during labour to monitor the heart rate.

Responses to provisional opinion

81. Mr and Mrs A, Dr C, and the DHB were given the opportunity to respond to relevant sections of my provisional opinion. Their submissions were considered and incorporated as appropriate. Further submissions are referred to below.
82. Dr C told HDC: “[A]t all times, I approached my care of [Mrs A] with the utmost good faith and only ever sought to act in the best interests of her and her babies throughout.” Dr C also said:
- “At no time have I endeavoured to make excuses for the deficiencies identified in the care I provided. In this regard, I accept the Commissioner’s findings. I took on board criticisms identified by the experts that considered this case and made some change[s] to my practice.”
83. The DHB accepted the findings regarding the DHB and expressed its “deepest regrets in all matters pertaining to actions not completed by the DHB in this case”. The DHB stated: “We offer our unreserved apologies for the mismanagement of our review into [Twin 2’s] death.”
84. The DHB stated that “robust systems improvements have since been undertaken”. It introduced an electronic incident management platform to ensure “appropriate continuity of care and monitoring of quality systems improvement relating to an adverse event”. In addition, the DHB has assigned a Quality, Risk and Clinical Governance coordinator to provide coordination of reporting and remedial actions relating to any adverse event.
85. The DHB stated that currently it is also reviewing its open disclosure policy, and that part of the review objectives are to ensure that individuals and their families remain an essential part of the continuum of care following any adverse event.

Opinion: Dr C — breach

Introduction

86. Dr C was the on-call consultant obstetrician at the hospital during Mrs A’s multiple birth labour. Dr C was present in the Birthing Unit continuously from soon after 4pm, overseeing and undertaking Mrs A’s care during the second stage of her labour.
87. During the first stage of Mrs A’s labour, an epidural was established in accordance with the birth plan for a vaginal delivery. Syntocinon augmentation also commenced during the first stage, at Dr C’s direction.
88. My expert advisor, specialist obstetrician and gynaecologist Dr John Short, advised that it was reasonable and acceptable to continue with vaginal delivery at this stage, and that there was no indication for Caesarean section prior to the delivery of Twin 1. However, he has serious concerns about the CTG interpretation and the lack of action between the births of the twins.

CTG interpretation — breach

89. In Dr Short's view, following Twin 1's birth, Twin 2's heart rate "deteriorated considerably and the trace becomes grossly abnormal". As the CTG monitoring became intermittent in the latter part of the second stage of labour, a Doppler machine was also used to auscultate the babies' heart rates. The notes record several variable decelerations during this period, with slow recovery also noted.
90. Dr Short advised:
- "[F]ollowing the forceps delivery of [Twin 1] there was no reason to pursue a spontaneous birth of the second twin and ... an instrumental delivery should have been performed at the earliest opportunity to expedite the birth. Realistically this would have been after [6.03pm], when the membranes were ruptured and about 25–30 minutes before the actual birth. The principal reason for this is that the CTG for [Twin 2] is so frankly non-reassuring that urgent delivery was indicated, even if that meant a caesarean section. Also, it makes little sense when progress has been slow prior to the birth of the first twin, to the point that forceps are required, to reasonably expect a mother to safely achieve a spontaneous birth without assistance."
91. Dr Short noted that a case could also be made for an earlier delivery of Twin 1.
92. I also note Dr E's opinion that significant second stage FHR changes of both twins went unrecognised, and that:
- Ten minutes after Mrs A began to push in the second stage, both FHRs became elevated.
 - From 4.10pm, Twin 2's FHR showed progressively deeper and wider variable decelerations with contractions, and Twin 1's FHR increased to a baseline of 180bpm with reduced variability and small variable decelerations.
 - Both FHRs were then abnormal, and between 4.20pm and 6.30pm intervention was required to deliver the twins.
 - Following the delivery of Twin 1, the CTG deteriorated and, eventually, Twin 2's FHR had the appearance of a terminal bradycardia.
93. Dr Short advised HDC that Dr C appears to have failed to recognise the CTG abnormalities and to take appropriate action, which would have been to expedite delivery of Twin 2 by forceps or ventouse, following the assisted rupture of the membranes at 6.03pm. This failure was, in Dr Short's view, a severe departure from the accepted standard of care in the circumstances.
94. I am very critical of Dr C's failure to recognise the CTG abnormalities and to take appropriate action. I find that Dr C failed to provide services to Mrs A with reasonable care and skill during the second stage of her labour and, accordingly,

breached Right 4(1) of the Code.²¹

Documentation — adverse comment

95. Dr Short considers that Dr C’s standard of documentation was inadequate, with too limited detail, and that not completing retrospective notes until the following day was, in his opinion, “very poor practice”.
96. I note Dr C’s explanation that immediately following Twin 2’s birth she was required to attend another high risk birth in the Unit. In relation to the retrospective notes made the following day, Dr C has referred to the Medical Council of New Zealand’s publication *Good Medical Practice* (2008), which states that records should be made “at the same time as the events you are recording or as soon as possible afterwards”. She has stated that her notes were made as soon as possible after the event.
97. Dr Short considered Dr C’s response but remains of the view that the retrospectivity was poor practice. In his view, completing notes the following day “stretches the definition of ‘as soon as possible afterwards’ too far”, and he is confident that most of his peers would agree.
98. I am critical of Dr C’s limited documentation in this case, having regard in particular to the failure to comment at all on the CTG trace in the notes prepared at 7pm, and the limited reference to it in the retrospective notes at 8am the following day.

Opinion: The DHB — adverse comment

99. A district health board should have a culture that responds appropriately to adverse events by review, including consultation, follow-up, and communication of any remedial actions.
100. Following these events, the DHB commenced an internal case review. The draft report identified several deficits and proposed several recommendations. However, after initial discussion of the draft case review and some of its recommendations, there was no further consultation within the DHB, or follow-up, until some three years later, after the complaint was made to HDC.
101. Although Mr and Mrs A were advised that there would be an internal review of events, they were not consulted in relation to it, and no findings or proposed recommendations were shared with them, until after their complaint to HDC.
102. I am concerned that the DHB failed to respond appropriately to the adverse events that occurred during the second stage of Mrs A’s labour, in that the draft case review was not completed, and there was no consultation about that review with Mr and Mrs A. I consider that the DHB’s response to the events surrounding Twin 2’s birth was

²¹ Right 4(1) of the Code of Health and Disability Services Consumers’ Rights states: “Every consumer has the right to have services provided with reasonable care and skill.”

inadequate in this case.

Recommendations

103. In accordance with the proposed recommendation in my provisional report, Dr C provided confirmation of completion of the RANZCOG Fetal Surveillance course.
 104. I recommend that Dr C provide a written apology to Mr and Mrs A for her breach of the Code. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Mr and Mrs A.
 105. In the event that Dr C should return to practice, I recommend that the Medical Council of New Zealand consider whether a review of Dr C's competence is warranted, and report back to HDC.
 106. In accordance with the proposed recommendation in my provisional report, the DHB provided HDC with a further update on the recommendations set out in the Memorandum of the Clinical Director of Child Health dated 4 November 2015. This information has been incorporated above where relevant.
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Follow-up actions

107. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand and the Royal Australasian College of Obstetricians and Gynaecologists, and they will be advised of Dr C's name.
108. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent expert advice to the Commissioner

The following expert advice was obtained from specialist obstetrician and gynaecologist Dr John Short:

“I have been asked to provide advice to the Commissioner on case number C15HDC01415. I have read and agree to follow the Commissioner’s Guidelines for Independent Advisors.

I am a specialist Obstetrician and Gynaecologist, vocationally registered in New Zealand since 2007. I have worked as a senior medical officer in Obstetrics and Gynaecology at Christchurch Women’s Hospital since 2006.

I have been asked to provide advice to the Commissioner regarding the care provided to [Twin 2] by [the] hospital . More specifically I have been asked to comment on the following:

- 1 Was it reasonable to continue with a vaginal delivery considering the length of time taken for [Mrs A’s] labour to progress?
- 2 Was a caesarean section clinically indicated at an earlier point during labour?
- 3 The failure to conduct baby blood gas test
- 4 Any further comments you would like to make about the obstetric care provided

This report is based upon information provided by the HDC, including copies of clinical records, responses from the various persons involved in the case and subsequent investigations. I have also reviewed the Cardiotocograph (CTG) from the labour and delivery.

Background/Key points

[Mrs A], mother to [Twin 2], was pregnant with twins following fertility treatment. This was her first pregnancy. Her antenatal course appears to have been unremarkable. On [date] she went into labour, at 35 weeks and 3 days gestation. The amniotic membranes had ruptured at 0430. She arrived in hospital at 0540. At 0640 the cervix was 3 cm dilated. An epidural was sited at 0915. At 1000 the cervix was 6cm dilated. At 1215 the cervix was 7cm dilated and a syntocinon infusion was commenced following a telephone consultation with Obstetrician [Dr C]. Further examination at 1510 found the cervix to be fully dilated. Maternal observations and CTG were all normal up to this point.

A plan was made to allow time for descent of the head of the first twin. Active pushing began at 1600. At this point there were no apparent concerns with the wellbeing of either twin. [Dr C] was present in the room from 1645. A forceps delivery was performed for the first twin ([Twin 1]) at 1740. It is noted that there were decelerations in the heart rate of [Twin 2] from 1730. There are further notes on these following the delivery of [Twin 1]. At approximately 1759 the

syntocinon infusion was increased and at 1803 the membranes of [Twin 2] were ruptured. The baby's heart rate is documented at between 88–120 bpm between 1804 and 1821. The syntocinon was increased at 1806. The second twin was born spontaneously at 1832, in poor condition and subsequently died. A post-mortem examination was performed and suggested that there had been a period of compromise at some stage in the latter part of pregnancy and that the infant's very poor condition was a combination of this and further compromise during labour.

[Mr and Mrs A] have expressed concerns about several aspects of the care provided at the time, including a delay in the implementation of recommendations from an internal review by the DHB, the time taken for the paediatrician to arrive for the birth and subsequent neonatal resuscitation, workload management issues at the time, out of date guidelines and the failures to report the case to the coroner and perform fetal blood gases.

Opinion/Comment

This is an extremely sad case and [Mr and Mrs A] have my deepest sympathies.

With regard to the commissioner's specific questions:

1. Yes, I think it was reasonable and acceptable to continue with vaginal delivery. Whilst progress had slowed between 1000 and 1215, it was corrected with the syntocinon infusion.
2. No, there was certainly no indication for caesarean section prior to the birth of [Twin 1]. Labour had progressed to full dilatation and when birth became imperative an instrumental vaginal delivery was both possible and preferable. Obviously had [Dr C] felt safe instrumental delivery of the second twin was not achievable then a caesarean section could have been performed.
3. In this situation the failure to conduct baby blood gas tests had no impact on the outcome and would have had little practical use at the time. The only value of this test would be to help guide ongoing neonatal care and to help retrospectively determine what had caused [Twin 2's] poor condition at birth and subsequent death.

I do have other concerns about the obstetric care provided:

Firstly the standard of documentation by [Dr C] is inadequate. The detail is too limited and for example does not include an indication for the forceps delivery of [Twin 1] or any comment regarding the CTG. More detailed retrospective notes were added the following day which is very poor practice.

Secondly, I have very serious concerns about the CTG interpretation and lack of action between the births of [Twin 1] and [Twin 2]. [Twin 1] was born at 1740 by forceps, performed by [Dr C]. The indication (documented the following day) is stated as 'slow progress'. I have been able to review the CTG. It is of very poor quality and extremely faded and difficult to interpret. However I am confident to say that it was definitely normal until 1610 and remained acceptable until 1700.

There are changes beyond this point in time with definite slowing of [Twin 2's] heart rate from 1725 onwards. Following the birth of [Twin 1] the heart rate deteriorates considerably and the trace becomes grossly abnormal in my opinion. That is of course assuming that the heart rate being monitored is that of the baby. It is entirely plausible that the recording is of the mother's heart rate from 1730 onwards given the dramatic change in character of the trace.

I am of the opinion that following the forceps delivery of [Twin 1], there was no reason to pursue a spontaneous birth of the second twin and that an instrumental delivery should have been performed at the earliest opportunity to expedite the birth. Realistically, this would have been after 1803, when the membranes were ruptured and about 25–30 minutes before the actual birth. The principal reason for this is that the CTG for [Twin 2] is so frankly non-reassuring that urgent delivery was indicated, even if that meant a caesarean section. Also, it makes little sense when progress has been slow prior to the birth of the first twin, to the point that forceps are required, to reasonably expect a mother to safely achieve a spontaneous birth without assistance.

Given the apparent CTG changes from 1725 onwards, a case could also be made for earlier delivery of the first twin. However, it does not seem that the significance of the CTG abnormalities was recognised by anyone present.

Summary

Overall, I am of the opinion that, during the second stage of labour, [Dr C] failed to provide an acceptable standard of care. I would rate the level of departure from an acceptable standard as severe. She appears to have failed to recognise the CTG abnormalities and taken appropriate action (in this case by delivering the baby). In my opinion the accepted standard of care would be to expedite delivery of the second twin by forceps or ventouse. I think the decision to do this should have been made following the ARM at 1803.

I hope you find this report helpful and please contact me if you need any further comment.

Yours Sincerely,



John Short"

The following additional expert advice was obtained from specialist obstetrician and gynaecologist Dr John Short:

“[Dr C] takes issue with my comments regarding her documentation. I will not be changing my advice. I would add that the principal beneficiaries of good quality contemporaneous records are the health professionals themselves, so it would be very much in her interests to ensure she documents things well at the time. I would also say that the following day stretches the definition of ‘as soon as possible afterwards’ too far. I am confident most of our peers would agree with me.

The ‘twin vaginal delivery’ guideline is appropriate, although in the section ‘delivery of the second twin — cephalic presentation’ I would expand the sentence ‘Limited evidence does not show that an increased birth interval between twins is associated with an increased risk’ by adding ‘in the presence of a reassuring CTG’.”