Auckland District Health Board

Registered Midwife, RM B

A Report by the

Health and Disability Commissioner

(Case 21HDC00221)

Health and Disability Commissioner

Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report relates to the care provided to a woman during the latter part of her second pregnancy in 2013, by Auckland District Health Board (ADHB) (now Te Whatu Ora Te Toka Tumai Auckland) and by her Lead Maternity Carer (LMC) midwife.

2. The investigation relates to the antenatal care provided to the woman in the context of her suffering three antepartum haemorrhages before her daughter was stillborn. In particular, the report considers whether an ultrasound scan (USS) to assess fetal wellbeing should have been performed during the woman's admission to Auckland City Hospital, the appropriateness and adequacy of the woman's discharge from Auckland City Hospital, the information provided to the woman about fetal movements during pregnancy, the care provided by the LMC after the woman's discharge from ADHB, what occurred at an antenatal appointment, and the adequacy of documentation.

Findings

3. The Commissioner found a lack of clinical consensus about whether a USS was warranted to assess the wellbeing of the woman's unborn baby following the woman's third antepartum haemorrhage, in the context of other clinical information known at the time, such as a normal cardiotocograph (CTG). Ultimately, the Commissioner was unable to reconcile the differences in clinical opinion and found that the failure to undertake a USS did not amount to a breach of the Code.

4. However, the Commissioner considered that aspects of the care provided to the woman during her admission to Auckland Hospital fell below the accepted standard of care. In particular, the woman was discharged from ADHB without a clearly documented rationale as to why there was a departure from the initial plan for her to remain in hospital for 24 hours after obstetric review, and to undertake a repeat urinary protein/creatinine ratio (PCR) test; without clinical follow-up having been arranged within appropriate timeframes; without her having been given necessary advice (either written or verbal) in relation to monitoring fetal movement; and without her discharge information being communicated to both the referring hospital and her LMC.

5. The Commissioner was satisfied that collectively, these issues meant that the woman's care was not provided with reasonable care and skill, and, accordingly, the Commissioner found that ADHB breached Right 4(1) of the Code.

6. The Commissioner made adverse comment about the information provided to the woman by the LMC, specifically in relation to what was discussed about fetal movements and further monitoring, and what was actually understood, but was unable to make a finding as to the exact information provided. The Commissioner was also critical of the standard of the LMC's documentation.

7. The Commissioner found that the care provided by the LMC to the woman immediately after her discharge from hospital (specifically, the decision to review the woman as planned, as

Names have been removed (except Auckland City Hospital, ADHB/Te Whatu Ora Te Toka Tumai Auckland and the experts who advised on this case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

opposed to facilitating any additional appointments, and the fact that she did not follow up with Auckland Hospital about the discharge summary) was acceptable in the circumstances.

Recommendations

8. The Commissioner acknowledged the time that has passed since the events of this case, as well as the changes made by ADHB. She recommended that Te Whatu Ora Te Toka Tumai Auckland consider whether its guideline on the investigations to be undertaken when a woman presents with antepartum haemorrhage could be clarified further and provide the family with a written apology.

9. The Commissioner recommended that the LMC provide HDC with evidence of any workshops or training sessions she has since attended on monitoring fetal movements and fetal wellbeing in pregnancy.

Complaint and investigation

10. The Health and Disability Commissioner (HDC) received a complaint from Mrs A and Mr A about the services provided by Auckland District Health Board (ADHB) (now Te Whatu Ora Te Toka Tumai Auckland)[1] and Registered Midwife (RM) B. The following issues were identified for investigation:

- *Whether Auckland District Health Board provided Mrs A with an appropriate standard of care between Month5[2] and Month6 2013 (inclusive).*
- *Whether Registered Midwife B provided Mrs A with an appropriate standard of care between Month4 and Month6 2013 (inclusive).*

11. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
Mr A	Complainant/consumer's husband
ADHB	District health board/provider
RM B	Lead maternity carer (LMC)/provider

12. Further information was received from:

Dr C	ADHB obstetrician
Dr D	ADHB obstetric registrar
DHB2	

[1] On 1 July 2022, the Pae Ora (Healthy Futures) Act 2022 came into force and resulted in all district health boards being disestablished. Their functions and liabilities were merged into Te Whatu Ora|Health New Zealand. All references to ADHB in this report now refer to Te Whatu Ora Te Toka Tumai Auckland.
[2] Relevant months are referred to as Months 1–6 to protect privacy.

13. Also mentioned in this report:

Dr E	Gynaecologist
Dr F	Clinical Director Obstetrics, DHB2
Dr G	Obstetrician, DHB

14. Independent obstetric advice was obtained from obstetrician and gynaecologist Dr Michel Sangalli (Appendix A) and obstetrician and gynaecologist Dr Ian Page (Appendix B), and independent midwifery advice was obtained from RM Lorna Davies (Appendix C) and RM Fiona Hermann (Appendix D).

Information gathered during investigation

Introduction

15. This opinion relates to the care provided to Mrs A during the latter part of her second pregnancy in 2013, by ADHB and by her LMC, RM B. Mrs A and her husband complained to HDC in 2013 and, after a preliminary assessment of the complaint, HDC decided to take no further action. Following review by the Ombudsman and consideration of additional information, including submissions, HDC reopened the complaint in 2021 and commenced an investigation the same year.[3] HDC has taken a "fresh eyes" approach to this investigation, with the information and evidence being considered by new investigators and a new Commissioner.

16. The investigation relates to the antenatal care provided to Mrs A in the context of her suffering three antepartum haemorrhages before her daughter, Baby A, was stillborn. Many issues that arose from Mr and Mrs A's complaint have been addressed through the course of HDC's assessment. This investigation report considers the outstanding issues, comprising the following:

ADHB

- Whether an ultrasound scan to assess fetal wellbeing should have been performed during Mrs A's admission to Auckland City Hospital; and
- The appropriateness and adequacy of Mrs A's discharge from Auckland City Hospital, including the communication by ADHB upon discharge.

RM B

- The information provided to Mrs A about fetal movements during pregnancy;
- The care by provided by RM B immediately after Mrs A's discharge from ADHB;

[3] The initial complaint in 2013 from Mr and Mrs A was also about other providers who provided care to Mrs A during her pregnancy. However, Mr and Mrs A accepted HDC's decision to take no further action with respect to those providers, and their residual concerns related only to ADHB and RM B.

- What was discussed at the 10 Month6 appointment; and
- The adequacy of RM B's documentation.

17. I extend to Mr and Mrs A my sincere condolences for the loss of their precious baby girl.

Background

Mrs A

18. In 2013, Mrs A (aged in her thirties at the time of events) became pregnant for the second time. Her previous pregnancy had involved the sudden onset of severe pre-eclampsia at 37 weeks' gestation.[4] Pre-eclampsia is a potentially dangerous pregnancy complication characterised by high blood pressure, which can lead to serious, even fatal, complications for both mother and baby. Because of this history, Mrs A's second pregnancy was classified as high risk.

RM B

19. RM B[5] provided antenatal care to Mrs A from 16 Month1 (when Mrs A was 10 weeks' gestation) onwards. RM B referred Mrs A to a specialist obstetrician at DHB2 in light of Mrs A's history and high-risk pregnancy. The obstetrician had continued involvement in Mrs A's antenatal care, but RM B remained the LMC.

First and second antepartum haemorrhages

20. Mrs A experienced two episodes of bleeding (antepartum haemorrhage (APH)) in her second trimester (at 16+1 weeks' and 18+2 weeks' gestation respectively). Her first APH occurred on 25 Month2, and she attended the Emergency Department (ED) at DHB2. A subsequent ultrasound scan (USS) revealed that Mrs A had a haematoma (a collection of blood) in her uterus.

21. Mrs A's second APH occurred on 10 Month3. A USS on 11 Month3 was reported as showing that the previously identified haematoma no longer persisted, and no cause for the bleeding was identified.[6]

22. Mrs A had further scans on 22 Month3, 29 Month3, 26 Month4, and 23 Month5. The USS on 23 Month5 reported that the estimated fetal weight (EFW) was 1,502g (with a 15% margin of error), which was on the 75th percentile. Liquor volume was reported as normal (amniotic fluid index (AFI) 107mm, deepest pocket 39mm[7]). The previous USS (on 26

[4] Mrs A's diagnosis of pre-eclampsia resulted in the administration of magnesium sulphate (a medication used in pregnancy to, among other things, prevent seizures in women who have developed pre-eclampsia), and a Caesarean section.

[5] A registered midwife for many years.

[6] The scan showed that the haematoma had not resolved completely, but the issue was considered in HDC's previous assessment of this case, and it was concluded that this finding was reasonable in the circumstances.

[7] According to the Ministry of Health *New Zealand Obstetric Ultrasound Guidelines* (2019), the normal deepest pocket is between 20–80mm. The guidelines state that AFI varies with gestation, and it is recommended that AFI be plotted on a standardised chart to track levels. Some studies have shown that amniotic fluid volumes increase steadily in early gestation and remain relatively stable between 20 and 38 weeks, thereafter declining

Month4, at 25 weeks' gestation) showed AFI as 150mm and deepest pocket 44mm. The 23 Month5 scan did not include umbilical artery Doppler assessment (which assesses blood flow to the placenta).[8]

23. The focus of this report is on Mrs A's third APH, which occurred on 29 Month5 (at 30 weeks' gestation), and the subsequent events that preceded the tragic stillbirth of Mr and Mrs A's daughter on 14 Month6.

24. Mr and Mrs A's primary concerns relate to the fact that an ultrasound scan was not performed by ADHB when Mrs A was hospitalised for her third APH, the information provided on her discharge, and the discussion about fetal movements with RM B at an antenatal appointment following Mrs A's discharge from hospital.

29 Month5–1 Month6

Admission to DHB2

25. On the night of 29 Month5, at 30 weeks' gestation, Mrs A attended DHB2 after she began bleeding (her third APH). Cardiotocography (CTG)[9] monitoring was commenced and showed normal fetal heart rate (FHR) activity[10] and no uterine activity. Mrs A's blood pressure (BP) was 140/84mmHg (high),[11] and she was admitted for observation.

26. Initially, the bleeding appeared to settle, but Mrs A began bleeding again (bright red blood) overnight and the following morning. She also had increased BP readings of 140/86mmHg and 136/92mmHg on the morning of 30 Month5.

27. Given the risk of premature delivery because of the ongoing bleeding, and that DHB2 was equipped to care for babies of only 32 weeks' gestation and older, the decision was made to transfer Mrs A to Auckland Hospital.

Transfer to Auckland Hospital

Initial review

28. Mrs A was transferred to Auckland Hospital at approximately 9.30am on 30 Month5. On arrival, her BP was 120/68mmHg (within normal limits). She was reviewed by a sixth-year medical student (trainee intern) at 9.40am. The trainee intern documented a detailed medical history and noted that CTG monitoring (which had been commenced after Mrs A's

until delivery (Dubil and Magann, "Amniotic fluid as a vital sign for fetal wellbeing", *Australas J Ultrasound Med* (2013)).

[8] The Doppler assessment had been requested by RM B but ultimately was not performed. This was an oversight on the part of the radiology provider. This issue was the subject of HDC's earlier decision in respect of Mr and Mrs A's complaint, and is outside the scope of this report.

[9] Electronic recording of the fetal heart rate (FHR) and uterine contractions during pregnancy.

[10] Baseline FHR of 150bpm, good variability, and no decelerations.

[11] Generally, gestational hypertension is defined as equal to or more than 140 systolic and/or equal to or greater than 90 diastolic (Society of Obstetric Medicine of Australia and New Zealand *Guidelines for the Management of Hypertensive Disorders in Pregnancy* (2014)).

arrival at Auckland Hospital) was reassuring.[12] The trainee intern documented a management plan that included registrar review and "? USS to locate cause of bleeding".

Registrar review

29. ADHB told HDC that initially the USS was requested following the trainee intern's review, but subsequently the request was cancelled by then-registrar Dr D.[13] Dr D reviewed Mrs A at approximately 11.30am. Following her review, Dr D's plan included admitting Mrs A, repeating CTG monitoring, and undertaking a urine (PCR or protein/creatinine ratio[14]) test, but no further USS.

30. Dr D told HDC that when she reviewed Mrs A's medical history, she noted that a USS had been performed a week prior to admission (on 23 Month5). She said that this USS showed the placenta as being right lateral and clear of the internal os (cervix), with an estimated fetal weight (EFW) of 1,502 grams (on the 75th centile) and normal liquor volume.

31. In her response to the subsequent complaint, Dr D noted that ADHB's clinical service guideline for the management of APH at the time (the ADHB APH Guideline[15]) suggested that if there had been no "recent" USS, then a portable USS should be carried out to assess the position of the placenta. Dr D commented that it is "highly likely" that her decision not to carry out another USS was based on the previous USS having been carried out a week earlier, and the medical information available.[16] She said that as she was a first-year registrar at the time, her normal practice was to discuss cases with on-call consultants to ensure that they agreed with her management plan. As such, it is unlikely that her decision about the USS would have been made in isolation. However, she acknowledged her oversight in not documenting her possible reasoning for not carrying out a USS, or any discussions with a consultant about this.

32. ADHB told HDC:

> "[G]iven the normal growth only 1 week previously, and a documented cause for bleeding on previous scans,[17] good fetal movements recorded, and a normal CTG, it is unclear what further information [a USS] would have provided."

33. ADHB stated that the causes of painless APH that can be seen on USS are the following:

[12] Baseline FHR of 150bpm, normal variability, and no uterine contractions.
[13] Dr D is registered within the general scope of practice.
[14] A PCR test can identify protein in the urine, which is a symptom of pre-eclampsia (when present with hypertension).
[15] Extracts of the relevant parts of the ADHB APH Guideline are included as Appendix E.
[16] Specifically, that the 23 Month5 USS showed normal fetal growth and normal liquor volume, and that there was known fetal position, normal FHR, normal fetal movements, no contractions, no abdominal pain, no further bleeding, and no membrane rupture.
[17] The haematoma that was identified by USS after Mrs A's first APH in Month2. However, following Mrs A's second APH in Month3, a USS found that the haematoma no longer persisted, and no cause was identified for that APH.

- Placenta praevia/vasa praevia (conditions in which the placenta attaches in the lower part of the uterus, sometimes covering the cervix, and in which the fetal umbilical cord blood vessels run across or close to the cervix respectively) — ADHB noted that these conditions had been excluded on all previous ultrasounds for Mrs A.
- Subchorionic haemorrhage (haematoma in the uterus) — ADHB noted that this was identified as the cause of Mrs A's first APH at 16 weeks' gestation, and the haematoma was shown as resolved in subsequent scans.
- Placental edge bleed — ADHB commented that sometimes this would show on USS, but sometimes not. ADHB stated that if seen, management would be the same as for unexplained APH.
- Bleed from lower genital tract — ADHB noted that a speculum examination on admission excluded this.

34. ADHB also noted that placental abruption (where the placenta separates from the wall of the uterus before birth) can cause APH, but usually this is accompanied by pain and uterine activity, which Mrs A did not have. It also noted that, in any case, placental abruption cannot be detected reliably by USS.

35. ADHB stated that not undertaking a USS was not a mistake or oversight, but rather the result of a careful decision as to what was appropriate for the ongoing care of Mrs A in her particular clinical circumstances. However, ADHB accepted that a USS to establish fetal wellbeing would have provided further reassurance for Mrs A.

36. Mrs A believes that a USS should have been performed to establish fetal wellbeing while she was an inpatient. She stated that no harm could have been done by completing a USS, and she noted that her scan taken the previous week (on 23 Month5) did not include a Doppler assessment. She believes that ADHB should have performed a USS with Doppler assessment to assess her placental function after the APH.

Contact with RM B during hospital admission

37. RM B told HDC that the weekend of 28–29 Month5 was her weekend off call. She said that after the weekend, she rang Mrs A while she was still an in-patient at Auckland Hospital. RM B stated:

> "We had a discussion about the care and monitoring she was receiving at the hospital and need for close monitoring of bleeding and fetal movements by [Mrs A] and the need to contact me with any concerns once she was discharged. … I subsequently received a text from [Mrs A] to inform me of the discharge — I confirmed back to [Mrs A] our next appointment for 10 [Month6] at 11:30am."

38. Mrs A also recalled speaking to RM B on the phone on 30 Month5. However, Mrs A said that at that time she had just been transferred from DHB2, and did not know what the plan was for monitoring or the length of her stay at Auckland Hospital. Mrs A stated that during that

conversation there was no discussion about the need for close monitoring of fetal movements.

39. RM B documented retrospectively (on 16 Month6[18]) that she called Auckland Hospital on 30 Month5. She wrote that she spoke with a midwife and with Mrs A and noted that the plan was for Mrs A to stay for further monitoring.

Consultant review

40. Mrs A stayed overnight at Auckland Hospital, and ADHB consultant obstetrician Dr C[19] reviewed Mrs A at 9.15am on 1 Month6. Mrs A had not experienced any further fresh bleeding since the previous night, and her BP had decreased to 110/60mmHg. The notes from Dr C's review include:

> "Explained likely placental edge bleed and risk of IUGR [intrauterine growth restriction]/SGA [small for gestational age]/PTL [pre-term labour]/PPROM [preterm premature rupture of membranes]. Will need [follow-up] on discharge with obs[tetrics] team at [DHB2]."

41. Dr C said that she also discussed with Mrs A "the need for continuous surveillance of foetal growth and wellbeing".

42. Dr C's plan included for Mrs A to stay as an inpatient for a further 24 hours, and noted that a follow-up growth scan had already been booked. With respect to the fact that no USS was performed, Dr C told HDC:

> "Whilst my routine practice is to perform an ultrasound scan as part of my investigation and assessment of an APH, in light of the recent (normal) findings from the week prior (on 23 [Month5]), in particular no concern about foetal growth and the placental location was reported to be normal, and the bleeding had settled, I did not consider a repeat ultrasound scan to measure foetal growth was required at this time."

43. Dr C's plan also included a repeat urinary PCR test (the result of the PCR test from the previous day was 83mg/mmol, which was above the normal range[20]). However, despite this plan, there is no record that a repeat PCR test was completed. Mrs A told HDC that she provided a second urine sample (using a tampon to prevent contamination with blood), but no results were provided.

Discharge

44. Mrs A was discharged from Auckland Hospital on 1 Month6, at approximately 1.22pm. After Dr C's review, the next entry in the clinical notes (at 2pm) states: "Discharged home to care of LMC." ADHB told HDC: "[T]he plan for [Mrs A] to be discharged was re-discussed with

[18] RM B explained that she documented her retrospective notes on 16 Month6 after a postnatal visit to Mr and Mrs A, during which Mr A was "unexpectedly personally aggressive" towards her. She said that she rang NZCOM for advice after this, and was told to write retrospective notes.
[19] Dr C is registered within the Obstetrics and Gynaecology vocational scope of practice.
[20] 0–30mg/mmol.

medical staff and agreed." Dr C told HDC that she explained to Mrs A that since the bleeding had settled, she could be discharged back to the care of her LMC.

45. Mrs A told HDC that on discharge she was not advised of the importance of monitoring changes in fetal movements.

46. An electronic discharge summary was created for Mrs A, which included the following:

> "Discharge plans: 1. [Mrs A] has growth scan organised for 2–3 weeks time; 2. Follow up with obstetrician [at DHB2] ([Mrs A] will organise); 3. To seek medical attention if ongoing bleeding — or pain.
>
> Antenatal Discharge Diagnosis: APH: unspecified source
>
> … LMC follow up within 1 week: Yes
>
> LMC informed of Discharge: Not required."

47. Mrs A told HDC that neither she nor RM B were given discharge papers, and that a growth scan was booked for 21 Month6.

48. ADHB acknowledged that "there was clearly an error in communication regarding the need to inform the LMC of discharge". ADHB stated that standard practice at the time was to inform the LMC of discharge, and for the discharge summary to be printed and given to the patient. However, it stated that the midwifery staff member who wrote the clinical note at 2pm (referred to in paragraph 44 above) was not aware of this process. ADHB also noted that: a) although the discharge summary records that a follow-up scan had been arranged, it was not clear where this was to take place; and b) there is no evidence that a referral was sent to DHB2 to arrange the planned follow-up with the obstetrician there.

RM B and Mrs A — text messages 1 Month6

49. Mrs A provided the following transcript of the text messages exchanged with RM B on 1 Month6:

> **Mrs A:** "Hi [Mrs A] here. Jst got discharged bleeding has subsided. They said scan to check growth in 2–3 weeks thn check up with specialist."
>
> **RM B:** "Hi that's great will c u as planned on 10th [Month6] but call if any fresh bleeding [RM B]"
>
> **Mrs A:** "ok snds gd. Thanks [Mrs A]"

50. Mrs A stated that the text messages show that there was no discussion directly with RM B about discharge. Mrs A said that RM B did not discuss with her the need to monitor bleeding and fetal movements closely. Mr and Mrs A are concerned that RM B did not facilitate any communication after Mrs A was discharged from hospital. In response to the provisional opinion, they stated:

> "We feel that this does not meet the standards of the profession in creating an ongoing plan of care with the patient. There was no conversation regarding the hospital's admission, discharges instructions, any worries/concerns I may have had, nor any advice regarding ongoing monitoring until I saw RM B at the next appointment on the 10th [Month6]."

51. RM B told HDC that following Mrs A's discharge from Auckland Hospital, Mrs A did not contact her again with any concerns prior to the 10 Month6 antenatal appointment. RM B also told HDC that she did not receive any discharge documentation from ADHB.

Further telephone conversation

52. RM B documented retrospectively (on 16 Month6) that she had spoken to Mrs A on the telephone on 2 Month6. RM B recorded:

> "Called [Mrs A] as no communication re: management or discharged from [Auckland Hospital]. [Mrs A] at home, she said that [Auckland Hospital] had said to organize USS 2–3 [weeks] following last scan and then review specialist [DHB2].
>
> Discussed with [Mrs A] contact LMC if any pain or contractions [increased] bleeding, GPH [gestational proteinuric hypertension — another name for pre-eclampsia] symptoms or concerns regarding movements. Appointment made to see me in clinic on 10 [Month6] or as required."

53. Mrs A told HDC that there was no telephone conversation with RM B when she was at home. Mrs A clarified that the only telephone conversation around that time was on 30 Month5, when she had just been admitted to Auckland Hospital.[21]

54. RM B said that she documented the retrospective notes to the best of her knowledge and recollection, but acknowledges that inadvertently she entered the incorrect date of 2 Month6 for the telephone call, instead of 30 Month5.[22]

10 Month6 — antenatal appointment with RM B

55. The appointment on 10 Month6 was attended by both Mr and Mrs A, and there are conflicting accounts from Mr and Mrs A and RM B about what occurred and what was discussed during this appointment. The parties' accounts, as well as what RM B documented at the time and retrospectively, are set out below.

Mr and Mrs A's account

56. Mrs A stated that at this appointment she told RM B that she had been concerned about reduced fetal movements, and that the baby's movements had changed "significantly" since just after she had been discharged from hospital. Mrs A stated:

[21] Mrs A provided HDC with telephone records that show that her mobile phone received three incoming calls on 30 Month5, two on 1 Month6 (of seven seconds' and three seconds' duration respectively), and no calls on 2 Month6.

[22] Mrs A was not discharged until 1 Month6.

> "I told [RM B] how I had been close to calling her the previous weekend (5/6 [Month6]) but I did not because the baby's movements had reached 10 in 24 hours, but they were much weaker."

57. Mr and Mrs A also stated that Mr A told RM B that Mrs A had been very worried over the last week.

58. Mrs A told HDC that throughout her pregnancy:

> "[RM B] verbally stated that normal movements were 10 movements in 24 hours, this was the information I was abiding by … [RM B] told me as long as I had 10 movements in 24 hours there was no need for concern. Hence, I did not call her once I started having a weakening/decrease in movements, as the movements fell within her guidelines — 10 movements in 24 hrs."

59. Mr and Mrs A told HDC that they never used the word "unsure" in relation to reduced fetal movement (see RM B's account at paragraph 65). Mrs A said that she was certain that fetal movement had reduced, and significantly so. She stated that she told RM B that she was "unsure" whether to call her over the weekend because she had felt 10 movements in the 24-hour period.

60. Mrs A recalled RM B palpating her stomach and telling her that the baby was lying transverse behind the placenta, which is why the movements were reduced. RM B then listened to the FHR and heard an acceleration, and asked Mrs A if she had felt the baby move, but Mrs A said she had not. Mrs A said that RM B continued to listen to the FHR for approximately one minute.

61. Mr and Mrs A stated that at no time did RM B say that they could go to hospital for further monitoring, and she did not mention the option of a CTG. Mr and Mrs A said that if she had, they would have gone to hospital straight away, as it was very close to RM B's office.

62. Mrs A stated that RM B told her that her placenta was anterior (attached to the front wall of the uterus), which meant that she could not feel the movements as much, and that after 30 weeks' gestation, babies' movements are softer and rolling rather than strong kicks.

63. In response to the provisional opinion, Mr and Mrs A stated that during the appointment on 10 Month6, RM B brought forward the growth scan (booked for 21 Month6) as a reaction to the concerns that they raised about reduced fetal movements. They told HDC:

> "Halfway through the appointment (after [RM B] had palpated my stomach and listened to the fetal heart rate) [RM B] called [the radiology service] and asked for the next available appointment. [The radiology service] said that the first appointment was not until 18th [Month6]. [RM B] then said 'that was not good enough, I am thinking [this week]'. The radiologist said they were unable to fit me in this week and said the best they could do was to 'squeeze' me in on 14th [Month6] at 7:25pm.

> We are adamant that this ultrasound booking was changed because of our concerns regarding reduced fetal movements."

RM B's account and contemporaneous documentation

64. RM B stated that Mrs A did not have any discharge papers from Auckland Hospital. However, RM B said that Auckland Hospital told her that a further scan was required by the specialist, and she ascertained that a scan had been booked for 17 Month6. As above, Mrs A told HDC that this scan had been booked for 21 Month6. RM B said that she "wanted closer observation", so she arranged for the scan to be brought forward to 14 Month6. RM B also arranged for specialist review the day after the scan.

65. RM B told HDC:

> "[Mrs A] stated she was 'unsure' about fetal movements, stating that she had always found [Baby A's] movements difficult to feel. I clearly recall then stating 'that was not good enough' and that [Mrs A] needed to monitor fetal movements closely — as previously discussed and explained in the literature given. I was concerned by [Mrs A's] statement as she had reported on fetal movements to me antenatally without expressing any concerns. The significance of fetal movements is of fundamental importance and I would never say a reduction or lack of movements was normal."

66. RM B said that Mrs A never said that she was "concerned" about fetal movements, and, had Mrs A said this, she would have noted this in the contemporaneous records.

67. RM B stated that she carried out a full assessment, and that Baby A moved four to five times during her examination but Mrs A did not feel any of the movements. RM B documented in the antenatal record, under the heading "FM" (Fetal Movements), "Active +". She explained that she was reassured by the physical examination, and considered that Mrs A did not feel the movements because of the fetal/placental position. RM B documented the FHR as 158 beats per minute (bpm), and noted that it was regular with accelerations present with movements and no decelerations. Urine dipstick testing and BP were documented as normal, and RM B recorded that there were no signs of oedema (swelling).

68. RM B said that she had a long discussion with Mrs A about monitoring movements and the patterns of movement, and the need to contact her if she had any concerns. RM B documented in the "Comments" section of the antenatal record:

> "— Long discussion re: contact/monitor FMF [fetal movements felt]
>
> — USS ordered 14th/specialist following
>
> — No contact (verbal) [Mrs A] re: USS [ultrasound scan]/specialist by ACH [Auckland City Hospital"

69. RM B told HDC that after this appointment, it was her rostered weekend off call. She said that Mr and Mrs A were aware of this, and that if there were any concerns about fetal

movements, they should call RM B's back-up midwife so that CTG monitoring and specialist review could take place. RM B acknowledged that she did not use the specific expression "CTG", but maintains that she advised Mrs A that if she was concerned at any time, "they could monitor baby more at hospital". RM B said that Mrs A had often had further monitoring at hospital, including with CTG, and so she expected that Mrs A had knowledge of the increased monitoring provided at hospital.

70. In addition, RM B said that she was reassured that fetal movements were normal at the 10 Month6 appointment, and that the clinical picture at the time did not warrant immediate further investigation.

RM B's retrospective documentation

71. On 16 Month6, RM B retrospectively documented notes about the 10 Month6 appointment. These notes included:

> "[Mrs A] was unsure re: movements since presentation change (previously breech). Discussion with [Mrs A/Mr A] at length re: pattern movements, reasons to contact LMC, signs GPH and preterm labour, also contact if [spontaneous rupture of membranes] in current presentation.
>
> Plan 1 — Discussion as above and importance of monitoring so can attend [DHB2] for CTG
>
> 2 — USS booked for 14th
>
> 3 — Specialist appoint[ment] made for following USS …"

72. Mrs A stated that these notes are incorrect. She told HDC that she had been feeling strong consistent movements on 1 Month6 (which was after her baby's presentation had changed to the transverse position prior to discharge from Auckland Hospital[23]).

73. In addition, Mrs A told HDC that the date on which RM B documented these retrospective notes was the same day on which she and her husband had voiced their concerns to RM B about the care they had been provided. Mrs A said that these notes were not recorded in her maternity book.

RM B's documentation

74. RM B did not document any contemporaneous detailed progress/midwifery notes during Mrs A's pregnancy. Instead, she recorded the antenatal appointments on the "Antenatal Record" page of the MMPO (Midwifery and Maternity Providers Organisation[24]) notes under

[23] Clinical notes from the morning of 30 Month5 state that the baby was in the breach position, and notes from 1 Month6 state that the baby was in the transverse position.

[24] An organisation that provides a practice management system for midwives, including a standardised set of notes.

the heading "Comments — refer to notes for full details". The only time RM B recorded notes in the "Midwifery Notes" section was retrospectively, on 16 Month6.[25]

Information provided by RM B about fetal movements during pregnancy

75. RM B told HDC that when she discusses fetal movements with women, it is part of her standard and invariable practice to inform them, in line with the requirements of NZCOM's consensus statement on fetal movements at the time (2012) (the NZCOM FM Consensus Statement) that "if baby's movements are reduced, change significantly or are absent there is a need to contact their midwife". RM B said that she also provides similar written information to all women under her care. She noted that at the front of each woman's handheld notes there is a list of conditions warranting women to contact her. The list includes if "your baby's movements change significantly after 24 weeks pregnancy".

76. However, Mrs A commented that the language in RM B's welcome letter and on the front page of the notes is "vague and does not specify what is deemed normal movements". She reiterated that RM B told her during antenatal appointments that 10 movements in 24 hours was normal.

77. RM B acknowledged that she may have indicated to Mr and Mrs A that "one could expect at least 10 [fetal movements] a day …" However, she said that this advice was "in conjunction with the advice to call [her] as an 'Emergency' should the woman subjectively consider the fetal movements are reduced, change significantly or absent".

Subsequent events

78. On 14 Month6, at 32 weeks' gestation, Mrs A went into preterm labour. She arrived at DHB2 at 12.30am, and clinical staff were unable to hear a fetal heartbeat. Tragically, it was confirmed that Mr and Mrs A's daughter had died in utero. Mrs A laboured and gave birth to their daughter at 11.39am. Baby A weighed 1,280 grams at birth (on the 5th centile).

79. A post mortem confirmed that Baby A had intrauterine growth restriction associated with extensive placental infarction (an interruption in blood supply to the placenta, which causes cells to die).

Further information

Mr and Mrs A

80. Mr and Mrs A provided HDC with an opinion they obtained from obstetrician and gynaecologist Dr E.[26] Dr E made the following comments in respect of the care provided by ADHB at Mrs A's 30 Month5 admission:

- A scan for a biophysical profile of the fetus should have been performed, regardless of how recently any other scanning had been performed.

[25] As referred to in paragraph 71 above.
[26] Dr E is registered within the Obstetrics and Gynaecology vocational scope of practice.

- Usually women are advised to stay as an inpatient for at least 24 hours after bleeding subsides; however, Mrs A was in Auckland Hospital for 24 hours in total and experienced some bleeding during that time.
- Before the decision was made to discharge Mrs A, there should have been (in addition to the USS for biophysical profile of the fetus):
  - another CTG;
  - a message to RM B;
  - a discussion about the baby's movements;
  - arrangements for weekly injections of steroids; and
  - a check for pre-eclampsia, given that this was a complication of Mrs A's first pregnancy.

RM B

81. RM B told HDC that she was devastated by Mrs A's complaint, and has taken it very seriously. She said that this was the first complaint she had received in many years of practice. RM B also stated: "I … realise after much reflection of this case that my documentation needed to reflect the care and information I provided."

ADHB

82. ADHB told HDC that it acknowledges that the care it delivered to Mrs A was lacking in the following areas:

- Although there was a discussion documented on 1 Month6 about the risks of APH, it appears that this discussion was not effective or not recalled by Mrs A because she was not fully aware of the risks of APH.
- Advice should have been given to Mrs A (and documented) about the importance of monitoring fetal movements, how to monitor fetal movements, and what to do if she had concerns after discharge.[27]
- ADHB failed to ensure clear communication between Mrs A and her LMC, and between ADHB and DHB2.
- Although ADHB considers that a scan was not indicated during Mrs A's admission, it accepts that a USS to establish fetal wellbeing would have provided further reassurance.

83. As part of its responses, ADHB provided HDC with comments from five clinicians. These clinicians all considered that a further USS to assess fetal wellbeing was not necessary in this situation, with rationales including that most of the information a scan would have provided was already on the previous USS, and that the CTG and fetal movements were noted to be normal.

[27] Although ADHB noted that during Mrs A's admission, no concerns about fetal movements were documented, and the five CTGs performed were normal.

84. ADHB also provided comment from Dr F[28] about the care provided to Mrs A during her admission. As to whether a USS was indicated, Dr F stated: "I do not think that an ultrasound was an essential investigation during this admission. The normal ultrasound the week before is a major factor in determining my opinion." However, Dr F also noted that Mrs A's elevated urinary PCR result on 30 Month5 was not addressed in the discharge plan; Dr F's view is that this required repeat assessment and review.

Responses to provisional opinion

85. ADHB was provided with the opportunity to comment on the sections of the provisional opinion relevant to the care it provided, and told HDC that it accepted the findings.

86. RM B was provided with the opportunity to comment on the sections of the provisional opinion relevant to the care she provided. She stated that she accepted the decision, recommendations, and follow-up actions.

87. The family were provided with the opportunity to comment on the full provisional opinion, and their comments have been incorporated where relevant. In addition, they stated that throughout this process, they have continued to strive for change, not to place blame on the providers, but to do everything in their power to prevent this tragedy from falling upon another family.

88. In response to a provisional recommendation, the New Zealand College of Midwives (NZCOM) told HDC that in 2021 it published updated guidance, "Assessment and promotion of fetal wellbeing during pregnancy[29]". NZCOM stated that this document contains extensive guidance about fetal movements during pregnancy, which informs and supports midwives to provide clear, evidence-based information to women in their care, and to ensure that timely assessments are undertaken when concerns about changes in fetal movements are raised.

89. In addition, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) stated that it has reviewed the existing guidance provided by NZCOM and the Perinatal Society of Australia and New Zealand (PSANZ) guidance endorsed by RANZCOG and has included the statements and guidelines on its website. RANZCOG considers that the guidelines are comprehensive and aligned.

90. Both NZCOM and RANZCOG consider that the information provided within their publication provides sufficient clarity and guidance for midwives, and that it is consistent with the guidance published by PSANZ, which is recommended or promoted by RANZCOG. NZCOM and RANZCOG stated that both documents provide comprehensive guidance, and noted (amongst other points) the following:

[28] Dr F was involved in the reporting of Mrs A's second trimester USS for this pregnancy (4 Month3). In addition, she saw Mrs A following Baby A's stillbirth, and she provided care during Mrs A's subsequent pregnancy.
[29] Assessment-and-promotion-of-fetal-wellbeing-during-pregnancy.pdf (midwife.org.nz).

- Maternal perception of fetal movements is an important indicator of fetal wellbeing;
- It is essential that practitioners provide women with clear information about normal fetal movement patterns;
- There is no universally agreed definition of reduced fetal movements, but any report of changes in usual movements should be taken seriously and assessed promptly; and
- Reports of decreased movements during the evening are of particular concern.

Opinion: Introduction

91. The events discussed in this report took place over eight years ago. I am mindful of the changes in clinical practice since that time, and that inevitably memories of what took place will have been affected by the passage of time. In making my decision, I have taken care to apply the standard of practice at the time, and have borne in mind what information was known by the various parties at the time. I am also particularly mindful of the bias that comes with knowing the outcome and with the benefit of hindsight.

Opinion: Auckland District Health Board

Introduction

92. The issue I must assess is whether ADHB took reasonable actions in the circumstances to provide appropriate care to Mrs A. It is clear that on the clinical evidence provided to the investigation there is some disagreement amongst the obstetrics and gynaecology profession about the appropriate clinical course of action that was warranted in the circumstances.

93. Mrs A was transferred to Auckland Hospital on the morning of 30 Month5, at 30 weeks' gestation, after experiencing her third APH. Mrs A has raised a number of concerns about the care she received from ADHB. As noted above, many of her concerns were addressed through HDC's first assessment, and the focus of this report is on the following:

- Whether an ultrasound scan to assess fetal wellbeing should have been performed during Mrs A's admission to Auckland City Hospital; and
- The appropriateness and adequacy of Mrs A's discharge from Auckland City Hospital, including the communication by ADHB upon discharge.

USS — no breach

94. Initially, a USS was requested on 30 Month5, after a trainee intern reviewed Mrs A, but subsequently this request was cancelled by registrar Dr D. Dr D said that it is highly likely that she based her decision not to perform the USS on the fact that Mrs A had had a USS the week prior (on 23 Month5), and on the medical information available. Similarly, consultant obstetrician Dr C (who reviewed Mrs A the following day, on 1 Month6) "did not consider a repeat ultrasound scan to measure foetal growth was required at this time", and instead made a plan for Mrs A to stay as an inpatient for a further 24 hours and to undertake a repeat urinary PCR test.

95. ADHB stated that not undertaking a USS while Mrs A was an inpatient was not a mistake or oversight, but rather the result of a careful decision as to what was appropriate for the ongoing care of Mrs A in her particular clinical circumstances. In particular, ADHB stated:

> "[G]iven the normal growth only 1 week previously, and a documented cause for bleeding on previous scans,[30] good fetal movements recorded and a normal CTG, it is unclear what further information [a USS] would have provided."

96. At the time of the events, ADHB also had a guideline for the management of APHs (2012), which stated:

> "5. Diagnosis
>
> … If there has been no recent ultra sound scan, do a portable scan to assess placental position. Request departmental scan, urgency should depend on the clinical situation …"

97. The guideline does not define the term "recent", and indicates that the purpose of such scan would be to assess placental position.

98. ADHB told HDC that the meaning of this guideline was that if there had been no recent scan undertaken at the time a women presented with an APH, a departmental scan should be requested (which involves the patient transferring to the ultrasound department) and a portable scan done in the Women's Assessment Unit (WAU) to assess placental position.

99. In response to my provisional opinion, the family submitted that this guideline has been misinterpreted. They stated:

> "We interpret that the first part of this guideline 'If there has been no recent ultrasound scan, do a portable scan to assess placental position' indicates the purpose of a portable scan is to assess placental position (if no recent scan has been done). The second part of this guideline 'Request departmental scan, urgency should depend on the clinical

[30] The haematoma that was identified by USS after Mrs A's first APH in Month2. However, following Mrs A's second APH in Month3, a USS found that the haematoma no longer persisted, and no cause was identified for that APH.

situation …' can be inferred as explicitly stating that a departmental ultrasound should be undertaken as part of an investigation."

100. I acknowledge the family's interpretation. However, this is not how the DHB or its clinicians, who developed the guideline, have interpreted it (see paragraphs 31 and 98). In any event, it would be inappropriate to follow guidelines strictly, and it is always important for clinicians to exercise appropriate clinical judgement that aligns with accepted practice. Whether a scan was accepted practice in this case is discussed below, but acknowledging the potential ambiguity in the guideline, I have suggested that Te Whatu Ora Te Toka Tumai Auckland review the guideline to provide clarity for clinicians, especially junior doctors, about what kinds of scans are warranted, and in what circumstances.

101. Given that a scan had been undertaken the previous week, a USS to assess fetal wellbeing was not performed during this hospitalisation, and Mrs A was discharged from Auckland Hospital on 1 Month6 with "likely placental bleed" as per Dr C's review, and an overall antenatal discharge diagnosis of "APH: unspecified source".

102. HDC consulted two independent advisors to assist with the assessment of this issue.

103. Obstetrician and gynaecologist Dr Michel Sangalli provided multiple, detailed reviews on the care provided to Mrs A.

104. Dr Sangalli advised that while it is reasonable to rely on previous community scans to assess fetal growth before an acute event, a scan that precedes a major event (such as an APH) cannot establish the absence of fetal compromise after such an event. He noted that Mrs A's third APH, which required transfer from a secondary hospital to the tertiary unit, was a very significant clinical event. He also stated that each APH event increases the risk of more severe current or future fetal compromise. Dr Sangalli advised:

> "A scan to diagnose or exclude a subchorionic haemorrhage, placenta praevia, or/and chronic fetal compromise (IUGR, oligohydramnios, abnormal umbilical artery Doppler) was not assessed at ADHB. While [Mrs A] was clinically stable and the CTGs reactive (normal), a scan was clearly indicated before discharge from the ADHB to plan the intensity of fetal monitoring for the rest of the pregnancy.
>
> After carefully questioning a number of my colleague specialists and registrars, who have practised in different hospitals in NZ including ADHB, I feel very confident to state that an ultrasound assessment is routine practice for any woman admitted for a significant antepartum haemorrhage in the second or third trimester. This is routine practice in all but the most minor antepartum haemorrhage. [Mrs A's] APH was both significant and recurrent."

105. Dr Sangalli considers that a USS should have been completed while Mrs A was an inpatient at Auckland Hospital as, at that point, the cause of bleeding was unknown. He also pointed out that while a marginal placental bleed was a likely diagnosis at the time, the diagnosis of a (or only of a) marginal placental bleed cannot really be made without a scan. In addition,

he noted that there is a very low threshold for an indication to perform an ultrasound scan in modern obstetrics, and that usually scans are relatively easy to obtain during the week in a tertiary centre.

106. It is important to acknowledge that Dr Sangalli was not suggesting that a growth scan be conducted (which would require comparison with earlier scans and the passage of a sensible interval (at least two weeks)). He considered that a USS was required to assess fetal wellbeing, to exclude other causes or associated pathology.

107. Dr Sangalli noted that a USS scan in a tertiary centre is the diagnostic investigation of choice in the management of APH in the absence of an emergency, and it is the required investigation to establish an accurate diagnosis and management plan. He stated that it is not possible to make a safe plan of discharge after a significant APH without such a scan, and therefore, he considers that it was inappropriate to discharge Mrs A without a formal scan assessing fetal wellbeing during her admission at ADHB. This is a position that Dr Sangalli has maintained consistently. Dr Sangalli considered that the failure to undertake a USS at Auckland Hospital was a mild, "one-off" breach of the standard of the profession.[31]

108. Obstetrician and gynaecologist Dr Ian Page was asked to provide an opinion solely related to the issue as to whether a USS should have been performed. The advice was requested towards the end of HDC's initial preliminary assessment process (December 2015), and was given on a summary of facts, rather than the source documentation.

109. Dr Page advised that in this situation:

> "I would not have been planning any further scans until at least 2 weeks after the last one, and so would not have undertaken a scan during [Mrs A's] admission to ADHB."

110. Dr Page told HDC that his rationale for this decision is the same as that given by ADHB, and that usually fetal wellbeing in the acute situation is assessed by CTG, and not by scan. In addition, he noted that the place of Doppler studies in assessing fetal wellbeing after antepartum haemorrhage in the absence of a known growth problem is not established, and that he would not order Doppler studies unless there was significant growth restriction.

111. As well as the advice reports obtained by HDC, two external opinions about the care of Mrs A at Auckland Hospital were provided to HDC during this investigation. ADHB provided comment from Dr F, who stated: "I do not think that an ultrasound was an essential investigation during this admission. The normal ultrasound the week before is a major factor in determining my opinion."

112. The family provided HDC with an opinion they obtained from obstetrician and gynaecologist Dr E. Dr E considers that a scan for a biophysical profile of the fetus should have been

[31] Dr Sangalli had initially characterised the failure as "relatively minor, isolated and sporadic … [and he considered that] the disapproval of [his] peers for deciding not to perform a scan would be moderate" (advice dated 29 March 2015). Dr Sangalli later revised his opinion having regard to other information.

performed at Auckland Hospital on 30 Month5, regardless of how recently any other scanning had been performed.

113. In addition, as part of its responses, ADHB provided HDC with comments from five clinicians. These clinicians all considered that a further USS was not necessary in this situation, with the rationale including that most of the information a scan would have provided was already on the previous USS, and that the CTG and fetal movements were noted to be normal.

114. In assessing the conflicting opinions, I wish to acknowledge that Dr F, who supplied an opinion to ADHB on this matter, was providing public services for ADHB at the time the opinion was given, and Dr F knew Mrs A well.[32] In addition, Dr E had been a longstanding employee of ADHB with intimate knowledge of the women's service (but was providing an opinion in a private capacity). By HDC's guidelines,[33] they would not normally qualify as independent advisors on this matter. However, that does not mean that their evidence is irrelevant or of no weight, and their qualifications and expertise are noted.

115. Dr Sangalli has supplied HDC with multiple references to literature that assisted in his consideration of this matter, in support of his views. In addition, he has provided comprehensive, logically sound reasons for his opinion. I am satisfied that Dr Sangalli is appropriately qualified to give his opinion, noting his extensive experience in working in a tertiary centre independent from, but similar to, Auckland Hospital. With respect to Dr Page's advice, I am mindful that he did not have the full file at the time he gave his opinion, but also note his extensive experience.

116. ADHB told HDC that part of its reason for not performing a repeat USS was because there was "a documented cause for bleeding on previous scans" (a haematoma). However, I note that a USS found (after Mrs A's second APH in Month3) that the haematoma no longer persisted and, as such, the cause of bleeding at that time was unknown. I therefore do not accept that this is an appropriate justification for not performing the USS.

117. However, ADHB has provided a clear body of clinical opinion to the effect that essentially the relevant information was available to the clinical staff by reason of the USS undertaken one week earlier, namely, placental site, liquor volume, and fetal growth. In response to my provisional opinion, the family submitted that they feel strongly that an umbilical artery Doppler should have been completed as part of a USS, and I acknowledge that Doppler studies were not done in the scan undertaken the week prior (and therefore would constitute new information if performed on a USS at Auckland Hospital). Dr Sangalli considered that a Doppler of the umbilical artery as part of a USS is a useful investigation in high-risk pregnancies; however, Dr Page advised that the place of Doppler studies in assessing fetal wellbeing after antepartum haemorrhage in the absence of a known growth problem is not established. Dr Sangalli also noted that the risk of IUGR was very low at the

[32] ADHB noted that Dr F saw Mrs A following the loss that is the focus of this case, and looked after Mrs A during her subsequent pregnancy. Mr and Mrs A have also challenged whether Dr F's opinion should be accepted in the context of their relationship with Dr F.

[33] https://www.hdc.org.nz/media/3015/guidelines-for-independent-advisors-june-2016.pdf

time of the admission considering the normal findings on the previous scan. There is therefore a lack of consensus as to whether umbilical Doppler studies were indicated to provide necessary information in this case.

118. I also note that fetal wellbeing had been assessed by way of CTG and broader assessment (noting that the bleeding had also settled). A deliberate clinical decision was made based on these factors.

Conclusion

119. I have carefully considered all positions put forward by the above clinicians. In doing so, I have had regard (among other things) to the expertise of the various clinicians, including those employed at ADHB, the extent to which each clinician is independent from the circumstances of this matter, and the information available to them. It has also been important to assess the standard of care that applied at the time of Mrs A's admission.

120. It is clear that there is a lack of clinical consensus about whether a USS was warranted to assess the wellbeing of Mrs A's unborn baby in addition to the other clinical information known at the time (such as a normal CTG). I acknowledge that two clinicians — Dr Sangalli and Dr E — consider that a USS was warranted, whereas eight clinicians — six from ADHB (including the consultant in this case, Dr C), Dr F, and Dr Page — have opposing views. I am mindful also that the DHB guideline for APH did not mandate a USS in the situation where there had been a recent scan and the placental position had been identified. In any event, even if a USS was warranted, Dr Sangalli has identified the failure to scan as, at most, only a mild deviation from accepted standards.

121. Ultimately, I am unable to reconcile the differences in clinical opinion. Given the degree of uncertainty that I am left with regarding the appropriate standard applicable at the relevant time, and noting that if there had been a failure in this case, it was at most a mild deviation from the appropriate standard, I am unable to conclude that the failure to undertake a USS amounted to a breach of the Code.

122. However, I note and agree with ADHB's acceptance that a USS would have provided further reassurance to Mrs A.

Planning and discharge — breach

In-patient plan

123. After Mrs A was reviewed by Dr C at 9.15am on 1 Month6, the plan was made for Mrs A to stay as an inpatient at Auckland Hospital for a further 24 hours, and to undertake a repeat urinary PCR test (as the results of the PCR test from the previous day had been above the normal range). Despite this plan, Mrs A was discharged at 1.22pm that same day (only four hours after Dr C's review), and there is no record of why the plan was changed. The repeat PCR test was not undertaken.

124. Regarding the omission to repeat Mrs A's PCR test, Dr Sangalli stated that while it was correct to repeat the PCR, checking for protein in the urine is not crucial in the absence of hypertension (noting that Mrs A's BP had stabilised at that point in time). I am, however,

concerned that a key part of Dr C's plan was not completed, and there is no documentation or rationale for why. I also note that advice provided by ADHB from Dr F considered that Mrs A's elevated urinary PCR result on 30 Month5 required repeat assessment and review.

125. In addition, despite the documented plan for Mrs A to stay an inpatient at Auckland Hospital for a further 24 hours after Dr C's review at 9.15am, Mrs A was discharged after only a further four hours. Dr Sangalli provided HDC with a comment from "Placental abruption: Management UpToDate (2014)", which states that while there is a lack of compelling data to guide the length of a hospital stay in these pregnancies (pregnancies with APH), "a reasonable approach is to monitor the patient in the hospital until the bleeding has subsided for at least 48 hours … At that point, discharge may be considered."

126. In the context of this advice, along with a comment from Dr E that usually women are advised to stay as an inpatient for at least 24 hours after bleeding subsides, and Dr C's plan for the same, including a repeat PCR that was not completed prior to discharge, I am concerned that Mrs A was apparently discharged without a clear documented rationale as to why the initial plan had been departed from and the recommended tests not undertaken.

Follow-up arrangements

127. Mrs A was discharged from Auckland Hospital on 1 Month6, at approximately 1.22pm. The electronic discharge summary stated the discharge plan and advice as:

> "Discharge plans: 1. [Mrs A] has growth scan organised for 2–3 weeks time; 2. Follow up with obstetrician [at DHB2] ([Mrs A] will organise); 3. To seek medical attention if ongoing bleeding — or pain."

128. Dr Sangalli advised that a usual discharge plan would consist of seeing the LMC midwife within a week and having a specialist review and growth scan two to three weeks after the admission scan. He said that fetal growth is assessed by comparing measured fetal size parameters (head, abdomen, and femur) at a sensible interval of time, which is usually no less than 14 days. He noted that in Mrs A's case, because she had not received an "APH scan" during her inpatient admission, her next scan should have been two to three weeks after her last scan on 23 Month5 (i.e., roughly between 7 and 14 Month6).

129. However, Mrs A was discharged with her next appointment with her LMC booked for 10 days after discharge, and her next scan booked for 21 Month6 — four weeks after her last scan on 23 Month5. In addition, as discussed further below, there is no evidence that a referral was sent from ADHB to DHB2 to arrange the planned specialist review with an obstetrician there.

130. I acknowledge that RM B arranged for the scan to be brought forward to 14 Month6 for closer observation, and that, in any case, Mrs A went into labour before that scan took place. Although I have not been critical of ADHB for not undertaking a scan during the inpatient admission for APH, I am concerned that Mrs A was discharged without arranging or assisting to arrange follow-up within the appropriate timeframes. This was then subsequently

compounded by poor communication with Mrs A and her other providers (discussed further below).

Advice provided to Mrs A on discharge

131. Mrs A said that she did not receive any discharge papers. Her text message conversation with RM B on 1 Month6 confirms that she was aware of the plan for a scan within 2–3 weeks of discharge and further specialist review. However, there is no evidence that Mrs A was told when and where the scan and review were to take place.

132. There is nothing documented on the discharge summary about any advice given to Mrs A about the importance of monitoring fetal movements, how to monitor fetal movements, and what to do if she had concerns about fetal movements after discharge. Mrs A told HDC that on discharge she was not advised of the importance of monitoring changes in fetal movements. ADHB acknowledged that this advice should have been given, and documented, upon discharge.

133. Dr Sangalli advised that, ideally, Mrs A should have received the following information regarding fetal movement monitoring, with a pamphlet:[34]

> "Women should be advised to be aware of their baby's individual pattern of movements. If they are concerned about a reduction in or cessation of fetal movements after 28+0 weeks of gestation, they should contact their maternity unit.
>
> Women who are concerned about reduced fetal movements should not wait until the next day for assessment of fetal wellbeing.
>
> If women are unsure whether movements are reduced after 28+0 weeks of gestation, they should be advised to lie on their left side and focus on fetal movements for 2 hours. If they do not feel 10 or more discrete movements in 2 hours, they should contact their midwife or maternity unit immediately."

134. Dr Sangalli advised that if Mrs A was not informed of the risk of intrauterine growth restriction (IUGR) or the significance of reduced fetal movements, this would be poor practice and "a moderate departure from accepted practice". I accept this advice.

135. While Dr C's documented review stated that the risk of IUGR was discussed with Mrs A, and I accept that this occurred, Mrs A was not provided with any written information of the same upon discharge. ADHB also acknowledged that it appears that this discussion was not effective or not recalled by Mrs A. In addition, Mrs A was not provided with advice (either verbal or written) on the importance of monitoring fetal movements. ADHB acknowledged that advice should have been given to Mrs A (and documented) about the importance of monitoring fetal movements, how to monitor fetal movements, and what to do if she had concerns after discharge.

[34] Adapted from "Reduced Fetal Movements", RCOG, Green-top Guideline No. 57, February 2011.

136. The provision of information and advice to a consumer before they are discharged from hospital (often referred to as "safety-netting advice") is a vital aspect of healthcare provision, which empowers the patient and gives them the information they need to participate in their own care. I am critical that this was not done in Mrs A's case, particularly noting that this was her third recent APH, with an associated elevation of risk.

Communication with other providers

137. In addition to failing to provide Mrs A with any discharge papers, ADHB did not inform Mrs A's LMC, RM B, of Mrs A's discharge. On the electronic discharge summary, it is stated: "LMC informed of Discharge: Not required."

138. ADHB acknowledged that "there was clearly an error in communication regarding the need to inform the LMC of discharge", and that while this was standard practice at the time, the individual staff member involved was not aware of the process. In addition, ADHB acknowledged that it is not clear where the follow-up scan referred to in the discharge summary was to take place.

139. As well as the lack of communication with RM B, there is no evidence that a referral was sent from ADHB to DHB2 to arrange the planned follow-up with the obstetrician there (as per Dr C's plan to "follow up on discharge with obs[tetrics] team at [DHB2]", and as per the discharge summary). ADHB acknowledged that in this case, it failed to ensure clear communication between Mrs A and her LMC, and between ADHB and DHB2.

140. Dr Sangalli advised that the usual standard of care would be for the followings steps to occur:

1. Hospital staff (either the registrar, senior house officer, or/and hospital midwife) will contact the LMC midwife, to inform them of the situation and the plan of care;
2. The referring specialist or the registrar on call at the referring hospital (DHB2 in this case) is also expected to be informed of the decision to discharge the patient and of the plan of care;
3. A discharge letter is usually sent to the referring specialist with a copy to the LMC midwife.

141. None of the above actions occurred in Mrs A's case. Dr Sangalli stated that "these basic omissions … result in less than ideal care which does not meet the expected standards of the profession".

142. I accept this advice, and note the importance of communication with other healthcare providers to enable continuity of care — particularly with a consumer's lead carer (in this case, RM B), and appropriate referral for specialist follow-up. The failure of ADHB to communicate with RM B and DHB2 risked hindering Mrs A's future management.

Conclusion

143. As I have outlined above, there were failures in the care provided to Mrs A during her admission to Auckland Hospital that fell below the accepted standard of care. In particular, Mrs A was discharged from ADHB:

- Without a clear documented rationale as to why the initial plan to remain in hospital for 24 hours after Dr C's review, and to undertake a repeat urinary PCR test, had been departed from;
- Without having arranged or assisting to arrange follow-up within appropriate timeframes;
- Without having given Mrs A necessary advice (either written or verbal) upon discharge in relation to monitoring fetal movement; and
- Without having communicated Mrs A's discharge information both to the referring hospital and to her LMC.

144. I have carefully considered the extent to which the deficiencies in Mrs A's care occurred as a result of individual staff action or inaction, as opposed to systemic and organisational issues. The problems that arose with Mrs A's care were not the result of isolated incidents involving one or two staff members — they began at the time Mrs A was transferred to Auckland Hospital, and involved multiple different staff members across her discharge. I consider that collectively the issues identified above amount to a service delivery failure for which, ultimately, ADHB was responsible. I am also satisfied that, collectively, the failures amount to a breach of Mrs A's right to have had services provided with reasonable care and skill, and, accordingly, I find that ADHB breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[35]

Opinion: RM B

Introduction

145. RM B provided antenatal care to Mrs A from 16 Month1 (when Mrs A was 10 weeks' gestation) onwards. RM B referred Mrs A to a specialist obstetrician at DHB2 in light of Mrs A's history and high-risk pregnancy. During this investigation, independent advice was obtained about the care provided by RM B to Mrs A prior to Mrs A's hospitalisation on 30 Month5. The advisor considered that overall, the care provided and the decisions made were of an acceptable standard. I accept this advice. Accordingly, my opinion will focus mainly on the care provided by RM B after Mrs A's discharge from Auckland Hospital, and the quality of her documentation.

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

146. Initially, independent advice relating to the care provided by RM B was sought from RM Lorna Davies. However, upon re-opening this file, RM Davies was no longer able to provide further advice, and, as such, advice was obtained from RM Fiona Hermann. I have drawn upon the advice from both advisors in my consideration of the care RM B provided to Mrs A.

147. I note that, in his report, Dr E was critical of RM B's care. I also note that Dr E, as an obstetrician and gynaecologist, is not a peer of RM B, and, accordingly, while having regard to his evidence, I have not considered his opinion determinative of the standard of care applicable to RM B.

Information provided about fetal movements during pregnancy — adverse comment

148. RM B told HDC that when she discusses fetal movements with women, it is part of her standard and invariable practice to inform them, in line with the requirements of NZCOM's consensus statement on fetal movements at the time (2012) (the NZCOM FM Consensus Statement) that "if baby's movements are reduced, change significantly or are absent there is a need to contact their midwife".

149. Mrs A told HDC that RM B told her during antenatal appointments that 10 movements in 24 hours was normal. Mrs A stated that she was close to calling RM B on 5/6 Month6 when she became concerned about movements, but did not because the baby's movements had reached 10 in 24 hours.

150. RM B acknowledged that she may have indicated to Mr and Mrs A that "one could expect at least 10 [fetal movements] a day …". However, she said that this advice was "in conjunction with the advice to call [her] as an 'Emergency' should the woman subjectively consider the fetal movements are reduced, change significantly or absent".

151. My independent midwifery advisor, RM Lorna Davies, advised that the level of movements that reliably distinguishes a healthy fetus from a fetus at risk has not yet been fully determined. She noted that this is because there is a wide biological variation in normal fetal movement, and a wide variation in maternal perception of fetal activity. RM Davies noted that the Australian and New Zealand Stillbirth Alliance (2012) has produced some good information for women, and suggests that as a rule of thumb, women should be able to feel ten movements in two hours. However, she noted that currently this is not supported by any research evidence.

152. In addition, RM Davies stated:

> "The focus on fetal movement as the primary indicator of fetal wellbeing is a relatively new phenomenon. Until recently the fetal heart rate was judged to be a more significant indicator. In the last few years, audit on the part of the PMMRC [Perinatal and Maternal Mortality Review Committee] and corresponding research has changed practice in this area. It would be fair to say that two years ago,[36] health providers were still grappling

[36] In 2013 — advice obtained in 2015.

> with these changes around practice and clinical guidelines and it is possible that this transitional information had not at that moment in time been introduced into the practice of the midwife."

153. RM Davies stated that therefore, overall, the information offered by RM B would not be considered to have been out of keeping with the information presented to women at that time.

154. I note that the Royal College of Obstetricians and Gynaecologists also provided applicable guidance on "Reduced Fetal Movement (2011)"[37] at the time of these events. While this document acknowledges that there is insufficient evidence to recommend formal fetal movement counting using specified alarm limits, it provides similar guidance as the Australian and New Zealand Stillbirth Alliance (2012), and stipulates:

> "If women are unsure whether movements are reduced after 28+0 weeks of gestation, they should be advised to lie on their left side and focus on fetal movements for 2 hours. If they do not feel 10 or more discrete movements in 2 hours, they should contact their midwife or maternity unit immediately."

155. I acknowledge, however, that this guidance is directed at obstetricians and gynaecologists, and that even recent guidance from the New Zealand College of Midwives[38] notes that "there is no evidence on a clear, agreed definition of normal fetal movements and no objective definition of reduced fetal movements".

156. I have carefully taken into consideration RM Davies' advice, the above professional guidance, and the context in which RM B gave the advice to the family that "one could expect at least 10 [fetal movements] a day". In my view, the information provided by RM B in this regard was incorrect based on what little information and guidance was available at the time, considering the significant difference between 10 movements a day and 10 movements every two hours. It is clear that this erroneous piece of advice stuck with Mrs A for her pregnancy, and influenced her decision regarding whether to contact RM B (in particular on 5/6 Month6).

Care provided immediately after discharge — no breach

157. Mrs A was discharged from Auckland Hospital on 1 Month6, after an overnight in-patient stay as a result of a third APH. Upon discharge, ADHB did not contact RM B, or provide her with the discharge documentation. On 1 Month6, Mrs A informed RM B via text message that she had been discharged from hospital, and ADHB told her that a scan was needed to check growth in two to three weeks' time. RM B responded that she would see Mrs A "as planned" on 10 Month6, but that she should call if there was any fresh bleeding.

[37] https://www.rcog.org.uk/media/2gxndsd3/gtg_57.pdf.
[38] https://www.midwife.org.nz/wp-content/uploads/2021/05/Assessment-and-promotion-of-fetal-wellbeing-during-pregnancy.pdf.

158. My independent midwifery advisor, RM Fiona Hermann, stated:

> "As [Mrs A] and her baby had been monitored at Auckland and discharged home on 1 [Month6], with a plan for a scan in 2–3 weeks … I believe it is reasonable to wait until [10 Month6] … [Mrs A] had had pre-eclampsia in her first pregnancy so regular checking of the blood pressure (BP) was needed, but every two weeks is sufficient. [RM B] could assume that [Mrs A] had a full assessment — i.e. maternal and fetal observations including BP and a CTG prior to discharge — so that an appointment 10 days after discharge is appropriate."

159. In addition, RM Hermann considered it reasonable that RM B did not see a need to follow up with Auckland Hospital about the discharge summary, and stated that it was Auckland Hospital's responsibility to communicate with the LMC, and not the LMC's role to chase this up — particularly when the discharge seemed quite routine. I accept the advice provided by the advisor, and consider that the care provided to Mrs A immediately after discharge from hospital (specifically, RM B's decision to review Mrs A as planned on 10 Month6, as opposed to facilitating any additional appointments, and the fact that she did not follow up with Auckland Hospital about the discharge summary) was acceptable in the circumstances.

160. In response to the provisional opinion, Mrs A stated that she was concerned about RM B's lack of communication after her discharge from Auckland Hospital. She stated:

> "There was no conversation about what had happened whilst I was a patient (the fact that there was no USS), concerns I had, discharge instructions, or any information provided about what I should look out for until my next appointment."

161. While I acknowledge this concern, I note that RM B spoke with both Mrs A and the hospital midwife on 30 Month5, and that she was reassured by the hospital midwife that a USS would be done. Mrs A sent a text message to RM B on 1 Month6 outlining that she had been discharged and the bleeding had stopped, and noted the advice from the hospital. RM B's response included advice to call if there was any fresh bleeding. I also note that my independent midwifery advisors did not raise any concerns about RM B's communication with Mrs A after her discharge from hospital. Nonetheless, I bring Mrs A's concerns about communication to RM B's attention, for her reflection.

10 Month6 antenatal appointment — other comment

162. On 10 Month6, both Mr and Mrs A attended an antenatal appointment with RM B. This was the first appointment with RM B since Mrs A's discharge from Auckland Hospital on 1 Month6. In relation to this consultation there are key facts in dispute about whether Mrs A told RM B that she was concerned about reduced fetal movements, and whether RM B told Mrs A that she could present to hospital for further monitoring if she was concerned.

163. Mrs A told HDC that she told RM B at this appointment that she had been concerned about reduced fetal movements, and that the baby's movements had changed "significantly" since

just after she had been discharged from hospital.[39] Mr and Mrs A also stated that Mr A told RM B that Mrs A had been very worried over the last week. Mr and Mrs A told HDC that they never used the word "unsure" in relation to reduced fetal movement, and Mrs A was certain that movement was reduced, and significantly so. She said that she told RM B that she was "unsure" whether to call her over the weekend because she had felt 10 movements in the 24-hour period.[40]

164. Mr and Mrs A stated that at no time did RM B say that they could go to hospital for further monitoring, and she did not mention the option of a CTG. They said that had she done so, they would have gone to hospital straight away, as it was a two-minute walk from RM B's office.

165. In contrast, RM B told HDC that Mrs A stated that she was "unsure" about fetal movements at this appointment, and never said that she was "concerned" about fetal movements. RM B stated that had Mrs A said this, she would have noted this in the contemporaneous records. RM B said that she had a long discussion with Mrs A about the monitoring and patterns of movements, and the need to contact her if she had any concerns. RM B told HDC that she advised Mrs A that if she was concerned at any time, "they could monitor baby more at hospital".[41]

166. The contemporaneous documentation of this appointment by RM B is brief. It documents that there was a "[l]ong discussion re: contact/monitor FMF [fetal movement felt]", but provides no detail on any information Mrs A relayed about fetal movements, or about what RM B told Mr and Mrs A about movement and options for further monitoring at hospital.

167. On 16 Month6, six days after the appointment and two days after the stillbirth of Mr and Mrs A's baby, RM B added further notes in the clinical record about the 10 Month6 appointment. These state that Mrs A had been "unsure" about movements since the presentation change from breech, and that a discussion was had about "pattern movements, reasons to contact LMC, signs GPH and preterm labour, also contact if [spontaneous rupture of membranes] in current presentation". The record also notes the importance of monitoring so Mrs A "can attend [DHB2] for CTG".

168. However, Mrs A told HDC that the information in this note was incorrect. She stated that she had felt strong, consistent movement after the baby's change in presentation at Auckland Hospital, and that she had been concerned about reduced fetal movements after she was discharged. In addition, Mrs A told HDC that the date on which RM B documented the retrospective notes is the same day on which she and her husband voiced their concerns to RM B about the care they had been provided, and that these notes were not recorded in Mrs A's maternity book.

[39] This is Mrs A's recollection of what was said, stated one month after the consultation in her initial complaint.
[40] This information was provided on 8 July 2014.
[41] First statement of RM B 2 April 2014.

169. Whilst treating these notes with caution, they are not without some weight given that they were made only six days after the consultation. I am also mindful that when assessing any evidence to determine what was said and understood, it is necessary to have regard to the passage of time, and how recollections may have been coloured by the subsequent events of this case. Turning then to my evaluation of the evidence.

170. There is no doubt that a "long" conversation took place during this consultation, and that fetal movement was discussed. I also acknowledge the sincerity and strength of belief with which recollections are held by Mr and Mrs A. RM B is also clear in her statements.

171. In response to my provisional opinion, the family submitted that hospital records on 14 Month6 (which document Mrs A's recollection of reduced fetal movements over the past few days and past week) support her version of events that she was feeling reduced fetal movements at the time of the 10 Month6 appointment. I acknowledge this submission and, as I have noted above, I do not doubt that a discussion about fetal movements took place here, and that Mrs A had felt reduced movements over this time period. However, the key issue is how this information was expressed and understood.

172. On the one hand, it seems unlikely, in the context of being uncertain whether to contact RM B because of concerns regarding fetal movements and her general concerns about the pregnancy (in the context of three APHs), that Mrs A would not have expressed those concerns (which she regarded as "significant") to RM B. Mrs A's version of what was expressed is supported by Mr A. They are both adamant that further monitoring was not offered.

173. On the other hand, RM B, an experienced midwife, is also certain that Mrs A expressed uncertainty about fetal movements (she was "unsure"), and that in her practice the presence of fetal movements is of such fundamental importance that she would never say that a reduction or lack of movements was normal. RM B is also clear that she offered further monitoring if there was concern (but accepts that she did not specifically use the term "CTG"). Her understanding is in part corroborated by her contemporaneous note "monitor FMF" and her retrospective notes of 16 Month6. Her subsequent actions during the consultation reflect a degree of reassurance from the physical examination she conducted (in particular, that there was a normal FHR, and in her view the baby was "active+" on assessment).

174. RM Davies advised that in the event that RM B's version of events was accepted, the standard of care was commensurate with professional expectations. She further advised that in the event that the family's version of events was accepted, there would have been a moderate departure from what would be considered to be reasonable practice. She stated that reduced fetal movement may signify fetal compromise, and that CTG monitoring would be advised in such a case.

175. The standard of proof to be applied is the balance of probabilities. That is, to make a factual finding I must be satisfied that the matter to be determined more likely than not occurred.

After careful consideration of the evidence, I am unable to make a finding as to the exact content of the conversation that occurred on 10 Month6 — specifically, in relation to what was discussed about fetal movements and further monitoring, and what was actually understood. That is, I am unable to reach a conclusion as to which version of events is more probable than not.

176. While I am unable to make a finding in this regard, I would be very concerned if RM B was told that Mrs A had been concerned about reduced fetal movements and did not advise her to present to hospital for a CTG. I also expect that, in the context of this extensive inquiry, RM B has carefully considered the issues raised and adjusted her practice accordingly.

Documentation — adverse comment

177. RM B did not document any contemporaneous detailed progress/midwifery notes during Mrs A's pregnancy. Instead, she recorded the antenatal appointments on the "Antenatal Record" page of the MMPO notes under the heading "Comments — refer to notes for full details". The only time RM B recorded notes in the "Midwifery Notes" section was retrospectively, on 16 Month6.

178. I have no difficulty concluding that there is some inaccuracy in the retrospective note dated 2 Month6 regarding the telephone call RM B had with Mrs A. That record does not reflect the date of the call accurately, and, if attributed to 30 Month5 as subsequently suggested by RM B, does not reflect what was in fact occurring at that amended time or date.

179. RM Davies advised that midwifery case notes are very important in relation to any case, and, in an ideal situation, the notes will be as contemporaneous as possible. She stated:

> "The clinical summary sheet in the MMPO notes page is designed for data collection and does not allow for comprehensive documentation. It tells the reader virtually nothing about what was happening to the client in relation to her multi-professional care. The notes demonstrate scant, if any evidence of information sharing and informed decision making because it does not include a record of any discussions that may have occurred between the midwife and her client regarding aspects of care. Overall the documentation is of a standard which does not meet the recommendations of the New Zealand College of Midwives Standards of Practice (NZCOM, 2008)."

180. RM Hermann also commented that the documentation in Mrs A's antenatal notes — especially in relation to the visit on 10 Month6 — is "brief". She noted that there is a retrospective note following the events of this case, and said that ideally these notes would have been written at the time of the visit, or the same day. However, initially she stated:

> "I believe that in any case where the outcome has been the death of a baby, or a poor or complicated outcome for a woman or baby, there is always the thought that documentation *could* have been more extensive. Hindsight means that as humans we examine our documentation again and again in these sad situations.

> My assessment is that [RM B] documented appropriately at the time, throughout the notes. She provided a great deal of information to [Mrs A] at the start of her care; her notes were clear and easy to read. A clinical narrative that was more than the observations and short notes written would now (in 2021) be the standard for note keeping; however I believe that [RM B's] documentation would be considered acceptable by my peers for 2013."

181. RM Hermann commented further that the standard was "just reasonable".

182. Upon later reviewing RM Davies' advice in this regard, RM Hermann reflected on and revised her advice on the standard of RM B's documentation, as follows:

> "I had stated that [RM B's] documentation was just adequate. On considering Ms Davies' report I agree with her assessment that the notes did not meet the standard expected."

183. I acknowledge this revision of opinion, but I treat it with caution, as the key facts in which the advice was provided had not changed.

184. I have carefully considered whether the quality of RM B's documentation in this case met accepted standards at the time of the events. I note that at the time there were three relevant guidelines on documentation. First, the Midwifery Council of New Zealand's "Competencies for entry to the register of Midwives" (2007) stated that the midwife "shares decision making with the woman/wahine and documents those decisions" and "provides accurate and timely written progress notes and relevant documented evidence of all decisions made and the midwifery care offered and provided".

185. Secondly, the Standards of Midwifery Practice set out in the Midwives Handbook for Practice 2008 include, relevantly:

> "Standard Three: The midwife collates and documents comprehensive assessments of the woman and/or baby's health and wellbeing.
>
> Standard Four: The midwife maintains purposeful, ongoing, updated records and makes them available to the woman and other relevant persons."

186. In addition, the New Zealand College of Midwives' Consensus Statement, "Informed Consent and Decision Making" dated September 2000, states, relevantly:

> "Documentation should include a brief outline of the information given and when this occurred. All decisions should be clearly documented. Written consent must be obtained where either party requests it."

187. I do not consider that the documentation in this case meets the above standards. The information documented is scant, and there is little documented evidence of decisions made

and the midwifery care offered and provided. I also do not accept that it was sufficient to document notes only in the "antenatal summary", even in 2013.

188. Not only is adequate documentation important in facilitating coordination between providers, it is vital in facilitating subsequent investigations and assessments of the care provided. The failure of RM B to document the events of this case in full and as they occurred has meant that primarily I have had to refer to her retrospective note, made after Mr and Mrs A's baby had died and when RM B was on notice that they had concerns about the care she provided. Retrospective documentation undoubtedly risks inaccuracy as recollections of events can be affected by the passage of time. The lack of contemporaneous documentation has hindered the ability to resolve Mr and Mrs A's complaint fairly and efficiently, as evidenced by the telephone call note referred to in paragraph 178 above.

189. By failing to record fulsome and timely written progress notes, RM B did not meet professional standards. Noting that, overall, RM B's care was considered to be acceptable, I have elected not to find a breach solely on this issue, and I note further that RM B has since undertaken further training on documentation.

Changes made

ADHB

190. ADHB took the following steps following Mrs A's case:

- Patient information leaflets were prepared regarding fetal movements, to give to antenatal patients on discharge from the ward.
- Arrangements were made for Healthlink accounts for all DHB2 LMCs so that they could receive ADHB discharge summaries electronically. New LMC details going forward are now notified by Te Whatu Ora/DHB2 to Te Whatu Ora Te Toka Tumai Auckland for the same purpose. In addition, discharge summaries are printed and given to the patient to take to her LMC.
- LMCs are telephoned by ward staff on the day of a patient's discharge to inform them that the patient is going home and of the follow-up arrangements.
- A discharge checklist was developed for antenatal admissions for use by ward staff. This includes a prompt to inform the LMC if there is a requirement for LMC follow-up. The checklist now appears on the Healthware Antenatal Admission screen. This is in the form of mandatory fields to be completed.
- Any discharge summaries that have not been sent out electronically are included in a weekly email reminder system to the obstetrics team.

RM B

191. RM B told HDC that after these events, she made the following changes:

- If she does not receive discharge papers from Auckland Hospital, she calls and asks for them to be sent to her.
- She reviewed the pamphlets provided by her midwifery group practice that discuss fetal movements, to eliminate any confusion.
- She asks clients to call and leave a message on her landline number if they are finding it difficult to obtain a USS appointment.

192. In addition, RM B told HDC that she attended the New Zealand College of Midwives workshop "Dotting the I's and crossing the T's: Midwives and Record Keeping", and now understands that her documentation needed to contain more details and not use general phrases without further elaborating on specifically what was discussed.

Recommendations

193. I acknowledge the time that has passed since the events of this case, as well as the changes made by ADHB. I recommend that in addition, Te Whatu Ora Te Toka Tumai Auckland:

a) Review its guideline on APH in light of this case, to consider whether further clarity could be provided on the investigations to be undertaken when a woman presents with APH.

b) Provide the family with a written apology for the breach of the Code identified in this report. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding.

194. I recommend that RM B provide HDC with evidence of any workshops or training sessions she has since attended on monitoring fetal movements and fetal wellbeing in pregnancy. This information, along with a detailed explanation (and evidence) of the information RM B now provides to patients on fetal movements, is to be provided to HDC within three months of the date of this report.

195. I acknowledge that there has been significant work undertaken in recent years regarding guidance on fetal movements in pregnancy. In the context of this updated guidance and the circumstances of this case, I do not propose to make any further recommendations. However, as this case has demonstrated, fetal monitoring is of significant importance, and I expect adherence to the current guidelines in place.

Follow-up actions

196. A copy of this report with details identifying the parties removed, except the experts who advised on this case, Auckland City Hospital, and ADHB/Te Whatu Ora Te Toka Tumai Auckland, will be sent to the Midwifery Council of New Zealand, and it will be advised of RM B's name.

197. A copy of this report with details identifying the parties removed, except the experts who advised on this case, Auckland City Hospital, and ADHB/Te Whatu Ora Te Toka Tumai Auckland, will be sent to the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), and the New Zealand College of Midwives, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

198. In light of the Ombudsman's previous involvement in this matter, and his request to be kept updated as to HDC's actions in response to his recommendations, a copy of this report will be sent to the Office of the Ombudsman.

Appendix A: Independent clinical advice to Commissioner

The following expert advice was obtained from obstetrician and gynaecologist Dr Michel Sangalli:

"23 March 2015

…

Complaint: [Mrs A], [DHB2] and Auckland District Health Board

Reference: Cl3HDC01497

Thank you for your letter dated 3 February 2015, in which you ask me to provide advice regarding the obstetric care provided by [DHB2] and Auckland District Health Board (ADHB) to [Mrs A] during her pregnancy in 2013.

My name is Michel Robert Sangalli and I am a RANZCOG specialist in obstetrics and gynaecology (1999) and a RANZCO&G sub-specialist in maternal fetal medicine (2002). I work at Wellington Hospital (Capital and Coast District Health Board) in maternal fetal medicine and ultrasound and in private obstetric practice. I am a RANZCOG expert witness (2004) and an independent advisor for ACC and HDC. My qualifications include MD (Geneva), FRANZCOG CMFM, DDU.

My report is based on the following documents.

A. [Mr and Mrs A's] original complaint, dated [2013]
B. Further information provided by [Mr and Mrs A], dated 9 July 2014, 7 August 2014 and 2 February 2015
C. Initial response to complaint from [DHB2], dated 4 March 2014
D. Clinical records from [DHB2]
E. Further response to complaint from [DHB2], dated 24 September 2014 and 9 October 2014
F. Initial response to complaint from ADHB, dated 24 January 2014
G. Clinical records from ADHB
H. Further response to complaint from ADHB, dated 9 October 2014
I. Initial response to complaint from [RM B], dated 2 April 2014
J. Midwifery records from [RM B]
K. Further response to complaint from [RM B], dated 7 Jan 2015

There is no conflict of interest related to this case.

SUMMARY OF ADVICE

1. [Mrs A] received appropriate antenatal care from [DHB2].

2. During [Mrs A's] admission at ADHB, at 30 weeks gestation following transfer from [DHB2] because of an ongoing and significant third antepartum haemorrhage (APH) [Mrs A] received substandard antenatal care because she did not have a scan to assess fetal wellbeing. This is almost certainly due to an isolated error as scans are routinely performed during a hospital admission for a significant APH to plan future antenatal care if the baby remains undelivered.

It is likely, but not certain, that the scan would have shown a small baby/IUGR, possibly with an abnormal umbilical artery Doppler, with or without oligohydramnios. If the diagnosis of small baby/IUGR would have been made at the time, the pregnancy would most likely have been more intensively monitored and this would probably have changed the outcome as babies with diagnosed IUGR rarely die in utero with adequate fetal surveillance.

SUMMARY OF EVENTS

[Mrs A] was a healthy [woman in her thirties] in her second pregnancy at the time of the events in 2013. [Mrs A] was a non-smoker. Early in her second pregnancy her weight was recorded as 80.6 kilos for a height of 167 cm giving a BMI of 28.9. [Mrs A] was known to have mild pulmonary stenosis without any symptoms of cardiac impairment.

[Mrs A] had a caesarean section [date] [overseas] at 37 weeks of gestation for pre-eclampsia. Her baby had a birth weight of 2750g, which is around the 20th centile for birth weight. The notes mention that she was given magnesium sulphate and that her symptoms included a severe headache with nausea and vomiting and that her blood tests were abnormal.

In her second pregnancy she presented early for antenatal care and her LMC was a midwife. [Mrs A] was seen by an obstetric physician and an obstetrician. She had a normal cardiac scan (maternal) early in pregnancy and was given Aspirin, 100 mg a day, for prophylaxis against pre-eclampsia. Her maternal serum screening result for Down syndrome was low risk and the hCG and PAPP-A markers were within the normal range (which, if severely abnormal, are associated with placental dysfunction).

On 25 [Month2], [Mrs A] had her first episode of bleeding at 16+1 weeks. A scan performed at 17 weeks and 3 days (4 [Month3], [DHB2]) showed a single live intrauterine fetus with measurements corresponding to dates and there was a subchorionic haematoma measuring 47 x 15 x 39 mm on the posterior wall of the uterus.

[Mrs A] had a second episode of bleeding at 18+2 weeks gestation on 10 [Month3]. On 11 [Month3], a scan was performed by [the radiology service] at 18+3 weeks. The scan showed a single intrauterine fetus with no anomalies and no visible persisting posterior haematoma.

An anatomy scan performed by [the radiology service] on 22 [Month3] at 20 weeks gestation revealed normal fetal size and anatomy but the exam was incomplete due to an unfavourable fetal position. No mention is made of a haematoma. A scan performed at 21 weeks gestation on 29 [Month3] to complete the fetal anatomy check did not show any abnormality and no haematoma was noted.

A further scan performed at 25 weeks on 26 [Month4] by [the radiology service] showed a fetus with an estimated fetal weight of 823g (around 64th percentile) with normal interval growth and liquor volume. No umbilical artery Doppler value was reported.

A scan performed at 29 weeks gestation on 23 [Month5] by [the radiology service] revealed a normally grown fetus with an estimated weight of 1502g (around 75th percentile) with normal liquor volume. No umbilical artery Doppler measurement was reported.

On 29 [Month5], at 30 weeks gestation [Mrs A] had a further antepartum haemorrhage and was admitted to [DHB2]. She was assessed there and, in view of persistent bleeding, she was given steroids and was transferred to Auckland Hospital (ADHB) on 30 [Month5]. She was observed there for two days and her bleeding settled. The CTGs were reactive. No formal scan was performed. She was discharged home on 1 [Month6].

On 14 [Month6], at 32 weeks gestation [Mrs A] presented to [DHB2] in early labour and a diagnosis of fetal death in utero was made. Labour was induced and [Mrs A] gave birth to [Baby A], an anatomically normal baby girl. [Baby A] had a birth weight of 1280g (around 5th percentile, intra-uterine growth restriction (IUGIRD). Clinically, there was no evidence of acute abruption (fresh blood or clot) or any other evidence of an acute event (e.g. cord knot). The placenta had a weight of 330g and showed signs of extensive infarction with no evidence of a recent haemorrhage.

ADVICE

You have requested general comments on the obstetric care provided to [Mrs A] in relation to the monitoring and assessment of fetal wellbeing, and my advice on the following matters:

1. Whether [Dr G] or [DHB2] should have requested Doppler studies be carried out prior to 29 weeks' gestation.

2. According to [RM B's] (lead maternity carer (LMC), midwife) version of events, she advised [Dr G] that Doppler studies had not been completed as requested on 23 [Month5] (at 29 weeks gestation). If this is correct, was it appropriate for [Dr G] to ask for Doppler studies to be carried out at the next scan in one month's time?

3. Whether a USS and Doppler studies should have been carried out during [Mrs A's] admission to Auckland City Hospital. Whether it was appropriate for ADHB to rely on the normal USS of 23 [Month5].

4. In the circumstances, was [Mrs A] given sufficient information by ADHB about the importance of monitoring her fetal movements?

Because of her previous history of pre-eclampsia requiring delivery at 37 weeks gestation, [Mrs A] was at increased risk of having pre-eclampsia in her subsequent pregnancy. Her first baby was of normal birth weight. The risk of recurrence of pre-eclampsia is usually quoted to be around 20%. According to the information available, the pre-eclampsia was severe because of the maternal symptoms and possibly also because of the abnormal blood tests. On the other hand, it was a case of late-onset pre-eclampsia (occurring in late gestation) without IUGR which has a relatively low risk of recurrence (20%). This history is much less likely to predispose [Mrs A] to have early-onset pre-eclampsia or/and IUGR than if she had a previous history of early-onset pre-eclampsia/IUGR. [Mrs A], therefore, was not a truly high risk patient (for early onset IUGR/pre-eclampsia) because she did not have early onset pre-eclampsia or/and severe IUGR in her last pregnancy.

[Mrs A] was appropriately seen by the obstetric physician because of her history of pulmonary stenosis and a significant cardiac problem was excluded based on a normal echocardiogram. She was given Aspirin because of her history of pre-eclampsia, which was appropriate.

[Mrs A] also had two episodes of bleeding in the second trimester, at around 16 and 18 weeks. A scan at 17 weeks showed a significant subchorionic haematoma which was no longer visible on subsequent scans. Women with recurrent bleeding are at increased risk of further bleeding during the third trimester which is associated with an increased risk of premature birth, mainly due to premature labour or/and premature rupture of the membranes and less commonly due to a severe abruption or IUGR leading to indicated premature delivery *(Risk* factors for preterm labor and *delivery* UpToDate®, enclosed). Most pregnant women with such a history will have a good pregnancy outcome, as the bleeding episodes often stop.

Because of these recurrent second trimester bleeds, the pregnancy was now at higher risk of complications than at the initial assessment. The plan to perform monthly growth scans was entirely appropriate given her past and current medical history.

A scan performed at 25 weeks on 26 [Month4] by [the radiology service], showed a fetus with an estimated fetal weight of 823g (around 64th percentile) with normal interval growth and liquor volume. No umbilical artery Doppler value was reported.

1. <u>Should [Dr G] or [DHB2] have requested Doppler studies to be carried out prior to 29 weeks' gestation?</u>

<u>1.a. Uterine artery Doppler: No</u>

Uterine artery Doppler measurements are easy to obtain but are neither essential nor routinely performed in NZ, particularly in smaller hospitals. Uterine artery Doppler studies are potentially useful for cases at high risk of early onset IUGR or/and pre-

eclampsia. It is generally felt that the result of the uterine artery Doppler measurement doesn't alter the management of the pregnancy. The positive predictive value of uterine artery Doppler measurements for poor outcomes is very limited in non-high risk pregnancies.

'Although meta-analyses show that uterine artery Doppler analysis can predict women at increased risk of preeclampsia, we and most experts do not recommend these studies for screening purposes. Close clinical monitoring for preeclampsia is already a major component of prenatal care; improved identification of women at increased or decreased risk of a disease that cannot be prevented and has no treatment other than delivery is unlikely to improve maternal or fetal outcome. Furthermore, the false positive rate of this test is quite high, leading to excessive patient anxiety and health care costs. Further research is needed before screening with uterine artery Doppler can be recommended (Adapted from Prediction of preeclampsia UpToDate®, enclosed).'

1.b Umbilical artery Doppler: No

In my opinion, obstetric ultrasound providers should perform umbilical artery Doppler measurements routinely with every growth scan performed after 20–24 weeks gestation, even in low risk pregnancies. It is quite unusual to have to specifically request umbilical artery Doppler measurements at the time of a growth scan request because I believe that it is routinely done by most obstetric ultrasound providers and is expected by most obstetricians.

In my opinion, the measurement of the umbilical artery Doppler is useful in low risk pregnancies because of the low false positive rate and because IUGR is not always easy to diagnose based on fetal size measurements (biometry) and amniotic fluid level alone. Umbilical artery Doppler is very useful to differentiate a 'happy' baby from a 'sick', usually small baby due to placental disease (with or without pre-eclampsia).

Strictly speaking however, large studies have not shown benefit in low risk pregnancies and umbilical artery Doppler measurements are only proven to be useful to monitor pregnancies complicated by IUGR and/or pre-eclampsia.

'Umbilical artery Doppler assessment is most useful in pregnancies complicated by fetal growth restriction and/or preeclampsia. Doppler velocimetry is recommended as a primary surveillance tool for monitoring these pregnancies. Doppler investigation identifies the fetal cardiovascular response to progressive hypoxia and acidosis and assists in discriminating small, but constitutionally normal, fetuses from those compromised by placental insufficiency'. …

'In contrast to high risk pregnancies, trials of umbilical artery (UA) Doppler as a screening test in low risk pregnancies did not show any improvement in pregnancy outcome. As an example, a multicenter French randomized trial in 4187 low risk pregnant mothers failed to observe any improvements in the outcome with routine UA

Doppler sonography between 28 and 34 weeks of gestation (Adapted from Doppler ultrasound of the umbilical artery for fetal surveillance UpToDate®, enclosed)'.

At 29 weeks gestation [Mrs A] had a growth scan at [the radiology service] which showed appropriate fetal growth and no IUGR or other anomaly. Umbilical artery Doppler was not performed.

I conclude that because both the scans at 25 and 29 weeks gestation did not show IUGR based on standard fetal measurements and the liquor volume was normal, umbilical artery Doppler velocity measurements were not strictly indicated because of the absence of IUGR/pre-eclampsia or any other recent major problems (e.g. recent APH).

2. According to [RM B's] version of events, she advised [Dr G] that Doppler studies had not been completed as requested on 23 [Month5] (at 29 weeks gestation). If this is correct, was it appropriate for [Dr G] to ask for Doppler studies to be carried out at the next scan in one month's time? **Yes**

Umbilical artery abnormalities are almost always found in the context of IUGR/pre-eclampsia due to placental insufficiency before 34 weeks. When the umbilical Doppler measurement is abnormal, the baby (in a singleton pregnancy) is almost always found to have small measurements for dates (around percentile 10 or below). The baby had grown well between scans and was found to be around 75th percentile on the scan at 29 weeks. [Mrs A] did not have pre-eclampsia, so the chance of the baby having a truly abnormal umbilical artery Doppler was very low.

It was, therefore, clinically appropriate and reasonable for [Dr G], the obstetrician at [DHB2] not to request an umbilical artery Doppler measurement immediately, at 29 weeks gestation, and to wait for the next scan because there was no evidence of recent bleeding, pre-eclampsia or any evidence of abnormal fetal size/growth on the most recent scan.

In hindsight of course, it is very likely that the fetal weight estimate (1502g) at 29 weeks gestation was greatly overestimated because [Baby A]'s birth weight was only 1280g at 32 weeks gestation (IUGR). IUGR babies fail to gain weight over time rather than suddenly 'shrink' before death in utero. At 29 weeks gestation, the umbilical artery Doppler may have been abnormal and this may have altered the clinical course of this pregnancy.

On 29 [Month5], at 30 weeks gestation [Mrs A] was admitted to [DHB2] with a third episode of APH. There was no evidence of acute fetal distress, based on the CTG, or labour and [Mrs A] was appropriately given steroids. She was appropriately transferred to the tertiary unit at ADHB, because of persistent fresh bleeding. She did not have a formal scan at [DHB2]. Formal obstetric scans are not usually available on the weekend in most NZ hospitals.

At ADHB, acute fetal distress was excluded on the basis of normal CTGs. The bleeding stopped and [Mrs A] did not have any contractions or pain. She was sent home on 1 [Month6].

3. Should a USS and Doppler studies have been carried out during [Mrs A's] admission to Auckland City Hospital? **Yes**

The finding at the post-mortem examination revealed that [Baby A] was anatomically normal and that her stillbirth was most likely due to placental disease which consisted of extensive placental infarction. The most likely reason for the stillbirth is progressive chronic abruption/infarction with placental insufficiency leading to IUGR and finally fetal death in utero (*Placental abruption: Clinical features and diagnosis UpToDate®, enclosed*). Based on the birth notes and the post-mortem examination there was no evidence of acute abruption (fresh blood or clot) or any other evidence of an acute event (e.g. cord knot). The placenta had a weight of 330g and showed signs of extensive infarction with no evidence of a recent haemorrhage.

When a pregnant woman who is not in labour presents with bleeding in the third trimester, the common differential diagnosis includes placenta praevia, placental abruption, and in most of the remaining cases, the exact aetiology of the antepartum bleeding cannot be determined. It is then frequently attributed to marginal separation of the placenta. Bleeding from a uterine rupture or a vasa praevia are both very rare and generally dramatic events *(Overview of the etiology and evaluation of vaginal bleeding in pregnant women UpToDate®, enclosed).*

Placenta praevia or a low lying placenta is usually diagnosed at the anatomy scan (around 20 weeks gestation) and is usually known to the team and the woman. Rarely a low lying placenta can be overlooked on previous scans.

Placental abruption ranges from mild to severe (life-threatening) and may be acute or chronic. An acute abruption can be associated with a normal CTG, little uterine activity but with IUGR or a worrisome subchorionic clot. A large subchorionic clot can be associated with future chronic fetal compromise or an increased risk of a further acute and more severe placental abruption. A woman with a history of recurrent second/third trimester APHs can have a baby with chronic compromise and each APH event increases the risk of acute or more severe current or future fetal compromise as well as the risk of premature labour or rupture of the membranes. Pathological CTG changes are a pre-terminal finding. The CTG can remain normal in the presence of significant, but non pre-terminal fetal compromise.

'Women with chronic abruption experience relatively light, chronic, intermittent bleeding and clinical manifestations of ischemic placental disease that develop over time, such as oligohydramnios, fetal growth restriction, and preeclampsia. They are also at risk of preterm premature rupture of membranes. Coagulation studies are usually normal. Ultrasound examination may identify a placental hematoma

(retromembranous, marginal, or central), and serial examination may reveal fetal growth restriction and/or oligohydramnios.'

'Histological examination of the placenta may show chronic lesions, such as chronic deciduitis (lymphocytes with or without plasma cells), maternal floor decidual necrosis, villitis, decidual vasculopathy (specifically, in the vessels of the extraplacental membrane roll), placental infarction, intervillous thrombosis, villous maldevelopment, and hemosiderin deposition (Adapted from Placental abruption: Clinical features and diagnosis UpToDate®, enclosed)'.

'Expectant management of abruption in pregnancies <34 weeks of gestation is reasonable when the mother is stable and when tests of fetal well-being are reassuring. Coagulopathy of any significant degree, in our opinion, constitutes patient instability and is an indication for delivery. Similarly, non-reassuring fetal heart rate evaluation (persistent fetal bradycardia, late decelerations, loss of variability or a sinusoidal fetal heart rate pattern), or nonreassuring biophysical scores are indications for delivery; these patients should not be managed conservatively, even if <34 weeks.

Corticosteroids to promote fetal lung maturation should be administered to pregnancies at 23 to 34 weeks of gestation, given the increased risk of need for preterm delivery' …

'We perform serial sonographic estimation of fetal weight to assess growth since over time these fetuses are at risk of developing growth restriction'.

'There are no compelling data to guide the length of a hospital stay in these pregnancies. A reasonable approach is to monitor the patient in the hospital until the bleeding has subsided for at least 48 hours, fetal heart rate tracings and ultrasound examinations are reassuring, and the patient is asymptomatic. At that point, discharge may be considered. Importantly, the patient should be counselled to return immediately should she experience further bleeding, contractions, reduced fetal movement, or abdominal pain. In patients with sonographic evidence of a large hematoma, we feel it is prudent to keep the patient in the hospital for a longer period of close monitoring.

For patients with abruption <34 weeks who have been managed conservatively without any further symptoms, it is reasonable to schedule delivery at 37 to 38 weeks because of the increased risk of stillbirth' …

'Delivery before 37 weeks is indicated if additional complications arise (eg, fetal growth restriction, preeclampsia, premature rupture of membranes, nonreassuring fetal assessment, recurrent abruption with maternal instability) (Adapted from Placental abruption: Management UpToDate®, enclosed)'.

A scan to diagnose or exclude a subchorionic haemorrhage, placenta praevia, or/and chronic fetal compromise (IUGR, oligohydramnios, abnormal umbilical artery Doppler) was not assessed at ADHB. While [Mrs A] was clinically stable and the CTGs reactive

(normal), a scan was clearly indicated before discharge from the ADHB to plan the intensity of fetal monitoring for the rest of the pregnancy.

After carefully questioning a number of my colleague specialists and registrars, who have practised in different hospitals in NZ including ADHB, I feel very confident to state that an ultrasound assessment is routine practice for any woman admitted for a significant antepartum haemorrhage in the second or third trimester. This is routine practice in all but the most minor antepartum haemorrhage. [Mrs A's] APH was both significant and recurrent.

The scan should have included a fetal biometry, a measurement of the liquor volume and of the umbilical artery Doppler indices. An assessment of the position of the placenta and its structure, of the presence and size of a potential haematoma and possibly of the length of the cervix was also indicated.

Because there is a very low threshold for an indication to perform an ultrasound scan in modern obstetrics and because scans are usually relatively easy to obtain during the week in a tertiary hospital, I strongly suspect that this was a simple error as a scan is routinely performed for any but the most minimal antepartum haemorrhage.

4. Whether it was appropriate for ADHB to rely on the normal USS of 23 [Month5]. **No**

While it is reasonable to rely on previous community scans to assess fetal growth before an acute event, a scan preceding a major event (APH) cannot establish the absence of fetal compromise after such an event.

[Mrs A's] third APH, which required transfer from a secondary hospital to the tertiary unit was a very significant clinical event. Babies born prematurely at 30 weeks gestation, in good condition usually have a very good prognosis.

As previously mentioned, a scan following an APH can occasionally diagnose a growth restricted fetus and/or oligohydramnios and/or a large haematoma which would change the management of the rest of the pregnancy.

Also, I strongly suspect that the scan performed at 29 weeks at [the radiology service] overestimated the fetal weight as small babies do not usually lose a lot of weight before death in utero but rather fail to gain weight over time.

If fetal growth restriction, with or without oligohydramnios or abnormal umbilical artery Doppler, was diagnosed at the time of the admission to ADHB, [Mrs A] would have been under more intensive fetal surveillance to assess fetal growth and wellbeing. She may have been managed as an inpatient or an outpatient at ADHB or [DHB2], depending on the findings. (*Doppler ultrasound of the umbilical artery for fetal surveillance UpToDate®, enclosed*).

It is likely that a scan performed during the admission at ADHB would have shown a small baby, possibly with an abnormal umbilical artery Doppler and/or

oligohydramnios. A significant haematoma was unlikely to be present as no evidence of a recent haematoma was found at the post-mortem examination. It is quite likely, but not certain, that this would have led to more intense fetal surveillance which could have led to the delivery by caesarean section of a live IUGR baby.

If a scan performed at the time of the admission at ADHB was within the normal range, which is, in my opinion, unlikely, [Mrs A] and her LMC midwife would usually have been informed that a follow-up scan should be organised two weeks after the hospital assessment to evaluate fetal growth, liquor volume and umbilical artery Doppler velocity.

5. In the circumstances, was [Mrs A] given sufficient information by ADHB about the importance of monitoring her fetal movements? **Yes**

I am unable to answer this question with certainty because I was not present at the time of the events. However, I think it is likely that [Mrs A] received routine, reasonable and standard appropriate instructions as hospital admissions for APHs are very common.

The usual advice at discharge from hospital to women with an admission for antepartum haemorrhage (APH) is to contact the LMC or delivery suite in case of further bleeding/pain/labour/rupture of the membranes or decreased fetal movements. The woman is usually advised to monitor fetal movements and to report any significant change or absence of movement to the LMC and/or to present to hospital. The specific advice about the nature of the change, other than the absence of movement, is not clearly established and may vary among clinicians.

I conclude that [Mrs A] received appropriate antenatal care from [DHB2]. During [Mrs A's] admission at ADHB, at 30 weeks gestation following transfer from [DHB2] because of an ongoing and significant third APH [Mrs A] received substandard antenatal care because she did not have a scan to assess fetal wellbeing. This is almost certainly due to an isolated error as scans are routinely performed during a hospital admission for a significant APH to plan future antenatal care if the baby remains undelivered.

It is likely, but not certain, that the scan would have shown a small baby/IUGR, possibly with an abnormal umbilical artery Doppler, with or without oligohydramnios. If the diagnosis of small baby/IUGR would have been made at the time, the pregnancy would most likely have been more intensively monitored and this would probably have changed the outcome as babies with diagnosed IUGR rarely die in utero with adequate fetal surveillance.

Please do not hesitate to contact me if you require further information.

Yours sincerely

Michel Sangalli

REFERENCES

1. Risk factors for preterm labor and delivery UpToDate® latest update December 2014.
2. Prediction of preeclampsia UpToDate® latest update October 2014.
3. Doppler ultrasound of the umbilical artery for fetal surveillance UpToDate® June 2014.
4. Overview of the etiology and evaluation of vaginal bleeding in pregnant women UpToDate® January 2014.
5. Placental abruption: Clinical features and diagnosis UpToDate® latest update September 2014.
6. Placental abruption: Management UpToDate® latest update June 2014."

"29 March 2015

…

Complaint: [Mrs A], [DHB2] and Auckland District Health Board

Reference: C13HDC01497

Thank you for your email dated 23 March 2015. You have asked me to advise, solely in relation to ADHB's failure to carry out a USS during [Mrs A's] admission with APH at 30 weeks, whether in my opinion:

- the failure was minor or major
- whether ADHB's conduct in this regard would incur the disapproval of other peers
- and, if so, whether the disapproval would be mild, moderate or severe?

The summary of my advice, dated 23 March 2015 regarding the antenatal care provided by ADHB was as below.

[Mrs A] was admited at ADHB, at 30 weeks gestation following transfer from [DHB2] because of an ongoing and significant third antepartum haemorrhage (APH). [Mrs A] received substandard antenatal care because she did not have a scan to assess fetal wellbeing. This was almost certainly due to an isolated error as scans are routinely performed during a hospital admission for a significant APH to plan future antenatal care if the baby remains undelivered.

It is likely, but not certain, that the scan would have shown a small baby/IUGR, possibly with an abnormal umbilical artery Doppler, with or without oligohydramnios. If the diagnosis of small baby/IUGR would have been made at the time, the pregnancy would most likely have been more intensively monitored and this would probably have changed the outcome as babies with diagnosed IUGR rarely die in utero with adequate fetal surveillance.

The review of ADHB's admission notes reveal that [Mrs A] was appropriately monitored and treated in relation to her APH with the exception that a scan was not performed at the time of her hospitalisation.

The notes show that [Mrs A] was seen by the team (consultant ward round) on the day of discharge and that the appropriate information about the risks during the remainder of the pregnancy appears to have been discussed with her, including the risk of IUGR. The notes from the clinical examination at the time of the ward round, state that the baby appeared normally grown (the uterine fundal height was equal to dates) and that the fetal growth had been appropriate so far.

Based on the facts that the uterine fundal height measurement appeared to be equal to dates and that a scan report by [the radiology service] stated that the fetal growth had been very appropriate, a week before admission (29 weeks gestation), the risk of significant IUGR at the time of admission and/or fetal death in utero (FDIU) by 32 weeks gestation due to chronic placental disease (IUGR) was low.

Most women with a similar clinical scenario would have a good pregnancy outcome although premature labour, premature rupture of the membranes or a placental abruption (APH) would put them at significant risk of premature delivery, rather than FDIU. Only a small minority of women develop chronic placental disease with IUGR. With appropriate fetal monitoring of IUGR, FDIU is rare.

In my opinion, it is very likely that the 29 weeks gestation scan significantly overestimated the fetal weight. This finding reassured the team. At the time of the ward round on the day of hospital discharge, this finding could have led to a decision not to perform a scan during the current admission, or to a misunderstanding. It is possible that the consultant could have understood that the appropriate fetal growth was based on a scan performed during [Mrs A's] current admission at [DHB2] or ADHB.

In either scenarios, I believe that the failure to carry out a scan was a relatively minor, isolated and sporadic failure, which would most likely have been of no significant consequence if the 29 week scan fetal weight estimate was correct. In my opinion, under these most unfortunate circumstances, the disapproval of my peers for deciding not to perform a scan at ADHB would be moderate, and mild for failing to realise that a scan was not performed during [Mrs A's] ADHB admission.

Please do not hesitate to contact me if you require further information.

Yours sincerely

Michel Sangalli"

"28 June 2015

…

Complaint: [Mrs A], [DHB2] and Auckland District Health Boards

Reference: **C13HDC01497**

Thank you for your letter dated 28 May 2015.

1. *Whether [Dr G's] management plan from [Mrs A's] first appointment with him, on 2 [Month3] at 17 weeks gestation after her first APH, was appropriate;*
2. *Whether [Dr G] should have taken any further action, including inform [Mrs A] or [RM B] of the results, after [Mrs A's] ultrasound at 17 weeks gestation showed a retroplacental haematoma;*
3. *Whether [Dr G's] management plan, of monthly growth ultrasounds and monthly review, from the appointment on 23 [Month3] at 20 weeks gestation (after the second APH) was appropriate;*
4. *Whether [Dr G] should have requested Doppler studies after it became apparent that none were being carried out with [Mrs A's] ultrasounds;*
5. *Whether [Mrs A's] discharge from Auckland City Hospital after her third APH at 30 weeks gestation was appropriate, including in regard to discharge planning and documentation;*
6. *Whether [Dr G] should have reviewed [Mrs A] earlier following her discharge from Auckland City Hospital;*
7. *What information [Mrs A] should have been given during her pregnancy about the risks of APH, the risks of retroplacental haematoma and reduced fetal movements.*

My report is based on the following documents.

A. Mr and [Mrs A's] original complaint, dated [2013]

B. Further information provided by Mr and [Mrs A], dated 9 July 2014, 7 August 2014 and 2 February 2015

C. Initial response to complaint from [DHB2], dated 4 March 2014

D. Clinical records from [DHB2]

E. Further response to complaint from [DHB2], dated 24 September 2014 and 9 October 2014

F. Initial response to complaint from ADHB, dated 24 January 2014

G. Clinical records from ADHB

H. Further response to complaint from ADHB, dated 9 October 2014

I. Initial response to complaint from [RM B], dated 2 April 2014

J. Midwifery records from [RM B]

K. Further response to complaint from [RM B], dated 7 Jan 2015

SUMMARY OF EVENTS

[Mrs A] was a healthy [woman in her thirties] in her second pregnancy at the time of the events in 2013. [Mrs A] was a non-smoker. Early in her second pregnancy her weight was recorded as 80.6 kilos for a height of 167 cm giving a BMI of 28.9. [Mrs A] was known to have mild pulmonary stenosis without any symptoms of cardiac impairment.

[Mrs A] had a caesarean section [for her first baby] at 37 weeks of gestation for pre-eclampsia. Her baby had a birth weight of 2750g, which is around the 20th centile for birth weight. The notes mention that she was given magnesium sulphate and that her symptoms included a severe headache with nausea and vomiting and that her blood tests were abnormal.

In her second pregnancy she presented early for antenatal care and her LMC was a midwife. [Mrs A] was seen by an obstetric physician and an obstetrician. She had a normal cardiac scan (maternal) early in pregnancy and was given Aspirin, 100 mg a day, for prophylaxis against pre-eclampsia. Her maternal serum screening result for Down syndrome was low risk and the hCG and PAPP-A markers were within the normal range (which, if severely abnormal, are associated with placental dysfunction).

On 25 [Month2], [Mrs A] had her first episode of bleeding at 16+1 weeks. A scan performed at 17 weeks and 3 days (4 [Month3], [DHB2]) showed a single live intrauterine fetus with measurements corresponding to dates and there was a subchorionic haematoma measuring 47 x 15 x 39 mm on the posterior wall of the uterus.

[Mrs A] had a second episode of bleeding at 18+2 weeks gestation on 10 [Month3]. On 11 [Month3], a scan was performed by [the radiology service] at 18+3 weeks. The scan showed a single intrauterine fetus with no anomalies and no visible persisting posterior haematoma.

An anatomy scan performed by [the radiology service] on 22 [Month3] at 20 weeks gestation revealed normal fetal size and anatomy but the exam was incomplete due to an unfavourable fetal position. No mention is made of a haematoma. A scan performed at 21 weeks gestation on 29 [Month3] to complete the fetal anatomy check did not show any abnormality and no haematoma was noted.

A further scan performed at 25 weeks on 26 [Month4] by [the radiology service] showed a fetus with an estimated fetal weight of 823g (around 64th percentile) with normal interval growth and liquor volume. No umbilical artery Doppler value was reported.

A scan performed at 29 weeks gestation on 23 [Month5] by [the radiology service] revealed a normally grown fetus with an estimated weight of 1502g (around 75th percentile) with normal liquor volume. No umbilical artery Doppler measurement was reported.

On 29 [Month5], at 30 weeks gestation [Mrs A] had a further antepartum haemorrhage and was admitted to [DHB2]. She was assessed there and, in view of persistent bleeding, she was given steroids and was transferred to Auckland Hospital (ADHB) on 30 [Month5]. She was observed there for two days and her bleeding settled. The CTGs were reactive. No formal scan was performed. She was discharged home on 1 [Month6].

On 14 [Month6], at 32 weeks gestation [Mrs A] presented to [DHB2] in early labour and a diagnosis of fetal death in utero was made. Labour was induced and [Mrs A] gave birth to [Baby A], an anatomically normal baby girl. [Baby A] had a birth weight of 1280g (around 5th percentile, intra-uterine growth restriction (IUGR)). Clinically, there was no evidence of acute abruption (fresh blood or clot) or any other evidence of an acute event (e.g. cord knot). The placenta had a weight of 330g and showed signs of extensive infarction with no evidence of a recent haemorrhage.

Advice

The stillbirth of [Baby A] was a potentially preventable event.

Studies have shown that a significant proportion of stillborn babies are found to be growth restricted at birth and that an inappropriate response to maternal perception of decreased fetal movements is a common factor contributing to stillbirth.

[Mrs A's] case is complex and raises a number of issues, some more relevant to the outcome than others. In my opinion there are three main concerns in this case. In order of importance theses are:

1. No scan was performed at 30 weeks during the admission for APH at ADHB. Scanning women with a significant APH is routine practice in a tertiary hospital. This is the single most important mishap in this case and I believe it to be in breach of the standard of the profession. Please refer to my previous report.

2. [Mrs A] states that she reported reduced fetal movements to her LMC midwife on 10 [Month6] and that she was concerned about her baby's wellbeing. Her LMC Midwife disagrees and reports that she thought at the time that the fetal movements had become normal again (the baby had been quiet the previous weekend [5 & 6 [Month6]), and that [Mrs A] was not concerned at the time of the consultation with fetal movements.

   It is not possible to provide fair advice about this encounter. In hindsight, it was perhaps a missed opportunity to identify fetal compromise.

Antenatal care providers are required to have a low threshold for investigating diminished fetal movements, particularly high risk pregnancies and if the mother is concerned about her baby.

On 10 [Month6], if [Baby A] was still alive, a CTG with specialist review would have been likely to increase the chance of a good outcome.

The CTG may have been abnormal and this would have been likely to lead either to delivery by emergency CS or intensive fetal monitoring with timely delivery. The specialist would probably have taken a good history and requested a scan even if the CTG was normal. This is because of fetal concerns despite a normal CTG in the context of a recent significant APH or/and perhaps because the specialist would have found out that a scan was not performed during the admission for APH and thereafter.

It is also possible that the CTG would have been normal and that [Baby A's] growth restriction would not have been detected, still leading to admission with fetal death in utero on 14 Month6.

3. I have concerns about the quality of [Mrs A's] scan at 29 weeks at [the radiology service]. [Mrs A's] 29 week scan showed an estimated fetal weight of 1502g and the baby was born 3 weeks later with a birthweight of 1280g. In reality, the baby would have weighed much less than 1500g at 29 weeks, and may possibly have had an abnormal umbilical artery Doppler. I suspect that the fetal biometry measurements were of poor quality, particularly the abdominal circumference measurement.

   An umbilical artery Doppler measurement should have been performed. This is because:

   a. it was apparently requested by the referrer (form not supplied)
   b. [Mrs A] allegedly specifically requested it when it was not performed
   c. in my opinion, it should be performed routinely as part of a fetal growth assessment even in low risk pregnancies or if the fetus is apparently of normal size.

Response to questions

1. Whether [Dr G's] management plan from [Mrs A's] first appointment with him, on 2 [Month3] at 17 weeks gestation after her first APH, was appropriate; **Yes**

[Dr G's] management plan at the time of the appointment with [Mrs A] on 2 [Month3], at 17 weeks gestation after her first APH at 16+2 weeks gestation, was to perform a formal scan and to organise monthly serial ultrasound scans to check fetal growth. As mentioned in my first report, I think that this plan was entirely appropriate.

2. Whether [Dr G] should have taken any further action, including inform [Mrs A] or [RM B] of the results, after [Mrs A's] ultrasound at 17 weeks gestation showed a retroplacental haematoma; **No**

My understanding of the scan report is that the scan did not show a retroplacental haematoma but a lifting of the membranes along the posterior wall of the uterus with a haematoma measuring 47x15x39 mm. The placenta is reported to be located on the right lateral wall of the uterus (also in subsequent scans). The haematoma is in fact a sub-chorionic haematoma and probably not a retroplacental haematoma.

A copy of the scan report performed at [DHB2] should have been sent to [Dr G] and to the LMC. The report is addressed to [Dr …] and there is no mention that any copies of the report were sent to other health professionals. It is possible that [Dr G] did in fact not receive the scan report.

I believe it was quite likely that [Mrs A] was aware of the haematoma present at the time of the 17 week scan (and that it had disappeared in subsequent scans). It is very common for sonographers to show the haematoma to the patient at the time of the scan and to make a brief, usually reassuring, comment.

If [Dr G] organised the scan after a discussion with [Mrs A], I would expect the referrer to discuss the result either with the patient or the LMC, unless the result of the scan was anticipated and the clinical management of the scan findings discussed before the scan. There is no treatment for sub-chorionic haematomas apart from expectant management at this pre-viable gestation. Most of the haematomas resolve without any further problems during the pregnancy. I believe that this was very likely that [Dr G] would have discussed this with [Mrs A] on 2 [Month3].

3. Whether [Dr G's] management plan, of monthly growth ultrasounds and monthly review, from the appointment on 23 [Month3] at 20 weeks gestation (after the second APH) was appropriate; **Yes**

[Mrs A] had a second episode of bleeding at 18+2 weeks gestation on 10 [Month3]. On the scans performed on 11 and 22 [Month3], the sub-chorionic haematoma had disappeared. The plan of antenatal care was appropriate. Please refer to my previous report.

4. Whether [Dr G] should have requested Doppler studies after it became apparent that none were being carried out with [Mrs A's] ultrasounds;

I have addressed this issue in my first report and my conclusion was that strictly speaking, scientific evidence does not support the need, of umbilical Doppler in low risk pregnancies or in the absence of intra-uterine growth restriction (IUGR) or pre-eclampsia (PET).

[Radiology service] staff should have performed an umbilical artery Doppler measurement when, at the end of the scan, [Mrs A] allegedly specifically requested it

as it had been omitted. This should have been done not so much because the result was likely to be abnormal but because:

a. an umbilical artery Doppler measurement was apparently requested by the LMC on the referral form (form not supplied).

b. in my opinion, it should be performed routinely as part of a fetal growth assessment even in low risk pregnancies or if the fetus is apparently of normal size.

c. it would have taken less than 5 minutes to perform and it would have made the client happy.

In my opinion, however, this doesn't constitute a breach of the standard of care. The opinion of a Radiologist may be required.

For the same reasons, the LMC or [Dr G] should also have referred [Mrs A] back to [the radiology service] to have an umbilical artery Doppler measurement. However, I believe that [Dr G's] decision to perform an umbilical artery Doppler only at the next scheduled scan was not in breach of the expected standard of care because:

1. Scientific evidence does not support the need, strictly speaking, of umbilical Doppler monitoring in low risk pregnancies or in the absence of IUGR or PET.

2. [Mrs A's] pregnancy had been uncomplicated for a long time. The subchorionic haematoma had vanished by 18–20 weeks, the 25 and 29 week growth scans showed good fetal growth and normal liquor volume.

3. In the clinical context, the decision to request a Doppler at the time, or only with the next scan, depends heavily on the content of the conversation between [Dr G] and [Mrs A's] LMC. I am not privy to this information. [Mrs A's] LMC could have ordered the Doppler anyway, either before or after her conversation with [Dr G].

<u>5. Whether [Mrs A's] discharge from Auckland City Hospital after her third APH at 30 weeks gestation was appropriate, including in regard to discharge planning and documentation;</u>

In my initial report, I have advised that [Mrs A's] care at Auckland City Hospital was inappropriate because a fetal wellbeing scan was not performed during her admission at ADHB. Scanning women with a significant APH is routine practice in a tertiary hospital. It is not possible to make a safe plan of discharge after a significant APH without such a scan. Therefore, it was inappropriate to discharge [Mrs A] without a formal scan assessing fetal wellbeing during her admission at ADHB.

In general, when a significant APH is diagnosed, resulting in the patient being admitted to hospital, the woman is monitored for acute fetal distress with cardiotocograms (CTGs) and for haemorrhage/labour/pre-eclampsia (PET). If her symptoms settle and there is no indication for delivery and no evidence of chronic fetal distress (IUGR) or other problems (e.g. large haematoma, PET), the woman is allowed to go home after a period of observation. If serious problems are identified (e.g. threatened preterm

labour, severe IUGR, large haematoma, or other) the woman remains hospitalised or is more intensively monitored as an outpatient, either by the tertiary hospital team or by the secondary hospital team. If all is well, which is the most common scenario, the woman usually returns to the care of her usual antenatal providers with a relatively standard plan of care.

Because the question about discharge planning and documentation is relatively difficult to answer accurately and because it involves a number of different team members from the hospital, I have discussed the discharge scenario with a number of specialists, registrars, senior house officers (SHO) and midwives at CCDHB, where I work.

When all is well, the plan of care is relatively simple and usually consists of:

1. an explanation to the woman that she should urgently contact her LMC (or delivery suite/hospital) in case of any further bleeding, pain, labour or rupture of the membranes or any significant decrease or absence of fetal movements. Furthermore, the woman is usually advised to have an antenatal check with her LMC midwife within a week and to have a growth scan in about two (or three) weeks to monitor fetal growth. This assumes that a scan was performed at the time of admission for the significant APH and that the results of the scan were reassuring.
2. The Registrar/SHO or/and hospital midwife usually contacts the LMC midwife, to inform the LMC of the situation and the plan of care. In [Mrs A's] case it would be expected to be an antenatal visit with her LMC within a week and a specialist review with growth scan in two to three weeks.
3. The Obstetric Consultant/Registrar/SHO usually informs the referring specialist or the registrar on call at the referring hospital of the decision to discharge the patient and of the plan of care. In this case, the specialist or registrar contacted at [DHB2] would be responsible to organise a follow-up visit, usually two to three weeks after discharge with a scan or earlier in case of any concerns.
4. A discharge letter is usually sent to the referring specialist with a copy to the LMC midwife. Under the current system, it is not always possible to have a discharge letter ready at the time of the discharge of the patient. The letter is usually sent within a few days of discharge and unfortunately, not uncommonly, not in a timely manner. However, when the woman, the LMC midwife and the referring specialist are aware of the plan, things work out well even without the letter.

When I questioned my colleagues consultants/registrars/SHOs and midwives about what specific advice is usually given about fetal movement monitoring to women before discharge for an uncomplicated APH, I received a range of variably detailed answers, all of which appeared reasonable to me.

Considering that APH is a common cause of obstetric hospital admission and that fetal monitoring is also a common topic of discussion with patients during clinical interactions, I think it is unlikely that ADHB failed to explain fetal monitoring to a

reasonable standard. However, I believe that it is very likely that it was not entirely consistent with the latest guidelines on fetal movement monitoring. Most of the staff I have questioned at CCDHB did not give an answer which was entirely consistent with the current guidelines about fetal movement monitoring. The staff are also not routinely giving written information about fetal movement monitoring to the women at the time of discharge.

In 2010–2011, new guidelines about fetal monitoring were introduced in New Zealand, Australia and the UK (1. Clinical Practice Guideline for the Management of Women who report Decreased Fetal Movements. The Australian and New Zealand Stillbirth Alliance (ANZSA). July 2010. 2. Reduced Fetal Movements. RCOG, Green-top Guideline No. 57, February 2011, enclosed).

Ideally, [Mrs A] should have received the following information regarding fetal movement monitoring, with a pamphlet (adapted from 'Reduced Fetal Movements' RCOG, Green-top Guideline No. 57, February 2011).

'There is insufficient evidence to recommend formal fetal movement counting using specified alarm limits.

Women should be advised to be aware of their baby's individual pattern of movements. If they are concerned about a reduction in or cessation of fetal movements after 28+0 weeks of gestation, they should contact their maternity unit.

Women who are concerned about reduced fetal movements should not wait until the next day for assessment of fetal wellbeing.

If women are unsure whether movements are reduced after 28+0 weeks of gestation, they should be advised to lie on their left side and focus on fetal movements for 2 hours. If they do not feel 10 or more discrete movements in 2 hours, they should contact their midwife or maternity unit immediately.'

My understanding, based on [a letter from the Chief Medical Advisor] dated 24 January 2014 is that ADHB failed:

1. to contact the referring specialist/on call registrar at [DHB2] and to contact [Mrs A's] LMC at the time of her discharge to inform them of the situation and of the plan of care
2. to send a discharge letter to [Mrs A's] LMC and referring specialist ([DHB2]).

[Mrs A's] LMC states in her letter dated 2 April 2014 to HDC that at the time of the antenatal visit on 10 [Month6] she brought forward the appointment for a scan which had already been booked for (17 [Month6]) to 14 [Month6]. She also states that she did not receive a discharge letter from ADHB and that [Mrs A] told her that a further scan was required by the specialist. It seems that [Mrs A] herself was aware of the ADHB discharge plan and that the specialist team at [DHB2] may have been aware of the

requirement for a follow-up growth scan. This suggests that [DHB2] may have been contacted by ADHB but it could also be that this was a previously pre-booked routine 32 week growth scan.

These basic omissions are embarrassing and result in less than ideal care which does not meet the expected standards of the profession. I don't think that these failures in verbal communication with LMCs or referring specialists are systematic or due to poor policies. Nor do I believe that the lack of communication *per se,* contributed to the poor outcome in this case. In my opinion, the breach is moderately severe.

6. Whether [Dr G] should have reviewed [Mrs A] earlier following her discharge from Auckland City Hospital; **No**

I am not sure if [Dr G] was aware of [Mrs A's] admission and discharge from ADHB. If so, he would have reasonably assumed that [Mrs A's] pregnancy had been fully checked (scan performed with reassuring findings before discharge, no evidence of acute fetal distress, IUGR, large haematoma, PET or other problem) at ADHB and that all was well. I believe that an appointment with the specialist, [Dr G], should have occurred about 2–3 weeks after discharge from the ADHB and that this review should have included a growth scan with umbilical artery Doppler measurement. I understand that such a scan was booked for 17 [Month6] and that [Mrs A's] LMC organised for the scan to be done on 14 [Month6], two weeks after discharge from ADHB. A specialist review with a scan after two to three weeks was appropriate and [Dr G] had no reason to believe that ADHB did not perform a scan during [Mrs A's] admission or that a major problem was present.

7. What information [Mrs A] should have been given during her pregnancy about the risks of APH, the risks of retroplacental haematoma and reduced fetal movements

Early second trimester bleeding (APH) is relatively uncommon and usually settles without any complications. However, a subgroup of women with a second trimester bleed will present with recurrent APHs which significantly increases the risk of premature delivery because of spontaneous premature labour, premature rupture of the membranes, severe haemorrhage or IUGR and sometimes PET.

Women with APHs should be informed to stop smoking (if relevant), avoid intercourse for some time after each episode of bleeding and to urgently contact their LMC or delivery suite in case of bleeding/labour/pain (particularly when the fetus is viable). They should also be advised to attend their antenatal appointments and scans to carefully check the uterine/fetal size and their blood pressure. From about 20 weeks but more importantly from the time of viability (23–24 weeks) onwards, these women should be informed/reminded to be aware of fetal movements and to report the absence or any significant change/decrease in fetal movement to their LMC or delivery suite. Women with a very large subchorionic or retroplacental haematoma visible on ultrasound scan should additionally be told that they are at increased risk of premature rupture of the membranes which can lead to choriamnionitis and/or premature labour and its complications which may include fetal death or/and lung hypoplasia and

sometimes severe complications of prematurity for surviving babies. Some women with pregnancies complicated by APH(s) have IUGR and fetal growth monitoring with serial scans is indicated.

[Mrs A's] 20 week scan showed no haematoma, so it was quite likely that she would not have another APH. The fact that she had normal growth scans at 25 and 29 weeks gestation and no further APH was, until the third APH at 30 weeks, very reassuring. In my opinion, she did not have a very large haematoma at 17 weeks.

With the first bleed at 17 weeks I would expect the antenatal care providers to reassure [Mrs A] that this is a relatively common problem and that it usually settles. The fact that the 20 week scan did not show a haematoma despite the second APH, was also reassuring. [Mrs A] should have been informed to urgently contact her LMC or delivery suite in case of any further problems (e.g. bleeding, amniotic fluid loss, contractions/pain), to attend all her antenatal appointments and scans. From about 20 weeks but more importantly from the time of viability (23–24 weeks) onwards, she should have been informed/reminded to be aware of fetal movements and to report the absence or any significant change/decrease in fetal movement to her LMC or delivery suite.

Ideally she should have received information about fetal movements consistent with the latest guidelines previously mentioned. I think that the advice she should have received should really not have been very different from the advice required for normal pregnancies. Because she had late onset pre-eclampsia in her first pregnancy, she should have been reminded about the symptoms of pre-eclampsia and told to contact her LMC in case of symptoms of pre-eclampsia, particularly in the third trimester.

In [Mrs A's] case, based on the situation at 20 weeks gestation and thereafter until her admission at ADHB, most experienced practitioners would not discuss complications such as premature labour, premature rupture of the membranes, IUGR and their potential severe complications in a lot of detail. This is in order not to increase unnecessarily [Mrs A's] anxiety about the relatively small risks associated with her two second trimester APHs. Also, there is unfortunately nothing that can be done to change the course of the pregnancy, other than being aware of abnormal symptoms and careful monitoring of fetal growth (scans) and blood pressure. Termination of pregnancy is sometimes discussed in cases of complicated APHs at a pre-viable stage but this was clearly not indicated in [Mrs A's] situation.

I hope that this additional report clarifies my position about the issues raised by [Mrs A's] pregnancy care and most unfortunate outcome. Please do not hesitate to contact me if you require further information.

Yours sincerely

Michel Sangalli

REFERENCES

1. Clinical Practice Guideline for the Management of Women who report Decreased Fetal Movements. The Australian and New Zealand Stillbirth Alliance (ANZSA). July 2010.

2. Reduced Fetal Movements. RCOG, Green-top Guideline No. 57, February 2011."

"12 December 2015

…

Complaint: [Mrs A], Auckland District Health Board (ADHB)

Reference: C13HDC01497

Thank you for your email dated 4 November 2015, asking me to comment on Auckland DHB's response to my previous reports dated 23, 29 March and 28 June 2015.

I have reviewed the following:

1. Letter [from] ADHB General Counsel, dated 19 October 2015
2. Letter by [Dr D] to HDC, ADHB O&G Registrar, dated 16 October 2016
3. Letter by [Dr C] to HDC, ADHB O&G Specialist, dated 8 October 2015
4. Report by [Dr F] to ADHB, ADHB & [DHB2] O&G Specialist, dated 21 September 2015.

I have spent a lot of time thinking about this case. I have carefully reviewed the new documents, my letters of advice to HDC, the document entitled 'Guideline for independent advisors for HDC' (2014), the notes, documents including ADHB guideline on intrapartum haemorrhage (2012)[1], and articles and text books in addition to those already mentioned in my previous advice[2-6].

I have not identified any new or valid and relevant comments in ADHB's response regarding the topic 'no ultrasound scan was carried out'. I think there are three potentially misleading factual errors in [the ADHB General Counsel's] letter dated 19 October 2015.

1. Page 3: measurements are of acceptable quality — in particular the AC is acceptable. I believe them to be an accurate assessment of the fetal growth on that day. Growth should be replaced by size as 'growth on that day' cannot be measured.

2. Page 3: EFW 1502g with error range 1034–1724g was reported as 1502g +/-15% which is 1277–1727g in the actual ultrasound report dated 23 [Month5] from [the radiology service].

3. Page 4: mentioning [Dr C] who states 'I was aware that [Mrs A] was scheduled to have a further ultrasound scan and a consultation with her obstetrician (on 10 [Month6]) …'. According to the documents available to me, [Mrs A] had an appointment with her

Midwife ([RM B]) on 10 [Month6] and a scan was booked on 17 [Month6] with, I assume, a consultation with [DHB2] obstetrician [Dr G]. [RM B] rescheduled the scan for the 14 Month6.

While one could initially argue about whether [Mrs A] had a high risk pregnancy or not because her history only included a caesarean section at 37 weeks gestation for pre-eclampsia and two early small second trimester antepartum haemorrhages, at the time of admission to ADHB for her third APH on 30 [Month5], at 30 weeks gestation, [Mrs A] clearly had a high risk pregnancy.

Because of ongoing bleeding following her admission to [DHB2] on 29 [Month5], she was transferred to ADHB on 30 [Month5] because of possible imminent preterm labour and/or any further complications which could require indicated preterm delivery. Indications for indicated preterm delivery would include severe placental abruption with maternal and/or fetal compromise, severe bleeding from the placenta, and fetal distress for any reason including severe IUGR.

[Mrs A] was discharged from ADHB on 1 [Month6]. There is no evidence that a formal (in the scanning department) or an informal (at the patient's bedside) scan was performed.

A scan performed by [the radiology service] at 29 weeks gestation on 23 [Month5], a week before the admission at ADHB showed a fetus with an above average size (estimated fetal weight 1500g +/-15%, around 75th percentile on the chart used by the radiologist) with normal liquor volume and appropriate growth since the last scan which was performed at 25 weeks gestation on 26 [Month6] by the same radiology provider.

National Women's Hospital is the largest and most renowned tertiary maternity hospital in the country. It is the best equipped maternity unit in the country. The academic obstetricians at ADHB have a special research and education interest in IUGR and stillbirth and have been involved with the formation of Perinatal and Maternal Mortality Review Committee (PMMRC) … Another ADHB obstetrician has travelled the country and given lectures about 'Open disclosure in the management of adverse clinical events'.

In current obstetric practice, many obstetric decisions are based on ultrasound examination. The threshold for performing an ultrasound examination is very low. Formal ultrasound examinations are generally easily available in a tertiary obstetric centre and not costly. [Mrs A] was admitted during a normal working day, on 30 [Month5].

During her admission at ADHB, [Mrs A] did not have a clinically obvious placental abruption and there was no evidence of acute fetal distress, based on CTG fetal monitoring. There was no evidence of labour and her bleeding had settled. There was no contra-indication to perform a scan. Pregnancies complicated by antepartum haemorrhage are associated with an increased perinatal mortality and morbidity (high

risk pregnancy) and ultrasound examination including Doppler of the umbilical artery is a useful investigation in these high risk pregnancies[1, 3, 7–14].

The increased perinatal mortality and morbidity is mainly due to premature labour but also because of indicated pre-term delivery due to bleeding from placenta praevia, placental abruption as well as other complications sometimes associated with the preceding diagnoses, including IUGR, fetal anaemia and congenital malformations.

In about half the cases of women admitted with an episode of APH no obvious cause is identified. On admission, a clinical examination of the vulva/vagina/cervix allows to diagnose or exclude a local cause (vulvar, vaginal or cervical pathology) for the bleeding. In the absence of bleeding from a local cause, the bleeding (if not seen arising through the cervical opening) is assumed to arise from the inside of the uterus and is almost always placental in origin. [Mrs A] was told that she had 'a marginal placental bleed that had settled' ([Dr C's] statement). While a marginal placental bleed was a likely diagnosis at the time, the diagnosis of a (or only of a) marginal placental bleed cannot really be made without a scan.

A scan may not show any obvious cause for the bleeding with no associated fetal problems or only show a small blood collection at the edge of the placenta or under the membranes. The bleeding is then assumed to be 'a small placental edge bleed' or perhaps more correctly, in the absence of a haematoma, an 'antenatal bleed of unknown origin'. An ultrasound scan is required to exclude any other causes or associated pathology even if most of these other causes are unlikely due to previous apparently normal ultrasound scans.

Most ultrasound examinations in the community are of good quality but the nature of obstetric ultrasound examinations is such that bad scans are not rare. The detection of fetal growth restriction remains difficult even with ultrasound scans. Errors up to 20% in estimated fetal weight by ultrasound are not uncommon[15]. Tertiary obstetrics scans are usually of better than average quality.

I disagree with [Dr F's] statements about the absence of an indication to perform a scan and about the type of ultrasound examination that would have been performed if requested at the time. I have not found any medical literature or guideline which would support their views. I note that [Dr F] is employed by ADHB and that both [Dr F] and [Dr C] have a diploma of diagnostic ultrasound (DDU). I think it is reasonable to assume that they know each other quite well.

The scan in a tertiary centre is the diagnostic investigation of choice in the management of APH in the absence of an emergency (severe bleeding or/and acute maternal of fetal compromise) and it is the required investigation to establish an accurate diagnosis and management plan.

This is mentioned in the APH guideline of National Women's Hospital ('Request departmental scan, urgency should depend on the clinical situation'). A departmental

scan is a tertiary scan at ADHB. A tertiary scan would ideally address the following 8 points but I consider that points 6, 7 and 8 or a formal biophysical profile (assessment of fetal breathing, movement and tone in addition to the measurement of amniotic fluid) were not essential in [Mrs A's] case.

1. Is the size of the baby appropriate for gestational age? Yes or no
2. Is the amniotic fluid normal? Yes or no
3. Is there any evidence of placental abruption/haematoma or minimal placental abruption (marginal placental bleed)? Yes or no
4. Is placenta praevia present? Yes or no
5. Is there evidence of severe placental pathology (abnormal umbilical Doppler)? Yes or no
6. Are gross congenital anomalies present? Yes or no
7. Is there evidence of severe fetal anaemia? (Middle Cerebral Artery Doppler Peak Systolic Velocity > 1.5 MoM) Yes or no
8. Is there a significant risk of preterm delivery in the next 7 days (cervical length <20mm)? Yes or no.

I am sure that a formal scan at ADHB would have addressed most of the points above. A copy of a routine scan report for APH from CCDHB is included for information[16].

A scan addressing points 1 to 5 can be done quickly by an experienced sonographer/ sonologist/senior registrar and can be done with a portable scan at the bedside if an assessment in the ultrasound Department is not possible. [Dr D] … was too junior to perform such a scan.

Please note that at no stage have I mentioned the need for a growth scan at the time of the admission at ADHB. Fetal growth is assessed by comparing measured fetal size parameters (head, abdomen, and femur) at a sensible interval of time, which is usually no less than 14 days as mentioned by ADHB/[a] radiologist at ADHB.

The assessment of growth was not essential at the time of the ADHB admission. Fetal growth could have easily and more accurately been estimated by comparison of the ADHB scan during the admission with the scan previously performed at 25 weeks and not with the scan performed at 29 weeks. The extensive discussion about the fact that a growth scan was not indicated as mentioned by ADHB is not a reason for not performing a scan at the time of the ADHB admission, is misleading and not relevant to the discussion.

Both [Dr C] and [Dr F], as do other practitioners involved in the case, including LMC [RM B], state that a scan is usually performed for an admission for APH. This simply means, as mentioned in the ADHB APH guideline of National Women's Hospital that a scan should be requested/performed for every significant APH. The fact that a baby can die

due to severe placental disease two weeks after an admission for a third APH is precisely why such scans are important.

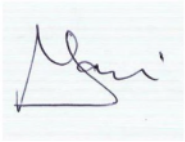
I remain suspicious that the scan performed at 29 weeks gestation significantly overestimated the fetal weight. If required, I would be happy to review these pictures and provide an independent opinion. Alternatively I would suggest a review by an independent radiologist.[1]

I carefully read [Dr C's] statement and it is easy to understand how the decision not to perform a fetal wellbeing scan occurred. However, this decision was a mistake, not only in retrospect, but because a small minority of women are found to have abnormal findings on these scans, independently of previous scans (the APH is a serious new event, previous scans precede the new APH and previous scan measurements can be wrong).

After careful consideration, I believe this to be a mild, 'one off' breach of the standard of the profession. Perhaps a single error of judgement does not constitute a breach. It is a case of human error, not uncommon among overworked doctors. I have no doubts that she has learnt from this event and hopefully her colleagues at ADHB and [DHB2] as well.

I hope this additional advice is helpful. Please do not hesitate to contact me if you require further information.

Yours sincerely



Michel Sangalli

References:

1. Antepartum haemorrhage (APH) 2012 09 27.doc guideline of National Women's Hospital, page 4 point v (enclosed).
2. Risk factors for preterm labor and delivery UpToDate® latest update December 2014 (enclosed with previous advice).
3. Doppler ultrasound of the umbilical artery for fetal surveillance UpToDate® June 2014 (enclosed with previous advice).
4. Overview of the etiology and evaluation of vaginal bleeding in pregnant women UpToDate® January 2014 (enclosed with previous advice).
5. Placental abruption: Clinical features and diagnosis UpToDate® latest update September 2014 (enclosed with previous advice).

[1] This issue was covered off in HDC's initial review of this complaint, in 2015.

6. Placental abruption: Management UpToDate® latest update June 2014 (enclosed with previous advice).
7. Obstetrics by Ten teachers, 17th Edition, New York Oxford University Press 2000. Antenatal obstetric complications. Antepartum haemorrhage. p208 (enclosed).
8. Maternal and Fetal Risk Factors for Stillbirth: Population Based Study. BMJ 2013;346:f108. Abstract and editorial comment. Obstetrical and Gynaecological Survey. CME Review Article, 2013, 66:5, 329–331 (enclosed).
9. Ultrasonography on Obstetrics and Gynecology. Callen. 2008. Saunders. Ultrasound Evaluation of the Placenta and Cord. P 729–731 (enclosed).
10. High Risk Pregnancy: Management Options. 2011. Saunders. Bleeding in late pregnancy. Placental abruption. Expectant management (p1047). Unclassified Bleeding (p1049). P1037–1051 (enclosed).
11. Newsletter PMMRC. Issue 12 November 2015. p3 (enclosed).
12. Sixth Annual Report of the PMMRC (2012) page 8 point 11 (enclosed).
13. Antepartum Bleeding of Unknown Origin in the Second Half of Pregnancy: a Review. Obstetrical and Gynaecological Survey. CME Review Article, 2008, 60:11, 741–745 (enclosed).
14. Ultrasonography on Obstetrics and Gynecology. Callen. 2008. Saunders. Role of Doppler Ultrasound in Obstetrics. P794–795 (enclosed).
15. Fetology. 2008. Disorders of Growth. Chapter 123 Intrauterine growth restriction, p757–765 (enclosed).
16. A typical ultrasound report for APH at Wellington Hospital CCDHB (enclosed)."

"6 August 2021

…

Complaint: Auckland District Health Board (ADHB)

Ref: **21HDC00221** (previous reference **13HDC01497**)

Thank you for your letter dated 6 July 2021. You ask me to provide additional advice regarding the obstetric care the Auckland District Health Board (ADHB) provided to [Mrs A] during her pregnancy in 2013. Between March and December 2015, I have given extensive advice to the Commissioner on this investigation file.

My name is Michel Robert Sangalli. I am a RANZCOG specialist in obstetrics and gynaecology and a RANZCOG sub-specialist in Maternal-Fetal Medicine (MFM). I worked at Wellington Hospital (Capital and Coast District Health Board) in MFM and ultrasound for nearly two decades and private obstetric practice. Since January 2020, I work as an Obstetrician & Gynaecologist at Wairau Hospital, Blenheim, where I am also the Head of Department. For many years, I was a RANZCOG expert witness and a

RANZCOG examiner at the general O&G speciality and MFM subspeciality level. My qualifications include MD (Geneva), FRANZCOG CMFM, DDU.

I have read and agree to follow the Commissioner's Guidelines for Independent Advisors, and I am unaware of any conflicts of interest.

SUMMARY OF EVENTS

[Mrs A] was a healthy [woman in her thirties] in her second pregnancy in 2013. [Mrs A] was a nonsmoker with a BMI of 28.9. [Mrs A] had a caesarean section [overseas] at 37 weeks of gestation for preeclampsia. Her baby had a birth weight of 2750g, which is around the 20th centile for birth weight. The notes mention that she received magnesium sulphate and that her symptoms included a severe headache with nausea and vomiting and that her blood tests were abnormal.

In her second pregnancy, she presented early for antenatal care, and her LMC was a midwife. [Mrs A] saw an obstetric physician and an obstetrician. She had a normal cardiac scan (maternal) early in pregnancy and took Aspirin, 100 mg a day, for prophylaxis against preeclampsia. Her maternal serum screening result for Down syndrome was low risk. The PAPP-A marker was within the normal range (which, if very low, is associated with placental dysfunction).

On 25 [Month2], [Mrs A] had her first episode of bleeding at 16+1 weeks. A scan performed at 17 weeks and three days (4 [Month3], [DHB2]) showed a single live intrauterine fetus with measurements corresponding to dates. There was a subchorionic haematoma measuring 47 x 15 x 39 mm on the posterior wall of the uterus.

[Mrs A] had a second episode of bleeding at 18+2 weeks gestation on 10 [Month3]. On 11 [Month3], a scan was performed by [the radiology service] at 18+3 weeks. The scan showed a single intrauterine fetus with no anomalies and no visible persisting posterior haematoma.

An anatomy scan performed by [the radiology service] on 22 [Month3] at 20 weeks gestation revealed normal fetal size and anatomy and no haematoma. However, the exam was incomplete due to an unfavourable fetal position. A scan performed at 21 weeks gestation on 29 [Month3] to complete the fetal anatomy check did not show any abnormality and no haematoma.

A further scan performed at 25+0 weeks on 26 [Month4] by [the radiology service] showed a fetus with an estimated fetal weight of 823g (around 64th percentile) with normal interval growth and liquor volume. No umbilical artery Doppler value was reported.

A scan performed at 29+0 weeks gestation on 23 [Month5] by [the radiology service] revealed a normally grown fetus with an estimated weight of 1502g (around 75th

percentile) with normal liquor volume. No umbilical artery Doppler measurement was reported.

On 29 [Month5], at 30+0 weeks gestation [Mrs A] had an antepartum haemorrhage and was admitted to [DHB2]. After an assessment, because of persistent bleeding, she received steroids and was transferred to Auckland Hospital (ADHB) on 30 [Month5]. At [DHB2], [Mrs A] had very mildly elevated blood pressures on two documented occasions (140/84 and 136/92 mmHg). After two days of observation at ADHB, [Mrs A's] bleeding settled, and no acute fetal distress was present (the CTGs were normal). At ADHB, [Mrs A's] blood pressure was regularly monitored and was normal (120/68, 130/85, 120/74, 110/60 mmHg) as documented in her notes. However, a urine protein creatinine ratio (PCR, a test to check for proteinuria) was abnormal (83mg/mmol, normal <30), probably because of contamination of the urine sample. [Mrs A] did not have an ultrasound examination and was discharged home on 1 [Month6]. A repeat PCR was ordered before discharge but not obtained. The discharge letter from ADHB states that [Mrs A] will see the LMC midwife within a week and that [Mrs A] had a growth scan organised on 17 [Month6].

On 14 [Month6], at 32+0 weeks gestation [Mrs A] presented to [DHB2] in early labour, with fetal death in utero. [Mrs A] gave birth to [Baby A], an anatomically normal baby girl. [Baby A] had a birth weight of 1280g (around 5th percentile, intra-uterine growth restriction (IUGR)). Clinically, there was no acute abruption (fresh blood or clot) or any other evidence of an acute event (e.g. cord knot). The placenta weighed 330g and showed signs of extensive infarction with no evidence of a recent haemorrhage.

ADVICE

I used the following documents for the present advice:

1. My four letters of advice to HDC dated 23/03/2015, 29/03/2015, 28/06/2015 and 12/12/2015.
2. Clinical records from ADHB for [Month5]–[Month6] provided in your letter.
3. Further comments from [Mr & Mrs A] (extracts from the letter dated 10/10/2016 and the opinion from [Dr E] dated 2/09/2016).
4. Letter from ADHB dated 1/07/2021 and attachments.

I have not seen the advice of Dr Ian Page, later correspondence with different parties and the decision of the Commissioner at the time.

I will approach the task in a different, hopefully more helpful manner this time around.

1. Before submitting this advice, I have carefully reflected on whether or not I am entrenched in my position regarding the indication for scan during [Mrs A's] admission at ADHB.
2. Please consider my advice below with my four previous letters, which sometimes provide more detailed explanations, including the references to the literature.

3. My advice remains very similar to 2015.

My advice follows these cognitive steps:

1. In retrospect, [Baby A's] death was due to placental disease. [Baby A] had a birth weight of 1280g (around the 5th percentile, intrauterine growth restriction (IUGR)). The placenta showed signs of extensive infarction with no evidence of a recent haemorrhage.

2. Obstetricians are only able to identify a minority of babies who will die in utero. However, risk factors for fetal death in utero (FDIU) are well known and include bleeding during pregnancy and IUGR. Bleeding during pregnancy is associated with IUGR.

3. The risk of stillbirth is about 1 in 500 after 28 weeks gestation.

4. ADHB did not cause placental disease.

5. District Health Boards are large and complex organisations where thousands of decisions and clinical steps are taken by clinicians daily. It is not realistic to believe that all decisions made within a DHB by clinicians are correct or ideal.

6. Based on my experience as an examiner, the pass rate for RANZCOG specialist or subspecialist exams is usually around 65% and not close to 100%. It is unrealistic to assume that a doctor, team, or DHB always makes the best decision under the circumstances.

7. [Mrs A's] history and findings at the time of admission to ADHB for an antepartum haemorrhage (APH) at 30+0 weeks gestation were suggestive of a pregnancy with an increased risk of neonatal morbidity and mortality. The risk of IUGR was very low considering the normal findings on a scan performed a week before admission (23 [Month5], 29+0 weeks, normal biometry, fetal growth and amniotic fluid). Under the circumstances, the risk of stillbirth was increased compared to a normal pregnancy but statistically low. Specifically, the risk of IUGR at the time of admission was very low.

8. At the time of admission to ADHB, preterm labour/delivery was the main risk for [Baby A].

9. At ADHB, [Mrs A] had a diagnosis of minor placental disease ('likely placental edge bleed').

10. [Mrs A] had a physical examination on admission at ADHB. Acute fetal distress was excluded based on regular normal CTGs.

11. An obstetric scan is like a physical examination of the fetus.

12. The concept that the fetus is a patient was not new in 2013.

13. Ultrasound scans have good diagnostic abilities to diagnose or exclude advanced placental disease, gross fetal growth restriction and gross congenital abnormalities.

14. Scans are easily accessible, especially in tertiary centres. Ultrasound examinations are safe in pregnancy and inexpensive.

15. In an APH, the differential diagnosis includes placenta praevia, placental abruption, 'placental edge bleed' and local causes (e.g. bleeding lesion on the cervix). A significant placental abruption typically causes uterine contractions/pain and fetal distress (abnormal CTG). The maternal physical examination allows the diagnosis of potential local causes of bleeding. Placental abnormalities are not restricted to placenta previa (which had been excluded in previous scans). In a minority of cases, a significant placental injury could have occurred since the last scan without causing uterine contractions/pain or evidence of acute fetal distress (abnormal CTG). Previous scan(s) can overlook a placental lobe or vessel covering the cervix, IUGR or a significant fetal abnormality.

16. Previous ultrasound scan examinations and reports are not always correct.

17. On average, specialised tertiary obstetrics scans and reports at ADHB are more accurate than community 'generalist' obstetric scans.

18. An obstetric scan was indicated at the time of [Mrs A's] admission at ADHB because [Mrs A] had an acute event (APH) AFTER the 29+0 week scan in the context of two previous second trimester haemorrhages. The bleeding at 30 weeks was severe enough for the [DHB2] Obstetrician to transfer [Mrs A] to ADHB and give steroids to decrease neonatal morbidity in case of premature delivery.

19. In my previous reports, I referred to such a scan as a 'fetal wellbeing scan' as opposed to a 'growth scan' to avoid confusion. I will now use 'APH scan' instead of 'fetal wellbeing scan' as it is less misleading.

20. A tertiary scan 'APH scan' usually addresses most of the following 8 points:

a. Is the size of the baby appropriate for gestational age? Yes or no
b. Is the amniotic fluid normal? Yes or no
c. Is there any evidence of placental abruption/haematoma or minimal placental abruption (placental edge bleed)? Yes or no
d. Is placenta (or vasa) praevia present? Yes or no
e. Is there evidence of severe placental pathology (abnormal umbilical Doppler)? Yes or no
f. Are gross congenital anomalies present? Yes or no
g. Is there evidence of severe fetal anaemia? (Middle Cerebral Artery Doppler Peak Systolic Velocity > 1.5 MoM) Yes or no

h. Is there a significant risk of preterm delivery (cervical length < 20mm)? Yes or no.

21. Most APHs settle, and the best discharge plan is made based on the best information available about the maternal and fetal condition at the time of the hospital admission, based on appropriate assessments.

22. Not obtaining an 'APH scan' led to a missed opportunity to establish the fetal and placental status with the best diagnostic modality available.

23. I believe that if obstetricians thought carefully and honestly about the potential added value of the 'APH scan', they would admit that the time when women with a known normal placental location with a clinically significant painless APH with normal CTGs were sent home when the bleeding has stopped with a presumed diagnosis of 'placental edge bleed' had already long gone by 2013.

24. In my opinion, not obtaining an 'APH scan' did not meet the standard of care of a tertiary obstetric unit in 2013, even if a community scan performed a week before admission showed a normal placental location, fetal size and growth and amniotic fluid.

25. Requesting a scan is explicitly stated in the ADHB guideline (1): 'If there has been no recent ultrasound scan, do a portable scan to assess placental position. Request departmental scan, urgency should depend on the clinical situation. An unstable patient should not transfer to the ultrasound department.'

26. Requesting a scan for women admitted for an APH is implied or stated in all modern textbooks (references given in my previous advice on 12 December 2015).

27. The 'APH scan' may have identified an abnormal placenta or IUGR (by measuring fetal parameters and/or by comparing the fetal biometry with the previous scans (not only the scan performed on 23 [Month5] at 29+0 weeks gestation) or/and by performing an umbilical artery Doppler).

28. It is important to note that it is possible but unlikely that the scan may not have identified any significant fetal or placental findings of concern. Ultrasound scans are not able to identify all small babies. If this were the case, I would have been satisfied with the discharge plan for [Mrs A] (clinical review by LMC midwife in a week and growth scan on 17 [Month6]).

29. Any seriously abnormal findings on the ultrasound scan would have led to more intensive fetal surveillance.

30. With intensive fetal surveillance, FDIU is rare.

31. Most babies born around 30–32 weeks in reasonable condition, with no major congenital abnormalities and a birth weight of about 1300g, survive and 'do well'.

32. Failing to order an obstetric scan was probably a single error of judgement or a misunderstanding, an omission or an unfortunate clinical compromise due to lack of resources. Perhaps the scan was cancelled on the day because the number of scans had to be restricted for one reason or another — a common occurrence in scanning departments.

33. Clinical decisions due to lack of resources leading to potentially suboptimal care are not rare in NZ hospitals.

34. This error of judgement could have potentially occurred to any NZ Obstetrician under the 'right circumstances'.

RESPONSE TO YOUR QUESTIONS

Question 1:

You commented in your earlier advice: 'It is likely that [Mrs A] received routine, reasonable and standard appropriate instructions (about the importance of monitoring fetal movements) as hospital admissions for APHs are very common.' Please provide your advice in the alternative scenario that [Mrs A] was not informed of the risk of IUGR or of the significance of reduced fetal movements — would it have been a departure from accepted practice if [Mrs A] had not been given this information and, if so, how significant a departure would this be?

1. The clinical notes relating to the ward round are comprehensive and suggest that the team spent an appropriate amount of time with [Mrs A].

2. The clinical notes relating to the ward round just before discharge state that IUGR was discussed. It is written that [Mrs A] reported good fetal movements. I am not sure if FM monitoring was discussed, but it would be most unusual not to mention something about FM monitoring at the ward round. It would also be very uncommon for a midwife or/and junior medical officer discharging [Mrs A] later during the day not to repeat the instructions about what to do in case of bleeding, rupture of the membranes, labour/pain and decreased fetal movements. I think it is far more likely than not that [Mrs A] received acceptable explanations about IUGR and FM monitoring as these instructions are 'routine'.

3. If [Mrs A] was not informed of the risk of IUGR or the significance of reduced fetal movements, I think it would be poor practice and a moderate departure from accepted practice.

4. I would see this as an unfortunate and probably a 'one-off' event. I believe that this would occur only very rarely and would reflect very fragmented care.

5. The usual discharge plan consists of seeing the LMC midwife within a week and having a growth scan two to three weeks after the admission scan (in [Mrs A's] case, without

an 'APH scan', 2 to 3 weeks after the 29+0 week scan; i.e. roughly between 7 and 14 [Month6]). The plan usually provides a good safety net.

6. The potential significance of reduced FMs and its management (monitoring, advice to contact LMC) is usually discussed during each pregnancy by the LMC and ADHB staff would have reinforced a known concept. The LMC midwife would normally again discuss the matter with the woman within a week of discharge.

7. Many women with FDIU are not aware of decreased fetal movements preceding FDIU. The usefulness of monitoring FM as a screening test for stillbirth remains unclear (2,3). Contra-intuitively, a recent Australian study shows that FM monitoring doesn't result in a statistically significant reduction in FDIU (4).

8. I believe that it is unlikely per se that the potential lack of explanations about the importance of fetal movement monitoring or IUGR during [Mrs A's] admission to ADHB would have avoided the stillbirth.

Question 2:

Whether the fact that [Mrs A] had mild gestational hypertension when she was admitted to [DHB2] 29–30 [Month5] should have changed the management plan that was formulated by ADHB clinicians and, if so, how.

1. I have not commented on the presence or absence of gestational hypertension or/and proteinuria (preeclampsia) in my previous advice. In my opinion, based on the evidence from [DHB2] and ADHB notes, [Mrs A] did not have hypertension (or preeclampsia). If she had gestational hypertension or preeclampsia, it would have been very mild, which, at the time, didn't need treatment or admission, just careful monitoring. I felt that the discharge plan to have a review by her LMC midwife within a week after discharge (which always includes a blood pressure measurement and usually screening for proteinuria) and a scan after two weeks was appropriate, provided she had a reassuring 'APH scan' during her admission at ADHB.

2. I reiterate that [Mrs A] should have had an 'APH scan' at the time of her admission at ADHB, in any case, for all the reasons stated above (the APH itself is an indication for a scan) and that a diagnosis of mild hypertension would have strengthened this indication. However, in my opinion, [Mrs A] didn't have hypertension or preeclampsia. Under the circumstances, the likelihood of [Mrs A] or [Baby A] getting into significant trouble because of potential hypertension or preeclampsia within a week was very low.

Question 3:

During [Mrs A's] hospital admission at ADHB, a second urine sample was taken (after the first sample may have been contaminated with blood) but not tested for PCR. Please comment on whether the lack of a second PCR test should have been followed up on by ADHB clinicians in the context of [Mrs A's] presenting signs and symptoms and history.

1. On admission to ADHB, because of the blood pressure readings at [DHB2], there was a possibility that [Mrs A] had genuine gestational hypertension (or mild preeclampsia if she also had protein in the urine).

2. ADHB appropriately monitored [Mrs A's] blood pressure.

3. In my opinion, the results of the combined BP measurements at [DHB2] and ADHB showed that [Mrs A] didn't have hypertension/preeclampsia.

4. The PCR on admission at ADHB was abnormal, suggesting the presence of mild proteinuria, which, in the presence of hypertension, would have been consistent with preeclampsia.

5. However, it was very likely that the abnormal PCR result was due to urine contamination with blood.

6. While it was correct to repeat the PCR, checking for proteinuria is not crucial in the absence of hypertension.

7. Suppose there was truly mild proteinuria (PCR 83) without hypertension. In that case, the presence of proteinuria should not have changed the management of [Mrs A] (visit with the LMC midwife within a week and growth scan between 7 and 14 [Month6] as described above).

8. If [Mrs A] had developed hypertension or preeclampsia shortly after discharge, the LMC midwife would have identified the problem in due time. I think that the plan to have a visit with her LMC midwife within a week was appropriate.

9. I am not sure if anybody noticed that [Mrs A] left without having a PCR result. If detected, I think it was acceptable not to get another PCR result as [Mrs A] went home and would be seen by her LMC midwife within a week.

Question 4:

Please comment on the significance of the decrease in [Mrs A's] Amniotic Fluid Index (AFI) between her 25 week and 29 week scans (AFIs were 15 and 10.7, respectively). In addition, please advise whether this decrease should have been picked up by ADHB clinicians and/or alter the management plan.

1. Amniotic fluid (AF) volume is difficult to quantify with ultrasound scans during pregnancy (AF volume = uterine cavity volume minus fetal, placental and cord volume). Accurate AF volume measurement requires an invasive dilution test.

2. In practice, the measure of the AF is simplified by either measuring the deepest pocket visible in the uterus or by adding the deepest pocket measured in each of the four quadrants of the uterus. The latter is the amniotic fluid index (AFI).

3. In practice, cut-off values are chosen based on many normal pregnancies. Values above the lower cut-off and under the upper cut-off value of the deepest pocket of amniotic fluid or AFI are considered normal.

4. There is a wide range of normal AF volume values (deepest pocket or AFI) between individual normal pregnancies, and the amniotic fluid volume also changes during different stages of pregnancy.

5. These estimates are not precise.

6. We do not compare normal values of AF volume from one normal scan to another.

7. A decrease in AFI from one scan to another is meaningless as long as both amniotic fluid index numbers are within the normal range for each scan.

8. The clinicians at ADHB should not have picked up the difference in normal AFI value as the change is not clinically significant and would not and should not alter the management plan as both AF measurements (and scans) were in the normal range.

Question 5:

Whether the mild hypertension, elevated PCR (as shown in the first urine test), and reduced AFI, in the context of [Mrs A's] third antepartum haemorrhage, should have factored into the ADHB clinicians' decision not to perform an ultrasound scan. If so, please advise how you would have expected those factors to have influenced that decision.

1. No. I think it was correct of ADHB to conclude that [Mrs A] had no hypertension and no preeclampsia and that it is incorrect to compare normal amniotic fluid between two normal scans.

A mildly elevated PCR result, most likely due to contamination, is not relevant in the absence of hypertension.

Question 6:

Any other matters in this case that you consider warrant comment.

1. Just a thought.

2. I note that [Mrs A] was referred to **ADHB MFM** by [DHB2] (see referral letter from [DHB2]).

3. The above mentioned ADHB APH guideline (1) states: 'Placental abruption with viable fetus: For smaller abruptions, a more conservative approach may be indicated … For <30 weeks with abruption discuss with MFM'.

4. I am not sure if there is a difference between an assumed 'placental edge bleed' and a 'smaller abruption'. Without an 'APH scan' potentially clarifying the situation, an assumed 'placental edge bleed' is an abstract 'intellectual construct'.

5. [Mrs A] was 30+0 weeks gestation at the time of admission. The policy states to consult with MFM if the pregnancy < 30 weeks. 29+6 weeks gestation is not medically different from 30+0 weeks. It is arbitrary. The '≤' symbol is difficult to find on the computer keyboard.

6. There is no doubt that MFM Subspecialists like me are biased toward scanning. For a good reason: clinically, it is the most valuable 'tool of the trade'. MFM subspecialists know this very well.

7. Perhaps the decision or not to perform an 'APH scan' in the case of [Mrs A] would be best answered by ADHB MFM.

Summary of advice

1. I conclude that the stillbirth of [Baby A] was a potentially preventable event and that several mishaps have occurred during [Mrs A's] hospitalisation at ADHB.

2. The only clinically significant mishap that occurred during [Mrs A's] admission is the lack of an 'APH scan'. In my opinion, it was not consistent with the standard expected of a tertiary obstetric institution in 2013.

3. I believe that not performing a scan during [Mrs A's] admission was almost certainly a 'one off' error of judgement. I think the departure from accepted practice is mild, if any, similar to the other mishaps during [Mrs A's] hospitalisation (lack of communication with LMC and [DHB2], no-repeat PCR test, possible lack of explanations about monitoring of fetal movements).

I hope this additional advice is helpful. Please do not hesitate to contact me if you require further information.

Michel Sangalli

REFERENCES

1. Antepartum haemorrhage (APH) 2012 09 27.doc ADHB guideline. National Women's Hospital (guideline enclosed).
2. Evaluation of Pregnancy Outcomes Among Women With Decreased Fetal Movements. JAMA Network Open. 2021;4(4):e215071. doi:10.1001/jamanetworkopen.2021.5071. 8 April, 2021. (article enclosed).
3. Fetal movement counting and perinatal mortality: a systematic review and meta-analysis. Obstet Gynecol. 2020;135(2):453–462. doi:10.1097/AOG.0000000000000364539. (abstract enclosed)

4. Fetal movement counting for assessment of fetal wellbeing. Cochrane Database Syst Rev. 2015;(10):CD004909. doi:10.1002/14651858.CD004909.pub3. (summary enclosed)."

"30 October 2021

…

Complaint: Auckland District Health Board (ADHB)

Ref: 21HDC00221 (previous reference 13HDC01497)

Thank you for your email dated 27 October 2021. You asked me to review the additional information provided by ADHB and the advice of Dr Ian Page regarding the obstetric care the ADHB provided to [Mrs A] during her pregnancy in 2013. I have carefully read these documents.

Documents reviewed:

1. ADHB's response to HDC about Dr Sangalli's advice dated 6 August 2021 (1 October 2021)
2. ADHB's response to HDC (10 April 2017)
3. Advice from Dr Ian Page to HDC (23 December 2015)

My name is Michel Robert Sangalli. I am a RANZCOG specialist in obstetrics and gynaecology and a RANZCOG sub-specialist in Maternal-Fetal Medicine (MFM). I worked at Wellington Hospital (Capital and Coast District Health Board) in MFM and ultrasound for nearly two decades and private obstetric practice. Since January 2020, I have worked as an Obstetrician & Gynaecologist at Wairau Hospital, Blenheim, where I am also the Head of Department. My qualifications include MD (Geneva), FRANZCOG CMFM, DDU.

I have read and agree to follow the Commissioner's Guidelines for Independent Advisors, and I am unaware of any conflicts of interest.

Between March and December 2015, I have given extensive advice to the Commissioner on this investigation file. I have assessed the care according to the accepted and reasonable standards of practice at the time of the events (2013) from a generalist obstetrician & gynaecologist working in a tertiary centre. The standards were not those of a subspecialist in Maternal-Fetal Medicine.

Looking at ADHB's letter dated 10 April 2017 to HDC, contrary to [Dr F's] opinion (21 September 2015), I agree with [the] (MFM ADHB) that a Biophysical Profile (BPP) was not the investigation of choice had a scan been ordered.

Regarding Dr Page's report dated 23 December 2015, he states that HDC asked him to provide a brief general opinion on the scenario.

Dr Page states that he would not have ordered a scan at the time of the admission of [Mrs A] (I assume he refers to [Mrs A]) with the same rationale for his decision as that given by ADHB. Then, he writes that he doesn't know of any evidence to support my position and has not seen that practice previously.

Dr Page states that he has not seen that practice before. I suspect that Dr Page's lack of experience is because he is working in a secondary unit. He may well never have had to think carefully about such a situation. Obstetricians in tertiary units have to decide to perform (or not) an 'APH scan' before discharging every patient (at an early gestation) with a history of a significant APH (transferred from a secondary unit or local residents) after the bleeding has settled. By 2013, while working in Wellington (CCDHB, a tertiary centre), I reported 'APH scans' very frequently (probably daily, when on duty) for over a decade. I have provided an example of an 'APH scan' report[3] from Wellington in my letter dated 12 December 2015. Of course, abnormal findings on the 'APH scan' are the small minority, but some diagnoses will change the management of the pregnancy.

The chance of finding a significant abnormality on [Mrs A's] 'APH scan' (if performed) was most probably around 3–5%. In New Zealand, the likelihood of having an SGA baby is roughly doubled in pregnancies complicated by a placenta abruption or an APH of unknown origin[1]. In the case of [Mrs A], we can estimate the risk of SGA roughly at 2–4% (risk of SGA in every pregnancy (10%) x risk of missing the diagnosis of SGA on previous ultrasound (10–20%) x risk increase in the presence of APH (2x) = 2–4%). The chance of identifying previously undiagnosed congenital malformation increases as the rate of malformation is increased (1.5x) in women with APH[2]. Occasionally, it is possible to diagnose a significant placental abnormality (which would suggest significant subclinical placental abruption or placental dysfunction), a missed placenta praevia (or succenturiate lobe) with or without vasa praevia, although not frequently. In the context of an APH, an umbilical artery Doppler is valuable. If the umbilical artery Doppler is normal, severe placental disease is very unlikely, and the Doppler result is rarely abnormal in the absence of placental dysfunction. If the umbilical artery Doppler is significantly abnormal, placental dysfunction is severe. Under the circumstances, if possible, it is wise to be careful not to miss significant but rare pathology. I believe that Obstetricians in busy tertiary units are aware that 'APH scans' have a small yield for significant pathology in women admitted in their hospital for (recurrent) APH(s) even if they had a normal scan a week before the APH. Also, under the circumstances, the reassurance provided by a negative 'APH scan' is valid and substantial.

The yield mentioned above (3–5%) clinically justifies an 'APH scan' for every woman admitted with a significant APH because ultrasound scans are very available in tertiary centres and inexpensive. Because of the low yield, one could not justify the decision if scans were unavailable or very costly. Many other practices in antenatal care (e.g. screening for Down syndrome, fetal and placenta abnormalities [12 and 20-week scans], pre-eclampsia and placental dysfunction in some countries, maternal status for syphilis and rubella, etc.) or other fields in medicine (e.g. screening for colon and breast cancer) have low or lower yields.

Dr Page then proceeds to make another quick allegation: my advice appears to imply that one can only trust tertiary scans. It is untrue.

*Addendum: Since providing this advice, I have since become aware that Dr Page provided his comments based on a summary of the facts of this case, without the advantage of having access to the clinical notes, provider responses or my previous reports. While I disagree with his comments, I acknowledge that his advice may have been limited by the information he was provided.

I have looked with interest at ADHB's comments about my advice dated 6 August 2021. When contacted by HDC in 2021, I was surprised and saddened that the case was still ongoing. I carefully considered my position, then wrote the report a little differently as I thought it would be helpful for resolution. I tried hard to answer the many questions [Mr and Mrs A] still had, step by step, as clearly as possible. Overall, my report was very supportive of ADHB's care, except (but at the same time also) for the 'APH scan'. I have not identified any information in ADHB's defensive submission that would make me change my opinion about the care [Mrs A] received by ADHB. My opinion remains unchanged.

Regarding the request by ADHB for further comments from Dr Page, an Obstetrician from a different region and a centre with a tertiary neonatal unit and a well-resourced ultrasound department (a so-called 'true comparator' as mentioned by ADHB) would be a much better choice. Obstetricians' intellectual processes, resources and decisions in a secondary hospital are quite different from those in a tertiary institution when dealing with women with complications at premature gestation. I know that from personal experience, having now worked in both types of units in New Zealand.

Don't hesitate to get in touch with me if you require further information.

Yours sincerely,

Michel Sangalli

References:

1. Independent risk factors for infants who are small for gestational age by customised birthweight centiles in a multi-ethnic New Zealand population. ANZJOG 2013;53:136–142 (enclosed).
2. Antepartum bleeding of unknown origin in the second half of pregnancy: a review. Obstetrical and Gynecological Survey. CME review article. 2008; 60:11, 741–745 (enclosed).
3. A typical ultrasound report for APH at Wellington Hospital CCDHB (enclosed)."

Appendix B: Independent clinical advice to Commissioner

The following expert advice was obtained from obstetrician and gynaecologist Dr Ian Page:

"23 December 2015

Complaint: [Mrs A]

Your ref: C13HDC01497

Thank you for your email of 21 December and the attached scenario (repeated below). 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 25 years. I obtained my MRCOG in 1985, my FRCOG in 1998 and my FRANZCOG in 2002. I have been employed for the past 15 years by Northland DHB. I have been a member of the RZNZCOG Expert Witness register since 2012.

You have asked for a brief, general opinion on the scenario.

Complaint background

The complaint involves the intrauterine death of [Mrs A's] second baby at 32 weeks' gestation. [Mrs A] had a history of mild pulmonary stenosis and had developed severe pre-eclampsia at 37 weeks' gestation in her first pregnancy.

[Mrs A] had two pre-viability antepartum haemorrhages (APH) during her pregnancy. She was referred by her self-employed LMC midwife to an obstetrician at [DHB2]. An initial consultation took place on 2 [Month3] (17 weeks) and the obstetrician ordered a scan due to a bleed on 23 [Month2] (16 weeks). The scan took place on 4 [Month3] (17 weeks) and showed 'an area along the posterior wall where there is lifting of the membranes with a haematoma measuring 47 x 15 x 39mm'. The second APH occurred overnight on 10/11 [Month3] (18 weeks). A scan was undertaken on 11 [Month3] and found 'No visible persisting posterior haematoma is identified ... No cause for PV bleeding identified'.

The obstetrician then requested monthly growth scans which were carried out on 26 [Month4] (25 weeks) and 23 [Month5] (29 weeks). The last ultrasound at 29 weeks showed a well grown baby on the 75th centile. The scan report stated:

- PV bleed over one month ago
- Gestational age at 29 weeks
- Fetus good size and growing well
- Normal liquor volume

- Active fetus
- Nothing untoward. No IUGR or SGA.

However, a request for Doppler studies was not carried out at the 29 week scan. The LMC midwife said that the obstetrician was advised that the Doppler studies had not been done and that the obstetrician considered that they could wait until the next growth scan. [DHB2] advised that the obstetrician could not recall if he had requested a Doppler study at 29 weeks, but noted that he could not see a need for that at the time of the 29 week scan. The obstetrician said that growth had been normal up until he last saw [Mrs A] in the antenatal clinic and the scans of 26 [Month4] and 23 [Month5] showed normal growth and biophysical profile. [DHB2] advised that 'it is not normal practice to obtain dopplers unless there is fetal growth restriction or previously abnormal dopplers'.

A third APH occurred at 30 weeks' gestation and [Mrs A] was admitted to [DHB2] on 29 [Month5]. She had ongoing bleeding and, the following morning she was commenced on steroids and transferred to Auckland City Hospital, in case she needed to have an emergency caesarean section, as [DHB2's] Special Care Baby Unit only cares for babies 32 weeks' gestation and older.

ADHB advised that many antepartum bleeds are unexplained and the management for these is expectant, with close surveillance of fetal wellbeing and ongoing growth surveillance. During [Mrs A's] admission fetal wellbeing was checked with normal CTG and fetal movements. Growth surveillance was planned for 17 [Month6]. No ultrasound scan was carried out at Auckland City Hospital.

[Mrs A] was discharged home on 1 [Month6] when the bleeding had settled and was seen by her LMC midwife nine days later. Four days later, on 14 [Month6], at 32 weeks' gestation, baby was stillborn. An autopsy showed baby had intrauterine growth restriction (IUGR) (weight on 5th centile) associated with extensive placental pathology (infarction).

Auckland DHB's position

ADHB stated that since the fetal growth pattern was normal up to the time of admission with the latest growth assessment a week prior, ordinarily Doppler studies would not have been indicated. The place of Doppler studies in assessing fetal wellbeing after antepartum haemorrhage in the absence of a known growth problem is not established. The ADHB guideline for antepartum haemorrhage provides for a portable scan to assess placental position if there has been no recent ultrasound scan (which there had been in [Mrs A's] case). Otherwise, ADHB noted that unless there was reason to doubt the quality of the previous normal growth scans, there was no indication to repeat a growth scan before 31 weeks.

ADHB advised that although placental abruption can cause antepartum bleeding, it is usually accompanied by pain and uterine activity, and it cannot be reliably detected by

ultrasound. ADHB stated that, given the normal growth one week previously, a documented cause for bleeding on previous scans from previous APHs, good fetal movements and a normal CTG, it is unclear what further information an ultrasound would have provided. It advises that its policy is for growth scans to not be repeated any more often than every 2 weeks.

Alternative position (Wellington)

An alternative view put forward is that, while [Mrs A] was clinically stable and the CTGs were normal, an ultrasound was clearly indicated before discharge to plan the intensity of fetal monitoring for the rest of the pregnancy. An ultrasound assessment is routine practice for any woman admitted for a significant APH in the second or third trimester. It is reasonable to rely on previous community scans to assess fetal growth before an acute event, but a scan preceding a major event such as APH cannot establish the absence of fetal compromise after the event. It is not possible to make a safe plan of discharge after a significant APH without a scan and it was therefore inappropriate to discharge [Mrs A] without one.

[Mrs A] was told that she had a marginal placental bleed that had settled. While this was a likely diagnosis at the time, the diagnosis of a (or only of a) marginal placental bleed cannot really be made without a scan. An ultrasound scan is required to exclude any other causes or associated pathology even if most of these other causes are unlikely due to previous apparently normal ultrasound scans. The scan in a tertiary centre is the diagnostic intervention of choice in the management of APH in the absence of an emergency and it is the required investigation to establish an accurate diagnosis and management plan.

Due to the routine nature of this practice, it was suggested that the failure to do a USS was likely to have been an error. However, Auckland DHB advised that was not the case and that it was reasonable not to have carried out a USS in [Mrs A's] circumstances.

Expert advice request

Please advise which position you consider to be accepted practice throughout New Zealand, or whether there is variation in different regions. If you need any further information, do not hesitate to contact me.

My Advice

Vaginal bleeding in pregnancy, at whatever gestation, is usually a consequence of separation of part of the placenta from the wall of the uterus. A small degree of separation won't usually cause any problems, as most placentas have a large reserve capacity. Larger degrees may cause problems later in the pregnancy, when the increasing requirements of the growing fetus may exceed the remaining capacity of the placenta, and become apparent as fetal growth restriction. If there is a very large loss of placental function this may lead to fetal death.

At present there is no direct way of measuring either the amount of placental separation that has occurred or the remaining placental function. We simply look at the consequences — is the fetus growing well (as assessed by ultrasound) and, in an acute situation does it have a normal CTG.

I think the [DHB2] practice of monitoring fetal growth was appropriate, and like them would not order Doppler studies unless there was significant growth restriction. Like [DHB2] I would have transferred [Mrs A] to ADHB when she was admitted at 30 weeks' gestation, and for the same neonatal reasons.

I would not have been planning any further scans until at least 2 weeks after the last one, and so would not have undertaken a scan during [Mrs A's] admission to ADHB. My rationale is the same as that given by ADHB.

I do not agree with the proposal from Wellington that an extra scan should be done after an acute event. Fetal well-being in the acute situation is usually assessed by CTG, and not by scan. I do not know of any evidence to support their position, and have not seen that practice previously. The proposal also appears to imply that one cannot trust the accuracy of scans performed in the community but only those done in tertiary hospitals.

Once the bleeding had settled [Mrs A] was discharged from ADHB. Whether her next scan should have been brought forward by her LMC/[DHB2] obstetrician in light of the increasing number of bleeds is a debatable point. It could have been brought forward to 7th [Month6] (31 weeks' gestation), which would have given some extra information about the fetus' well-being at that time. Whether or not it would have altered her subsequent management and the outcome is, of course, unknown.

So in summary I think the actions taken by ADHB are in line with most maternity units in New Zealand.

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.

Yours sincerely,

Dr Ian Page MB BS, FRCOG, FRANZCOG
Consultant Obstetrician & Gynaecologist
Whangārei Hospital"

Appendix C: Independent clinical advice to Commissioner

The following expert advice was obtained from RM Lorna Davies:

"**Report to the Health and Disability Commissioner: Case number C13HDC01497**

My Name is Lorna Davies and I have been asked to provide independent advice during the assessment of case number C13HDC01497 regarding the midwifery care provided. The specific purpose is to provide independent advice about the care provided by Midwife, [RM B], during the pregnancy of [Mrs A].

I have read and agreed to follow the Commissioner's Guidelines for Independent Advisors. I can declare I have no personal or professional conflict in this case. I will retain these copies of clinical records and related information sent to me, maintaining confidentiality and safety, until I am advised that my involvement with this case is no longer needed.

My qualifications are Registered Midwife (RM), BSc Hons, MA. PGCE(A) and I am currently a PhD Candidate with the University of Canterbury. I have been registered as a midwife for twenty five years and have worked in a variety of maternity settings during that time. I currently work primarily as a Principal Lecturer in Midwifery at CPIT in Christchurch on the Bachelor of Midwifery programme, and as a part time educator for the New Zealand College of Midwives. I additionally carry out some practice as a self-employed Lead Maternity Carer (LMC) midwife and I am on the Rural Recruitment and Retention Rural Midwifery Locum scheme which is operated by the MMPO. I was nominated for the role of Expert Advisor by the Canterbury and West Coast regional branch of NZCOM. As such I am expected to attend regular annual professional updates and development for the role.

I have closely read the following supporting information prior to writing this advice.

A. Complaints submission from [Mrs A] to the Commissioner, dated (by HDC receipt) and further correspondence relating to the initial complaint.
B. Response from [RM B] date 2nd April 2014 and further responses relating to further correspondence from [Mrs A]
C. Midwifery records from [RM B]
D. Documentation from [DHB2]
E. Clinical records from Auckland District Health Board
F. Clinical records from the period of admission in … 2014

I have been requested to provide independent advice to the Commissioner about whether the standard of care in this specific case would be considered to meet with expected standards. I have been asked to consider:-

a) What is the standard of care/accepted practice?

b) If there has been a departure in the standard of care or accepted practice, how significant a departure do you consider that it is?
c) How would the case be viewed by my peers?

I have consulted with a midwife colleague regarding the issues raised in this opinion. She is also a nominated expert advisor for the New Zealand College of Midwives.

1) What standards apply in this case?

The Standards for Practice in the Midwives Handbook for Practice 2015, NZ College of Midwives apply in this case.

The Midwives Handbook for Practice is published by the NZ College of Midwives and sets out the beliefs and expectations that the midwifery profession, in conjunction with women, has identified as being important for midwifery care.

The Handbook consists of:

Definition of a Midwife

1. The Scope of Practice of a Midwife (as defined by the Midwifery Council of New Zealand).
2. Code of Ethics
3. Standards for Midwifery Practice
4. Decisions Points for Midwifery Care

Summary of events from midwifery notes received

The client registered with the LMC midwife on 16th [Month1] at 10 weeks gestation for care during her second pregnancy. During the booking visit at this time, the midwife presented the client with advice about the way in which both the midwife and her practice partners work and with both verbal and written information about what would constitute an emergency situation in the pregnancy and what the client should do in that event.

The client presented with a medical history of mild pulmonary stenosis and an obstetric history of pre-eclampsia during her first pregnancy [overseas] that resulted in the administration of magnesium sulphate to treat and an emergency caesarean section. As a result of both of the medical and obstetric potential risk factors, the midwife referred to a physician for the medical issue and to an obstetrician for the history of severe pre-eclampsia.

The medical referral was followed up with a clinic visit to the physician where it was suggested that the client should commence low dose aspirin because of her history of pre-eclampsia, but the physician felt that the mild pulmonary stenosis did not carry any significant concern and that the client should be able to experience a straightforward pregnancy without any medical intervention. As a result of the obstetric referral it was

agreed that the pregnancy would be monitored by an obstetrician with monthly clinic visits and serial ultrasound scans to ensure adequate fetal growth and well-being.

The client presented with three episodes of ante-partum haemorrhage at 14 and 18 weeks and at 30 weeks gestation. No definitive cause was identified for any of these bleeds. The third episode of bleeding led to an admission to [DHB2], where the client received steroids to prepare for the possibility of a pre-term birth. She was then transferred to Auckland City Hospital for more specialized care.

During the pregnancy, the client was referred for a total of eight ultrasound scans, for dating; anomaly screening; to investigate the cause of the episodes of bleeding and to ensure satisfactory growth of the fetus. For the last scan on 23rd [Month5], the midwife had requested a biophysical profile and a Doppler study in addition to a growth scan to ensure fetal well being. It would appear that the Doppler study was not carried out. This report on this ultrasound scan stated that the growth of the fetus fell into the 75th centile on the growth charts utilized by the radiography service.

The client was discharged home a day later when the bleeding had settled and she notified the midwife by text that she had been discharged. The midwife replied that she would see the client at the next appointment but that the client was to get in touch if there was any more bleeding. This clinic appointment took place nine days later on 10th [Month6]. During this appointment the client expressed concern about reduced fetal movements. The midwife carried out a full assessment and concluded that she had been able to feel fetal movements during the abdominal palpation and that the fetal heart rate of 158bpm was satisfactory. The midwife felt that the location of the placental site was acting as a buffer and the transverse lie of the baby may be reducing the recognition of fetal movements on the part of the client. The midwife was surprised to learn from the client that no ultrasound scan had been performed whilst she had been in hospital. The midwife made arrangements to bring the scan which was booked in 2–3 weeks forward to the following week and following a telephone call to the ultrasonographer, an appointment was rescheduled for 14th [Month6].

On 13th [Month6], at 32 weeks gestation, the client began to experience uterine contractions and went into labour. On 14th [Month6] she gave birth vaginally to a stillborn baby girl. The baby was a breech presentation and weighed 1280gms which placed her in the 5th centile on the growth charts.

Expert Advice requested

I have been asked whether I consider the care provided to the client was reasonable in the circumstances.

I have specifically been asked the following questions:-

1. Was the midwife's initial care plan adequate?
2. Were the standards of the ultrasound referrals made by the midwife appropriate

and specifically should they have noted that the client was considered to be high-risk?
3. Was it was appropriate to delay the Doppler study for a further month after it was carried out at 29 weeks gestation?
4. Did the midwife act appropriately when the client was discharged from Auckland City Hospital?
5. Should a CTG or other investigations have been carried out on 10th [Month6] following the version presented by the client and the midwife?
6. How many fetal movements per day is normal and what information should the client have been given about fetal movements?
7. Was the midwife's standard of documentation adequate including in regard to the retrospective entries made on 16th [Month6]?
8. Any other comments on the care provided

Interpretation of Events

I have applied my interpretation of the events to the questions asked by the Commissioner below.

Question 1.

Was the midwife's initial care plan adequate?

During the booking visit the midwife identified that the client was presenting with both a potential medical problem and a complex obstetric history. The midwife recognized that these risk factors necessitated referral to secondary care and took appropriate action in terms of referral to an obstetric consultant as advised in 4022 of the Referral Guidelines (Ministry of Health 2012).

The midwife continued to provide standard midwifery care with regular visits during the pregnancy and arranged to provide cover when she was not available as a result of taking time off and holidays. She was clear about these arrangements and provided the client with clear information about why and when to make contact and who to make contact with when she was not available. In addition the midwife arranged other blood tests and screening tests such as dating and nuchal translucency scans at 7 and 12 weeks respectively.

<u>Question 1 Summary Response</u>

In my opinion, the initial care plan outlined by the midwife in her response to the complaint was of an accepted standard of care and would be viewed as reasonable practice by peers.

A criticism is that there is no formally documented plan of care which I feel would be expected as standard care. This falls under a general discussion around the standard of documentation in this case. This is further discussed in response to Question 8.

Question 2.

Were the standards of the ultrasound referrals made by the midwife appropriate and specifically should they have noted that the client was considered to be high-risk?

The US referral form that states 'MMS1' is a request for a nuchal translucency scan. This is used to measure a fold of skin on the back of the neck of the fetus and forms part of the combined first trimester screening assessment in conjunction with a blood test (MSS1). It serves to identify a higher risk of chromosomal conditions. It would not be expected for the midwife to add any risk factors unless it was directly related to the procedure. For example if there was a family history of chromosomal anomaly.

The anatomy scan, is a routine second trimester screening study to confirm normal growth and development of the fetus. The structural integrity of fetal organs is confirmed and some growth measurements are taken. Any anomalies would lead to further screening once reported. Cervical length is measured as a short measurement and can give an indication of the potential for pre-term birth but in this case notification of previous obstetric history is unlikely to have any bearing on this scan. Again a relevant history might be included, for example if the client had gone into spontaneous pre-term labour previously.

The subsequent request forms highlight specific events within the pregnancy that require further monitoring and indicate a higher risk status. Ante-partum haemorrhage is given as a reason to scan, and this would have signified that the client was higher risk. The midwife has requested a fetal biophysical profile and a Doppler study on other forms as part of the ultrasound referral. Both of these requests would indicate concerns around placental-fetal circulation consistent with a high risk condition. Doppler studies are not normally ordered in uneventful pregnancies. Additionally monthly growth scans requested by a specialist would indicate a higher level of risk.

Question 2 Summary Response.

In my opinion, the ultrasound referrals made by the midwife contain relevant information required for ultrasound request purposes. The explicit inclusion of the client's previous obstetric history would not have resulted in a change of outcome in the earlier screening scans, and the later scan request forms indicated that there were issues relating to a higher risk status. I feel confident in stating that this would be the view of most other midwives.

Question 3

Was it appropriate to delay the Doppler study for a further month after it was carried out at 29 weeks gestation?

The midwife ordered a repeat growth scan/biophysical profile and Doppler study for the ultrasound scan on 23rd [Month5], although for reasons that are not wholly clear, the Doppler study was overlooked by the radiology service. The midwife reviewed the scan results that had been encouraging, with the fetal growth estimated to be on the

75th centile. Other results available such as glucose tolerance test were normal and the client's blood pressure and urinalysis were also within normal limits. Additionally, the midwife did discuss the situation with her obstetric colleague and he suggested that in view of the positive results that a Doppler be requested again at the next scan in a month or so.

Question 3 Summary Response

The fact that the baby seemed to be developing well from the ultrasound scan and that the midwife consulted with the obstetrician with regard to the findings, suggests that there was no obvious reason why a further Doppler study should be carried out in less than a month.

I would therefore advise that this would seem to be reasoned decision making on the part of the midwife.

Question 4

Did the midwife act appropriately when the client was discharged from Auckland City Hospital?

The client was initially admitted to [DHB2] on 29th [Month5] and then transferred to Auckland City Hospital following the third antepartum haemorrhage. Here the client received steroids to prepare the fetus for the possibility of a preterm birth. The client was reviewed by a range of medical personnel during the admission and her condition and that of the fetus were deemed to be satisfactory. The midwife spoke to the DHB midwife who was responsible for the care of the client during the hospital stay and she confirmed that the client would be having an ultrasound scan. The midwife also stressed that this was what had always happened in her experience and she therefore worked on the assumption that an ultrasound had been carried out.

The midwife telephoned the client during the admission to discuss what was happening with regard to care and to check for any further developments. She states that during this call she asked the client to contact her and let her know when she was discharged and reiterated the need to keep her informed regarding any further blood loss or reduced fetal movements.

The client was discharged on 1st [Month6] without any discharge summary and without having a further scan. She texted a message to the midwife stating that she had been discharged as the bleeding had subsided and the hospital personnel had told her that a scan would be needed to check fetal growth in 2–3 weeks followed by an appointment with the obstetrician. The midwife responded by text to inform her that they would meet for the appointment scheduled for 10th [Month6] but that the client should call if there was any further bleeding.

Question 4 Summary Response

The midwife was informed by another midwife at the hospital that an ultrasound scan would be carried out whilst the client was an inpatient. The midwife believed this to be the case, not unreasonably, until the appointment with the client nine days later. The fact that a discharge summary was not provided by the hospital is a serious concern. This could be considered to be a breach of duty of care on the part of the DHB as a result of their communication process and something that perhaps requires further investigation.

The use of texting between the client and the midwife may have compounded this misunderstanding. It is advised that midwives should respond to text messages by telephoning their client to ensure that there is no potential for misinterpretation and space for clarification and expansion on discussion. On this occasion, however, the midwife has stated in her report that she called the client on her mobile phone a couple of times to follow up the text message. She claims that there is evidence of this in the phone records held by the client.

In my opinion, the midwife acted in good faith on the information that she was given. The client and the DHB staff indicated that all was well and that she had been given clearance by the medical staff at Auckland Hospital.

I also maintain that peers would affirm the midwife's professional reflection on the issue and decision to change practice by including clear information in the notes and discussion at booking about the issues relating to texting.

Question 5

Should a CTG or other investigations have been carried out on 10th [Month6] following the version presented by a) the client and b) the midwife?

As there is a discrepancy in the information provided by the client and the midwife, I have been asked to provide a summary of my responses to each individual version.

a) Midwife's version of events

- The midwife says that the client presented at the 32 week appointment feeling unsure about fetal movement. She claimed that she was finding the movements difficult to feel. The midwife carried out a full antenatal assessment including an abdominal palpation and claims to have felt 4–5 movements during the procedure.
- She listened to the fetal heart rate with a hand held Doppler for a whole minute and during an acceleration of the fetal heart rate she asked the client if she had felt movement associated with the accelerated heart rate but the client had not. The midwife felt that a combination of the location of the placenta and the transverse presentation of the baby may have impeded the ability of the client to feel the movement and this is a realistic possibility.
- The midwife suggested that the client could go to [DHB2] for further monitoring (CTG).

- When the midwife discovered that the scan had not been performed at Auckland City Hospital, she made arrangements for the scan to be brought forward to 4 days' time instead of two weeks later.
- She advised the client to monitor the fetal movements carefully and to contact a midwife if they reduced again; this is in keeping with good practice.

b) Client's version of events.

- The client claims that she was very concerned about fetal movements. She said that the movements had decreased since she had been discharged from hospital nine days earlier. She had almost called the midwife at the weekend to discuss it with her.
- The midwife carried out an abdominal palpation but did not convey that she had felt 4–5 movements during the procedure.
- The midwife did listen to the fetal heart for a good length of time having stated that she was going to do this in order to ascertain fetal wellbeing.
- The midwife informed the client that a change in fetal movements was normal at that stage in pregnancy and the movements were perceived as reduced because the baby was lying in the transverse which reduced the sensation of kicking and that the placenta was anterior which acted as a buffer.
- The client suggests that the midwife did not offer the opportunity for CTG or other monitoring at [DHB2].
- The midwife brought the appointment forward and made an appointment to see the specialist because the client was so worried about the reduced fetal movements.
- The client suggests that the midwife did not give her enough information about reduced fetal movements and told her that 10 movements in 24 hours was normal.

Question 5 Summary Response

a) Midwife's version of events

On the strength of the information provided by the midwife, I would say that the standard of care was commensurate with professional expectations. I think that this would have been viewed by peers as reasonable practice for the following reasons:-

- The midwife carried out a full antenatal assessment including an abdominal palpation in line with current recommendations (NZCOM 2012).
- She communicated with the client about the possible reasons why fetal movements may not be so prevalent in the circumstances.
- Her suggestions for further monitoring was in keeping with current recommendations (NZCOM 2012).
- She made arrangements for the scan to be brought forward in keeping with the discussion that an ultrasound scan is warranted in such circumstances.
- She made a referral to the specialist for the following day.
- She ensured that the client was given information about monitoring fetal movements (NZCOM 2012).

b) Client's version of events

On the strength of the information provided by the client, I would say that it demonstrates that the level of care was reasonable in this case. I think that this would have been viewed by other midwives as reasonable practice for the following reasons:-

- The midwife acknowledged the client's concerns about the reduced fetal movements and carried out an abdominal palpation.
- The midwife listened to the fetal heart rate and established that the rate was satisfactory.
- The midwife offered explanation as to why the fetal movements may not be so evident in view of the location of the placental and the transverse lie of the baby.
- In response to the client's concerns the midwife brought the appointment forward by two weeks and arranged a follow up referral with a specialist. This suggests a woman centred and responsive approach.
- The midwife did offer information about fetal movements.

It is documented in the NZCOM Consensus statement on antenatal fetal wellbeing that the bleeding during pregnancy may indicate a potential for increased risk to fetal wellbeing and therefore extra attention to fetal activity and assessment is therefore required in this instance. It would seem that the midwife did carry out a thorough assessment and responded appropriately in terms of further referral.

The consensus statement (NZCOM 2012) also outlines that when a woman identifies a reported reduction in fetal movements then a full antenatal assessment should be carried out and consideration of CTG monitoring and ultrasound is warranted. This was achieved by the midwife.

Question 6

How many fetal movements per day is normal and what information should the client have been given about fetal movements?

The level of movements that reliably distinguishes a healthy fetus from a fetus at risk has not yet been fully determined. This is because there is a wide biological variation in normal fetal movement, and a wide variation in maternal perception of fetal activity. The Australian and New Zealand Stillbirth Alliance (2012) have produced some good information for women and suggest that as a rule of thumb, women should be able to feel ten movements in two hours. However, this is not currently supported by any research evidence (Mater Research 2015).

The client should have been informed of the following:-

- That regular fetal movement is widely accepted as a sign of fetal wellbeing.
- That the client should become familiar with the normal patterns of movement for her baby.

- That there are changing patterns of movement as the baby develops, normal wake/ sleep cycles
- That there are factors which may modify the client's perception of movements such as BMI and placental position.
- That the recognition of reduced fetal movements is more important than any number of fetal movements and that if she has any concerns she should contact the midwife for advice.
- Perception of movement may change as the pregnancy develops, but movements should not reduce overall. (Australian and New Zealand Stillbirth Alliance 2012)

This advice should ideally be revisited at every subsequent visit.

Question 6 Summary Response

The midwife claims that she did point out the significance of fetal movements to the client on many occasions. The details about fetal movements were included in the introduction letter, antenatal book and documented at every visit in the clinical summary page of the MMPO notes.

The midwife claims that she did not suggest that a reduction in movement in late pregnancy was normal, but that she did talk about the changing perception of movement.

The focus on fetal movement as the primary indicator of fetal wellbeing is a relatively new phenomenon. Until recently the fetal heart rate was judged to be a more significant indicator. In the last few years, audit on the part of the PMMRC and corresponding research has changed practice in this area. It would be fair to say that two years ago, health providers were still grappling with these changes around practice and clinical guidelines and it is possible that this transitional information had not at that moment in time been introduced into the practice of the midwife.

I feel therefore that the information offered by the midwife would not be considered to be out of keeping with the information presented to women at that time.

Question 7

Was the midwife's standard of documentation adequate including in regard to the retrospective entries made on 16th [Month6]?

Midwifery case notes are very important in relation to any case and in an ideal situation, the notes will be as contemporaneous as is possible. However, in the event of unexpected outcomes, things can be overlooked and in such events additional entries may be made retrospectively. These need to be noted as retrospective documentation and must clearly state the time and date of entry.

The retrospective notes written by the midwife some two weeks following the stillbirth are clear and generally of a reasonable standard. There is an error in the date that she

claims that the conversation took place with the client which is written as 2nd [Month6] instead of 30th [Month5] and this has been highlighted.

In my opinion, the midwife was writing retrospective notes in stressful circumstances and complete recall of times and dates may have eluded any midwife in these circumstances. However, I am unsure why this information was not documented contemporaneously and this highlights the issue of documentation which will be discussed further under question 8.

Question 8

Are there any other comments on the care provided?

Record Keeping and Documentaion

The minimal level of documentation on the part of the midwife has made this review difficult to undertake. The lack of recording of information throughout the midwifery notes is not of a reasonable standard expected by the midwifery profession and has made assessment of the midwifery care in relation to the questions posed, problematic. Much of the information has been extrapolated from the client's own recollections and from the retrospective notes provided by the midwife and from her responses to the complaint. This information should have been accessible from the midwifery notes of the woman which should have been contemporaneous not retrospectively retrieved. Providing the client with generic information, however comprehensive, during a booking visit does not reflect the ongoing communication that may result as events unfold during the period of care.

The clinical summary sheet in the MMPO notes page is designed for data collection and does not allow for comprehensive documentation. It tells the reader virtually nothing about what was happening to the client in relation to her multi-professional care. The notes demonstrate scant, if any evidence of information sharing and informed decision making because it does not include a record of any discussions that may have occurred between the midwife and her client regarding aspects of care. Overall the documentation is of a standard which does not meet the recommendations of the New Zealand College of Midwives Standards of Practice (NZCOM, 2008).

In Summary Overall

In spite of the lack of documentation, the midwife made appropriate referrals and in my opinion offered a standard of care that peers would consider to be of a good standard. During the episode of care in question, the client was seen by many different health professionals including physicians, obstetricians, medical staff and midwifery staff at a number of different hospitals and departments. The midwife in this case was the conduit for referral and coordinator of multi-professional input as well as providing midwifery care. This was not always straightforward as some of the communication from the hospitals was less than optimal, making the coordination of care quite challenging at times. On the whole her care would appear to be thorough and conscientious.

From reading the documentation that I have available, it appears that there may have been a degree of departure from the standard of care expected but only in relation to the documentation. This relates to the standards outlined in the New Zealand College of Midwives Standards of Practice (NZCOM, 2008). This departure would apply specifically to standards 4 & 7:-

Standard Four

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

Relevant criteria

The midwife:-

Reviews and updates records at each professional contact with the woman.

Standard Seven

The midwife is accountable to the woman, to herself, to the midwifery profession and to the wider community for her practice

Relevant Criteria

clearly documents her decisions and professional actions.

I do not believe that improved documentation would have made any difference to the outcome of the case, but it may have hampered the process of assessing the case. I would make the recommendation that the midwife be required to attend a professional development session on the professional requirements of documentation.

Lorna Davies 20th June 2015

References

ANZSA (2012) Pregnancy — Your baby's movements and what they mean. http://www.stillbirthalliance.org.au/doc/ANZSA_DFM_brochure_English.pdf

Ministry of Health. 2012. Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines). Wellington: Ministry of Health.

New Zealand College of Midwives. (2008). Midwives handbook for practice. Christchurch, New Zealand: New Zealand College of Midwives.

New Zealand College of Midwives (2012) Consensus Statement. Assessment of fetal wellbeing during pregnancy.

Mater Research (2015) My Baby's Movements (MBM) Trial.

http://research.mater.org.au/Centre-for-Translating-Research-into-Practice/Activities-and-research/Mothers-and-Babies-Health/Studies-to-improve-information-for-women-about-dec/My-Babys-Movements-MBM-Trial.aspx."

Further advice 4 September 2015:

"Thank you for your query with regard to Question 5 about whether there is an expectation that CTG monitoring would be offered to a woman in a situation where she is reporting a decrease in the number of fetal movements felt at a gestation of 32 weeks. The NZCOM consensus statement does indeed state that CTG monitoring is warranted in such circumstances and in my opinion most midwives would offer this additional level of surveillance if the woman was expressing concerns about decreased fetal movements.

In this case the client states that she had reported a definite reduction in the baby's normal level of activity to the midwife during the appointment. From the midwife's account of events the client was offered the opportunity to attend hospital for further monitoring. The midwife indicates that she may not have specifically said CTG, but one can assume that would be what she was referring to, as that is as stated, a recommended action for reduced fetal movements and that is certainly what would happen on admission to an assessment unit in a tertiary hospital.

I hope that this clarifies things to some degree. Please do not hesitate to get back to me if you need further clarification.

Lorna"

Further advice 10 September 2015:

"With regard to the two different interpretations of events outlined below, in my opinion, if the midwife's version of the events is factual then there is no departure from what would be considered to be reasonable practice. If the consumer's version of events is factual then there would have been a moderate departure from what would be considered to be reasonable practice.

Lorna Davies 10th September 2015.

[RM B's] version of events	**[Mr and Mrs A's] version of events**
[Mrs A] was unsure about fetal movements and found them difficult to feel	[Mrs A] was very concerned about fetal movements
It is not unusual for a pregnant woman not to feel all fetal movements, and this may be for a variety of reasons including the gestation, fluid volume, parity, position of the baby and the placenta. Studies have been conducted	*The NZCOM Consensus statement on antenatal fetal wellbeing (2012) states that* *'if the woman reports a definite reduction in the baby's normal level of activity or change*

on the correlation between maternal perception of fetal movements and fetal movements detected on ultrasound scans, showing large variations, with correlation rates ranging from 16–90% (ANZSA 2012)	*in the quality of movements that is concerning to her, a full antenatal assessment with fundal-symphysis height measurement, cardiotocograph monitoring and consideration of ultrasound is warranted'. The midwife carried out a physical assessment including FS measurement and listening to the fetal heart. She brought the ultrasound scan appointment forward and arranged a referral appointment with an obstetrician. The midwife did not offer CTG monitoring on this occasion.*
[Mrs A] had felt that the baby was quite quiet on the weekend (4/5 [Month6]), but movement was back to normal since then.	[Mrs A] stated that movement had definitely reduced since her discharge from hospital (1 [Month6]), to the extent that she nearly called [RM B] on the weekend.
The quality of the movements that a woman feels is variable for the reasons stated above. *This does not always indicate a problem, but, such recognition should precipitate further questioning and discussion with the client and a physical assessment on the part of the midwife.*	*The midwife had provided the client with information about when and how to contact her or her back up in the event of concerns and this included reduced fetal movements. The client had been informed that any significant change in the nature of fetal movements should be reported to the midwife as soon as possible.* *However, although she may have considered the possibility, the client had not contacted the midwife regarding this concern.*
On examination, the baby was active, with four to five movements noted and normal fetal heart patterns.	[RM B] listened to the fetal heartbeat and palpated [Mrs A's] abdomen, but not four to five times.
As previously stated, women do not always feel the movements that can be felt quite clearly by the midwife during palpation. The fetal heart rate was also auscultated and was found to be within the parameters of normality.	*The midwife felt four to five movements during palpation there is no suggestion that she palpated four or five times.*
[RM B] told [Mrs A] that she likely did not feel as many movements because of the fetal/placental position.	[RM B] told [Mrs A] that a change in fetal movements was normal at that stage in pregnancy and the movements were reduced because the baby was lying in transverse behind the placenta.

If the baby was lying in the transverse this may reduce the sensation of fetal movements on the part of the woman and if the placenta is lying anteriorly (in the frontal aspect of the uterus) it may act as a buffer.	*The type of fetal movements may change as pregnancy advances in the third trimester but the number of fetal movements should not decrease. It is possible that the position of the baby in relation to the placenta could have acted as a buffer.*
[RM B] told [Mrs A] that she could be monitored further at [DHB2] if she was concerned.	[RM B] did not offer a cardiotocography (CTG) trace or further monitoring at [DHB2].
Reduced fetal movement may signify fetal compromise and CTG monitoring would usually be advised in such a case. Most midwives would understand the term 'further monitoring' to include CTG monitoring.	*Reduced fetal movement may signify fetal compromise and CTG monitoring would be advised in such a case.*
[RM B] brought [Mrs A's] next ultrasound appointment forward when she learned that one had not been carried out at Auckland City Hospital, and organised specialist review for the following day.	[RM B] brought [Mrs A's] next ultrasound appointment forward because of [Mrs A's] concerns about fetal movements and made an appointment with [Dr G] for the following day.
In view of the hospital admission for antepartum haemorrhage, the client would normally have been offered an ultrasound scan before discharge occurred. When the midwife discovered that this had not happened she brought the planned scan appointment forward seemingly as early as she could to the 14th [Month6] and additionally made an appointment for the obstetrician to see the client the following day to discuss the findings of the scan.	*If the client had expressed continued concern about reduced fetal movements then the midwife should have offered further monitoring in the form of CTG and an ultrasound scan as soon as possible and not have waited for four days.*
[RM B] told [Mrs A] to monitor her fetal movements closely and to contact a midwife that day if they reduced. She told her that at least 10 movements per day was normal.	[RM B] did not give [Mrs A] enough information about reduced fetal movements and told her that 10 movements in 24 hours was normal.
Currently there is no universally agreed definition of decreased fetal movements (Grigg 2015). *At the time that the event took place there was considerable variation in the information available about what constituted decreased fetal movement. The Midwifery Council of New Zealand were making efforts to address*	*Currently there is no universally agreed definition of decreased fetal movements (Grigg 2015).* *At the time that the event took place there was considerable variation in the information available about what constituted decreased fetal movement. The Midwifery Council of New Zealand were making efforts to address*

this within the recertification process. The Technical Skills workshop, a mandatory update for all midwives practising in NZ, included a session on monitoring fetal wellbeing in pregnancy and fetal movements was a topic within this session. As a result of this educational process in addition to the dissemination of new research findings, a more standardized aproach has been achieved in the last couple of years. *The key factor remains that if changes in fetal movements were experienced by the woman, then further monitoring as discussed above would be pertinent.*	*this within the recertification process. The Technical Skills workshop, a mandatory update for all midwives practising in NZ included a session on monitoring fetal wellbeing in pregnancy and fetal movements was a topic within this session. As a result of this educational process in addition to the dissemination of new research findings, a more standardized approach has been achieved in the last couple of years. The key factor remains that if changes in fetal movements were experienced by the woman, then further monitoring as discussed above would be pertinent.*

Australia and New Zealand Stillbirth Alliance (ANZSA). Clinical practice guideline for the management of women who report decreased fetal movements. Brisbane, July 2010.

Grigg, C. (2015) Working with women in pregnancy in Pairman, S., Pincombe, J.,Thorogood, C., &. Tracy, S (Eds). (2015). *Midwifery: Preparation for practice* (3rd ed.). Chatswood, New South Wales, Australia: Churchill Livingstone Elsevier."

Further advice 7 December 2015:

"I am very sorry that it has taken so long for me to get back to you but as I explained, this is my busiest time and I have only just been able to read the comments from [Mrs A] in the last few days.

Having read the comments from [Mrs A] very carefully, as well as reading through the original submissions and my own report several times, I do not feel that the additional commentary would change my opinions relating to the case that I outlined in the original report. I therefore do not have any additional advice with which to respond.

Kind regards

Lorna"

Appendix D: Independent clinical advice to Commissioner

The following expert advice was obtained from RM Fiona Hermann:

"Report prepared for HDC by Fiona Hermann

Reference: C13HDC01497

I have read and agree to abide by the guidelines for independent advisors as supplied by the office of the HDC.

I am a registered midwife. I hold the following qualifications:

RN (Comprehensive)
RM
Bachelor of Midwifery
PG Cert Midwifery
Masters of Education

I have over 30 years' experience as a midwife, in LMC and hospital practice, and have taught in midwifery education (undergraduate) for 10 years. I provide advice to Midwifery Council for S36 reviews, and competence reviews. I have been a member of the combined Trans-Tasman midwifery examination committee. I am currently in practice as an LMC in an urban setting. I am active in my local region of the NZ College of Midwives.

I confirm I have no conflict of interest or prior knowledge of any of the parties referred to in this case.

Background of the case:

[Mrs A] was in her second pregnancy and contracted midwife [RM B] as her Lead Maternity Carer (LMC). [Mrs A] had a history of mild pulmonary stenosis and had severe pre-eclampsia in her first pregnancy; [RM B] therefore referred [Mrs A] to an obstetrician at [DHB2]. [Mrs A] had three episodes of bleeding in pregnancy; after 20 weeks gestation vaginal bleeding is referred to as an ante-partum haemorrhage (APH). [Mrs A] was advised to have growth scans because of the bleeding. She also had several scans prior to 20 weeks gestation. These growth scans were completed as advised. At 30 weeks gestation [Mrs A] was admitted to [DHB2] and subsequently transferred to Auckland Hospital ([DHB2] does not have services for babies born prior to 34 weeks gestation). She did not have an ultrasound scan while an inpatient. On discharge from Auckland Hospital no discharge summary was sent to [RM B] or given to [Mrs A]. [Mrs A] was subsequently seen by [RM B] for a 'routine' appointment at approximately one week after her discharge and fetal movements were discussed at that appointment. Three days later [Mrs A's] baby was stillborn, and was found to be growth-restricted at birth.

I would like to extend my sympathies to [Mrs A] and her partner. The loss of a child is tragic.

I have been asked to provide advice as follows:

Whether I consider the care provided to [Mrs A] by [RM B] was reasonable in the circumstances, and why. In particular, I have been asked to comment on:

1. The overall standard of [RM B's] documentation including the ante-natal documentation, referring to professional standards.
2. Whether [RM B] should have proactively followed up with Auckland DHB in respect of [Mrs A's] discharge summary after she was discharged on 1 [Month6].
3. Whether it was reasonable for [RM B] to wait until 10 [Month6] to see [Mrs A] following her discharge from Auckland Hospital or whether an earlier appointment should have been arranged.
4. Whether [RM B] should have noted and taken further action in respect of the reduction in amniotic fluid index (AFI) between scans at 25 and 29 weeks
5. Any other matters in this case that I think warrant comment.

For each question I have been asked to advise:

a. What is the standard of care/accepted practice?
b. If there has been a departure from the standard of care or accepted practice, how significant a departure (mild, moderate or severe) I consider this to be.
c. How it would be viewed by my peers
d. Recommendations for future improvement that may help prevent a similar occurrence in future.

I believe the care provided to [Mrs A] by [RM B] was reasonable. [RM B] referred [Mrs A] for obstetric opinion and followed the recommended plan of care (including monthly scans for growth after anatomy scan).

1. **Overall standard of documentation.** I believe [RM B's] documentation is just reasonable. The notes are not detailed. The standard expected is that of the NZ College of Midwives Standards of practice, in particular, standards three and four; https://www.midwife.org.nz/midwives/professional-practice/standards-of-practice/ also, the Midwifery Council's Competencies for Entry to the Register of Midwives, competency 2.16. https://www.midwiferycouncil.health.nz/common/Uploaded%20files/Midwifery%20Leaders/Competencies%20for%20Entry%20to%20the%20register%20of%20Midwive s%202007.pdf

The documentation I have seen in [Mrs A's] ante-natal notes especially in relation to the visit on 10 [Month6] is brief; there is a retrospective note following the stillbirth of

[Mrs A's] baby. The retrospective notes would have ideally been written at the time of the visit, or the same day. This appointment appeared to focus mostly on the fetal movements and whether they were normal in frequency or not. The retrospective comments explain [RM B's] discussion of movements in more detail than the original notes did. I would expect that having needed to have what appears to have been some in-depth discussion around fetal movements and what [Mrs A] was feeling; this would lead me to believe detailed documentation was needed. In some ante-natal appointments the time available for that woman runs over and the midwife may have to complete more detailed notes later that same day. The retrospective notes [RM B] made show more detail of the discussion; however, the brief notes made at the time do document actions taken and discussion had.

I believe the documentation made would be viewed as acceptable by my peers.

Recommendations for future — I see that [RM B] was using the Midwifery and Maternity Provider Organisation's (MMPO) paper-based notes. In 2021 the vast majority of midwife LMCs would be using an electronic form of notes — this can allow for speedier and more detailed notes so the overall standard is probably higher and more consistent than the paper-based versions. I would encourage all midwives to use electronic notes. I would also suggest that a more detailed account is written, whether using electronic or paper-based notes to more fully document discussion and options offered or actions taken.

In regard to electronic notes — the NZ MoH is committed to having a single, electronic record of care for all maternity episodes. This single electronic record would mean that all maternity providers would be able to document in one record and would improve communication and care for women and their babies. This recording system is in place in some DHBs currently but by no means the majority. I strongly urge the uptake of this single electronic record of care to be fast-tracked throughout New Zealand.

2. Whether [RM B] should have proactively followed up with Auckland DHB in respect of [Mrs A's] discharge summary after she was discharged on 1 [Month6].

I think it is reasonable that [RM B] did not see a need to follow up with Auckland Hospital about a discharge summary.

[RM B's] back-up midwife referred [Mrs A] to [DHB2] because of an APH. [Mrs A] was transferred to Auckland Hospital assumably because neonatal facilities at [DHB2] do not care for babies under 34 weeks gestation. I surmise that [Mrs A] was transferred not because of the severity of her bleeding but as a precaution, in case the baby needed to be born prematurely.

[Mrs A] did **not** have an ultrasound scan at this admission; I do find this surprising as an APH would usually be an indication for such an assessment. However, this would have been an obstetric decision. [Mrs A] had had a scan for growth only a few days prior to the admission, on 23 [Month5]. [Mrs A] was discharged after three days on 1 [Month6]

and during her inpatient stay it would appear that maternal and fetal observations were normal.

As an LMC I would expect that a discharge summary would be provided to me; however, my experience is that the way these are provided can vary hugely. I cannot speak of practices in Auckland as I have never practised there. I do not know if discharge summaries were or are routinely sent — and because [RM B] was not the referrer ([DHB2] maternity staff referred [Mrs A] to Auckland) perhaps one was never sent to [RM B]. However, in my local DHB area in 2013 discharge summaries may have been given in paper format to the woman to then give to her LMC; it may have been posted (which can take several days to arrive) after being dictated. The dictation task may have been done by the discharging doctor — but equally it could have been left as a 'routine' task to another junior medical officer and then posted. Sometimes discharge summaries may take quite some time to arrive. The LMC may follow up if one has not arrived, but as [Mrs A] seemed to have an uneventful inpatient stay in Auckland and there were no instructions to change care or increase frequency of appointments it seems entirely reasonable that [RM B] did not chase the discharge summary.

I believe my peers would also think it was Auckland Hospital's responsibility to communicate with the LMC (although she was not the referrer, [DHB2] was) and that it is **not** the LMC's role to chase this up, particularly when the discharge seems quite routine.

I have discussed this point of whether the LMC is responsible for 'chasing' the discharge summary with a midwifery colleague, [whose] qualifications are listed in the references.

Future recommendations — again, a single, national, electronic record of maternity care would go a long way to easing communication difficulties.

3. Whether it was reasonable for [RM B] to wait until 10 [Month6] to see [Mrs A] following her discharge from Auckland Hospital or whether an earlier appointment should have been arranged.

As [Mrs A] and her baby had been monitored at Auckland and discharged home on 1 [Month6], with a plan for a scan in 2–3 weeks (as per [Mrs A's] letter to HDC in 2015), I believe it is reasonable to wait until 10 [Month6]. While [Mrs A] says [RM B] did not contact her again after making the appointment for 10 [Month6], it does not appear that [Mrs A] contacted [RM B] with any concerns either. [Mrs A] had had pre-eclampsia in her first pregnancy so regular checking of the blood pressure (BP) was needed, but every two weeks is sufficient. [RM B] could assume that [Mrs A] had a full assessment — i.e. maternal and fetal observations including BP and a CTG prior to discharge — so that an appointment 10 days after discharge is appropriate.

I believe my peers would agree. However, if a woman expressed anxiety over the time before the next appointment, then I believe I, and my peers, would arrange to see her earlier.

As the plan by the obstetrician [Dr G] was for [Mrs A] to have 4-weekly growth scans, I believe it was appropriate for [RM B] to continue with that plan and recommend the next growth scan at 4 weeks after the last scan performed on 23 [Month5]. The minimum interval between growth scans is 14 days as recommended by the MoH. This recommendation is from December 2019; I cannot find recommendations that may have been in place in 2013.

https://www.health.govt.nz/our-work/life-stages/maternity-services/new-zealand-obstetric-ultrasound-guidelines/third-trimester/third-trimester-scan

4. Whether [RM B] should have noted and taken further action in respect of the reduction in amniotic fluid index (AFI) between scans at 25 and 29 weeks.

The growth scans performed and reported on both show normal AFI and normal single deepest pools. The variation in AFI is quite wide. The Canterbury DHB explains this in their guideline on polyhydramnios (excessive amounts of amniotic fluid) thus:

DIAGNOSIS

The diagnosis of polyhdramnios is based upon ultrasound assessment of the amniotic fluid volume. This may be qualitative or quantitative, but generally has a strong subjective component.

The following thresholds are used for polyhydramnios at the CDHB:

- Single deepest pocket >8 cm
- Amniotic fluid index (AFI) ≥ 25 cm

It is important to note that the goal of amniotic fluid volume measurement is to detect underlying pathologies associated with poor outcomes. A systematic review of randomized studies found no evidence that one method was superior to another [2].

Reference ranges below for interest:

- Single deepest pocket measurement
  - normal = 2- 8 cm
  - mild polyhydramnios = 9-11 cm
  - moderate polyhydramnios = 12-15 cm
  - severe polyhydramnios = >16 cm
- The 4-quadrant method/amniotic fluid index (AFI)
  - normal = 8-24 cm^3
  - mild polyhydramnios = 25-30 cm
  - moderate polyhydramnios = 30.1 – 35 cm
  - severe polyhydramnios = > 35.1 cm^{15}

https://edu.cdhb.health.nz/Hospitals-Services/Health-Professionals/maternity-care-guidelines/Documents/GLM0054-Polyhydramnios-235239.pdf

The NZ MoH also has detailed guidelines on ultrasound scans in pregnancy; this is from 2019. I do not know and cannot find any references that would have been current in

2013. I have attached the 2019 guidelines as an appendix to this report. So, the difference in amniotic fluid between 25 and 29 weeks is **not** significant. The sonographer and radiologist reporting on these scans has indicated that the AFI is normal in both scans. [RM B] would trust these professionals that what they are seeing and measuring on scan is normal. Indeed, [RM B] would probably have been reassured to see that interval growth of the baby's abdominal circumference (AC) was larger than expected. Typically intra-uterine growth restriction is detected when there is a discrepancy between the head circumference (HC) and abdominal circumference (AC), i.e. the HC is larger than the AC. This was not the case for [Mrs A]. While [RM B] has not plotted the estimated weight of the baby from scan on the customised growth chart for [Mrs A], my subsequent plotting as best as I can shows the baby to have been on the 50th centile at both 25 and 29 weeks. No other action would be considered necessary.

The use of the biophysical profile (BPP) has been superseded by the use of Dopplers and more frequent growth scans. The measurement of 6/8 and the absence of respiratory movements in the case of [Mrs A's] baby may have caused some concern, but the adequate growth and normal liquor volumes would have been reassuring.

5. Whether [RM B] should have weighed [Mrs A] more than twice in her pregnancy.

The topic of weight gain, and of measuring weight, in pregnancy is complicated. Many women are sensitive about their weight and as being classified as overweight or obese. It appears [RM B] had scales available to all women in the waiting space in her clinic and so [Mrs A] had the opportunity to weigh herself if wanted. I note that the MoH advise that the 'woman should aim to weigh herself every four weeks, ideally on the same set of scales … if they don't have scales you should offer to weigh them' https://www.health.govt.nz/system/files/documents/publications/healthy-weight-gain-in-pregnancy-record-lmc-quick-reference-guide-jun14.pdf

I note that [RM B] says she had a practice of weighing women at the booking visit, once in the second trimester and 2–3 times in the third trimester. This would appear reasonable, especially if women are weighing themselves more often as above. Sudden weight gain over a short period, or excessive weight gain over a longer period may be related to pregnancy complications such as pre-eclampsia or gestational diabetes, but other modalities for testing for these complications are routine.

Other comments

[RM B] appears to have spoken with [Mrs A] at her last ante-natal appointment (10 [Month6]) in some detail about fetal movements. She would have already reviewed the scan reports from 25- and 29-weeks' gestation, and been reassured the baby was growing well. [Mrs A] had only been discharged from Auckland City Hospital 9 days earlier, where she had specialist obstetricians and midwives assessing her and (I assume) performing cardio-toco-graphs (CTG) on the baby. While these CTGs do not have a predictive function, a normal CTG on discharge added to normal growth scan on

23 [Month5] would have probably left [RM B] feeling confident this baby was not growth restricted.

I sense that the conversation about fetal movements between [Mrs A] and [RM B] was unclear for both of them; the documentation states that it was a long conversation about fetal movements and that [Mrs A] was not sure if movements were reduced or not. While [RM B] explained that further monitoring (at [DHB2]) was available she did not specifically recommend a CTG at that time. It appears she advised [Mrs A] that further monitoring at any time was available. Had a CTG been performed at the time of the last ante-natal appointment then perhaps that would have given more information — either, reassuring at that time (and only at that time) of fetal wellbeing, or if the CTG was not reassuring it would have prompted the planned scan to be brought forward and even closer monitoring planned.

The scan at 29 weeks showed normal growth for [Mrs A] and yet the baby was born less than three weeks later growth restricted.

Doppler studies are not performed (in 2021) when there is normal growth. See (in references) NZ Obstetric Ultrasound Guidelines. I do not know if there were similar guidelines current in 2013 or what the advice/practice was around Doppler at that time.

NB: because of the historic nature of this complaint to HDC, the references I have used are current. In 2013 the guidance for practitioners (especially around scanning, Doppler measurements and weight gain) may not have been as clear-cut as today. I have only been able to access references and guidance that are in current practice as of 2021.

Signed: Fiona Hermann 4 October 2021

Addendum

I have been asked by HDC to clarify my comments about documentation relating to the entire ante-natal period by [RM B].

I believe that in any case where the outcome has been the death of a baby, or a poor or complicated outcome for a woman or baby, there is always the thought that documentation *could* have been more extensive. Hindsight means that as humans we examine our documentation again and again in these sad situations.

My assessment is that [RM B] documented appropriately at the time, throughout the notes. She provided a great deal of information to [Mrs A] at the start of her care; her notes were clear and easy to read. A clinical narrative that was more than the

observations and short notes written would now (in 2021) be the standard for note keeping; however I believe that [RM B's] documentation would be considered acceptable by my peers for 2013.

Electronic note keeping has meant that there is more ability to document more thoroughly. Electronic notes come with drop down boxes, more fields to enter information, auto-filling of fields and more space to use free text to make notes more comprehensive than paper-based notes used in 2013.

References used:

Canterbury DHB Women's Health Service Guideline: *Polyhydramnios.* (2018). https://edu.cdhb.health.nz/Hospitals-Services/Health-Professionals/maternity-care-guidelines/Documents/GLM0054-Polyhydramnios-235239.pdf

New Zealand Ministry of Health. *New Zealand Obstetric Ultrasound Guidelines (2019)*. Ministry of Health: Wellington.

New Zealand College of Midwives (2016). *Midwives handbook for practice*. NZCOM. Online link to precis: https://www.midwife.org.nz/midwives/professional-practice/standards-of-practice/

New Zealand Maternal Fetal Medicine Network. *Guideline for the management of suspected small for gestational age singleton pregnancies and infants after 34 weeks gestation* (2014).

New Zealand Ministry of Health. *Guidance for healthy weight gain in pregnancy (LMC quick reference guide)* (2016) https://www.health.govt.nz/system/files/documents/publications/healthy-weight-gain-in-pregnancy-record-lmc-quick-reference-guide-jun14.pdf

Midwifery Council of New Zealand. *Competencies for the Entry to Register of Midwives.* (2007). https://www.midwiferycouncil.health.nz/common/Uploaded%20files/Midwifery%20Leader
s/Competencies%20for%20Entry%20to%20the%20register%20of%20Midwives%202007.pdf

Midwifery colleague from whom I gained an opinion about following up on a discharge summary is … a member of the Midwifery Council of NZ.

Amended report for HDC prepared by Fiona Hermann

On reading the advice provided to HDC by midwife L. Davies pertaining to the documentation by [RM B]:

1. I had stated that [RM B's] documentation was just adequate. On considering Ms Davies' report I agree with her assessment that the notes did not meet the standard expected; I had reported that the documentation was barely adequate.
2. On reflection the retrospective documentation aspect of the notes, written two weeks after the stillbirth of [Mrs A's] baby seems unusual. Certainly, there are clinical situations where retrospective documentation is unavoidable but that is usually undertaken as soon as possible after the event, rather than two weeks later.
3. My assessment is that [RM B] may have believed providing copious reading material at the start of the pregnancy was sufficient; however, I agree with L. Davies that ongoing shared decision making and documentation of discussions is not evident in the notes written by [RM B].
4. I restate that the documentation provided today would be different and hopefully more detailed when using electronic notes.

Fiona Hermann"

Appendix E: Relevant policy

ADHB APH Guideline

ADHB's APH Guideline (2012) states:

> "5. Diagnosis
>
> … If there has been no recent ultra sound scan, do a portable scan to assess placental position. Request departmental scan, urgency should depend on the clinical situation …
>
> 7. Follow up
>
> The patient should be counselled regarding the risks of preterm labour and growth restriction after APH. Ensure a customised growth chart has been generated and serial growth scans arranged. This is important because of the increased risk of SGA [small for gestational age] and perinatal mortality associated with APH."

Appendix F: Relevant guideline

RCOG APH Guideline

The UK's Royal College of Obstetricians and Gynaecologists (RCOG) Antepartum Haemorrhage guideline (Green-top Guideline No. 63 (2011)) provides:

> "8.1.2 Ultrasound scan Women presenting with APH should have an ultrasound scan performed to confirm or exclude placenta praevia if the placental site is not already known. Ultrasound scanning is well established in determining placental location and in the diagnosis of placenta praevia.
>
> The sensitivity of ultrasound for the detection of retroplacental clot (abruption) is poor. … Thus, ultrasonography will fail to detect three-quarters of cases of abruption. However, when the ultrasound suggests an abruption, the likelihood that there is an abruption is high."