Te Whatu Ora|Health New Zealand Capital, Coast and Hutt Valley (formerly Hutt Valley District Health Board)

Obstetrician and Gynaecologist, Dr B

A Report by the

Deputy Health and Disability Commissioner

(Case 19HDC02198)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. Primarily, this report relates to a conversation between obstetrician and gynaecologist Dr B and Mrs A prior to the delivery of Baby A. Tests had shown that Baby A was likely to have Down syndrome. Dr B questioned the extent of treatment the parents wanted to be provided to Baby A during or after his birth in light of the finding.

2. Dr B also questioned whether Mrs A wanted a Caesarean section despite Mrs A having already given consent to a Caesarean section. In addition, after Baby A was born, he slipped off the table and fell to the floor.[1]

3. The report also discusses the care provided to Mrs A and Baby A by Te Whatu Ora Capital Coast and Hutt Valley.

Findings

4. The Deputy Commissioner found that the content and manner of Dr B's questioning of Mrs A in relation to the care that should be provided to Baby A was an ethical and communication issue and was inappropriate. The Deputy Commissioner found that Dr B breached Right 5(2) of the Code.

5. The Deputy Commissioner was critical that Dr B, as the responsible clinician, failed to catch Baby A when he fell. The Deputy Commissioner also commented on Dr B questioning whether Mrs A wanted a Caesarean section after she had given consent and indicated that if it was necessary then Dr B should proceed.

6. The Deputy Commissioner found that Te Whatu Ora Capital, Coast and Hutt Valley failed to provide services with reasonable care and skill and breached Right 4(1) of the Code. The Deputy Commissioner was critical that Te Whatu Ora Capital, Coast and Hutt Valley failed to undertake a review of the circumstances that led to Baby A's fall and failed to communicate adequately with his parents about his treatment.

Recommendations

7. The Deputy Commissioner recommended that Dr B and Te Whatu Ora Capital, Coast and Hutt Valley apologise to Mrs A. The Deputy Commissioner recommended that Te Whatu Ora Capital, Coast and Hutt Valley arrange training on the use of its electronic information system and ensure that clinicians have access to results at all times, and that Te Whatu Ora Capital, Coast and Hutt Valley arrange education sessions for relevant clinicians on the meaning of antenatal screening tests and the results of the tests.

[1] Baby A experienced some bruising following the delivery, but further examinations showed that he was uninjured.

Complaint and investigation

8. The Health and Disability Commissioner (HDC) received a complaint from Mr and Mrs A about the services provided to Mrs A and her baby by Hutt Valley District Health Board (now Te Whatu Ora Capital, Coast and Hutt Valley).[2] The following issues were identified for investigation:

- *Whether Te Whatu Ora|Health New Zealand provided Mrs A with an appropriate standard of care in 2017.*
- *Whether Te Whatu Ora|Health New Zealand provided Baby A with an appropriate standard of care in 2017.*
- *Whether Dr B provided Mrs A with an appropriate standard of care in 2017.*
- *Whether Dr B provided Baby A with an appropriate standard of care in 2017.*

9. This report is the opinion of Deputy Commissioner Deborah James and is made in accordance with the power delegated to her by the Commissioner.

10. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
Mr A	Complainant
Baby A	Consumer
Dr B	Provider/obstetrician and gynaecologist
Registered Midwife (RM) RM C	Provider/registered midwife
RM D	Provider/registered midwife
Dr E	Provider/registrar
Te Whatu Ora Capital, Coast and Hutt Valley	Provider

11. Also mentioned in this report:

Dr F	Obstetrics and gynaecology registrar
Dr G	Obstetrics and gynaecology consultant
Dr H	Obstetrician and gynaecologist
Dr I	Consultant paediatrician
Dr J	Paediatrician

12. Independent advice was obtained from an obstetrician and gynaecologist, Dr Ian Page (Appendix A). In-house midwifery advice was obtained from RM Isabelle Eadie (Appendix B).

[2] The Pae Ora (Healthy Futures) Act 2022 took effect on 1 July 2022, establishing Te Whatu Ora|Health New Zealand as the national organisation to lead and coordinate delivery of health services (replacing the previous district health board (DHB) system). Hutt Valley DHB has been replaced by Te Whatu Ora Capital, Coast and Hutt Valley.

Information gathered during investigation

Introduction

13. This report relates to the communication between Dr B and Mrs A prior to the delivery of Baby A in 2017. The report also discusses the care provided to Baby A following the delivery, particularly his fall to the ground and the care provided to him following the fall.

Antenatal care

14. Mrs A, then in her late thirties, became pregnant in 2016. It was her fourth pregnancy and she had had two previous normal deliveries. On 7 Month1,[3] Mrs A had her first consultation with her lead maternity carer (LMC), RM D.

15. On 7 Month1, Mrs A underwent an ultrasound scan (USS) and blood test. RM D recorded that she had been contacted by a pathologist regarding Mrs A's maternal serum screening, and that the pathologist had informed her that Mrs A had a 1:8 risk of having a baby with Down syndrome (trisomy 21).[4] RM D noted that Mrs A had told her that this was an unexpected but a very much loved pregnancy and that she did not want an amniocentesis[5] to confirm Down syndrome because of the risk of miscarriage, but she did want a specialist consultation with the secondary care service.

16. On 8 Month1, Mr and Mrs A attended a consultation at the Hutt Hospital obstetric clinic with an obstetrics and gynaecology registrar, Dr F, who wrote in his reporting letter that they had discussed the increased risk of trisomy 21. Dr F told Mr and Mrs A that maternal serum screening is a test to determine the risk, and explained that for a definitive diagnosis, they would need a diagnostic invasive test. Mr and Mrs A had questions regarding the maternal serum screening test and how the result was generated, because the nuchal translucency scan[6] was normal, but the Beta-hCG[7] was significantly high. Dr F said he explained that the result is based on a computer algorithm that combines multiple factors, including the blood markers, the nuchal translucency scan and maternal age.

17. Dr F discussed the option of a non-invasive prenatal test (NIPT), which is a blood test that measures the free DNA of the baby in the mother and is 99% accurate for trisomy 21. He told them that this is also a screening test, and that for a definitive diagnosis they would still

[3] Relevant months are referred to as Months 1–7 to protect privacy.
[4] Down syndrome (also known as trisomy 21) is a genetic disorder caused by the presence of all or part of a third copy of chromosome 21. It is usually associated with physical growth delays, mild to moderate intellectual disability, and characteristic facial features.
[5] Amniocentesis is a test done during pregnancy, during which a needle is inserted into the woman's abdomen and a sample of amniotic fluid, which contains fetal cells and chemicals produced by the baby, is taken for testing.
[6] Nuchal translucency (NT) is the sonographic appearance of a collection of fluid under the skin behind the fetal neck in the first trimester of pregnancy.
[7] Beta-hCG is a test that measures the amount of human chorionic gonadotropin (hCG) in the blood. This hormone is produced as soon as 10 days after conception. Increased levels of hCG are associated with an increased risk of Down syndrome.

need an amniocentesis. Dr F noted that Mr and Mrs A did not want an amniocentesis or a termination of pregnancy if trisomy 21 was confirmed.

18. Mrs A decided to undergo the NIPT. RM D told HDC that Mrs A chose this method of testing so that she could prepare her family and herself for the reality of a baby with Down syndrome, not because she was looking at other options, such as a termination of pregnancy.

19. The NIPT result states: 'Analysis of cfDNA indicates a high risk for trisomy 21 (Down syndrome) with two sex chromosomes (male, XY). The chance that this pregnancy has trisomy 21 is 99% (PPV 99%).' The summary result states: 'High risk for Trisomy 21 (risk > [more than] 1 in 2).'

20. On 16 Month1, obstetrics and gynaecology consultant Dr G reported to Mrs A and RM D that the NIPT result was a 1 in 2 risk of trisomy 21. Dr G recommended that if Mrs A elected not to have a diagnostic test, she should have a detailed anatomy scan performed at the Maternal Fetal Medicine (MFM) Service at a main centre hospital (Hospital 2).

21. A cardiac scan was arranged as part of the anatomy scan at 21+2 weeks' gestation. No abnormality was found in the baby's heart, and Mrs A was referred back to standard LMC care with no need for secondary care follow-up at that stage. The plan was to aim for a normal delivery.

22. Mr and Mrs A told HDC that via RM D, obstetrician and gynaecologist Dr B had asked to see them. However, because of the advice they had been given by MFM, their understanding that the pregnancy was normal, and the fact that for the duration of the pregnancy Mrs A had been extremely ill with nausea (taking the medication ondansetron), she chose not to attend additional secondary care appointments. She said that she was concerned that further secondary care would result in extra and unnecessary scans and appointments, and she had confidence in RM D to monitor the pregnancy and refer her when necessary, as she had done during Mrs A's previous pregnancy.

23. MFM recommended growth scans at 28, 32, and 36 weeks' gestation because of the potential for growth issues with babies with chromosomal anomalies. RM D said that Mrs A made an informed decision that she preferred RM D to arrange and review her growth scans, and to make a referral if there were concerns. RM D told HDC that Mrs A did not decline further testing but made an informed choice about her pregnancy and her baby.

24. RM D said that Dr B had several conversations with her about Mrs A during the pregnancy, as Dr B knew of the possibility of Mrs A's baby having Down syndrome. RM D told HDC that Dr B would ask her about Mrs A when Dr B saw her in passing, which is why RM D did not record the conversations. However, RM D recalled that usually they centred around how Mrs A was doing in her pregnancy, and whether she would come to secondary care for further appointments.

25. RM D told HDC that she believes that during these discussions, she told Dr B that Mrs A had declined an amniocentesis to avoid the risk of miscarriage, and instead had chosen to have NIPT screening to confirm Down syndrome, and she had declined a termination early in the pregnancy.

26. RM D said that she advised the Hutt Hospital Obstetrics Department that Mrs A was cancelling her next appointment and did not want any further involvement after having received such a reassuring outcome from MFM. RM D stated that Dr B telephoned her later in the pregnancy asking her to bring Mrs A in for another consultation, but RM D advised Dr B that Mrs A's position was clear, and that she was declining any further input at that time. However, there is no record of this conversation.

27. In contrast, in response to the provisional opinion, Dr B said:

> 'I had no knowledge of [Mrs A's] antenatal course … I was not aware if there had been a scan through [Hospital 2] and if there were any fetal abnormalities. Down syndrome babies can have no to severe physical abnormalities and occasionally abnormalities which are not compatible with life.'

28. Growth scans on 15 Month4 and 30 Month5 both showed that Mrs A had polyhydramnios (excess amniotic fluid). On 7 Month6, RM D referred Mrs A to the Hutt Hospital Antenatal Service because of the polyhydramnios. On 18 Month6, Mrs A was seen by obstetrician and gynaecologist Dr H, who stated in the reporting letter to RM D that the NIPT result was not available during the appointment, and that a USS on 30 Month5 had shown an estimated fetal weight of 2,892g, normal Dopplers,[8] and the presence of polyhydramnios. Dr H reported that they had discussed the risks that could occur during labour and delivery, that continuous monitoring during labour was advised, and that the baby was to be examined by the paediatric team at birth. The letter states: 'I have also advised a repeat scan, I am happy for her to continue under your [RM D's] care.'

29. Contrary to Dr H's assertion that the NIPT result was not available during the consultation, Te Whatu Ora Capital, Coast and Hutt Valley told HDC that the report from Percept NIPT was not available in writing in the clinical notes. However, it was available to Dr H on 18 Month6 in the regional documents section on the electronic clinical information system (Concerto) used by clinicians at Hutt Hospital.

30. Mrs A said that Dr H expressed concern that she had not been receiving more frequent scans and monitoring due to the 'high risk' nature of the pregnancy. She stated:

> 'At no point had anyone prior to this used this term or given any indication of possible complications during pregnancy or delivery, and in my own research I had found no evidence of Trisomy 21 causing such.'

[8] Doppler ultrasound uses sound waves to detect the movement of blood in vessels. It is used in pregnancy to study blood circulation in the baby, uterus, and placenta.

Delivery

31. On 19 Month6, at 1.50am, Mrs A arrived at Hutt Hospital in spontaneous labour. She was cared for by backup midwife RM C because RM D was busy with another birth. RM C said that the handover provided to her was brief because RM D was unavailable, but she (RM C) was already aware that the baby was thought to have Down syndrome due to a 'greater than 1 in 2 chance of DS' on NIPT, but had not been diagnosed formally. She said that she did not know what counselling Mrs A had had regarding the risk of complications in labour if the baby had Down syndrome, but it was clear that Mrs A had been expecting a physiological birth.

32. RM C said that a student midwife had taken Mrs A's history and commenced a CTG[9] without midwife oversight (during which, there were CTG abnormalities). The student discontinued the CTG around 10 minutes prior to the handover to RM C so that Mrs A could go to the toilet, without recognising the presence of the CTG abnormalities. Mrs A said that she was aware that the student midwife was a trainee as she had 'shadowed' RM D throughout Mrs A's pregnancy. Mrs A said that the student midwife had difficulty getting the CTG to work.

33. In response to the provisional opinion, Te Whatu Ora said that it was not appropriate for a student midwife to care for Mrs A in labour and place her on the CTG, as there was no clinical midwifery oversight of the CTG tracing until RM C arrived at the Birthing Suite.

34. RM C stated that by the time she arrived at 2.45am, Mrs A's labour was strong and intense with very frequent contractions, and she was struggling to stay in a position that would allow monitoring of the baby or of her contractions.

35. RM C told HDC that she explained to Mrs A that the CTG should be re-commenced because of the abnormalities she had noted. RM C said that there were equipment difficulties because the CTG's maternal pulse oximetry (used to distinguish the maternal heart rate from the fetal heart rate) was not working. RM C said that the maternal pulse oximetry was essential because of the presence of fetal decelerations (temporary decreases of the fetal heart rate).

36. RM C told HDC that the notes have a gap of eight minutes between the periods of CTG. She believes that during that time she attempted to find another functioning CTG with maternal pulse oximetry. RM C said that the second machine also proved not to have a maternal pulse readout, and she had to take and document Mrs A's heart rate manually.

37. Te Whatu Ora told HDC that the CTGs were not defective, but they did not have the functionality to monitor/graph the maternal heart rate as well as the fetal heart rate, and RM C was trying to find one that had that capability.

[9] Cardiotocography (CTG) is a technique used to monitor the fetal heartbeat and the uterine contractions during pregnancy and labour.

38. RM C told HDC that she was able to differentiate the baby's heart rate from Mrs A's with the second CTG machine. Mrs A's heart rate was around 90 beats per minute (bpm), and the baby's was 100–125bpm. The maternal heart rate was documented on the trace.

39. However, RM C said that she still could not obtain accurate traces of the baby's heart rate or of Mrs A's contractions. She said that she was concerned about the contraction frequency and possible decelerations. She told HDC that she documented retrospectively because she was unable to record any notes while she was trying to obtain accurate readings and gain Mrs A's consent for, and complete, a vaginal examination, and call for a doctor. RM C called obstetrics and gynaecology registrar Dr E at 3.30am, and, once Dr E was present, they agreed that the potential heart rate abnormalities and frequent contractions were consistent with hyper-stimulation (excessive uterine activity together with fetal heart rate abnormalities).

40. RM C said that the presence of polyhydramnios and a fairly high presenting part (-2 station[10]) made the application of a fetal scalp electrode[11] potentially unsafe, and neither she nor the junior doctor present were prepared to attempt it on the birthing suite without having a more senior doctor present, in case of cord prolapse.[12]

41. Dr E called for support shortly after 3.30am. Dr B told HDC that initially Mrs A's care involved a telephone call from Dr E, who explained that there had been a fetal bradycardia (abnormally low fetal heart rate) for five to six minutes at 5cm dilation. Dr B said that Dr E indicated that the fetal heart tracing had been abnormal since 2.12am with simple variable decelerations. Dr B stated that Dr E explained that it was likely that the baby had Down syndrome on testing, but the couple had declined invasive testing and secondary care follow-up. Dr E cannot recall the events prior to the birth.

42. In response to the provisional opinion, Dr B said that when a high-risk woman/pregnancy[13] is admitted to the hospital in labour, it is an expectation that the midwives will inform the hospital team. Dr B stated that had the midwife caring for Mrs A told the hospital team about Mrs A at 2am, they would have had a chance to review all her clinical records.

43. Dr B said that after discussion with Dr E, they planned to proceed to a Category 1 (immediate threat to the life of the woman or fetus) Caesarean section for fetal distress because of the non-recovering fetal heart rate. Mrs A was contracting 4:10 (four contractions in 10 minutes) with hardly any rest in between contractions. Dr B stated that subcutaneous[14] terbutaline (a medication used to prevent and slow contractions) was administered to stop the

[10] The station of the baby's head is measured in centimetres above or below the mother's ischial spines. When the baby's head is two centimetres above the ischial spines, it is at a -2 station.
[11] Fetal scalp electrode (FSE) is a spiral wire placed directly on the fetal scalp. Baseline variability can be assessed more reliably with the FSE than with external monitoring.
[12] Umbilical cord prolapse is a delivery complication when the cord falls (prolapses) into the vagina ahead of the baby and can then be compressed.
[13] See above — the advice from MFM was that the pregnancy was to be treated as normal.
[14] Insertion of medications beneath the skin either by injection or infusion.

contractions and allow the fetal heart to recover while the call for a Category 1 Caesarean section was made. Dr B said that generally the on-call team is available in around 20 minutes.

44. Mrs A was transferred to the operating theatre. RM C said that when they arrived in the preoperative area of the theatre (the holding bay) the CTG was re-commenced. She recalls that they were able to hear a normal fetal baseline heart rate, but after several minutes she became aware that the CTG machine had defaulted to not printing upon being restarted. Printing commenced at 3.54am, and the trace continued with normal variability and baseline. RM C said that in the meantime, Dr B had arrived.

45. Dr B met Mrs A in the holding bay. Dr B stated:

> 'As the situation was considered an emergency, I did not have the opportunity to review any of [Mrs A's] notes before conducting an assessment. I examined her and found she was 5cm dilated. I did an ARM (artificial rupture of membrane) and applied a fetal scalp electrode to monitor the fetal heart closely.'

46. Dr B said that the fetal heart rate was normal, with a baseline of 140bpm, good variability and no decelerations for eight minutes between 3.52am and 4.00am. Dr B suggested waiting in the holding bay to continue monitoring the fetal heart rate for a while longer to ensure that it had recovered completely and was not going to decelerate again. Dr B viewed all of the CTG in the holding bay, but did not leave Mrs A's bedside in order to review Mrs A's previous notes. Dr B said that the notes were 'located electronically in the theatre, which is away from the holding bay'. However, as discussed above, RM C made entries in the hard copy of the notes, which were available.

47. In response to the provisional opinion, RM C told HDC that although the hard copy notes were available throughout the labour, those notes did not contain all the clinic letters pertinent to the antenatal obstetric care. She said that although Dr B had access to some of Mrs A's record, Dr B could not review any previous discussions pertinent to Mrs A's plan of care in the preoperative area, as there was not a computer there. RM C said that they also did not have access to Mrs A's entire antenatal record of care, as their midwifery group started to use a shared database system only at a later date.

48. An unsigned entry made at 2.45am states that RM C had arrived. In response to the provisional opinion, RM C said that she wrote this entry 'but due to the complexity of the situation, did not have the opportunity to complete or sign off that note' once she had completed a 'fuller assessment of the situation'.

49. The notes below the entry made at 2.45am record that the parents wanted everything done for the baby. Dr B made this entry, but it is apparent that it was not made at the time recorded (2.45am) as the note refers to the birth and Baby A having fallen to the floor, and Dr B had not yet arrived at 2.45am. In response to the provisional opinion, Te Whatu Ora said that the entry made below the entry at 2.45am was written by Dr B retrospectively, 'who had not written either [Dr B's] name or the time' but that the entry was made after the birth of Baby A and the placenta. RM C also corroborated that the notes below the entry

at 2.45am were not written by her, and she believes that all further notes regarding Mrs A's birth were written retrospectively after the birth.

50. RM C said that Mrs A was showing signs that she might progress to birth rapidly despite there having been minimal cervical change in the 40 minutes between vaginal examinations.

Dr B's discussion with Mr and Mrs A

51. Mr and Mrs A told HDC that Dr B looked at the case notes and then said to them: 'I see that your baby is very likely to have Down syndrome. This is a bit of a mean question, but if resuscitation is required, do you want us to resuscitate or let nature take its course?'

52. Mrs A said that she and her husband were confused and shocked at the implications of this question, and it was a stressful situation given that there was no one in the room who knew them, and she was in the end stages of labour. Mrs A told HDC that Mr A asked Dr B what was meant by the question, and Dr B then repeated the question. They said that they answered that they did want the baby resuscitated, and Mrs A gave consent for an epidural.

53. Conversely, Dr B told HDC that knowing that Mr and Mrs A had declined secondary care appointments during pregnancy, they were asked: 'I am sorry to have to ask, but do you want everything done for baby if issues arise during or after birth, given the heightened risks involved.'

54. Dr B told HDC:

> '[I did] not know the previous conversations with [Mr and Mrs A's] midwives or at [Hospital 2] and since I had met them in an emergency scenario, I did not have a chance to read all of the clinical notes. I am extremely apologetic that my question inadvertently surprised or offended them.'

55. As noted above at paragraph 53, Dr B was aware that Mr and Mrs A had declined secondary care appointments during pregnancy, so asked Mr and Mrs A: 'I am sorry to have to ask, but do you want everything done for baby if issues arise during or after birth, given the heightened risks involved.' In contrast to this, in response to the provisional opinion, Dr B said that this question related to the method of delivery (ie, undertaking a Caesarean) rather than being a question about resuscitation, as Dr B's responsibility was for delivering the baby, and not for resuscitation of the baby, which is why the question asked was not 'would you want resuscitation'.

56. In response to the provisional opinion, Te Whatu Ora acknowledged that this would have seemed confusing for Mr and Mrs A, as they may have thought that Dr B was referring to the resuscitation of Baby A.

57. RM C said that she does not remember the details of the above discussion, but her impression was that Dr B was trying to understand Mrs A's situation and wishes for the birth.

58. Mrs A said that the day after the birth (with both herself and Mr A present), Dr B apologised for the events of the birth (discussed below), and for the way Dr B had asked about resuscitation, acknowledging that this was inappropriate. They said that Dr B told them: 'Some of my clients for religious reasons can't terminate a pregnancy, so at the birth they do not want the baby to be resuscitated.' Mrs A said that this alarmed them further. Dr B cannot recall saying that. Dr B said that perhaps what was said was: 'I meet couples with different views, be it due to religion or otherwise, and I did not want to assume anything and it was information required in a rush in the circumstances.'

59. In response to the provisional opinion, Dr B said that the apology to Mr and Mrs A was not an acknowledgment that the question was inappropriate. Dr B said that on learning that Mr and Mrs A were concerned about the question, 'I apologised and endeavoured to explain the independent situations involved for individual patients and that it was information required in a rush in the circumstances.'

60. The then Hutt Valley DHB Chief Executive stated:

> 'I would like to offer my sincere apologies to [Mrs A] and whānau for the stressful experience that affected the joy of the birth of their baby. At Hutt Valley DHB we respect the Code of Health and Disability Services Consumers' Rights which includes the rights of the individual to be treated with respect, freedom from discrimination and harassment and to dignity and appropriate standards of care. I can only but reiterate my apologies to [Mrs A] if in her case, it is perceived we treat Trisomy 21 differently at Hutt Valley DHB. That was not our intention.'

Birth and Baby A's fall

61. The retrospective clinical notes record that the fetal heart rate had returned to baseline but was still having some decelerations. Dr B discussed with the couple that since the fetal heart rate had appeared to settle for a period, they had the option of continuing with a Caesarean section or aiming for a vaginal birth, provided the fetal heart rate stayed normal. Dr B stated that Mrs A decided to continue with the Caesarean section. Dr B suggested waiting in the holding bay to continue monitoring the fetal heart for a while longer to ensure that it had recovered completely and was not going to decelerate again. Dr B said that the fetal heart rate was normal with a baseline of 140bpm, good variability and no deceleration for eight minutes between 3.52am and 4.00am.

62. Mrs A was then moved to theatre to have an epidural for pain relief, and for the Caesarean section to be done as Category 2 (maternal or fetal compromise but not immediately life threatening).

63. Mrs A told HDC:

> 'In theatre [Dr B] was monitoring the baby's [heart rate] and asked us if we wanted a caesarean. I found this to be a confusing question, so I replied "Do I need a caesarean? If so, then do it." [Dr B] asked us if we needed five minutes to think about it. I forcefully stated that whatever needed to be done.'

64. Mrs A said that Dr B repeatedly asked whether she wanted a Caesarean section. Mrs A stated:

> '[E]ach time I responded "do I need one?" which I had to say with increased forcefulness, to the point where I ended up shouting "if I need one then do it!" [Dr B] seemed extremely reluctant, and thankfully [Baby A] was born spontaneously.'

65. In response to the provisional opinion, RM C told HDC that once Mrs A was in theatre, the CTG became significantly abnormal again, but as Mrs A's contractions were intensifying rapidly and she was feeling pelvic pressure suggestive of late labour, Dr B's 'repeated question' about the mode of birth was what RM C 'would have expected clinically in the context of a woman with two previous normal births and a labour that appeared to be advancing quickly'.

66. Dr B told HDC that Mrs A was not asked 'repeatedly' whether she wanted a Caesarean section. Dr B said that after moving to theatre there was a normal fetal heart rate for two minutes, then the CTG became abnormal again with complex variable decelerations and poor recovery to baseline, so the Caesarean category was reverted back to Category 1. In response to the provisional opinion, Te Whatu Ora told HDC that once in theatre, Mrs A's labour was progressing very fast and the clinicians were therefore debating whether there was time for a Caesarean section. Dr B said that Mrs A started pushing before she could have an epidural.

67. Dr B performed a further vaginal examination and noted that Mrs A was fully dilated. RM C said that when Mrs A began to feel like pushing, she was helped into a less reclined position for the birth, with Dr B at the end of the bed to facilitate the birth, and Dr E and RM C on either side of Mrs A, supporting her legs on the narrow bench.

68. Dr B told HDC:

> 'I turned around to get scissors from the trolley in case an episiotomy was needed with my hand still supporting the perineum … when suddenly, [Baby A] was delivered on the bed. Unfortunately, the cord snapped 2 cm from the umbilicus and he (very unfortunately) fell on the theatre floor/midwife's shoe, in between the two midwives standing on other side at 0427. I am extremely sorry that none of us expected it, nor could save it from happening. It was very rapid and unexpected.'

69. Dr B also said:

> '[Baby A's] cord was short and simply snapped (tore) 2 cm from his umbilicus. I have never seen a cord snap like that before. Normally a cord is not that friable that it will break. I guess with large fluid gush, friable thin cord which snapped and large force; [Baby A] simply slid on the bed and through the midwife's arm. None of us standing around could catch him. This all happened within seconds.'

70. RM C said that the time from Dr B's confirmation of Mrs A being fully dilated to the birth was 3.5 minutes. RM C stated:

> 'From seeing a peep of baby's head to birth of the body, it was by far the most rapid birth of a baby I have ever experienced, and because we were all splashed by the large gush of amniotic fluid, we reflexively blinked, an action completely outside conscious control.'

71. RM C stated that she then realised that the baby had been born, the cord avulsed and the baby had slipped sideways down between the side of the theatre table and her legs.

72. Hutt Valley DHB said that consultant paediatrician Dr I and a paediatric house surgeon were present at the birth. Dr I recalls that he observed the baby 'slide down the drapes' onto the floor rather than drop directly onto the floor.

Baby A's postnatal care

73. Baby A was given free flow oxygen, but he did not require intermittent positive pressure ventilation (a short-term breathing treatment delivered via ventilator). After the initial resuscitation he was examined by Dr I and was noted to have some bruising on his face and scalp. Dr I felt that this was consistent with bruising typically seen on the presenting part in babies after a rapid vaginal birth, rather than being due to the fall.

74. Baby A was admitted to the Special Care Baby Unit (SCBU) for observation. Te Whatu Ora Capital, Coast and Hutt Valley told HDC that when paediatrician Dr J examined Baby A on day one, he had diffuse petechial bruising (spots caused by bleeding under the skin) over his forehead, small bruises near his right eye and on his left forehead, but no signs of injury that were suspicious for a skull fracture. Dr J described the bruising as similar to the bruising seen in other babies after a vaginal birth. Continuous cardio-respiratory monitoring was undertaken for several days, and Baby A's daily head circumferences remained stable. Te Whatu Ora Capital, Coast and Hutt Valley told HDC that there was no clinical deterioration, no change in Baby A's consciousness level, no vomiting, and no sign of intracranial injury.

75. Te Whatu Ora Capital, Coast and Hutt Valley said that if Baby A had shown any deterioration, an urgent CT of his head would have been performed, as this is the investigation of choice to assess for intracranial bleeds or fractures. However, as Baby A did not meet any of the head injury criteria, a CT was not done.

76. Mrs A said that she and her husband were concerned because no scan was done following Baby A's 'head injury', and that they were not offered any opportunity to formally discuss what had occurred at an appropriate time with support.

77. Dr I requested a head USS on day six. He said that it was undertaken for the parents' reassurance, rather than because of any clinical indication. The USS was normal. Dr J said that the rest of Baby A's examinations and his neonatal course were typical for a baby with trisomy 21, and Baby A was discharged home on day 15 of life.

78. Te Whatu Ora Capital, Coast and Hutt Valley said that the clinicians caring for Baby A were reassured by his clinical findings, and, given the mechanism of his fall, he did not need additional urgent investigations.

Further information

Mrs A

79. Mrs A stated that during her third conversation with Dr B after the birth, Dr B blamed RM D for the situation that occurred (asking about resuscitation), as Dr B considered that RM D should have made Mrs A see Dr B prior to the birth.

80. Mrs A told HDC that during the days following Baby A's birth, she and her husband struggled to understand why the question about resuscitation had been asked. She said:

> 'Our assumptions about the role of medical professionals have been challenged by this experience. We thought that role was to work to deliver a living child by whatever method was appropriate in the circumstances. There seemed no logical reason, given that our child appeared to be healthy and we had clearly continued with the pregnancy despite knowing he would have Trisomy 21 from 14 weeks gestation. We understand that there are other Trisomy conditions that are not compatible with life, in which case a question about resuscitation after birth may be appropriate. Our concern is that babies with Trisomy 21, and possibly other disabilities, may be viewed in this same light.'

81. Mrs A stated that Dr B told her that the trisomy 21 contributed to Baby A falling on the floor, as Mrs A's placenta was 'not good', and the cord was short as a result. Regarding Baby A having fallen, Mrs A told HDC:

> 'Although I do not think it should be possible for a baby to be dropped onto the floor during a hospital delivery in New Zealand, I accepted [Dr B's] apology as I recognised that several factors, such as being on a narrow theatre bed, may have contributed to this outcome. However, on reflection, many women give birth on a theatre bed and in other more chaotic circumstances. We hope that an investigation occurred and measures were put in place to ensure no other babies could be dropped. We have not had any feedback from the hospital regarding whether this has occurred.'

Te Whatu Ora Capital, Coast and Hutt Valley

82. Te Whatu Ora Capital, Coast and Hutt Valley told HDC that it has no documentation of any formal internal review or investigation being undertaken into Baby A's fall after his birth. It apologised for the emotional and physical impact that the events have had on Mrs A and her family. Te Whatu Ora Capital, Coast and Hutt Valley said that the staff involved in Baby A's care apologised that they did not explain adequately to Mrs A the assessments being undertaken on Baby A, the outcome of his examinations at the time, and the reasons behind their clinical decisions.

Relevant policies

83. Te Whatu Ora referred to the relevant Ministry of Health publication[15] and said that it is guided by the publication when managing pregnancies involving trisomy 21, both in 2017 and currently.

84. Te Whatu Ora Capital, Coast and Hutt Valley created its 'Copy of Increased Nuchal Translucency (NT) on ultrasound in pregnancy (11 to 13+6 weeks) policy MATY089' in September 2014 with a review date of September 2017, and the policy was updated further in August 2021. The MATY089 policy provides guidance for staff on communication and management of pregnancies with Down syndrome babies, including the following:

- A history is taken, including medical issues, past obstetric history and family history of genetic conditions, syndromes, and structural anomalies.
- If the person has had only an NT scan, MSS1 bloods are recommended.
- An urgent referral to the Antenatal Clinic is completed.
- All findings and options are discussed, including expectant management, NIPT, and amniocentesis (or CVS if clinically appropriate).
- All care is offered in a non-judgemental manner and is focused on the pregnant person's individual circumstances, with their choices fully supported.

Responses to provisional opinion

85. Mrs A, Dr B, and Te Whatu Ora Capital, Coast and Hutt Valley were given the opportunity to respond to the provisional opinion. Their responses have been incorporated into the report where appropriate. In addition, the following submissions were received:

Mrs A

86. Mrs A said that during her pregnancy her LMC (RM D) told her that Dr B had contacted RM D about her (Mrs A) and that RM D had relayed to Dr B the advice they had been given at the anatomy scan at Hospital 2, that everything looked normal, Down syndrome would not have been confirmed without the NIPT test, and that they were fine to proceed with midwifery care and be referred to secondary care when necessary. Mrs A said that RM D knew that she did not want unnecessary scans and appointments because she was very sick with nausea, so RM D relayed this to Dr B. Mrs A stated that RM D told her that she had given Dr B that information.

[15] https://www.nsu.govt.nz/health-professionals/antenatal-screening-down-syndrome-and-other-conditions/procedures-guidelines

Dr B

87. Dr B said that having canvassed the views of peers, it was agreed that the question asked of Mr and Mrs A was important in an emergency situation, given the clinical picture in this case. Dr B stated:

> 'As a clinician I respect the views of the parents and will follow them through. I also understand that every parent might have a different view. I have extensive experience with many fetal conditions and respect [a] parent's wishes, always adopting a neutral standpoint.'

88. Dr B provided HDC with a statement from a previous patient to support the comments above.

89. Dr B said that the question did not indicate that there was any willingness to withhold treatment. Dr B stated:

> 'There was never any intention of not doing anything, but the question had to be asked given I did not know [Mrs A] or the clinical situation. I was also not aware that [Mrs A] had had normal anatomy scans through MFM. The registrar advised me that she had declined all secondary care appointments, so we were both unaware of her MFM consults.'

90. Dr B said that Mrs A and her case were unknown prior to 19 Month6. Dr B said that there were no previous discussions about Mrs A, and the first involvement in her care was after taking a call from the registrar on that night.

91. Dr B stated that the first involvement with Mrs A's case was an emergency, being a category 1 urgent Caesarean section for fetal distress. Dr B said that there was no opportunity to review all the clinical notes before assessing Mrs A because the emergency never resolved, and the focus was on assessing Mrs A and monitoring the fetal heart.

92. Dr B 'strongly disagree[d]' that the question asked of Mr and Mrs A was an ethical and communication issue, rather than a clinical matter. Dr B said that the question and information were directly relevant to the clinical situation presented on the day.

93. In conclusion, Dr B told HDC:

> 'I have spent much time reflecting on this case and while the circumstances were certainly unique, I have changed the way I approach such cases including the questions asked, even in an emergency situation. I very much regret [Mrs A's] experience was distressing.'

Te Whatu Ora Capital, Coast and Hutt Valley

94. Te Whatu Ora said that it has realised that the NIPT result is never available in the regional laboratory section on Concerto, as it goes to Auckland or Australia with the result always emailed to the requestor. The result on this occasion was dictated on the MFM letter, which

was placed on the regional laboratories section, but this may not have been obvious to Dr H. Te Whatu Ora also said that the two referrals sent from LMC RM D did indicate that the baby was likely to have trisomy 21.

95. Te Whatu Ora said that although RM C was unable to find the maternal pulse oximetry functionality for the CTG, she took the maternal heart rate manually to differentiate between the fetal and maternal heart rates, which is an acceptable practice under RANZCOG guidelines.

96. In response to the proposed recommendation that it consider the introduction of systems such as the use of laptops to enable clinicians to access electronic records when required, Te Whatu Ora advised the following:

> 'In an emergency; a clinician will/should always attend to the woman and the foetus (CTG) first and perform their own assessment with the known information. They will not go to the electronic system first (be it in the same room or in a different room). They are dependent on the information provided by the midwife in charge of the care and the registrar. The transfer and communication of the known information is the key. A laptop would need to be switched on and logged into in the middle of the night, this would take significant time and distract from what is happening clinically. A clinician would not usually get the chance to review electronic notes until after the emergency has resolved.'

97. Te Whatu Ora accepted the other proposed recommendations.

98. Te Whatu Ora also provided HDC with a statement from RM C that at the time of Mrs A's labour and birth, Hutt Hospital did not have clinical midwife managers overnight. RM C said that this has changed since that time, and now an LMC would be able to seek additional support from a senior midwife to oversee a student providing care, find equipment, help to safely perform artificial rupture of membranes, and place an FSE, all of which might have averted the complexities of Mrs A's labour and the decision-making around it.

Opinion: Introduction

99. Mrs A was aware from early in her pregnancy that her baby was likely to have Down syndrome. RM D recorded that Mrs A said that it was a very much loved pregnancy and that she did not want an amniocentesis to confirm Down syndrome because of 'the risk of miscarriage', but she did want a specialist consultation with the secondary care service.

100. Mr and Mrs A told registrar Dr F that they did not want an amniocentesis or termination of pregnancy if trisomy 21 was confirmed.

101. Mrs A decided to undergo an NIPT to prepare her family and herself for the reality of a baby with Down syndrome, not because she was looking at other options, such as a termination of pregnancy. The NIPT summary result states: 'High risk for Trisomy 21 (risk >1 in 2).'

102. The cardiac scan found no abnormality in the baby's heart, and MFM referred Mrs A back to standard LMC care with no need for secondary care follow-up at that stage. The plan was to aim for a normal delivery. In light of the reassuring outcome of the MFM appointment, Mrs A chose not to attend additional secondary care appointments and instead relied on RM D to monitor the pregnancy and refer her if necessary. I note that in the event, Mrs A did attend other secondary appointments when required, although she declined a consultation with Dr B during her pregnancy.

103. When the 28-week growth scan showed that Mrs A had polyhydramnios, RM D referred her to the Hutt Hospital Antenatal Service. On 18 Month6, Mrs A was seen by Dr H, who was happy for Mrs A to continue under RM D's care.

104. It is clear from Mrs A's antenatal records that at all stages of her pregnancy she wanted to do the best for her baby, and she was unwilling to undergo any invasive testing that might risk a miscarriage. She attended secondary appointments when referred by her LMC. I accept that her reluctance to have further secondary care was because of the advice from MFM and her trust in RM D. In my view, it was entirely reasonable for Mrs A to believe that she had made it very clear to all clinicians she consulted during her pregnancy that the wellbeing of her baby was of utmost importance to her, and she would do what was required to facilitate this.

Opinion: Dr B — breach

Introduction

105. RM D told HDC that Dr B had several conversations with her about Mrs A during the pregnancy because Dr B knew that Mrs A's baby was likely to have Down syndrome. RM D said that Dr B telephoned her later in the pregnancy asking her to bring in Mrs A for another consultation, but RM D advised Dr B that Mrs A was clear that she was declining any further input at that time. RM D's recollection is that she discussed with Dr B that Mrs A had declined an amniocentesis to avoid the risk of miscarriage, and instead chose to have NIPT screening to confirm Down syndrome, and that Mrs A had declined a termination early in the pregnancy.

106. In response to the provisional opinion, Mrs A said that RM D told her during her pregnancy that Dr B had contacted RM D about Mrs A and that RM D had relayed to Dr B the advice they had been given at the anatomy scan at Hospital 2, which was that everything looked normal, Down syndrome would not have been confirmed without the NIPT test, and that they were fine to proceed with midwifery care and be referred to secondary care when

necessary. Mrs A said that RM D knew that she did not want unnecessary scans and appointments because she was very sick with nausea, so RM D relayed this to Dr B. Mrs A said that RM D told her that she had given Dr B that information.

107. In contrast, Dr B said that the first involvement in Mrs A's care was through the telephone call from Dr E, who explained that it was likely that the baby had Down syndrome. In response to the provisional opinion, Dr B said that Mrs A and her case had not been discussed prior to the call from Dr E. I consider that RM D's account is supported by Mrs A, and I find that of Dr B difficult to reconcile. I acknowledge that there is not documented evidence that Dr B was involved in Mrs A's care previously, and there is no record of the conversations. Accordingly, I am not able to make a finding about the information, if any, that Dr B had about Mrs A's case prior to 19 Month6.

108. On 19 Month6, Dr B met Mrs A in the operating theatre holding bay. Dr B stated: 'As the situation was considered an emergency, I did not have the opportunity to review any of Mrs A's notes before conducting an assessment.' Dr B told HDC that Mrs A's CTG was viewed in the holding bay, but Mrs A's bedside was not left to review her previous notes, as the notes were located electronically in the theatre, which is away from the holding bay. Dr B said that there was no opportunity to review all the clinical notes before assessing Mrs A because the emergency never resolved, and the focus was on assessing Mrs A and monitoring the fetal heart.

109. However, as discussed above, both RM C and Dr B made entries in the hard copy of the notes, which were available to them. Furthermore, there was an opportunity to review the notes while Mrs A was waiting in the holding bay for eight minutes between 3.52am and 4.00am in order to monitor the fetal heart rate to ensure that it had recovered completely and was not going to decelerate again.

110. At some stage following the birth, Dr B recorded in the hard copy of the notes that the parents wanted everything done for the baby. In addition, it is clear even from a perfunctory review of the notes that Mrs A had told each clinician who had been involved during her pregnancy that she wanted to protect her baby from potential harm.

Questions Dr B asked Mrs A — breach

111. Mr and Mrs A told HDC that Dr B looked at the case notes and then said to them:

> 'I see that your baby is very likely to have Down syndrome. This is a bit of a mean question, but if resuscitation is required, do you want us to resuscitate or let nature take its course?'

112. They said that Mr A asked Dr B what was meant, and Dr B repeated the question. They answered that they did want the baby resuscitated.

113. In contrast, Dr B said that knowing that Mr and Mrs A had declined secondary care appointments during pregnancy, the question put to them was: 'I am sorry to have to ask, but do you want everything done for baby if issues arise during or after birth, given the

heightened risks involved.' It is unclear what those risks were, given that the assessments and scans during the pregnancy had indicated that it was a normal pregnancy. In response to the provisional opinion, Dr B said that this question related to the delivery (ie, a Caesarean section) rather than the treatment/resuscitation of the baby.

114. Dr B's earlier account, that Mrs A was asked if she wanted everything done for the baby if issues arose during or after the birth, contrasts with Dr B's response to the provisional opinion (that the question related to the mode of delivery, not to the treatment). It is unclear to me why the explanation provided by Dr B in response to HDC's provisional opinion was not provided from the outset. Accordingly, I remain of the view that it is more likely than not that Dr B's question related to the treatment of the baby as opposed to the mode of delivery.

115. The 2011 New Zealand Resuscitation Council Guideline 'Ethical Issues in Resuscitation of the Newborn Infant' refers to decisions being made not to initiate resuscitation in babies who are extremely premature or have severe congenital abnormalities that are associated with almost certain early death, and an unacceptably high morbidity is likely among the rare survivors (see Appendix C). However, that was not the case with Mrs A's baby, as he was not known to have a condition that was incompatible with life — on the contrary, all indications were that he was a healthy baby.

116. I am unable to make a factual finding about the actual words Dr B used. Dr B's account is that the question asked was 'do you want everything done for baby' which, in my view, was an inappropriate question as there was no indication that Mrs A's baby had a condition that was incompatible with life. While I accept that in some emergency circumstances it may be necessary to ask questions regarding the birthing plan or the parents' wishes, I do not consider that in this circumstance the content of the question and the manner in which it was asked was appropriate.

117. The day after the birth, Dr B apologised to Mr and Mrs A for the question that had been asked. Mr and Mrs A said that Dr B told them, 'Some of my clients for religious reasons can't terminate a pregnancy, so at the birth they do not want the baby to be resuscitated,' which alarmed them further. Dr B cannot recall saying that, but said that perhaps what was said was: 'I meet couples with different views, be it due to religion or otherwise, and I did not want to assume anything and it was information required in a rush in the circumstances.'

118. Understandably, Mr and Mrs A were confused and shocked by the implications of Dr B's questions, as they had informed all the clinicians they had consulted during the pregnancy that they would not agree to any testing that put their baby at risk, and had emphasised that their baby's welfare was paramount. Furthermore, it was a distressing situation for Mrs A, and she was in a vulnerable situation as she was in the end stages of labour and possibly was going to have an emergency Caesarean section.

119. My independent advisor, obstetrician and gynaecologist Dr Ian Page, said that it was unfortunate that Dr B asked the question, but he considered it would be appropriate in an

acute situation if the obstetrician and gynaecologist had no prior knowledge of the woman or her baby. In contrast, I note that my in-house advisor, RM Isabelle Eadie, advised that she would not expect a woman to be asked about resuscitation in the context of a baby with trisomy 21. She said that she would expect the approach to newborn resuscitation to be the same as for a baby without any abnormalities. I agree with RM Eadie.

120. It is evident from the comments of my advisors that there are differing views about Dr B's question. Accordingly, as I have found above that Dr B's question related to the treatment of the baby as opposed to the mode of delivery, I remain of the view that this is a communication and ethical issue rather than a clinical matter, and, in my view, in these particular circumstances the manner and content of Dr B's communication was inappropriate (as discussed above). Accordingly, I find that Dr B breached Right 5(2) of the Code of Health and Disability Services Consumers' Rights (the Code).[16]

Baby A's fall — adverse comment

121. In the final stages of delivery, Dr B turned around to get scissors from the trolley in case an episiotomy was needed. Dr B's hand was supporting the perineum when Baby A was delivered rapidly. The cord snapped 2cm from the umbilicus and Baby A fell off the bed onto the theatre floor and landed on RM C's shoe. Dr B stated: 'None of us standing around could catch him. This all happened within seconds.'

122. I accept that there was a sudden gush of amniotic fluid and a very rapid birth. I also acknowledge that the other clinicians present provided consistent accounts and also failed to prevent Baby A from sliding down the drapes onto the floor. However, Dr B was the responsible clinician and was aware that Mrs A was fully dilated, and Dr B was guarding the perineum. Baby A should have been caught by Dr B, and I am critical that he was not.

Questions about Caesarean section — other comment

123. I also note Mrs A's concerns that Dr B repeatedly questioned her about whether she wanted a Caesarean section, and that Mrs A found this to be confusing given that she had consented to having a Caesarean section and had indicated that Dr B should proceed if it was necessary.

124. Dr B denied having questioned Mrs A repeatedly about whether she wanted a Caesarean section, and RM C told HDC that she considered that Dr B's questions were what she would have expected clinically in Mrs A's circumstances.

125. Clearly, Dr B's questioning in this regard was upsetting and confusing for Mrs A. I consider that this is another area in which Dr B's communication could have been improved.

[16] Right 5(2) of the Code provides: 'Every consumer has the right to an environment that enables both consumer and provider to communicate openly, honestly, and effectively.'

Opinion: Te Whatu Ora Capital, Coast and Hutt Valley — breach

126. As a healthcare provider, the then Hutt Valley DHB (now Te Whatu Ora) was responsible for providing services in accordance with the Code.

127. In this case, I consider that the deficiencies in the care Dr B provided to Mrs A and Baby A predominantly related to Dr B individually. However, I consider that there were broader systems issues at Hutt Hospital.

Access to NIPT result

128. On 18 Month6, Mrs A was seen at Hutt Hospital by obstetrician and gynaecologist Dr H because Mrs A had polyhydramnios. Dr H stated in the reporting letter to RM D that the NIPT result was not available during the appointment. Te Whatu Ora Capital, Coast and Hutt Valley told HDC that although the report from Percept NIPT was not available in writing in the clinical notes, it was available to Dr H, as it was located in the regional documents section on the electronic clinical information system used by clinicians at Hutt Hospital. In response to the provisional opinion, Te Whatu Ora said that it has since realised that the NIPT result is never available in the regional documents section on Concerto, as it goes to Auckland or Australia, with the result always emailed to the requestor. Te Whatu Ora said that the result on this occasion was dictated on the MFM letter, which was placed on the regional laboratories section, but this may not have been obvious to Dr H.

129. In any event, Dr H did not see the results of the NIPT, and Te Whatu Ora advised that the NIPT result (which was dictated on the MFM letter) may not have been obvious to Dr H. My independent advisor, Dr Page, said that it was less than ideal for Dr H not to have access to the report in the antenatal clinic. I agree, as this would have clarified the result and informed the advice being given to Mrs A. While I acknowledge Te Whatu Ora's comments that the NIPT result is never available in the regional documents section on Concerto, it is clear that this system is not optimal, as the results were not clearly displayed and accessible for Dr H.

CTG machines

130. RM C told HDC that there were equipment difficulties because the CTG's maternal pulse oximetry was not working. RM C explained that the maternal pulse oximetry functionality was essential because of the presence of fetal decelerations. The clinical notes have a gap of eight minutes between the periods of CTG recording. RM C told HDC that she believes that during that time she attempted to find another functioning CTG with maternal pulse oximetry. The second machine also proved not to have a maternal pulse readout, and RM C had to take and document Mrs A's heart rate manually. Te Whatu Ora told HDC that the CTGs were not defective, but they did not have the functionality to monitor/graph the maternal heart rate as well as the fetal heart rate, and RM C was trying to find one that had that capability. I acknowledge that RM C was able to take the maternal heart rate manually to differentiate between the fetal and maternal heart rates. However, I am concerned that RM C was not aware of what equipment was available and the functionality of that equipment, and that searching for it detracted from RM C providing the care that Mrs A needed.

131. Te Whatu Ora told HDC that since 2017 (as part of an ongoing asset replacement) all CTG machines on the Hutt Hospital Maternity Unit have been updated and are now able to monitor/graph both the maternal heart rate and the fetal heart rate. Te Whatu Ora said that all CTG machines that are not in working order are taken out of action and sent to the clinical engineering department for repair as soon as practicable.

Dr B's access to records

132. Dr B viewed all of Mrs A's CTG in the holding bay, but did not leave Mrs A's bedside to review Mrs A's previous notes. Dr B said that the notes were 'located electronically in the theatre, which is away from the holding bay'. However, as both Dr B and RM C made entries in the hard copy of the notes, it is evident that the hard copy was available. Given that Dr B was called in at short notice, I consider that there should have been a system in place to enable Dr B to access the electronic records immediately. I note that in response to the provisional opinion, Te Whatu Ora said that in an emergency, a clinician should attend to the woman and the fetus first and perform their own assessment with the known information. Te Whatu Ora said that a clinician in this situation is dependent on the information provided by the midwife in charge of the woman's care, and the registrar, and that the transfer and communication of the known information is the key. However, in this case, RM C and Dr E had limited information about Mrs A, and the clinicians had no easy access to the records during the waiting period in the holding bay, which, in my view, is concerning.

Baby A's postnatal care

133. Dr I and Dr J considered that the bruising on Baby A's face and scalp was consistent with bruising after a rapid vaginal birth, rather than being due to the fall, and that Baby A had no signs of injury that were suspicious of a skull fracture.

134. Baby A was monitored, and his head circumference measurements and his condition remained stable. As Baby A did not meet any of the head injury criteria, a CT head scan was not performed. However, on day 6, Dr I requested a head USS for the parents' reassurance, and this was normal.

135. Understandably, Mr and Mrs A were distressed about Baby A having fallen, and they feel that they were not offered any opportunity to discuss what had occurred formally, at an appropriate time with support.

136. I am critical that there was no internal review or investigation undertaken into Baby A's fall. Te Whatu Ora Capital, Coast and Hutt Valley acknowledged that the staff who were involved in Baby A's care did not explain adequately to Mrs A the assessments undertaken for Baby A at the time, the outcome of his examinations, and the reasons behind their clinical decisions.

Conclusions

137. In my view, Te Whatu Ora Capital, Coast and Hutt Valley failed to provide services to Mrs A with reasonable care and skill for the following reasons:

- Dr H was unaware of the NIPT results;
- Dr B was unable to access Mrs A's electronic record without leaving Mrs A; and
- RM C was unable to locate a suitable CTG machine.

138. Furthermore, I am critical that Te Whatu Ora Capital, Coast and Hutt Valley failed to undertake a review of the circumstances that led to Baby A's fall and failed to communicate adequately with Baby A's parents about his treatment.

139. Consequently, I find that Te Whatu Ora Capital, Coast and Hutt Valley breached Right 4(1) of the Code.[17]

Changes made

140. Dr B told HDC that much time has been spent reflecting on this case, and the way such cases are approached has been changed, 'including the questions asked, even when in an emergency situation'.

141. Te Whatu Ora told HDC that since 2017 all CTG machines on the Hutt Hospital Maternity Unit have been updated as part of an ongoing asset replacement and are now able to monitor/graph both the maternal heart rate and the fetal heart rate. Te Whatu Ora said that all CTG machines that are not in working order are taken out of action and sent to the clinical engineering department for repair as soon as practicable.

142. Te Whatu Ora told HDC that all clinical equipment has a preventive maintenance schedule set up in the regional asset information management system (BEIMS/Pulse) according to the manufacturer's recommendation. Maintenance work orders are generated monthly and assigned to individual technicians to complete. This is monitored weekly and updated to staff throughout the month.

143. All clinical equipment supported by Clinical Engineering is managed in accordance with AS/NZS 3551 and tested annually for electrical safety and functionality to the manufacturer's instructions. At any one time there may be items that have expired test certificates that may not have been located (mobile equipment predominantly) and are overdue, and this can also occur in months with large numbers of equipment requiring testing where patient demands do not allow for the equipment to be accessed. Efforts are made to locate these devices as soon as possible, and where backlogs exist, high priority items such as life support equipment are always prioritised. The 'Clinical Equipment — safe

[17] Right 4(1) of the Code states: 'Every consumer has the right to have services provided with reasonable care and skill.'

use and testing' policy is current, and it reminds staff about their obligations under the HSWA to check that equipment has current certification before clinical use.

Recommendations

144. I recommend that within three weeks of the date of this report, Dr B apologise in writing to Mrs A for the breach of the Code identified in this report. The apology is to be sent to HDC for forwarding.

145. I recommend that within three weeks of the date of this report, Te Whatu Ora Capital, Coast and Hutt Valley apologise in writing to Mrs A for its breach of the Code. The apology is to be sent to HDC for forwarding.

146. I recommend that within three months of the date of this report, Te Whatu Ora Capital, Coast and Hutt Valley carry out the following and report back to HDC:

a) Arrange training on the use of the Concerto system and ensure that clinicians have access to results at all times; and

b) Arrange education sessions for relevant clinicians on the meaning of antenatal screening tests and the results of the tests.

Follow-up actions

147. A copy of this report with details identifying the parties removed, except the advisors on this case, will be sent to the Medical Council of New Zealand and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, and they will be advised of Dr B's name.

148. A copy of this report with details identifying the parties removed, except the advisors on this case, Te Whatu Ora Capital, Coast and Hutt Valley, and Hutt Hospital, will be sent to the New Zealand Down Syndrome Association, Te Tāhū Hauora|Health Quality & Safety Commission, and Whaikaka|Ministry of Disabled People, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent clinical advice to Commissioner

The following independent advice was received from Dr Ian Page:

'**Complaint: [Mrs A]/Hutt Valley District Health Board/[Dr B]**

Your ref: C19HDC02198

Thank you for your letter of 15 July 2021 and the enclosed documents, requesting expert advice to the Commissioner on the care provided by Hutt Valley District Health Board and [Dr B] to [Mrs A] on 19 [Month6]. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I am a practising Obstetrician & Gynaecologist and have been a consultant for over 30 years. I obtained my MRCOG in 1985, my FRCOG in 1998 and my FRANZCOG in 2002. I have been employed for the past 21 years by Northland DHB. I have been a member of the RANZCOG Expert Witness register since 2012.

Background
[Mrs A] was advised early in her pregnancy following prenatal screening, that her baby had a 1:2 chance of having Down Syndrome (Trisomy 21). [Mrs A] attended a tertiary care appointment at 20 weeks gestation that showed that there were no anatomical defects or other clinical indications of concern. [Mrs A] was advised that she could continue with standard midwifery care and aim for a normal delivery.

[Mrs A] went into labour on the 19 [Month6]. [Mrs A's] labour was complicated by a fluctuating fetal heart rate (fetal bradycardia). Preparations were made to proceed with an emergency caesarean. The on-call obstetrician was [Dr B].

In preparation for the emergency caesarean, [Mrs A] advised that [Dr B] asked her and her husband [Mr A] 'I see that your baby is very likely to have Down Syndrome. This is a bit of a mean question, but if resuscitation is required, do you want us to resuscitate or let nature take its course?' [Mr and Mrs A] provided consent for resuscitation of [Baby A], if required.

Advice Requested
You asked me to review the documents and advise whether I consider the conversation between [Dr B] and the consumer was reasonable in the circumstances, and why. You also asked me to comment specifically on:

1. Based on the information available to [Dr B] at the time, do you consider it was reasonable to ask about resuscitation
2. Whether you consider it standard practice that [Dr B] asked about resuscitation in the context of a likely Down Syndrome baby

3. Whether you consider it standard practice that a question about resuscitation is asked in the context of an emergency situation
4. Any other matters in this case that you consider warrant comment.

Sources of Information
In assessing this case I have read:

- Letter of complaint dated 21 November 2019
- Hutt Valley DHB and [Dr B's] response dated 27 January 2020
- Relevant clinical records from Hutt Valley DHB
- LMC's Midwifery clinical notes dated 7 [Month1]–18 [Month6]
- [RM C's] (on-call midwife) response dated 26 February 2020

Summary of the Case
[Mrs A] underwent a dating scan in [Month1] which confirmed her estimated date of delivery (EDD). She had a further scan as part of the MSS1 screening for chromosomal abnormalities. When the MSS1 screen showed a risk for the baby to have Down syndrome of 1 in 8 her LMC referred her to the Hutt Valley DHB maternity services on 7 [Month1].

[Mrs A] was seen the next day by [Dr F] (obstetric registrar), and the result and its implications were discussed. Non-Invasive Pre-natal Testing (NIPT) was arranged, and this gave a result suggesting a risk of 1 in 2 for the baby to have Down syndrome. The result was seen by [Dr G] (SMO) who wrote to the LMC recommending amniocentesis or Maternal Fetal Medicine review. The latter took place on 28 [Month2]. The scan at that time did not show any anatomical abnormalities, and the MFM team recommended normal LMC care with growth scans at 28, 32 & 36 weeks, induction of labour at 40 weeks, and Paediatric review at birth.

The growth scans on 15 [Month4] and 30 [Month5] both showed increased liquor, and [Mrs A] was therefore referred back to the HVDHB maternity services by her LMC. The referral stated [Mrs A] was carrying a known Down syndrome baby. [Mrs A] was seen on 18 [Month6], whose letter says the NIPT result was not available, and advised that [Mrs A] should continue with LMC care. Page 28 of HVDHB clinical notes again says she is carrying a Down syndrome baby boy. On 19 [Month6] [Mrs A] was admitted in labour. The MW admission note at 1.50am states 'carrying a Down syndrome baby'. The back-up LMC's notes at 2.45am record that parents want everything done for the baby. [Mrs A] was seen by [Dr E] (Registrar) due to a fetal bradycardia. As there was no response to Terbutaline a Category 1 Caesarean section was planned.

In the operating theatre [Mrs A] was seen by [Dr B]. As the fetal heart rate had returned to normal [Dr B] examined [Mrs A], found her cervix to be 5cm dilated and performed an amniotomy. The notes show that it was intended for [Mrs A] to have an epidural

anaesthetic placed to allow her to have a caesarean section. However she then had a rapid vaginal birth and the baby fell onto floor, despite [Dr B] being recorded as guarding the perineum.

My Assessment

You asked me to review the documents and advise whether I consider the conversation between [Dr B] and the consumer was reasonable in the circumstances, and why. You also asked me to comment specifically on:

1. Based on the information available to [Dr B] at the time, do I consider it was reasonable to ask about resuscitation

This is a very difficult question to answer. Although the back-up LMC knew that [Mrs A] wanted everything to be done for her baby there was no clear documentation about this in her notes. Once the decision had been made to reduce the Category 1 caesarean section (CS) to Category 2 there would have been time for [Dr B] to review the clinical records and have a further conversation with [Mr & Mrs A]. At the time the Category 1 CS was called by the Registrar I would assume it was for the baby's benefit. Hence if the intention was not to resuscitate the baby the decision about the necessity for the CS would have to be asked. So I think it was unfortunate for [Dr B] to have asked the question, but I do understand how it happened when (as a senior doctor) you are called into an acute situation with no prior knowledge of the woman or her baby. Any criticism should therefore be directed at the lack of clarity in the notes (from the MFM team and her LMC as well as the HVDHB team) rather than at [Dr B].

2. Whether I consider it standard practice that [Dr B] asked about resuscitation in the context of a likely Down Syndrome baby

If [Dr B] intended to alter the management of [Mrs A] based on the answer to the question then it would be justified, as performing a surgical procedure (caesarean section) without the aim of improving the outcome (in this case for the baby) would be wrong. In general obstetricians assume that, unless it is clearly stated to the contrary in advance, that women will take the (relatively low) risk of coming to harm to try to improve the outcome for their baby. Hence it would not generally be standard practice to ask the question but could be justified in some cases — such as this.

3. Whether I consider it standard practice that a question about resuscitation is asked in the context of an emergency situation

All interventions, whether acute or elective, have to balance the chance of harm against the chance of benefit. Maternity interventions frequently have a 'double-whammy' in that there are two patients (mother and baby) who might come to harm or benefit. If an intervention that might harm the mother is being contemplated then it is correct to consider what the benefit might be for the mother or baby. This can be argued as being part of the process of truly informed consent, of which the Commissioner knows far more than I do. I think it is appropriate to ask the question, even in an acute situation.

4. Any other matters in this case that I consider warrant comment.
I find it interesting that [Mrs A] decided to undertake aneuploidy screening although she was not prepared to follow through with diagnostic testing. This suggests, on the basis of my years of experience, that she may not have been appropriately counselled nor given truly informed consent to the test.

There appears to have been some confusion in the understanding of the LMC and HVDHB staff about the results of the MSS1 and NIPT. The clinical records state that [Mrs A] was carrying a baby boy with Down syndrome. That was simply not true at the time. The MSS1 gave a 1 in 8 chance and so, by simple mathematics, gave a 7 in 8 chance of the baby *not* having Down syndrome. The NIPT chance of 1 in 2 still means a 1 in 2 chance of *not* having Down syndrome. It is perhaps inappropriate to call the 1 in 2 risk of Down syndrome 'high-risk' when the same risk of normality is not viewed in the same light. It would be better to say the risk of Down syndrome is increased compared to the background risk.

I do not have any personal or professional conflict of interest to declare with regard to this case.

If you require any further comment or clarification please let me know.

Dr Ian Page MB BS, FRCOG, FRANZCOG
Consultant Obstetrician & Gynaecologist
Whangarei Hospital'

Addendum

'Thank you for your letter of 10 December 2021 and the enclosed documents, requesting further expert advice to the Commissioner on the care provided by Hutt Valley District Health Board and [Dr B] to [Mrs A] on 19 [Month6]. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I am a practising Obstetrician & Gynaecologist and have been a consultant for over 30 years. I obtained my MRCOG in 1985, my FRCOG in 1998 and my FRANZCOG in 2002. I have been employed for the past 21 years by Northland DHB. I have been a member of the RANZCOG Expert Witness register since 2012.

Background
[Mrs A] was advised early in her pregnancy following prenatal screening, that her baby had a greater than 1:2 chance of having Down Syndrome (Trisomy 21). [Mrs A] attended a tertiary care appointment at 20 weeks gestation that showed that there were no anatomical defects or other clinical indications of concern. [Mrs A] was advised that she could continue with standard midwifery care and aim for a normal delivery.

[Mrs A] went into labour on the 19 [Month6]. [Mrs A's] labour was complicated by a fluctuating fetal heart rate (fetal bradycardia). Preparations were made to proceed with an emergency caesarean. The on-call obstetrician was [Dr B].

In preparation for the emergency caesarean, [Mrs A] advised that [Dr B] asked her and her husband [Mr A] 'I see that your baby is very likely to have Down Syndrome. This is a bit of a mean question, but if resuscitation is required, do you want us to resuscitate or let nature take its course?' [Mr and Mrs A] provided consent for resuscitation of [Baby A], if required.

Further Advice Requested
You asked me to review the documents and advise whether, further to my previous advice, I consider the care provided to [Mrs A] by HVDHB was reasonable in the circumstances, and why. You also asked me to comment specifically on:

1. What are the current policies and guidelines for managing pregnancies that are identified as having an increased likelihood of a Down syndrome baby;
2. How cases, such as that in [Mrs A's] experience, should be managed in terms of prior discussion about birth and labour expectations and risks associated with the labour and delivery of babies with Down syndrome;
3. Any recommendations or educational learnings that could be implemented in light of [Mrs A's] experience;
4. Any other matters in this case that you consider warrant comment.

Sources of Information
In re-assessing this case I have read:

- Letter of complaint dated 21 November 2019
- Hutt Valley DHB and [Dr B's] response dated 27 January 2020
- Clinical records from Hutt Valley DHB
- LMC's Midwifery clinical notes dated 7 [Month1]–18 [Month6]
- LMC's response dated 18 September 2020
- [RM C's] (on-call midwife) response dated 26 February 2020

Summary of the Case
This was presented in my initial response.

My Assessment
You asked me to review the documents and advise whether, further to my previous advice, I consider the care provided to [Mrs A] by HVDHB was reasonable in the circumstances, and why.

I think there were some deficiencies in the overall care provided by HVDHB to [Mrs A]. I have been unable to find the actual report from Percept NIPT for [Mrs A], so assume it was not available in writing for anyone handling the actual casenotes. It may have been available in

the on-line results system. The letter from [Dr G] on 16 [Month1] refers to a 1:2 risk of the baby having Down syndrome based on the NIPT result. However the Precept website[1] only talks about results being low risk (<1:10,000) or high (increased chance of abnormality though no numbers are given). The letter from the [Hospital 2] MFM team on 28 [Month2] notes that the baby had a >1:2 chance of having Down syndrome, given that NIPT has been shown[2] to be 99% accurate for Down syndrome.

On 18 [Month6] [Dr H's] letter states the NIPT result was not available to [Dr H] in the antenatal clinic, which is less than ideal.

There doesn't appear to have been any clear recording of the decision by [Mrs A] to view her baby as having normal opportunities, and that it should therefore be viewed as normal when it came to care in labour and after birth.

You also asked me to comment specifically on:

1. *What are the current policies and guidelines for managing pregnancies that are identified as having an increased likelihood of a Down syndrome baby*

I am not aware of any published guidelines that would specifically answer this question. The guidance from the [Hospital 2] MFM team was appropriate, noting the potential for growth restriction and abnormal fetal heart rate patterns in labour. The key to good care is clear documentation that would be immediately available to anyone providing care and this was not the case for a number of reasons.

2. *How cases, such as that in [Mrs A's] experience, should be managed in terms of prior discussion about birth and labour expectations and risks associated with the labour and delivery of babies with Down syndrome*

It would be helpful if cases such as this were referred to the local obstetric unit for the specific purpose of making a clear, and well-documented, plan. In reality the HVDHB obstetricians were inadvertently excluded from her care by the correspondence between the MFM unit and the LMC. My own experience in Northland shows that this is a system weakness, as similar situations have arisen here. When [Mrs A] was seen by [Dr H] late in the pregnancy the opportunity to have that discussion was missed, as it appears the focus of the consultation was around the polyhydramnios.

3. *Any recommendations or educational learnings that could be implemented in light of [Mrs A's] experience*

There still appears to be some uncertainty about just what the results for antenatal screening tests mean, and this could be addressed in local education session for midwives, GPs and obstetricians. In addition there should be access to results at all times, so that the complete picture can be recognised quickly and easily to enable a suitable management plan to be created.

4. *Any other matters in this case that I consider warrant comment*

I was puzzled to read in the LMC's letter the accusation that '[Mrs A] was known to multiple registrars and consultants and in particular was known explicitly to this Consultant who

pretended that [Mrs A was not known] on the day of [Baby A's] birth', given that the response from HVDHB did not list [Dr B] as one of the Consultants involved in [Mrs A's] antenatal care. This is a major difference of opinion which I cannot resolve but might need further investigation by the Commissioner as it could reflect the culture of interactions between LMCs and HVDHB staff.

I do not have any personal or professional conflict of interest to declare with regard to this case. If you require any further comment or clarification please let me know.'

Appendix B: In-house clinical advice to Commissioner

The following in-house advice was obtained from RM Isabelle Eadie:

> 'I have reviewed the following: Clinical notes Response from Chief executive at Hutt DHB & [Dr B] (dated January 2020), [RM C], LMC [RM D] Response letter via advocacy from [Mr & Mrs A], Letter to [Mr & Mrs A] from HDC, HDC Meeting notes. My understanding is that [Mr & Mrs A] had two main concerns in their original letter — the hospital's response to [Baby A's] fall and why [Dr B] questioned whether they wished for their baby to be resuscitated if required. Please be mindful that the following is based upon my midwifery perspective, and I am arguably not well placed to comment upon the care by the obstetrician who was responsible for the care of [Mrs A] and [Baby A].
>
> **[Baby A's] fall**
>
> I think it's unfortunate that this wasn't addressed in the first response from the DHB, and I could not locate the subsequent DHB response (July 2020) regarding [Baby A's] fall — did they investigate it? But I would like to add that it is a highly unusual scenario, and seems to me like it was completely accidental reflecting a combination of [Baby A] delivering very quickly amidst a large gush of amniotic fluid (which does make practitioners jump back — it's a natural instinct that can't be controlled for), that the theatre bed is narrow, and that the umbilical cord was very thin which meant it snapped easily. Given the circumstances, I personally question how meaningful an investigation would be. I believe that [Dr B] was very apologetic about [Baby A's] fall and [Dr B's] frequent visits to [Mrs A] on the postnatal ward to enquire about [Baby A] reflect this. I cannot comment upon whether appropriate follow up of [Baby A] was undertaken. As suggested it would be useful to see if they have a guideline related to management of newborn falls and whether this was followed.
>
> **[Dr B's] questioning their wishes for resuscitation**
>
> In my experience, I have been witness to conversations between a doctor and woman/whānau about their understanding/wishes/expectations regarding neonatal resuscitation in the context of when a poor neonatal outcome is anticipated. For example when babies are born very prematurely, or have very severe abnormalities, parents may be asked whether they would like the paediatric team to actively resuscitate the baby, and 'try everything', or be guided by the baby's condition at birth. I agree with [Dr B] that it is beneficial to have the conversation prior to the birth, in order that the wishes can be communicated to the paediatric team in advance, and so that everyone involved is aware of the plan. However, I don't think I would expect a woman/whānau to be asked about resuscitation in the context of a baby with Trisomy 21 — I would expect the approach to newborn resuscitation to be the same as for a baby without any abnormalities. Some babies with Trisomy 21 can have heart defects, and perhaps other abnormalities too which might impact adversely on their neonatal prognosis, in which case it might be very appropriate to ask about resuscitation. This

was not the case for [Baby A], but [it is] not state[d] whether [Dr B] was aware that [Baby A] had not been diagnosed with any structural abnormalities, or that there were any other notable problems. I found that [Dr B's] response was very apologetic for the upset … caused [to Mr & Mrs A] by raising the issue of resuscitation. I believe [Dr B] just wanted to clarify their expectations swiftly given the emergency situation and that [Dr B] had very little information about [Mrs A's] pregnancy. There are of course ways to ask very sensitive questions, and I cannot comment on the way in which the question was framed, although [Dr B] reflects that [this will be considered] in the future. The response from [RM C] suggests that she thought [Dr B's] enquiries were appropriate. Ultimately, [Dr B] stated that … babies with any condition [are not discriminated against] and [the aim is] to treat each case individually, which is why [Dr B] sought the views of [Mr & Mrs A]. But, [Dr B] does not acknowledge [Mr & Mrs A's] concern that [Dr B] did not distinguish between Trisomy 21 and other fetal abnormalities; that [Dr B] asks similar questions in *all* scenarios where babies are known to have abnormalities, rather than selectively enquiring about resuscitation based upon the perceived likely neonatal prognosis. In my *midwifery opinion*, I am surprised that [Dr B] asked the parents about their wish to resuscitate [Baby A], based on [Baby A's] diagnosis of Trisomy 21, but I believe [Dr B] asked with good intentions — sometimes there isn't a 'right and a wrong'!

Subsequent secondary care follow up

I note in the email (13/12/20) a comment about [Mrs A] declining secondary scans. She did actually have scans at 28 weeks and 34 weeks gestation which assessed the baby for growth, liquor volume and umbilical dopplers as advised by MFM [Hospital 2]. The finding of mild polyhydraminous prompted the secondary services consultation which [Mrs A] attended at 37 weeks.

Further recommendations

It may be worth seeking an obstetric opinion as to the appropriateness of enquiring about resuscitation for a baby with Trisomy 21.'

Appendix C: Ethical Issues in Resuscitation of the Newborn Infant. ARC and NZRC Guideline 2010

Australian Resuscitation Council, New Zealand Resuscitation Council

First published: 08 August 2011

Initiating resuscitation

The birth of extremely premature infants and those with severe congenital anomalies raises questions with the parents and among clinicians about initiation of resuscitation.[1–7] Resuscitation does not mandate continued support. Not starting resuscitation or starting intensive care which is stopped later, when the details of the infant's condition are known, are ethically and legally equivalent.[8] The latter approach allows time to gather more complete clinical information and for discussions with the family. If there is doubt whether to initiate or withhold resuscitation, it is best to start and later withdraw treatment when the situation has been clarified. Exceptions include infants with anencephaly and extremely immature infants for whom there is very little possibility of intact survival. Together, clinicians and parents may decide to withhold or withdraw treatment on the basis of futility and in the 'best interests' of the infant.[8]

When gestation, birth weight, or congenital anomalies are associated with almost certain early death and an unacceptably high morbidity is likely among the rare survivors, resuscitation is not indicated.[9]

In conditions associated with a high rate of survival and acceptable morbidity, resuscitation is nearly always indicated. In conditions associated with uncertain prognosis, when there is borderline survival and a relatively high rate of morbidity, and where the burden to the child is high, the parents' views on resuscitation should be supported.[9]

Whenever possible, there should be a consistent and coordinated approach from the obstetric/midwifery and neonatal teams in applying these guidelines and in communicating with the parents to develop an agreed upon management plan.