Counties Manukau District Health Board

A Report by the
Deputy Health and Disability Commissioner

(Case 19HDC01718)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. A woman underwent a Caesarean section (C-section) in 2019. It was noted that fluid was present in the lower segment of the uterus. The baby was born healthy, and the woman was discharged home. This complaint relates to the care provided at the public hospital in the period after the birth.

2. Following the birth, the woman presented to the public hospital twice, with a breast infection and fluid leaking from the vagina. At the first presentation, tests and imaging were performed, including an ultrasound scan, but she was discharged without a diagnosis.

3. At the second presentation, the woman was experiencing an inflamed breast and a possible breast abscess, and clear fluid draining from the vagina. She was admitted to the maternity ward for further assessment and treatment, and told that the leaking fluid was likely lochia alba.[1] The woman was discharged to the care of her community midwife.

4. The woman was referred to the gynaecology service for investigation of her fluid loss, and an MRI detected fluid in the vagina but no evidence of a vesicovaginal fistula.[2] However, a CT scan of the urinary tract showed a fistula between the ureter and the vagina, and corrective surgery was undertaken — four months after the woman's C-section.

Findings

5. The Deputy Commissioner found that systemic deficiencies at Counties Manukau District Health Board across the woman's two presentations constituted a failure to provide services with reasonable skill and care, in breach of Right 4(1) of the Code.

6. Comment was also made regarding another obstetric and gynaecology registrar's differential diagnosis of the fistula.

Recommendations

7. The Deputy Commissioner recommended that CMDHB provide the woman with a written apology for the deficiencies outlined in this report; implement a clinical pathway for suspected vaginal fistulas, to guide clinicians on the appropriate tests and imaging to request, and examinations to undertake; and share an anonymised study of the case with the CMDHB obstetrics and gynaecology senior registrars and consultants.

[1] Vaginal discharge after childbirth.
[2] An abnormal opening that forms between the bladder and the vagina.

Complaint and investigation

8. The Health and Disability Commissioner (HDC) received a complaint from Mrs A about the services provided by Counties Manukau District Health Board (CMDHB). The following issue was identified for investigation:

- *Whether Counties Manukau District Health Board provided Mrs A with an appropriate standard of care between Month1[3] and Month4 2019 (inclusive).*

9. This report is the opinion of Deputy Health and Disability Commissioner Rose Wall, and is made in accordance with the power delegated to her by the Commissioner.

10. The parties directly involved in the investigation were:

Mrs A	Consumer/complainant
CMDHB	Group provider
Dr B	Obstetrics and gynaecology registrar
Dr C	Obstetrics and gynaecology registrar
Dr D	Obstetrics senior medical officer
Dr E	Consultant radiologist

11. Also mentioned in this report:

Dr F	Senior house officer

12. Further information was received from the medical centre.

13. Independent expert advice was obtained from an obstetrician and gynaecologist, Dr Ian Page (Appendix A).

Information gathered during investigation

Introduction

14. On 23 Month1, Mrs A underwent a Caesarean section (C-section). It was noted that fluid was present in the lower segment of the uterus.[4] The baby was born healthy, and Mrs A was discharged home on 25 Month1.

[3] Relevant months are referred to as Months 1-4 to protect privacy.
[4] The lower segment of the uterus was noted to be oedematous (tissue with excess fluid). In response to the provisional opinion, Mrs A said that no one told her that there was fluid present in the lower segment of her uterus.

15. This complaint relates to the care provided to Mrs A three weeks after the C-section, when she presented to the public hospital twice with clear fluid draining vaginally. Subsequently, Mrs A was diagnosed with a ureterovaginal fistula.[5]

15–17 Month2 — first presentation and admission

16. In summary, Mrs A presented to the public hospital with a breast infection and leaking vaginal fluid. Throughout her admission, she continued to experience leaking vaginal fluid and underwent testing and imaging that did not confirm the presence of a fistula. However, the interpretation and documentation of the state of her ureteric jets was incorrect. Mrs A was discharged on 17 Month2 without a diagnosis. Further detail about her presentation is outlined below.

15 Month2

17. On 15 Month2, Mrs A presented to the public hospital with a breast infection[6] and leaking vaginal fluid. She was admitted for observation and a pelvic ultrasound and treated with antibiotics. At 8.53pm, Mrs A was seen by a senior house officer (SHO), Dr F, and an obstetric registrar, Dr C. Dr F noted that Mrs A was reporting clear vaginal leakage with possible dark blood,[7] and she did not have painful or difficult urination or abdominal pain. Dr F documented that Mrs A was not able to tolerate a pelvic examination because of pain, and there was no obvious fistula.[8] Dr F's impression was either a fistula, a cyst,[9] or an abscess,[10] and an ultrasound scan (USS) was booked for the next day.

18. Dr C's impression was of a discharging haematoma,[11] but she documented that a fistula needed to be ruled out.

16 Month2

19. A USS was performed on 16 Month2.[12] The reporting radiologist, Dr E, outlined on the report that there was a small amount of fluid within the endometrial cavity,[13] which could be regarded as a normal finding. Despite clamping Mrs A's catheter during the procedure, the bladder remained under-filled and was unable to be assessed adequately. This meant that Mrs A's ureteric jets were not able to be visualised. Dr E noted that there was mild right hydronephrosis[14] and also mild right hydroureter.[15]

[5] An abnormal channel between the ureter and the vagina.
[6] Mastitis.
[7] Throughout the rest of the clinical documentation and during Mrs A's second admission, only clear vaginal leakage is mentioned.
[8] An abnormal connection between two organs or vessels, usually as a result of an injury or surgery.
[9] A sac-like pocket of tissue that contains fluid, air, or other substances.
[10] A collection of pus that has built up within the tissue of the body.
[11] An abnormal collection of blood outside a blood vessel.
[12] In response to the provisional opinion, Mrs A stated that the USS was done between 24 and 30 Month2; however, the clinical notes confirm that it was done on 16 Month2.
[13] A hollowed-out space within the uterus.
[14] Swelling of the kidney.
[15] Enlargement of the ureter (a tube that carries urine from the kidney to the urinary bladder).

20. Following the scan, Mrs A was reviewed by obstetric registrar Dr B. CMDHB said that in light of the USS findings, Dr B undertook a methylene blue test.[16] A methylene blue test can exclude a vesicovaginal fistula, but not a ureterovaginal fistula.[17] The methylene blue test was negative, indicating that no vesicovaginal fistula was present. Despite the ureteric jets not being visualised, Dr B documented them as normal. She recorded:

> "— ?resolving haematoma ?[vesicovaginal] fistula
>
> — [Ultrasound scan]: mild R) hydronephrosis[18]/hydroureter[19] without cause seen, **normal ureteric jets** …"

21. In explanation as to why she documented that the jets were normal when in fact they were not visualised, Dr B told HDC:

> "Interpretation of ultrasound pictures is outside of my scope of practice … I believe that I must have had a verbal report from a radiologist to come to the conclusion documented in the notes. Due to the considerable time that has passed, I am unable to recall any further information …
>
> The relevance of the mild right hydroureter and hydronephrosis would have been significant to me in the context of absent ureteric jets and I am certain that I would have raised concerns if I was aware that the ureteric jets were not normal."

22. In response to the provisional opinion, Dr B reiterated that there would be no reason for her to have documented that the jets were normal if nobody had advised her as such.

23. However, Dr E told HDC that it is unlikely that Dr B would have been given a verbal report. Dr E stated:

> "My usual practice, if I telephone the referring team with an urgent result, is to document that this has occurred in the final report. I note that there is no record of any such a conversation in my final report. Since the findings on this ultrasound scan were not immediately life or limb threatening, and the report was available just over an hour after the commencement of the scan, there was no specific reason for me to provide a verbal report.
>
> …
>
> Ureteric jets are routinely assessed as part of the urinary bladder examination but in this case, where the bladder was under-filled, they could not be adequately assessed. This makes it even more unlikely that I would have run through a verbal report saying that the ureteric jets were seen, as they were not."

[16] A test to determine whether there was a fistula between the bladder and the vagina or uterus (in which case the pack inserted into the vagina would have been stained by the dye).
[17] An abnormal opening that forms between the ureter and the vagina.
[18] Swelling of a kidney owing to back-up of urine.
[19] Dilation of the ureter.

24. Dr B contacted the on-call consultant, Dr D. Dr D told HDC that she recalls being advised by Dr B that Mrs A had a negative methylene blue test and a normal USS.

25. In response to the provisional opinion, Dr B stated that she would have discussed the findings "mild R) hydronephrosis[20]/hydroureter[21] without cause seen" with Dr D.[22]

26. However, in response to the provisional opinion CMDHB stated that on discussion of the provisional report with Dr D, Dr D advised that if she had been made aware of these findings, they would have alerted her to the need for further investigations. She therefore does not believe that these findings were discussed with her.

27. Dr D told HDC that she advised Dr B that if Mrs A remained well overnight and her symptoms resolved, she could be discharged in the morning. Dr D stated: "I was reassured by the normal ultrasound and resolving symptoms. I would not expect a fistula to resolve with antibiotics and rest."

28. At 6.28pm on 16 Month2, it is documented that Mrs A's vaginal fluid loss had almost resolved. According to the clinical notes, Mrs A was discharged on the morning of 17 Month2 by a midwife, to the care of her midwife in the community.

29. However, in response to the provisional opinion, Mrs A told HDC that she was never discharged to her midwife, and "every time [she] had been discharged with confusion no one had any idea what was going on". She said that on 15 Month2, when the symptoms started, the midwives suggested that she go to the public hospital.

30. Dr B told HDC that her expectation, and usual practice, was that Mrs A would be reviewed on the morning round by the Obstetrics Ward team prior to her discharge. However, it appears that this did not occur.

31. In response to the provisional opinion, Dr B stated that her plan of admission for Mrs A (which she states was standard practice) would have ensured a review by an SMO/ consultant. However, a midwife discharged Mrs A at 7am the following morning without further consultation with Dr B, which resulted in Mrs A leaving before the ward round, outside the control of Dr B.

24–30 Month2 — second presentation and admission

32. On the evening of 24 Month2, Mrs A presented again to the public hospital. She had symptoms of mastitis (pain and redness) and a possible breast abscess. The nursing assessment also noted that Mrs A was experiencing clear vaginal discharge that soaked a pad every three hours. Mrs A was admitted to the maternity ward for further assessment and treatment.

[20] Swelling of a kidney owing to back-up of urine.
[21] Dilation of the ureter.
[22] Dr B, in her response, also stated that there was no evidential basis for the statement that she contacted Dr D and informed her that the methylene blue test was negative and the USS was normal. I note that the evidential basis specified was Dr D's recollection.

33. Mrs A spent six nights in the public hospital for assessment and treatment of mastitis and a possible breast abscess. Throughout this time, she continued to experience intermittent vaginal leakage.

34. At 4.45pm on 28 Month2, Mrs A was assessed by a SHO. Despite a radiology report stating that the bladder (which includes the ureters) was not able to be assessed, the SHO specifically noted that as per Dr B's documentation from the previous admission, the ureteric jets were normal.

35. Several test results during Mrs A's hospital admission indicated that no vesicovaginal fistula was present:

a) On 30 Month2, the discharge was collected and tested, and the fluid was excluded as being urine. It was documented that the fluid was likely vaginal discharge that occurs after birth (lochia alba), and that there was no clinical evidence of a vesicovaginal fistula.

b) Two additional methylene blue tests were undertaken, both of which were negative (this test excludes only a vesicovaginal fistula, not a ureterovaginal fistula).

36. It was documented that there was no clinical evidence of a vesicovaginal fistula. On 29 and 30 Month2 it is also documented that Mrs A had "no lochia", and at 11.27am on 30 Month2, an SMO and Dr F reviewed Mrs A. The SMO's impression was that the vaginal leakage could be a result of a fistula, but noted that the ultrasound and methylene blue test showed no evidence of this.

37. On the morning of 31 Month2, it was noted that Mrs A was "very keen to go home" and that discharge was planned for that day. Mrs A was reviewed by an Obstetric Senior House Officer. It is documented that Mrs A reported that her vaginal leakage had "stopped", and that any discharge felt more "mucousy and thick". It is also recorded that it was explained to Mrs A that the discharge was likely lochia alba. Again, it is noted that Mrs A was discharged to the care of her community midwife. However, in response to the provisional opinion, Mrs A reiterated that she was never discharged into the care of anybody.

Information from CMDHB

38. Initially, the Clinical Director of Women's Health at CMDHB told HDC that she agreed that Mrs A was discharged without a clear diagnosis on 31 Month2. However, the Chief Medical Officer at CMDHB subsequently told HDC that CMDHB strongly refutes this. He stated that Mrs A was discharged with a diagnosis of lochia alba, and the follow-up plan was for her care to be transferred back to her midwife. In its response to the provisional opinion, CMDHB told HDC that it is not unusual for patients to be discharged from hospital without a definitive diagnosis, especially when the symptoms appear to be resolving or have resolved. CMDHB noted that if Mrs A's midwife had had any ongoing concerns, she would have had access to Mrs A's maternity records, and could have consulted the Obstetrics team.

Subsequent events

39. On 20 Month3, Mrs A was referred to the gynaecology service by her general practitioner (GP) for vaginal fluid loss. She was seen in the CMDHB colposcopy clinic on 5 Month4. Mrs

A was admitted to hospital to expedite a diagnosis, and underwent an MRI on 6 Month4. She was then discharged home to await the radiology report.

40. The MRI showed fluid in the vagina, but did not show evidence of a vesicovaginal fistula. A CT urogram [23] was performed on 9 Month4 and confirmed the diagnosis of a right ureterovaginal fistula. Surgery for re-implantation of the ureter was undertaken four months after her C-section.

41. In response to the provisional opinion, CMDHB explained that the timing of a fistula repair is dependent on the surrounding tissue. If the tissue is healthy, early repair can be done, but placement of a ureteric stent and a delayed repair, as occurred in Mrs A's case, allows inflammation from the injury and subsequent urine leakage to subside, increasing the chance of a successful repair.

Further Information — Mrs A

42. Mrs A told HDC that she and her husband are disappointed with the health system because of these events. She said that after her C-section, she was experiencing distress as a result of the vaginal leakage, and the appropriate scan should have occurred when she first presented to the public hospital. Mrs A said that when the fistula was identified, she required a catheter and bag to drain urine from her body, which caused her pain and discomfort. She stated that she and her husband have gone through tough times, and it is upsetting that she was unable to look after her baby in the way she would have liked through this time because of the discomfort she was experiencing.

Response to provisional opinion

43. Mrs A was given the opportunity to respond to the provisional opinion, and her comments have been incorporated into the report where appropriate. Much of her response has been set out in the relevant sections above. Mrs A also reiterated her concerns about a delay in diagnosis, and stated that the vaginal leakage she experienced was so bad that her skin was peeling because it remained wet all the time.

CMDHB

44. CMDHB was given the opportunity to respond to the provisional opinion. Some of its response has been set out above, and its additional comments are set out below.

45. CMDHB strongly disagreed that the delay in Mrs A's diagnosis was in breach of Right 4(1) of the Code. CMDHB stated that when Mrs A was discharged from hospital on 16 Month2 and 31 Month2, her symptoms of vaginal discharge were "resolving" in the first instance, and had "stopped" in the second instance, and it was her wish to go home.

46. CMDHB added that it is not unusual for patients to be discharged from hospital without a definitive diagnosis, especially when the symptoms appear to be resolving or have resolved. It is only with the benefit of hindsight that it can be concluded that further investigations

[23] A test that uses a CT scan and contrast dye to visualise the urinary system.

were warranted, but not conducting further clinical investigations was a reasonable clinical decision, based on what was known at the time.

47. CMDHB stated that on both occasions it was not unreasonable for Mrs A to be discharged with follow-up in the community by her midwife or GP. CMDHB noted that lochia alba is the final stage of postpartum discharge and may last up to six weeks postpartum, and is a normal process and does not require any clinical intervention. CMDHB believes that the fact that Mrs A's symptoms were resolving or had stopped is given insufficient weight by the independent advisor, who stated that the symptoms persisted for an extended period without resolution.

48. CMDHB noted that ureterovaginal fistulas are known to be difficult to diagnose early. Typically they result in painless urinary leakage from the vagina, which can be intermittent and positional. In postnatal women, where vaginal discharge is expected, the addition of a vaginal urine leakage may be obscured.

Opinion: Counties Manukau District Health Board — breach

Introduction

49. Mrs A experienced a rare complication of a C-section — a ureterovaginal fistula. Despite the rarity, I consider that deficiencies occurred in Mrs A's patient journey. This report discusses the concerns I have about the care provided by the clinicians who cared for Mrs A, in not undertaking adequate assessments and investigations of Mrs A's symptoms to exclude a ureterovaginal fistula, discharging her without appropriate outpatient follow-up in place, and fixing on a diagnosis that was not consistent with the presenting symptoms. There was clearly miscommunication between the radiology service and the clinical team overseeing Mrs A's care early on, which meant that test results were interpreted incorrectly and the misinformation was relied upon subsequently.

50. In this case there is conflicting evidence around what information was known to the clinicians caring for Mrs A at key points in her patient journey. This has made it difficult to make findings of individual accountability.

51. To assist in assessing the care provided to Mrs A, I obtained independent advice from an obstetrician and gynaecologist, Dr Ian Page.

Discharge

Decision to discharge without further investigation

52. On 16 Month2, following review by Dr B and her subsequent discussion with Dr D, it was decided that if Mrs A remained well overnight, she could be discharged the next morning. Mrs A was discharged from the public hospital on 17 Month2 by a hospital midwife.

53. The decision to discharge Mrs A appears to have been influenced by the erroneous understanding by Dr D that the USS was normal.

54. Dr Page advised:

> "Overall I think the standard of care was not consistent with accepted standards, as [Mrs A] was discharged with an incomplete assessment of the possible sites of fistula … I think this would be viewed as a mild to moderate departure from accepted practice. The principle here is that where a diagnosis is not reached, a plan for further investigation/assessment should be put in place."

55. I accept Dr Page's advice. Irrespective of precisely what information was communicated between the parties involved, no clear diagnosis had been made at this time, and the cause of Mrs A's symptoms was unclear. I note that a negative methylene blue test does not exclude a ureterovaginal fistula, and Dr Page advised that a CT urogram should have been undertaken to investigate this. Dr Page stated that "the failure to reach a clear diagnosis on both admissions in [Month2] occurred because the need for a CT urogram to diagnose/exclude a uretero-vaginal fistula was not recognised".

56. In response to the provisional opinion, CMDHB submitted that it was not unreasonable for Mrs A to be discharged without a diagnosis on 16 Month2, as her symptoms were "resolving" and she wanted to go home, and it noted that ureterovaginal fistulas are difficult to diagnose early. However, regardless of whether her symptoms were resolving, and with reference to my expert's advice, I consider that a more thorough investigation into the cause of her gynaecological symptoms, either as an inpatient or an outpatient, should have occurred. By not undertaking a CT urogram, Mrs A's fistula was not diagnosed in a timely manner. I acknowledge that Mrs A was still under the care of her midwife, but I consider that further investigations into the cause of Mrs A's symptoms should have occurred at this point.

Diagnosis of lochia alba

57. On 24 Month2, Mrs A presented to the public hospital again with clear vaginal discharge. She was admitted and underwent a repeat methylene blue test, which showed no evidence of a vesicovaginal fistula. Upon examination, no leakage of urine into the vagina was observed, nor any signs of urinary incontinence. The fluid leaking from the vagina was tested and confirmed not to be urine. Mrs A was discharged on 30 Month2 with the fluid thought to be lochia alba.

58. Dr Page advised that the diagnosis of lochia alba was not consistent with Mrs A's presentation, as lochia alba is light yellow to cream in colour, and reduces in amount as time passes. However, in response to the provisional opinion, CMDHB submitted that it was reasonable for Mrs A to be sent home without a definitive diagnosis, considering that her symptoms had stopped and she wanted to go home. CMDHB also said that lochia alba is the normal process of the final stage of postpartum discharge and may last up to six weeks postpartum; and where vaginal discharge is expected in women postpartum, the addition of vaginal urine leakage may be obscured. Whilst I acknowledge CMDHB's view, I note that the contemporaneous notes state that the fluid was clear, and accordingly I do not accept that the discharge was being obscured.

59. I accept Dr Page's advice that "[Mrs A's] fluid loss really cannot be viewed as being consistent with lochia alba". The vaginal fluid Mrs A experienced was mostly clear in colour. Again, I note that a negative methylene blue test does not exclude a ureterovaginal fistula, and that consideration could have been given to the presence of a ureterovaginal fistula.

60. I acknowledge that a number of tests were undertaken to confirm or exclude a vesicovaginal fistula. However, in my view, there appears to have been inadequate understanding of the presenting symptoms of lochia alba, resulting in a diagnosis being made that was not consistent with Mrs A's clinical presentation, that being leakage of mostly clear-coloured vaginal fluid.

Conclusion

61. I appreciate that a ureterovaginal fistula is rare. However, notwithstanding the rarity of it occurring, I remain critical of the care provided to Mrs A over two hospital admissions, and the extended time it took CMDHB to reach the correct diagnosis for Mrs A's presenting symptoms, particularly as they persisted over an extended period without resolution. I am concerned that:

- On 17 Month2, Mrs A was discharged without a clear diagnosis or a plan for further investigations or outpatient follow-up;
- On 30 Month2, Mrs A was discharged again, and this time with an inappropriate diagnosis; and
- During Mrs A's presentations, clinicians did not consider the possibility of a ureterovaginal fistula and recognise the need for a CT urogram or make further enquiries into other suitable imaging.

62. The above deficiencies demonstrate missed opportunities to investigate the cause of Mrs A's symptoms fully or place Mrs A on the correct diagnostic pathway. As a result, Mrs A experienced two months of vaginal fluid loss and the distress associated with this. Where a diagnosis presents as challenging, it is important to ensure that appropriate investigations are completed and differential diagnoses fully explored, or alternatively that there is outpatient follow-up to monitor the resolution of the presenting symptoms or instigate further investigations.

63. The identified deficiencies occurred across two presentations, and a number of CMDHB clinicians were involved, suggesting problems at a systemic level across the DHB. I consider that cumulatively the deficiencies meant that Mrs A was not provided services with reasonable care and skill. I attribute this to CMDHB, and find that it breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[24]

64. I acknowledge that CMDHB reviewed Mrs A's care via a Complications Audit and the Maternal Morbidity Meeting to identify learnings from Mrs A's experience.

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

Differential diagnosis of draining haematoma: Dr C — other comment

65. Mrs A was reviewed by Dr F and Dr C on the evening she presented to the public hospital on 15 Month2. Following assessment, Dr C noted that her impression was of a draining haematoma. CMDHB acknowledged the inappropriateness of this differential diagnosis, and discussed it with Dr C (a registrar), who has reflected on it.

66. My advisor, Dr Page, stated that it is not clear why Dr C considered that the clear fluid draining vaginally could be from a discharging haematoma, as usually fluid from a haematoma would be red/brown in colour.

67. I accept Dr Page's advice. I note that despite including a haematoma as a differential diagnosis, Dr C arranged a USS in an attempt to exclude a vesicovaginal fistula — the more common type of vaginal fistula — and she has reflected on her clinical decision-making in this instance. I consider this to be appropriate in the circumstances.

Opinion: Dr B — other comment

Review of ultrasound scan report

68. On 16 Month2, Mrs A had a USS. Dr B, a registrar, incorrectly documented in her clinical notes that the USS showed normal ureteric jets, which would imply normal ureteric anatomy and function. However, it is unclear why Dr B incorrectly documented that the jets were normal.

69. Dr B said, both initially and in response to the provisional opinion, that she must have had a verbal report from radiology to reach the conclusion she did. However, the radiologist, Dr E, stated that it is unlikely that she would have provided a verbal report to Dr B because normally verbal reports are given only where the matter is urgent and waiting for the written report is not practicable. Dr E said that because the USS did not give rise to any life- or limb-threatening finding, there would be no specific reason to provide a verbal report. Dr E also said that usually she would document any verbal report, and there is no documentation of a verbal report having occurred. Lastly, Dr E commented that the ureteric jets were not able to be seen, so she would not have given a verbal report that they had been.

70. Dr Page said that in the situation that Dr B did not receive a verbal report from Dr E, he assumes that Dr B made an honest mistake. Dr Page noted that in reality, honest mistakes occur, and he would find it difficult to call this mistake a departure from accepted practice.

71. In light of the fact that the jets were not visualised, it seems unlikely that Dr E would have described them as normal. I also note Dr E's usual practice of not giving verbal reports in situations like this, and when doing so, documenting those verbal reports. However, I also consider that, as Dr B noted, it is unlikely that she would have documented that the ureteric jets were normal if she had not been advised of that.

72. Considering all of the evidence set out above, I am unable to make a finding as to why Dr B documented that the ureteric jets were normal, when they were not.

Reporting of, and response to, ultrasound scan report

73. The USS undertaken on 16 Month2 identified a mild right hydroureter and hydronephrosis, which may have indicated a possible obstruction of urine flow. There is conflicting evidence as to what was reported to Dr D, however. In Dr D's initial response to HDC she stated that she recalled being advised that the USS was normal. She subsequently stated that if she had been advised of the hydroureter and hydronephrosis, she would have initiated further investigation (which she did not). Accordingly, she believes she was not informed.

74. However, Dr B, in her response to the provisional opinion, stated that she strongly believes she would have discussed the mild right hydroureter and hydronephrosis. Dr B also originally said that had she noted that the ureteric jets were not able to be visualised, the relevance of the mild right hydroureter and hydronephrosis would have been significant to her.

75. Considering the differing versions of events from Dr B and Dr D, I am unable to make a finding as to precisely what Dr B informed Dr D.

Conclusion

76. Given my inability to make findings on these points, I am unable to be critical of Dr B's involvement in Mrs A's care.

Recommendations

77. I recommend that CMDHB:

a) Provide Mrs A with a written apology for the deficiencies outlined in this report, within three weeks of the date of this report. The apology is to be provided to HDC for forwarding to Mrs A.

b) Implement a clinical pathway for suspected vaginal fistulas, to guide clinicians on the appropriate tests and imaging to request, and examinations to undertake. A copy of this, confirming implementation, is to be provided to HDC within three months of the date of this report.

c) Share an anonymised study of Mrs A's case with the CMDHB obstetrics and gynaecology senior registrars and consultants.

Follow-up actions

78. A copy of this report with details identifying the parties removed, except Counties Manukau District Health Board and the expert who advised on this case, will be sent to the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent clinical advice to Commissioner

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

"Thank you for your letter of 4 June 2020 and the enclosed documents, requesting expert advice to the Commissioner on the care provided by [the public hospital] to [Mrs A] during the period from 15 Month2 to 9 Month4. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I am a practising Obstetrician & Gynaecologist and have been a consultant for over 30 years. I obtained my MRCOG in 1985, my FRCOG in 1998 and my FRANZCOG in 2002. I have been employed for the past 20 years by Northland DHB. I have been a member of the RANZCOG Expert Witness register since 2012.

Background
[Mrs A] was [aged ...] who had a Caesarean section on 23 [Month1], with no post-operative concerns. On 15 Month2 she was referred to the obstetric service at [the public hospital] due to clear fluid leaking from her vagina. Examinations and tests were performed but no diagnosis was made, although a fistula formed part of the differential diagnosis. On 17 Month2 [Mrs A] was discharged home without a diagnosis, after it was noted that the vaginal discharge was improving. However her symptoms did not resolve and [Mrs A] presented to [the public hospital] again on 24 [Month2] and 20 [Month3]. On each occasion further tests and examinations were performed to investigate the cause of the discharge. Each time [Mrs A] was discharged home without a diagnosis.

On 5 [Month4] [Mrs A] was admitted acutely to [the public hospital] for investigation of a suspected ureterovaginal fistula. On 9 [Month4] a CT urogram was performed, which identified a right ureterovaginal fistula.

You asked me to review the documents and advise whether the care provided to [Mrs A] at [the public hospital] was reasonable in the circumstances and why. You also asked me to comment specifically on:

1. Whether the care provided to [Mrs A] at [the public hospital] was appropriate and consistent with accepted standards of practice for the periods of:

a. 15–17 [Month2]
b. 24–31 [Month2]
c. 20 [Month3]
d. 5–9 [Month4].

2. Whether the examinations, tests and scans performed to investigate the cause of [Mrs A's] symptoms during each hospital presentation/admission were adequate and sufficient.

3. Whether I consider there was a delay in diagnosing [Mrs A] with a ureterovaginal fistula.

Sources of Information
In assessing this case I have read:

- Copy of complaint dated 16 [Month4]
- Counties Manukau DHB response dated 21 January 2020
- Clinical records from CMDHB covering the period 15 [Month2] to 9 [Month4]
- Clinical records from [the medical centre] covering the period 7 [Month3] to 26 [Month3]

Summary of the Case
On 22 [Month1] [Mrs A] went into spontaneous labour at 37 weeks' gestation in her first pregnancy. During the pregnancy she had had some ultrasound scans, due to concerns that her baby was small. [Mrs A] […].

Her labour was thought to have been established at 3.40pm. She had epidural analgesia and her cervix was fully dilated at 9.15pm, when the baby was thought to be in a right occipito-posterior position. She commenced pushing at 10.30pm. At 11.14pm the midwifery notes recorded the position was thought to be right occipito-lateral, with asynclitism. She was reviewed by [the obstetric registrar] at 00.40am on 23 [Month1], as delivery had not occurred. The registrar's assessment was that there was one fifth of the fetal head palpable abdominally, and on vaginal examination it was thought to be 1cm above the spines descending to 1cm below the spines with pushing. Its position was not recorded, but a bedside scan by [the obstetric registrar] showed the baby's spine to be on the maternal right. The registrar discussed the situation with [the duty consultant] and it was decided that [Mrs A] should be transferred to the operating theatre for either a trial of instrumental delivery or a caesarean section. [Mrs A's] consent was obtained. The nursing peri-operative record states that the 'fetal pillow' was used during the caesarean section, although this was not documented in the operation note. The recorded indication was LGA baby, pushing for 2 hours, deep transverse arrest.

At 1.24am a baby girl weighing 2195g was born by caesarean section, performed by the registrar with [the duty consultant] assisting and supervising. The operation note records that the lower segment of the uterus was oedematous, and that one initial haemostatic suture was placed in the uterine incision — apparently prior to the standard two-layer closure. [Mrs A] returned to the ward and was subsequently discharged on 25 [Month1].

[Mrs A] was re-admitted to [the public hospital] on 15 [Month2]. Her history was of a 'pop' at about 7pm the previous evening, as if her waters had broken. She had soaked 4 pads with clear fluid overnight, and also had left mastitis for which she was being treated with Flucloxacillin. [Dr C], the obstetric registrar who saw her at 9.23pm, noted clear/blood stained fluid was draining from the vagina and thought it was likely to be a discharging haematoma but that a fistula needed to be ruled out. The next day [Mrs A] had an ultrasound scan. This showed a right hydro-ureter and hydronephrosis, with no cause identified. During the afternoon [Mrs A] also underwent a methylene blue test, performed by obstetric registrar [Dr B], which excluded a vesico-vaginal fistula.

[Dr B] recorded that her scan had shown normal ureteric jets, but I cannot see this in the formal report from the radiology department. Her care was discussed with consultant [Dr D], and as she was recorded as having less fluid loss than the previous day it was planned for her to be discharged the following day. [Mrs A] was discharged on the morning of 17 [Month2]. No formal diagnosis of the cause of her vaginal loss was made, and no follow-up was intended.

On 25 [Month2] [Mrs A] was admitted to [the public hospital], this time with a breast abscess. At 1.47am her husband told the midwife that [Mrs A] was still losing clear fluid from her vagina, and the nursing record at 10.38am states that she had increased clear PV discharge. She was reviewed by [an obstetric registrar] at 11.05am, who recorded that the PV discharge had resolved. Her breast abscess was drained under ultrasound guidance, and a drain left in place to allow for irrigation.

On 28 [Month2] the nursing notes record that she was still complaining of a clear discharge from her vagina which was soaking pads. She was reviewed by [an] obstetric SHO, at 4.45pm who recorded that the pad had a moderate amount of clear, yellow-coloured fluid with no blood or discharge. The plan was for [Mrs A] to have a formal registrar review the next morning. She was reviewed by [Dr F], obstetric SHO, at 3.22pm on 29 [Month2]. No plan was made for managing her vaginal fluid loss.

On 30 [Month2] she was reviewed by [a gynaecology consultant] who thought the fluid might be urine. She requested its urea level be measured. The creatinine level was low, and it was noted it was unlikely to be urine. A repeat Methylene Blue test was performed — again no evidence of a vesico-vaginal fistula was found. [Mrs A] was discharged home on 31 [Month2].

On 20 [Month3] [Mrs A] was referred back by her GP because of continuing vaginal discharge and an abnormal-looking cervix. She was reviewed in the emergency department (ED) by the gynaecology SHO, a repeat cervical smear taken and she was discussed with the duty registrar. She was discharged from the ED to be seen in the colposcopy clinic.

[Mrs A] was seen by [a doctor] in the colposcopy clinic on 5 [Month4], and the possibility of a uretero-vaginal fistula was considered. To expedite diagnosis she was admitted so that she could undergo an MRI on 6 [Month4]. After this was performed she was discharged home, to await the formal radiology report. This showed fluid in the vagina, but no vesico-vaginal fistula. A CT urogram was subsequently performed on 9 [Month4], which confirmed the diagnosis of a right ureterovaginal fistula, close to the point where the ureter enters the bladder. [Mrs A] was told of the diagnosis by [a consultant], and that it is a recognised complication of caesarean section. She was referred to the urology service for definitive treatment of her fistula.

My Assessment

You asked me to review the documents and advise whether the care provided to [Mrs A] at [the public hospital] was reasonable in the circumstances and why. You also asked me to comment specifically on:

1. Whether the care provided to [Mrs A] at [the public hospital] was appropriate and consistent with accepted standards of practice for the periods of:

a. 15–17 [Month2]
b. 24–31 [Month2]
c. 20 [Month3]
d. 5–9 [Month4].

On [Mrs A's] first attendance above I do not understand why [Dr C] thought that clear fluid draining vaginally could be from a discharging haematoma. I would expect such fluid to be red/brown. I also cannot understand where [Dr C] thought the discharging haematoma would be situated. The only likely place would be the uterine cavity, with clot there following the birth of the baby. [Dr C] correctly felt that a fistula needed to be ruled out. The ultrasound scan could not exclude all fistulas between the urinary and lower genital tracts. [Dr B] appropriately performed the Methylene blue dye test to see if there was a fistula between [Mrs A's] bladder and vagina. I do not understand why he noted that the scan showed bilateral ureteric jets (which would imply normal ureteric anatomy and function) when there is no mention of it within the scan report. There does not appear to have been any awareness of the possible relevance of the right hydro-ureter and hydronephrosis. Overall I think the standard of care was not consistent with accepted standards, as [Mrs A] was discharged with an incomplete assessment of the possible sites of fistula. I think this would be viewed as a mild to moderate departure from accepted standards which would be viewed with mild to moderate disapproval by our peers. The principle here is that where a diagnosis is not reached a plan for further investigation/assessment should be put in place.

In [Mrs A's] second admission there is a contradiction between the nursing notes at 10.38am and the registrar's notes at 11.05am, which I cannot resolve. However subsequent entries confirm that [Mrs A] continued to complain of the clear vaginal discharge which was soaking pads. When she was reviewed by [the consultant] the possibility of the discharge being urine was again considered. The methylene blue dye test was repeated, but no reason was given. I have not been able to find anything in the literature to suggest the test is unreliable, and so do not think its repetition was warranted. Sending the fluid for analysis was appropriate. Again discharging [Mrs A] without a clear diagnosis and no follow-up plan would be viewed as a mild to moderate departure from accepted standards, which would be viewed with mild to moderate disapproval by our peers.

The plan made for care when [Mrs A] was seen in the ED on 20 [Month3] was reasonable, and consistent with accepted standards of care.

2. Whether the examinations, tests and scans performed to investigate the cause of [Mrs A's] symptoms during each hospital presentation/admission were adequate and sufficient.

As noted above the failure to reach a clear diagnosis on both admissions in [Month2] occurred because the need for a CT urogram to diagnose/exclude a uretero-vaginal fistula was not recognised. On her admission in [Month4] the need for more thorough investigation was recognised, and the MRI and then CT urogram were performed with urgency — given the delay that had occurred.

3.Whether I consider there was a delay in diagnosing [Mrs A] with a ureterovaginal fistula.

There clearly was a delay in diagnosis. If the possibility of the (rare) ureterovaginal fistula had been considered when the commoner vesicovaginal fistula had been excluded in mid-[Month2] the diagnosis would have been reached some two months earlier. This would not have altered [Mrs A's] subsequent management but would have saved her two months of vaginal loss and the distress this caused her.

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
Whangarei Hospital"

The following further advice was received from Dr Page:

"Thank you for your letter of 22 February 2021 and the enclosed documents, requesting further expert advice to the Commissioner on the care provided by [the public hospital] to [Mrs A]. I have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

Advice Requested
You asked me to review the documents and advise whether the care provided to [Mrs A] at [the public hospital] was reasonable in the circumstances and why. You also asked me to comment specifically on:

1. The appropriateness of [Mrs A's] Caesarean section on 23 [Month1].
2. Whether the additional information causes me to amend the conclusion drawn in my initial advice or make any further comments.
3. Whether I consider the issues identified to be systemic issues at CMDHB or whether it was more attributable to an individual, or both. You asked that if it was an individual that I identify the clinician involved.
4. The adequacy of the policies provided by CMDHB.

Sources of Information
In reviewing this case I have read:

- CMDHB's letter dated 21 January 2020 and [Mrs A's] clinical notes
- Counties Manukau DHB letter dated 11 September 2020.
- Further information from CMDHB dated 2 February 2021 and its appendices.

Review

1. The appropriateness of [Mrs A's] Caesarean section on 23 [Month1].
I think it was appropriate for [Mrs A's] baby to have been born by caesarean section at that time.

The first stage of her labour was recorded as lasting 5 hours 35 minutes, with epidural analgesia. Having reached full cervical dilatation [Mrs A] had then pushed for two hours without birth being imminent. During that time the midwifery notes record the contractions as being irregular and short, with the baby's head being in a ?ROT position and asynclitic. The possible use of Oxytocin to increase the power of the contractions does not appear to have been considered. However the typed operation note records that the lower uterine segment was thin which would imply adequate uterine contractions had been occurring. The notes state that on scan the baby's spine was on the maternal right, at station -1 pushes to +1, and an appropriate diagnosis of deep transverse arrest was made. The registrar discussed [Mrs A] with the duty SMO and the decision was made to go to theatre for a trial of forceps +/- LSCS. The presentation at the Maternal Morbidity meeting noted that the baby was in a LOT position at station -1.

Her epidural analgesia was insufficient so a spinal anaesthetic was administered. As the head was then felt to be above the ischial spines it was appropriate to proceed to caesarean section. The use of the fetal pillow to elevate the head from the pelvis was not documented by the obstetric team, but its use in this situation was appropriate.

2. Whether the additional information causes me to amend the conclusion drawn in my initial advice or make any further comments.
I accept the observation from the CMDHB that I wrote my report with the benefit of hindsight — indeed I have always been aware of that with every report I write. However my criticism was based on their not following through with a diagnostic process.

Whilst CMDHB feel that they did have a clear diagnosis I do not agree. The history [Mrs A] gave is unusual for that of lochia alba — if it was a common history for the condition I would query why they investigated looking for a vesico-vaginal fistula. Lochia is not well described in the obstetric or midwifery books I have read. However what is written is clear in that lochia alba is light yellow to cream in colour, and reducing in amount as time passes. The timeline for [Mrs A] is:

- LSCS on 23 [Month1]
- Discharged on 25 [Month1]

- A 'pop' with the loss of enough clear fluid to soak 4 pads overnight on 15 [Month2] (day 22)
- Still losing clear fluid on 25 [Month2] (day 32)
- Still soaking pads on 28 [Month2] (day 35)
- SMO review on 30 [Month2], when the possibility of the fluid being urine was again considered (day 37)
- Referred by GP on 20 [Month3] (day 58)

Hence her fluid loss really cannot be viewed as being consistent with lochia alba.

I accept the explanation for repeating the methylene blue test. However that raises the question as to why the registrar was allowed to perform the initial one if there were doubts about their ability to perform it correctly. It is not a difficult test to undertake.

I do commend CMDHB for the subsequent review of the case, its presentation and the lessons to be learnt from it. As there were many useful learning points around this rare event it would be worthwhile CMDHB seeing if a medical journal would be prepared to publish it as a case report, so that other obstetric trainees and specialists might also learn.

3. Whether I consider the issues identified to be systemic issues at CMDHB or whether it was more attributable to an individual, or both. You asked that if it was an individual that I identify the clinician involved.
On the basis of one case I think it is impossible to say if all the issues are systemic or solely attributable to individuals. I identified the individual clinicians in my original report where I thought specific issues were attributable to them.

In the public health service, where care is frequently shared between a large and changing team with frequent handovers of care, it is impossible to say that there were no systemic issues but that observation could be applied to virtually every DHB in New Zealand. However the review by CMDHB of the case is a very positive reflection of how seriously they work to improve outcomes.

4. The adequacy of the policies provided by CMDHB.
You sent the Radiology MRI Referral Guideline and the Policy CM Health Incident Reporting and Investigation for my comment. I think they are both clear and comprehensive.

As before 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
Whangarei Hospital"

The following further clarification was received from Dr Page:

> "… Advice needed
>
> During [Mrs A's] 15–17 [Month2] admission to [the public hospital], [Dr B] (Obstetrics & Gynaecology registrar) performed a methylene blue test and documented the ultrasound findings as showing normal ureteric jets. [Dr B] then discussed the methylene blue test results and a summary of the imaging results with the SMO, [Dr D]. [Mrs A] was discharged the following morning. In your initial advice, you commented that you were unsure why [Dr B] noted that the ureteric jets were normal, as this was not reported in the radiology report.
>
> In the **attached** response from [the Clinical Director], she has confirmed that the radiology report did not refer to normal ureteric jets. [The Clinical Director] discussed this with the reporting radiologist who confirmed that this finding was not included in their report, and that attempts to visualise the jets were made during the ultrasound, but these attempts were unsuccessful as, despite clamping, [Mrs A's] bladder was under filled during the procedure.
>
> Could you please advise whether you consider [Dr B's] actions on this occasion to be a departure from accepted practice? If so, can you please advise whether you consider this to be a mild, moderate or severe departure?
>
> I have read the responses from [Dr B] and [Dr D]. I do not think that I could say [Dr B's] actions were a departure from accepted practice as such, as there is the possibility of a verbal report having been made by the radiology department but not put in the final written report."

The following further clarification was received from Dr Page:

> "1. If [Dr B] **did have** a verbal report from the reporting radiologist that the uretic jets were/appeared normal, would you consider there to be a departure from accepted practice? *Do you mean giving or receiving verbal reports, and then acting on them before waiting for the written one? Assuming you are referring to [Dr B's] practice then she did what anyone else would do, and accepted the unqualified verbal report. That's what we do in everyday practice, as otherwise there will be further delays in patient care.*
>
> 2. If [Dr B] **did not** have a verbal report from the reporting radiologist that the uretic jets were/appeared normal, would you consider there to be a departure from accepted practice. *That is more difficult to assess, as it makes the assumption that [Dr B] has either made a mistake or is lying. If she is lying then that would be a significant and serious departure from good medical practice. Nonetheless I find it hard to understand why she would make something up at the time when it would have no benefit to her to do so, and so I would assume it was an honest mistake on her part. In reality we all make honest mistakes at times so I would find it difficult to call it a departure from accepted practice."*