District Health Board

Consultant General Surgeon, Dr B

Consultant General Surgeon, Dr C

Consultant General Surgeon, Dr D

A Report by the

Health and Disability Commissioner

(Case 13HDC00478)

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Executive summary

1. In mid 2012, Ms A, in her late twenties, experienced discharge from the site of an incisional hernia that had developed after a 2011 Caesarean section. The following month, Ms A's GP referred her to a public hospital (the Hospital).

2. Later in the year, Ms A saw a consultant general surgeon, Dr B, at a surgical outpatient clinic. He considered that the hernia should be repaired. Informed consent for surgery was documented. Dr B's resulting clinic letter made reference to Ms A having a hernia as an infant, but did not refer to Ms A's full clinical history, which included her being born with a condition requiring significant abdominal surgery.

3. On 28 Month1[1] 2013, Ms A underwent laparoscopic abdominal wall hernia repair with mesh surgery under the care of Dr B. He experienced some difficulty with adhesions during the surgery, but that was not reflected in his operation report or operation note or in the progress notes.

4. On 29 Month1, a usual Friday morning ward round did not go ahead because it was a public holiday. General surgeon Dr D was the surgeon on call from 8am on Friday to 8am on Monday, and was responsible for Ms A's care during that time. Ms A's postoperative progress declined in the evening. Dr D reviewed Ms A and was suspicious of infection. An urgent CT scan was ordered; however, at around midnight, Dr D was advised that the hospital's CT scanner was not working.

5. On 30 Month1, an urgent ultrasound was performed instead, which revealed a collection of fluid superficial to the hernia repair. Dr D considered diagnoses of wound haematoma, postoperative ileus, atelectasis, and chest infection. That evening, Dr D was concerned about Ms A's reduced blood pressure, but overnight Ms A improved. Dr D considered that the clinical picture was then stable, and that a change in management was not required.

6. On the evening of 31 Month1, Ms A's blood test results worsened and suggested a degree of renal impairment. The CT scanner was still unavailable. Dr D requested that Ms A be transferred to the HDU/ICU for monitoring. She responded well to intravenous antibiotics and fluids in the ICU, and was transferred back to the ward the next morning.

7. From 2 to 5 Month2, Ms A was back under the care of Dr B. On 5 Month2, despite Ms A's complaints of abdominal pain overnight, a low grade temperature, difficulty mobilising, and a faecal ooze from her wound, Dr B discharged Ms A home. Ms A had a painful taxi trip, and said that bowel fluid came out of her wound.

8. On 8 Month2, Ms A was readmitted to hospital under Dr B's care owing to abdominal pain and discharge. On 9 Month2, a CT scan showed that Ms A had developed a fistula. On 10 Month2, Ms A was taken to theatre for repair of the fistula by Dr B. General surgeon Dr C assisted. A further CT scan was performed. The scan identified multiple intra-abdominal collections.

[1] Relevant dates are referred to as Month1-Month4 to protect privacy.

HDC

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9. Over the weekend of 13 and 14 Month2, Dr C reviewed Ms A. A repeat CT scan reported that the fluid collections were draining but were persistent. Dr C's management involved an insertion of a central line, commencement of Total Parenteral Nutrition (TPN, via a drip), and control of the fistula drainage using wound dressing. On 14 Month2, Ms A requested that Dr C take over her care from Dr B. The small bowel repair performed by Dr B broke down and caused discharge of small bowel fluid.

10. On 15 Month2, Ms A's care was formally taken over by Dr C. On 18 Month2, guided radiological (CT) drainage of the collections occurred. Ms A remained stable. On 23 Month2, a CT scan showed improvement in the fluid collections. Intravenous (IV) antibiotics and TPN were continued. On 1 Month3 and 3 Month3, Ms A expressed a wish to be transferred to another region be near her whānau, and she was transferred to a hospital in that region.

Findings summary

11. Dr B's review of Ms A was substandard, as he did not review her full relevant clinical history. Dr B failed to provide services to Ms A with reasonable care and skill and, accordingly, he breached Right 4(1) of the Code.[2]

12. Dr B failed in his obligations to keep clear and accurate clinical records. Accordingly, he did not comply with professional standards and therefore breached Right 4(2) of the Code.[3]

13. It was not appropriate for Dr B to discharge Ms A from hospital on 5 Month2 when she had an appearance of bowel fluid from her wound. Dr B did not provide services to Ms A with reasonable care and skill and, accordingly, he breached Right 4(1) of the Code.

14. Dr D's and Dr C's postoperative care of Ms A was reasonable in the circumstances and, consequently, neither was found in breach of the Code.

15. There was criticism that the hospital system that was in place for handing over care on a weekend had not been carried over to public holidays. Ms A's handover on Friday 29 Month1 was affected. This deficiency was a contributing factor in suboptimal co-operation and continuity of services in Ms A's case.

Complaint and investigation

16. The Commissioner received a complaint from Ms A about the care provided to her by the District Health Board (the DHB).

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

[3] Right 4(2) of the Code states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."

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17. The following issues were identified for investigation:

- *Whether Dr B provided Ms A with services of an appropriate standard in 2012 and 2013.*
- *Whether Dr B provided Ms A with adequate information and obtained her informed consent for surgery.*
- *Whether Dr D provided Ms A with services of an appropriate standard in 2013.*
- *Whether Dr C provided Ms A with services of an appropriate standard in 2013.*
- *Whether the District Health Board provided Ms A with services of an appropriate standard in 2012 and 2013.*

18. An investigation was commenced on 28 January 2014. This report is the opinion of Anthony Hill, Commissioner.

19. The main parties referred to in the report are:

Ms A	Consumer, complainant
District Health Board	Provider
Dr B	Consultant general surgeon
Dr C	Consultant general surgeon
Dr D	Consultant general surgeon

20. Information was also reviewed from the ACC and the Medical Council of New Zealand.

21. Independent expert advice was obtained from a general and hepatobiliary surgeon, Dr Peter Johnston (**Appendix A**).

Information gathered during investigation

Background

Ms A

22. Ms A had an abdominal wall hernia during infancy, for which she required surgical intervention and hospitalisation.

23. Ms A's adult records indicate that in 2011 she had supplied a gynaecologist with personal history that included her being born with a condition requiring significant abdominal surgery. After corrective surgery, she had many subsequent admissions to hospital with an abdominal wall defect, which was closed slowly.

24. In 2009, Ms A underwent a Caesarean section (C-section). In late 2011, she had a second C-section performed. She developed an incisional hernia following that C-section.

25. In mid 2012, Ms A developed discharge from her incisional hernia site. The following month, she was referred by her GP to surgical service outpatients at the Hospital

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because of the apparent infection. In addition to the referral, the GP requested an ultrasound.

General Surgery Department

26. The general surgical team system of handover of patients includes a Friday morning ward round through the surgical ward and ICU to meet patients and discuss and establish a weekend patient management plan for the on-call team.

27. The surgical team on call for the weekend and after hours on weekdays comprises a consultant and a Resident Medical Officer (RMO),[4] surgical or medical. The team carries out a daily ward round.

28. At night, the night house surgeons look after the acute admissions and wards, with support from the senior ED doctor on duty.

29. Diagnostic services available during weekends or public holidays are CT scan, ultrasound (USS), and laboratory tests.

30. The Radiology Department's CT scanner broke down on Saturday 30 Month1 in the middle of the long weekend, and came back on line after the public holidays at 9.30am on Thursday 4 Month2. The DHB advised HDC that "[r]outine response plans were used during this time".

Outpatients appointment

31. Late in 2012, Ms A was seen by consultant general surgeon Dr B.[5] His outpatient notes show a diagram suggesting that there was a hernia at the site of the previous C-section scar.

32. Ms A's surgery as a child was noted in Dr B's resulting clinic letter, and that Ms A had spent a number of years in hospital at an early age as a result. His letter stated:

> "This is a … female who had a hernia right when she was born in her umbilicus. She was in the hospital for several years but subsequently has done well …"

33. Dr B's clinic letter does not refer to Ms A's full history in this regard (as contained in the 2011 gynaecological entry on file) or whether consideration was given to obtaining Ms A's paediatric records.[6]

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[4] Resident Medical Officer (RMO) is a term covering resident doctors from their last year of undergraduate training until they complete their vocational training. The RMO workforce is not a homogenous group. RMOs range in age and include undergraduate students as well as those with six or more years' post-registration experience. Various job titles including trainee intern, intern, junior doctor, house officer, house surgeon, senior house officer/surgeon, registrar, and advanced trainee are used for RMOs at different stages of their training.

[5] Dr B gained provisional vocational registration from the Medical Council of New Zealand in 2012. He was employed by the DHB as a consultant general surgeon. He was initially supervised by a general surgeon and then, from Month2, he was supervised by Dr D.

[6] The DHB advised HDC that Dr B later informed the DHB's Clinical Director, Surgical Services that he had attempted to obtain the notes but had been unable to.

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Consent and information

34. Dr B documented that he considered that Ms A had a hernia. A preoperative abdominal ultrasound scan (completed at 4.15pm) confirmed that the palpable lump was a paraumbilical hernia containing fat, omentum,[7] and segments of bowel.

35. Dr B considered, according to his clinic letter, that the symptoms generated by the hernia were sufficient to warrant repair. Ms A was placed on the surgical waiting list.

36. An informed consent document, signed and dated by both Dr B and Ms A, lists "bleeding, infection, return of hernia, damage to bowel" under the summary of information provided. There are no other details recorded by Dr B about his discussion with Ms A.

Preadmission

37. Ms A was seen in a pre-admission clinic. At that point, Ms A was trying to cease smoking. Her body mass index (BMI) was noted to be 33.0,[8] and she was advised to decrease her food intake. A leaflet on hernia repair was provided to Ms A. Surgery was booked for 28 Month1.

Hernia repair surgery

38. On Thursday 28 Month1, Ms A underwent the planned surgery. She was admitted via the day ward and transferred to theatre under the care of Dr B. The operation was an elective laparoscopic abdominal wall hernia repair with mesh,[9] performed that afternoon.

39. There is a handwritten document headed "operation record" dated 28 Month1 on file, signed by Dr B. Dr B's typed "operation report" on file has no date to indicate when it was dictated or typed.

40. The operation report states that "[Ms A] was told the risks and benefits and consent was obtained", and that "[s]he had a large midline hernia defect which seemed to go from the Caesarean section to her belly button".

41. The operation report indicates that there were issues with the use of a Veress needle.[10]

42. The operation report also states:

> "The fascia was split and there was bowel up and in this. It took a significant amount of time to get this down and to distinguish between bowel and the hernia sac, but we were able to get everything down without too much problem."

43. Dr B advised HDC that he recalls experiencing difficulty during the surgery. In particular, he stated:

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[7] A fold of peritoneum connecting the stomach with other abdominal organs.

[8] BMI of 20–25 is recommended.

[9] The type of mesh used was *Physiomesh*, a flexible, composite, large pore partially absorbable, polypropylene mesh.

[10] A Veress needle is a spring-loaded needle used in laparoscopic surgery. Of the three general approaches to laparoscopic access, the Veress needle technique is the oldest and most traditional.

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> "[Ms A] had an enlarging painful hernia after a C-section. This was confirmed with a CT/US. After talking with her about all the risks including a possible fistula, she underwent a laparoscopic hernia repair. This took quite a bit of time because of extensive adhesions I encountered. During the take down of adhesions, I did feel that one part of the small bowel was a bit compromised. I look[ed] at it repeatedly and very closely numerous times. I attempted to make bile come out and I thought about resecting it. However, it was well perfused, no bile was seen, and thus, I left it alone and finished the hernia repair."

44. The detail contained in Dr B's response to HDC was not documented in Dr B's operation report or operation note, or in any comment in the progress notes.

Postoperative care

45. Ms A's care and admissions after the surgery covered a period of five and a half weeks from 28 Month1.

29 Month1

46. Ms A had initial problems overnight with urinary retention, which required catheterisation. At 9am on 29 Month1 the catheter was removed.

47. On 29 Month1, the usual Friday morning ward round did not occur because it was a public holiday, and patient commitments had precluded it taking place the previous day (Thursday). General surgeon Dr D[11] was the surgeon on call from 8am on Friday to 8am on Monday. Dr D advised HDC that in the circumstances of no ward round, the practice was for the surgeon to ring the consultant on call to discuss the consultant's patients. There is no evidence that Dr B called Dr D to discuss Ms A. The holiday weekend on-call period was very busy.

48. At 11.30am on 29 Month1, nursing notes indicate that Ms A mobilised for the first time postoperatively, and that she was able to walk outside. Ms A had some abdominal tenderness but no other concerns.

49. At 12.25pm Ms A was reviewed by Dr D for the first time. Dr D told HDC:

> "The only available operative note [from Dr B] was the handwritten operative report that contained information that was not particularly fulsome: 'Laparoscopic repair of hernia incisional and adhesiolysis. Post op instruction: per HO (house surgeon).'"

50. Dr D considered that Ms A was in mild discomfort, consistent with someone having undergone an operation at this stage of early recovery. Her observations were stable and her urine output satisfactory. Dr D's plan was for Ms A to undergo a bladder scan with consideration for a catheter, and for Ms A to mobilise and eat and drink.

51. At 12.45pm a bladder scan showed 94ml of urine (about 30ml per hour since the catheter removal), which was normal.

[11] Dr D is a vocationally registered consultant general surgeon and Head of the Department of General Surgery.

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52. At 7.10pm, Ms A was afebrile,[12] with absent bowel sounds, a soft abdomen, and some abdominal pain and distension. The house surgeon's plan was for analgesia, bloods, X-ray and nil by mouth.

53. The impression formed at this point was that Ms A had a postoperative ileus (blockage).[13] Blood tests were ordered and, at 9pm, chest and abdominal X-rays were performed. The chest X-ray showed atelectasis[14] on both lungs. The abdominal X-ray suggested postoperative ileus or small bowel obstruction.

54. At 10.30pm Dr D reviewed Ms A, as he had been notified that she had developed a fever. Ms A had a temperature of 38°C, a white cell count of 10.9(x10^9/L),[15] and a heart rate of 106bpm. She was tachypnoeic.[16] She developed a patch of erythema.[17]

55. Dr D found that Ms A had a mass over the suprapubic region with tenderness. Dr D had concerns about Ms A's postoperative progress, and the inflammatory response shown. He was suspicious of infection and mindful that Ms A was also a smoker.

56. Ms A was managed with IV fluids, was kept nil per mouth, and was given IV antibiotics. An urgent CT scan of her abdomen was ordered to exclude intra-abdominal infection. Dr D said that he was notified around midnight that the hospital's CT scanner was not working, but that it would be available in the morning.[18] This is documented in the nursing notes. The DHB advised HDC that the CT machine failed when the staff came in to do Ms A's CT scan. Dr D advised HDC that he instructed the nurses to carry out close (two-hourly) observations of Ms A, and to call him directly if there were any concerns about her condition. He noted that her fever had settled, and her other vital signs were not deteriorating. Dr D also stated:

> "I was hampered by the break down of the CT scanner which was my investigation of choice for the abdominal findings. I expected it to be repaired promptly … and available as soon as possible as a diagnostic tool. It may have given greater insight into the nature of the collection than the ultrasound. The clinical picture of the patient did not warrant transferring the patient to another institution for CT scan especially as I expected prompt repair of the CT scanner."

Saturday 30 Month1

57. At 10.36am on 30 Month1, as the CT scanner was still not functioning, an urgent ultrasound was performed instead, which revealed a collection of fluid, measuring 86 x 44 x 55mm, with internal debris present superficial to the anterior hernia mesh repair.

[12] Having no fever.
[13] Disruption to the normal propulsion of the gastrointestinal tract.
[14] A condition whereby one or more areas of the lung do not inflate fully.
[15] Normal range is 4.0–10.0.
[16] Breathing rate increased. Ms A's rate was 22 breaths per minute.
[17] A skin condition characterised by redness.
[18] As mentioned at paragraph 31, the CT scanner was not available again until 4 Month2. The machine did not warm up, and a CT tube failed. The DHB advised that it was repaired as soon as practicable given that it was a holiday weekend and parts had to be sourced from overseas.

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58. Following a ward round at 11am, a house surgeon recorded that Ms A was feeling improved, and the plan was for an abdominal X-ray and fluids.

59. Dr D reviewed Ms A's investigations and clinical findings in the afternoon of 30 Month1. He considered that the likely explanation for the abdominal mass and erythema was a wound haematoma, a postoperative ileus and atelectasis, with possible early chest infection. Dr D advised HDC: "These complications, though undesirable, can safely be managed conservatively."

60. In the evening, Ms A was alert but distressed. The evening nursing notes, at approximately 10pm, mention that the erythema was spreading. Pain levels had increased, Ms A was hypotensive (ie, her blood pressure had lowered to 92/50), and she was displaying abdominal guarding.[19] The plan, following discussion with Dr D, was for Ms A to receive fluids and analgesia, and for a blood test to be taken.

61. Dr D advised HDC that he was concerned about Ms A's hypotension, and he therefore requested a fluid bolus[20] to address this. Overnight, Ms A improved. Her pain decreased, she was afebrile, and the erythema had not spread any further. Dr D considered that the clinical picture was stable compared to earlier assessments. Blood tests results included a normal WBC and a raised CRP[21] of 283, but Dr D felt that this did not mean that a change in management was required at that point.

62. Dr D explained:

> "Generally haematomas are sterile and many can be managed conservatively; therefore I did not rush into draining this … The location of the collection being between the mesh (which was occlusive) and the abdominal wall would also be much more in keeping with a haematoma …"

63. Dr D did not believe that cellulitis[22] was the cause of Ms A's symptoms. The presence of an underlying haematoma was, in his view, a good explanation for the erythema.

Sunday 31 Month1

64. At 11am on 31 Month1, Ms A was seen by Dr D on the morning ward round. Ms A's observations were recorded as satisfactory, and she was noted to be alert and comfortable. Dr D told HDC:

> "The pulse is elevated but overall [her observations were] satisfactory considering a trend of improvement in temperature, blood pressure, and respiratory rate, as well as a clinical improvement as documented."

65. Later in the day it was noted that Ms A was tolerating small amounts of food, and she felt better after her bowels had opened.

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[19] Tensing of the abdomen.
[20] 500ml plasmalyte.
[21] C-reactive protein. A protein produced by the liver. Levels rise in response to inflammation.
[22] Bacterial infection of skin tissue.

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66. At 7.30pm, Ms A was reviewed by the house surgeon, owing to her low blood pressure. The house surgeon recorded that Ms A reported some nausea, vomiting (described as "coffee grounds") and shortness of breath. In addition to her low blood pressure, she was noted to have an increased heart rate. Laboratory investigations showed that her CRP level was now 319mg/L, her lactate[23] was 3.7mmol/L (2.5 at admission), and her creatinine[24] was at 138μmol/L (59 at admission). Ms A's WBC was still normal. The house surgeon contacted Dr D.

67. Ms A was initially managed with bolus intravenous fluids, oxygen, and further investigations. The impression documented was that Ms A had an ileus and infection, dehydration, and renal injury likely secondary to dehydration. The plan was to repeat fluids immediately, start omeprazole,[25] repeat blood tests, order a chest and abdominal X-ray, continue fluids overnight, and to take a dipstick mid-stream urine test.

HDU/ICU transfer

68. Dr D told HDC that his opinion of Ms A's condition was based on Ms A's clinical parameters and his assessment of her throughout the day. He said:

> "My working diagnosis was that the abnormalities in vital observations were due to the trauma of surgery and post-operative atelectasis, and that the collection as demonstrated by ultrasound was consistent with a haematoma which would explain the mass, the pain, the erythema, and to some part features of systemic inflammatory response (SIRS). The subsequent hypovolaemic shock with acute renal impairment was attributed to a combination of ileus (aggravated by oral contrast), SIRS from surgery and haematoma, and possibly sepsis from a lower respiratory tract infection."

69. Dr D requested Ms A be transferred to the HDU/ICU for monitoring. The documented plan stated: "Admit ICU for monitoring, IVF boluses, repeat lactate at 02.00am, repeat bloods include lactate at 08.00am, O_2 to keep Sat >95%, surgical review morning, and further abdominal imaging."

70. Dr D told HDC:

> "I was concerned at [Ms A's] reported deterioration. I was without the information a CT scan would give and aware that sending her to another hospital for a scan would take about six hours. It seemed to me better to arrange for high dependency unit for monitoring and fluids resuscitation to physiologically optimise the patient first with expected availability of a scan."

71. Late on the evening of 31 Month1, Ms A was transferred to the ICU and managed with intravenous antibiotics and intravenous fluids.

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[23] The lactate test is primarily ordered to help determine if someone has lactic acidosis, a level of lactate that is high enough to disrupt a person's acid–base (pH) balance. Normal range is 0.5–1.0.

[24] Kidney function blood test. Normal range is 45–90μmol/L.

[25] To treat gastro-oesophageal reflux.

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Monday, 1 Month2

72. Ms A's condition improved in the ICU, and she was able to be transferred back to the ward on Monday morning. Dr D told HDC: "[Ms A] responded well to rehydration with the acute renal injury resolved by the time I handed over in the morning without the need of renal replacement therapy. I was not called overnight."

73. Dr D explained in his response that Ms A's creatinine level peaked at 212µmol/L on 31 Month1 at 8.30pm, and it fell to 99µmol/L by 10am on 1 Month2. He said: "[A]t no time did Ms A become anuric[26] or require renal replacement therapy. This degree of renal impairment is … termed 'Acute kidney injury' or 'acute renal impairment'."[27]

Pain management regimen — Dr D

74. In relation to Ms A's pain management at this time, Dr D told HDC that he gave some consideration to constipation having a role in Ms A's pain, and also stated that significant steps were taken to ensure adequate analgesia in the postoperative setting. He said that he used a multidisciplinary approach utilising multimodal analgesia (involving liaising with the Anaesthetic Department), which he considered was appropriate in the postoperative setting.

75. When reflecting on this case, Dr D responded: "In retrospect I acknowledge that there was a change in [Ms A's] condition on the night of the 31st and further imaging at this time would have been a good way to confirm my working diagnoses and exclude an intra-abdominal complication that had not been revealed by the earlier ultrasound." Dr D added: "I do wonder if a CT scan had been performed [whether it] would have demonstrated the presence of an enterotomy[28] though … this is a question we will never know the answer to."

Dr C on call

76. Consultant general surgeon Dr C[29] was on call from 8am on 1 Month2 to 8am on 2 Month2. Dr D said that he verbally handed over the care of Ms A to Dr C. Dr C reviewed all the surgical patients in the hospital.

77. At 8.30am Dr C met with Dr B and reviewed Dr B's patients with him. This was Dr C's first contact with Ms A.

78. Ms A was noted to be generally well and improving. Her WBC was normal, her CRP was 320, and her renal function had returned to normal. Dr C told HDC that he noted the ultrasound findings of a collection, but agreed with "[b]oth [his] senior colleagues" that the collection was a haematoma. Dr C said that he also discussed Ms A with Dr D, and that "we felt [Ms A] had an overall picture that was suggestive of infection but the patient was clinically improving. The source of the infection was not clear." Dr C also told HDC:

> "Neither of my senior colleagues felt an operation, or any other intervention was necessary. [Ms A] was [Dr B's] patient, he was managing her post-operative

[26] The non-passage of urine.
[27] As distinct from more serious renal failure.
[28] An incision in the intestine, which may be an iatrogenic complication of abdominal surgery.
[29] Dr C began work in the Hospital in 2013.

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course and was still responsible for her. I was on-call to manage any deterioration in patients on the ward until rounds the next day."

79. Ms A was able to mobilise independently on a walking frame and moved around the hospital, at one point leaving the unit for an hour and walking to the entrance of the hospital to smoke.

80. Dr C said that he was concerned about Ms A's CRP level, so at 11.30am he returned to review her. He told HDC that he considered the possible diagnosis of an injured small bowel, but stated that the clinical picture was not clear. He recorded: "Concern regarding thermal or other injury to bowel, but bloods are much improved and patient feeling hungry." Ms A's urine output was good at that time, her white cell count was normal, and her general observations were not deteriorating.

81. Dr C considered the alternative working diagnosis — that of a wound haematoma together with pneumonia — noting that Ms A was a smoker at high risk of postoperative respiratory infection, the X-ray of 29 Month1 showed atelectasis, and that a urine dipstick test had suggested a possible UTI.

82. Dr C felt that there was some diagnostic uncertainty, but that overall Ms A was well and she was responding to antibiotic treatment. He did not feel that there was sufficient certainty to alter the clinical decisions made by his senior colleagues.

83. Dr C felt that the likely diagnosis was sterile haematoma around the mesh with concomitant pneumonia. Taking into account his colleagues' views, Ms A's improving clinical state, and that the CT scanner was unavailable, he did not call the theatre team in to the hospital that day to perform incision and drainage.

84. Dr C decided to observe Ms A and prepare her for theatre the next day (including designating her nil by mouth). This was to allow surgery early on the Tuesday if Dr B thought it necessary.

85. Dr C was not involved in Ms A's care again until 10 Month2 2013 (see below).

2 Month2

86. On the morning of 2 Month2, Ms A's abdomen was distended and reddened, and "hard on palpation". Intravenous antibiotics were continued. Repeat blood tests revealed a CRP that was high at 360.

87. It is documented that Dr B advised nursing staff to cancel the planned incision and drainage of the abdominal wall collection. Ms A remained febrile, short of breath and tachycardic. Her blood pressure was labile.[30]

3 Month2

88. On 3 Month2, Ms A was seen in the morning by Dr B. It is not documented whether Dr B physically examined Ms A. Ms A's observations were stable. Ms A had a low grade temperature,[31] a labile blood pressure, and remained both tachycardic and

[30] Increases and decreases frequently.
[31] 37.5°C reducing to 37.2°C after paracetamol was given.

HDC

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tachypnoeic. The plan was to continue IV antibiotics and consider discharge the following day.

89. Ms A was independent of her cares, and eating and drinking. Her urine output was good and her bowels were working. Her blood results showed improvement with a CRP decreasing to 210, a lactate of 2, a normal white count, and eGFR >90.[32]

90. A social worker's entry on 3 Month2 stated:

> "[U]ncertain why patient wanted to see me but very aware that she is reluctant to be discharged. She has been told that she may need to go tomorrow but stated that she feels too unwell — tight abdomen, breathing problems etc … I advised to talk to her surgeon about the physical concerns post surgery and told her that she could have personal cares assistance at home."

4 Month2

91. On 4 Month2 Ms A was seen in the morning by Dr B. The records state that Ms A was passing urine and faeces, her lower abdomen was tender, and that she was ready for discharge in the next 24 hours.

Discharge from hospital — 5 Month2

92. The District Health Board uses the "Midland District Health Boards Lippincott procedures" manual and its organisational policy "Discharge from Hospital". In relation to the multidisciplinary responsibilities for discharge planning, the policy document states that the consultant "[i]s responsible for ensuring and documenting that patients under their care are medically fit for discharge".[33]

93. Ms A had, overnight, complained of slight abdominal pain and back pain, and she was given 10mg of OxyNorm pain relief over that shift.

94. At the 8.20am ward round with Dr B, it was noted: "Patient well. Mobilising. Passing urine, bowels opened faecal matter out of sinus, Nothing draining currently. [Plan: continue IV antibiotics], continue dressing."

95. No note was made during the ward round of Ms A's complaints of abdominal pain the previous day or overnight, her low grade temperature, that she required a frame to mobilise, or her reluctance to be discharged. Nor was it noted during the ward round that Ms A had taken 10mg of OxyNorm (an opioid analgesic with an elimination half-life of three hours).

96. Nursing notes for the morning shift recorded Dr B's instructions:

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[32] Estimated glomerular filtration rate test — normal >90mL/min/1.73m^2. Many laboratories report eGFR only as >60 mL/min/1.73m² as results are not accurate between 60–90mL/min/1.73m². An eGFR gives an estimate of the percentage of normal kidney function. For example, an eGFR of 30 mL/min/1.73m² is equal to about 30% of the kidneys working. Kidney function naturally declines with age, and values below the normal range may be entirely appropriate for some people.

[33] Page 2 of the document.

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"… Pt [complaining of] faecal ooze coming from small abdomen wound … [Duty Nurse Manager] and surgeon informed, patient informed to express ooze in shower. Pt in no pain. Feeling relief with faecal matter draining … discharge as per [Dr B's] instructions, discharge confirmed … Not for DN wound referral … Script and discharge summary and follow-up note given, partner in attendance. Taxi chit given for ride home. … happy to go home."

97. As Ms A had no transport, she was given a taxi chit by the ward staff. Ms A was discharged home on oral antibiotics (cefalexin and metronidazole), lactulose for constipation, and paracetamol and codeine phosphate for pain relief, with follow-up planned for early the following week in the surgical outpatients clinic.

98. Ms A told HDC that the taxi trip home was very painful, and that bowel fluid came out of her surgical wound on the way home. She further advised HDC that she was in a lot of pain at home, and she could not stand.

Readmission to hospital

8 Month2

99. In the early hours of the morning on 8 Month2, Ms A rang for an ambulance owing to severe abdominal pain.

100. Ms A presented to ED in pain. She was readmitted to the Hospital under Dr B's care.

101. Ms A had a WBC of 17, a temperature of 38°C, a respiratory rate of 28, and a pulse of 105bpm. Her abdomen was swollen and she looked unwell. Liquid and solid material had discharged from her old C-section scar. The discharge was faecal-like and it also contained a surgical clip.

102. At 8.50am Ms A was reviewed and then discussed with Dr B. The plan was for continued IV antibiotics. It is documented that Dr B decided that radiological imaging (such as a CT scan) was not required.

103. The nursing progress notes record that Dr B had performed an incision and drainage of Ms A's abdomen on the ward. Dr B did not make his own record of the procedure. Nursing staff recorded that faeculent material, followed by frank blood, came out of the wound.

9 Month2

104. In the early hours of 9 Month2, Ms A attempted to have a bowel motion and could not pass anything.

105. Radiological imaging was then requested. An abdominal and pelvic CT scan performed in the afternoon reported: "[E]nterocutaneous fistula[34] with a subcutaneous collection and large amount of free fluid in the abdomen with quite abnormal anatomy

[34] An enterocutaneous fistula is an abnormal connection from the intestine to the skin. The symptoms can include: leakage of the intestines through an opening on the skin; a swollen, tender abdomen; fever; and diarrhoea.

HDC

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and a large abscess in the pelvis." A nursing note made on the afternoon shift noted "… faecal matter now coming out of her vagina".

106. Ms A told both medical and nursing staff that she would like another opinion. Therefore, it was arranged that Dr C would see Ms A the following day. Ms A told nursing staff that she was from another region and that she wished to return there for family/whānau support while recovering.

10 Month2

107. On 10 Month2, Ms A was taken to theatre by Dr B for repair of the fistula. He was the responsible primary surgeon, made the intra-operative decisions, and made the operative note and postoperative plan.

108. Dr C assisted Dr B with the surgery. Dr C told HDC that he was an assistant to a senior colleague, and that if he had felt that any decisions were incorrect he would have intervened, but that Dr B justified his clinical decisions. Dr C said that he had no basis to doubt the decisions.

109. Dr B's response to HDC summarised the repair surgery:

> "[Ms A] returned … with a fistula. We took her back to the [operating room] to try and close the fistula (that is rarely ever successful), took the mesh out, debrided some tissue, and provided a way for the fistula track to drain. I would have put her on TPN[35] and let her have a small amount of clears until the fistula healed. She would have been left with an additional hernia that would have to be repaired in the future. Unfortunately, she refused any and all of my suggestions, was angry at me, and wanted to be transferred to another surgeon."

110. Dr B also told HDC:

> "In retrospect, I should have taken that piece of bowel out that I was nervous about. I have created one other fistula in my career (13 years) and I treated it the way I previously described … These do occur and I am certainly not the only surgeon to have one form."

111. In relation to the fistula repair that Dr B performed, Dr C's response to HDC stated that Dr B performed a lower midline laparotomy incision, and it was noted that the cavity superficial to the mesh was contaminated. The mesh was removed. There were multiple adhesions present between the loops of bowel, and the small bowel was inflamed. Dr C stated that the operation was difficult, but the piece of injured small bowel was close to the laparotomy incision, so it was identified with little abdominal exploration.

112. Dr C also stated that exterioration[36] of the damaged small bowel was not possible owing to the adhesions and wound depth. Dr C said that he suggested another surgical

[35] Total parenteral nutrition (TPN) is a method of feeding that bypasses the gastrointestinal tract. Fluids are given into a vein. This provides most of the nutrients the body needs.
[36] Exterioration — fixation of a segment of bowel with blood supply intact to the outer aspect of the abdominal wall.

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approach (which was partially closing the wound leaving the damaged portion of bowel in the bottom as a controlled fistula), but Dr B wanted to close the small bowel as he felt it could still heal.

113. Dr C felt that repairing the fistula was unlikely to succeed, but acknowledged that there is literature and evidence to support Dr B's approach. Dr C later told HDC that personally he would not have attempted this approach.

114. According to Dr C, Dr B decided to leave the section of repaired bowel in the bottom of the partially closed laparotomy wound, which would allow the small bowel contents to drain straight out of the open wound as a controlled fistula in the event of a recurrence. Dr B decided not to try to drain the pelvic collection via the midline laparotomy.

115. Dr B's operation note states:

> "… [W]e did as much as we could, including attempting to get into her pelvis fluid collection with our fingers. However, it had drained the previous day and it would be difficult to get down there."

116. Dr C says that he also suggested to Dr B that he perform a vaginal examination during the anaesthetic, and formalise the discharging sinus with a drain. Dr B decided that a vaginal examination and formulation of a drain was not necessary, as the collection was spontaneously draining, and he felt that was adequate.

117. Before closing, Dr B placed a drain in the mid-abdominal cavity superior to the uterus, and another drain in the wound.

118. A CT scan was performed, which identified multiple loculated[37] intra-abdominal collections reducing in size.

12–14 Month2

119. On Friday 12 Month2, Dr C reviewed Ms A during the surgical ward round. Dr C said that he was made aware of Ms A's status so that he could review her when on duty over the weekend, but that Ms A remained Dr B's patient.

120. Dr C told HDC that over the weekend Ms A's observations were stable. She had some pain but was comfortable and mobilising independently. She had a raised temperature of 38°C recorded on Saturday morning 13 Month2, but over the weekend her CRP was between 84 and 95 and her WBC was between 9.5 and 10.

121. On 13 Month2, a repeat CT scan was ordered by Dr C in response to Ms A's raised temperature. The report mentioned that the collections had decreased in size. This suggested to Dr C that the collections were draining, but their persistence concerned him.

122. Dr C documented: "[I]f sepsis develops or patient deteriorates consider transfer to [another DHB] for multiple abdominal drainages" (percutaneous drainage of

[37] Divided into small cavities.

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collections is not available in the Hospital on the weekend). If Ms A was stable, the intention was that she would undergo percutaneous drainage at the Hospital as soon as possible. Ms A was stable for the rest of the weekend, so no transfer took place.

123. Dr C stated:

> "There was discharge of some fluid coming from the wound but [Dr B] felt that this could be coming from one or other of her intra-abdominal collections. It was relatively small in amount and could be managed with ordinary dressings. It appears that the repair was holding at this point from the relatively small amount of fluid discharging from the wound."

124. Dr C's response to HDC summarised that Ms A's management at this point involved rehydration, appropriate antibiotics, monitoring of electrolytes, an insertion of a central line on 13 Month2 commencing TPN, and control of fistula drainage using wound dressing per Dr B's instructions (to dress the wound with a light packing).

125. Ms A cleaned her wound in the shower by gently irrigating it. Nursing notes for 13 and 14 Month2 describe Ms A doing so and, by 14 Month2, the amount of discharge had decreased.

126. Dr C's response outlines that as there was no peritoneal cavity present, there was no way for water to gain access to the intra-peritoneal space.[38] He said:

> "Though not common practice, I felt that in the case of [Ms A], washing the wound in the shower was safe and I respected the fact that it was the most comfortable form of cleaning for her. It was also likely to be a very effective way of protecting the skin from the large of amount of small bowel fluid which had come out."

127. On 14 Month2, Ms A requested that Dr C take over her care from Dr B. Ms A said that she would inform Dr B of this the following morning.

128. Dr C's response to HDC states that the small bowel repair performed by Dr B broke down some time on 14 Month2, which allowed intestinal contents to accumulate in the wound under the dressing. Dr C believed that this caused dehiscence[39] and discharge of small bowel fluid.

15 to 19 Month2

129. In the early hours of 15 Month2, Ms A's wound further dehisced. The wound was open and draining some faecal material. Nursing notes state that bowel was visible in the wound. Laboratory specimens grew *Staphylococcus epidermidis*.[40] Dr C was telephoned at home at around 5.20am.

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[38] Dr C commented that "using tap water to irrigate wounds has been found to be safe in a Cochrane meta-analysis of 11 randomised control trials".
[39] Surgical complication of a bursting open or splitting along natural or sutured lines.
[40] *Staphylococcus epidermidis* is a Gram-positive bacterium.

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130. During the afternoon of 15 Month2, Dr B telephoned Dr C and asked him to take over Ms A's care, as Ms A had requested this. Dr C agreed.[41]

131. Dr C said that from 15 Month2 onwards, he treated Ms A's wound as a controlled fistula. He summarised his management as involving: ensuring a careful fluid balance chart was kept and IV fluids given; administration of antibiotics; monitoring of electrolyte balance; radiological drainage of abdominal collections; continued TPN; controlling the fistula drainage; and protecting the skin using a specialised wound dressing (an Eakin wound bag).

132. On 18 Month2, guided radiological (CT) drainage of the collections occurred.[42] Ms A remained stable with no overt sepsis.

20 Month2 onwards

133. From 20–23 Month2 Ms A remained febrile and hypotensive with ongoing pain. Dr C requested a CT scan on 23 Month2. The CT scan showed improvement in the collections, so IV antibiotics and TPN were continued.

134. From 24 Month2, Ms A's temperature settled, although she remained on TPN and the fistula output remained. Ms A was given leave during the day but, on both 1 and 3 Month3, expressed a wish to be transferred near her whānau.

135. Dr C told HDC that he developed a good rapport with Ms A and helped to arrange her transfer for social and family reasons.

136. On 6 Month3, 39 days after her original surgery, Ms A was transferred to a hospital near her whānau.

137. Ms A then returned home and was under Dr C's care from 22 Month3 until discharge on 17 Month4. A Surgical Ward Charge Nurse Manager took up the role of co-ordinating Ms A's care at this time. Dr C continued to review Ms A in the outpatient clinic.

Complaint to the DHB

138. On 15 Month2, Ms A complained to the DHB. The DHB's Clinical Director for Emergency and Surgical Services, saw Ms A on the ward to discuss her concerns. The Clinical Director, the Charge Nurse Manager, and Dr B then met with Ms A.

139. On 2 Month3, the Clinical Director and Dr B wrote to Ms A to apologise for what had happened since her operation. The letter covered four points. The DHB outlined that:

- it regretted not having been able to access Ms A's childhood surgical notes before her surgery, but that having them would not have altered this being a technically difficult procedure and would not have helped do things differently;
- proceeding laparoscopically was the right way forward;

[41] Subsequent the DHB patient labels indicate that Dr C was managing Ms A's care.
[42] CT guided percutaneous drainage is one form of image-guided drainage, allowing minimally invasive treatment of collections, potentially anywhere in the body.

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- the operation was difficult and more likely to lead to a complication, and this is an important part of the discussion with a surgeon; and
- it acknowledged that Ms A had endured pain upon returning home from the operation. Discharge procedures were being reviewed.

Other events

140. The Hospital helped to lodge an ACC Treatment Injury Claim for Ms A on 29 Month2. The claim was accepted by ACC.

141. The DHB reviewed this case and the following actions ensued:

- The case was discussed at a monthly Mortality and Morbidity audit with visiting surgeons.
- Dr D met with colleagues to discuss expectations surrounding minimum information required in operation notes.
- Dr D and Dr C worked with New Zealand Health Workforce to recruit a surgical registrar to increase the on-call general surgery staff.
- It was acknowledged that a robust system for handing over on a weekend had not been carried over to public holidays. Formal face-to-face handover processes for all periods of absence and leave were then put in place.
- Dr B’s employment at the DHB ended in 2013. He no longer practises in New Zealand and is resident in another country.

142. Dr C told HDC that:

- although he is a new consultant, he is now more forthcoming when offering assistance to colleagues who appear to be struggling with a particular aspect of their patient’s care;
- if a surgeon is managing a patient and hands that patient over to him for a weekend when he is on call, he is less willing to accept their plan of care if it is not how he would usually manage the patient; and
- during operations he endeavours to declare his opinions in a more forceful and forthright manner.

143. Ms A, with assistance from ACC, has further (private hospital) surgery scheduled for 2015.

Responses to provisional report

144. Ms A had no comments on the “information gathered” section of the provisional report.

145. Dr B had no specific comments to make in relation to the content of the provisional report.

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146. Dr C and Dr D responded, through their legal representative, that they had no comments to make on the provisional report.

147. The District Health Board responded:

> "It is [the DHB's] view that clinical handover is a professional activity and that the expectation of [the DHB] [is] that these standards are met by the individual professionals. The method of handover can be described, however the absence of such a description does not remove the clinical responsibility that handover is required. The advice given by Dr [Johnston] suggests that the structure of the surgical service is satisfactory. Verbal handover is used widely in the department. [The DHB] considers it was the absence of any handover from [Dr B] that compromised the continuity of care."

Opinion: Dr B

Introduction

148. During my investigation, HDC provided Dr B, the surgeon with primary clinical responsibility for Ms A, with several opportunities to respond to the issues raised by her complaint about the standard of care she received. His responses have been disappointingly brief.

149. My expert advisor, general surgeon Dr Peter Johnston, identified the key clinical deficiencies in Dr B's care of Ms A as follows:

> "[Ms A] has sustained an unfortunate complication of surgery [fistula], which could sometimes happen in the absence of any errors or inadequacies in treatment. I think [Ms A] has had a greater degree of suffering than necessary in her postoperative course due to (1) failure to adequately record the operative findings and (2) being allowed to go home in the presence of a newly apparent discharge of bowel content from her wound. This is a departure from adequate standards of care; in my view this departure from standard of care would be seen with moderate … disapproval by surgical peers …"

Preoperative review of Ms A — Breach

150. When Dr B first reviewed Ms A, he assessed that she had an incisional hernia, obtained an ultrasound scan, which confirmed a hernia, and, based on his records, determined that the symptoms warranted surgical repair.

151. Ms A's hernia as a child was noted in Dr B's clinic letter, and that Ms A had spent a number of years in hospital at an early age. However, Dr B did not obtain Ms A's paediatric records, and he did not review the relevant history, which had been outlined in the 2011 gynaecological entry on her file.

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152. As a result, Dr B did not obtain the significant history of Ms A having being born with a condition requiring significant abdominal surgery. This was important clinical information relevant to his assessment and treatment of Ms A's incisional hernia.

153. My expert advisor, general surgeon Dr Peter Johnston, advised:

> "This omission is significant: to me, this history would suggest that there may be very dense adhesion between the bowel and the overlying abdominal wall, and that any surgical treatment would have to be done with particular care and not with the expectation that this was a typical incisional hernia."

154. In my view, Dr B's review of Ms A was substandard. Dr B was on notice of Ms A's relevant clinical history, in that he was aware that Ms A had had hernia surgery and spent a number of years in hospital at an early age. However, he did not review her clinical records to obtain the information he needed about her full clinical history before commencing surgery. It was Dr B's responsibility to read the notes to the extent necessary to satisfy himself that he had all the information that he, as the operating surgeon, needed to know.[43] As stated in a previous opinion:

> "The onus is on the clinician to ask the relevant questions, examine the patient, and keep proper records. Only then is the clinician in a position to properly consider all the risks, review all available information, and then and only then, proceed to perform surgery."[44]

155. In my opinion, in these circumstances, Dr B failed to provide services to Ms A with reasonable care and skill and, accordingly, he breached Right 4(1) of the Code.

Consent and information — Other comment

156. It is important to note that Dr B's failure to read Ms A's notes sufficiently to obtain the information he needed before commencing her surgery had significant implications with respect to providing her with relevant information and obtaining her informed consent.

157. Under Right 7 of the Code, consumers have the right to make an informed choice and give informed consent for medical treatment. Under Right 6(1) of the Code, consumers have the right to information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including an explanation of the options available, and an assessment of the expected risks, side effects, benefits, and costs of each option.

158. It is documented that, during the outpatient appointment, Dr B discussed risks of surgery with Ms A, including bleeding, infection, return of hernia, and damage to the bowel. Dr B's operation report for 28 Month1 also documents that "[Ms A] was told the risks and benefits and consent was obtained". Dr B told HDC that "[a]fter talking with her about all the risks including a possible fistula, she underwent a laparoscopic

[43] See Opinion 11HDC00531, available at www.hdc.org.nz.
[44] Opinion 09HDC01505, available at www.hdc.org.nz

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hernia repair". Ms A was also given a leaflet on hernia repair at the preadmission appointment.

159. Dr Johnston advised that the risks discussed were appropriate. However, I am concerned that Dr B's discussion with Ms A about the appropriateness and risks of surgery may have been different had he been aware of her full clinical history.

Documentation — Breach

160. I accept Dr Johnston's advice that the decision to perform the operation laparoscopically was reasonable in the hands of an experienced surgeon, and that "[a]s far as the operation note goes, the performance of the surgery was along standard lines and contains nothing remarkable".

161. However, I am concerned that there is a difference in detail between Dr B's operation report and operation record and his brief response to HDC, which reveals that important clinical information was not recorded in his operation note or the clinical records, and not passed on to Dr D and Dr C, in particular, information about the difficulty he experienced during the surgery. The failure to record and communicate the operative findings accurately was, according to Dr Johnston, a significant error. This affected the continuity of Ms A's postoperative care.

162. Dr Johnston advised:

> "In the latter account, [Dr B] writes: 'This took quite a bit of time because of extensive adhesions I encountered. During the takedown of adhesions, I did feel that one part of the small bowel was a bit compromised. I look[ed] at it repeatedly and very closely numerous times, I attempted to make bile come out and I thought about resecting it'. This difficulty is not reflected in the operation note, nor in any handwritten comment in the case notes. It would have been of value to [Dr B's] colleagues who looked after [Ms A] in his absence and on-call to have been aware of this."

163. I am also concerned that Dr B did not make his own entry in the clinical record regarding the incision and drainage procedure he performed on the ward on 8 Month2. The reference to this on file was completed by nursing staff in the course of a usual narrative progress note entry.

164. The Medical Council of New Zealand's statement on "Maintenance and retention of patient records"[45] states that doctors:

> "… must keep clear and accurate patient records that report:
>
> - Relevant clinical findings
> - Decisions made
> - Information given to patients
>
> …

[45] August 2008.

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(b) Make these records at the same time as the events you are recording or as soon as possible afterwards …"

165. As I have stated previously, "the importance of good record keeping cannot be overstated. It is the primary tool for continuity of care and it is a tool for managing patients."[46] Dr B failed in his obligations to keep clear and accurate clinical records. In particular, he did not document his surgical findings accurately, and he did not document the incision and drainage procedure he performed on the ward on 8 Month2. Accordingly, in my opinion, he did not comply with professional standards and, therefore, breached Right 4(2) of the Code.

Decision to discharge Ms A — Breach

166. On 2 Month2, Dr B advised nursing staff to cancel the incision and drainage procedure that Dr C had scheduled for that day. Dr B reviewed Ms A on 3 Month2, and the plan was to continue IV antibiotics and consider discharge the following day.

167. On 3 Month2, Ms A expressed her reluctance to be discharged, indicating that she felt too unwell and had abdominal pain. On 4 Month2, Dr B saw Ms A in the morning and deemed her ready for discharge in the next 24 hours. On the evening of 4/5 Month2, Ms A complained of slight abdominal pain and back pain, and was given 10mg of OxyNorm pain relief over that shift. These aspects of Ms A's condition, care and treatment were not documented during Dr B's ward round on the morning of 5 Month2.

168. Dr B was informed of the ooze coming from the abdominal wound prior to Ms A's discharge on 5 Month2. However, Ms A was nevertheless authorised to be discharged "as per [Dr B's] instructions". She was given a taxi chit and discharged home on oral antibiotics, lactulose, and pain relief, with follow-up planned for early the following week. Ms A later told HDC that the taxi trip home was very painful, and that bowel fluid came out of her wound. She further advised that she was in a lot of pain at home, and could not stand.

169. Dr Johnston expressed concern about Dr B's decisions to cancel the incision and drainage on 2 Month2 and his decision to discharge Ms A on 5 Month2 "… given that a new appearance of fluid which appeared to be bowel content was noted about the wound earlier on the day of discharge". Dr Johnston stated: "Having [Ms A] leave hospital with a new discharge of bowel content from the wound was an error which should not have occurred."

170. I accept Dr Johnston's advice. Dr B was responsible for ensuring that Ms A was medically fit for discharge. It is documented that Dr B was told about the ooze from the wound. In my opinion, it was not appropriate for Dr B to discharge Ms A from hospital on 5 Month2 when she had an appearance of bowel fluid from her wound. In my view, Dr B did not provide services to Ms A with reasonable care and skill and, accordingly, he breached Right 4(1) of the Code.

[46] Opinion 10HDC00610, available at www.hdc.org.nz.

HDC

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Fistula management

171. Ms A was readmitted on 8 Month2, developed a fistula on 9 Month2, and underwent fistula repair and mesh removal on 10 Month2.

172. I accept Dr Johnston's advice, in relation to Dr B's management of Ms A's fistula:

> "When the decision had eventually been taken to re-operate on [Ms A], the management was adequate; the attempt to close the fistula … was admittedly not likely to succeed but would have done no harm and not altered or extended the subsequent course of the problem … The occurrence of a small bowel fistula can complicate any operation which involved dividing dense adhesions of the bowel, as [Dr B] does point out in his response; this complication could indeed have occurred if various errors of judgment had not occurred."

173. In these circumstances, I find that Dr B did not breach the Code in relation to the management of Ms A's fistula.

Opinion: Dr D

174. Dr D's involvement in Ms A's care was limited to the postoperative period of Friday 29 Month1 to Monday 1 Month2. Dr D was the only surgeon on call on this long weekend.

175. Notably, as it was a public holiday, the usual Friday ward round did not go ahead. There is no evidence that Dr B handed over Ms A's care to Dr D.

176. Dr D first reviewed Ms A at around 12.25pm on 29 Month2. At that time, Ms A was stable, mobilising, and appeared well, although she had mild discomfort consistent with early stage surgical recovery.

177. During the day on 29 Month1, Ms A's postoperative condition deteriorated. On the evening of 29 Month1, Dr D had formed the impression that Ms A had a postoperative ileus. Blood tests were ordered and chest and abdominal X-rays were performed, showing atelectasis on both lungs and suggesting postoperative ileus or small bowel obstruction.

178. Dr D had concerns about the deterioration of Ms A's postoperative progress. He was suspicious of infection. Ms A was managed with IV fluids and IV antibiotics. An urgent abdominal CT scan was ordered. I accept that Dr D was hampered by the hospital CT scanner not working, and that he expected prompt repair by morning. When it was still not available on 30 Month1, an urgent ultrasound was performed, which identified a fluid collection that he considered a haematoma.

179. Late on 31 Month1, in response to Ms A deteriorating, Dr D, still without a CT scanner available, arranged HDU/ICU monitoring, where she had IV antibiotics and

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fluids and quickly improved, enabling her transfer back to the ward. On 1 Month2 at 8.00am, Dr D handed over care to Dr C.

180. Dr Johnston advised:

> "[Ms A's] postoperative care was adequate in the sense of receiving regular attention and consultant reviews, but unsatisfactory in the sense that collectively the surgical staff 'walked around' the relatively obvious evidence that [Ms A] had a serious infection in her hernia repair site, which equates to a leakage from the bowel. Of course it is easy for me to say this in hindsight, but the need for admission to intensive care and the development of renal impairment were clear pointers to this; no other form of fluid collection in the wound would have had this result."

181. Dr Johnston further advised:

> "I would think that if [Dr B's] subsequent comments on the operation were known at the time, the suspicion would have been higher and appropriate action (opening and drainage of the wound, with management of the fistula) would have been taken earlier, with less discomfort and suffering for [Ms A]."

182. I accept Dr D's comment that "[t]he only available operative note [from Dr B] was the handwritten operative report that contained information that was not particularly fulsome …". The lack of documentation of the operative findings from Dr B affected the continuity of Ms A's postoperative care. In these circumstances, I accept Dr Johnston's advice that "[t]he delay in realising there was a serious problem is a complex issue involving surgical expectations and thinking, and certainly caused [Ms A] suffering, but … [Dr C] and [Dr D] did not know the full extent of the operative findings [and] they attended [Ms A] diligently."

183. Dr D accepted that, in hindsight, he did not identify Ms A's postoperative small bowel injury. However, I accept Dr Johnston's advice and am mindful that Dr D, on solo call for the long weekend, was not helped by: Dr B's brief operative note; the usual Friday ward round handover not going ahead because of a busy public holiday and patient loads preventing it from occurring on the Thursday; and the unforeseen and ongoing lack of availability of an investigation tool of choice (CT). Accordingly, in these particular circumstances, I do not find Dr D in breach of the Code.

Opinion: Dr C

Postoperative care

184. Dr C's involvement in Ms A's first admission was limited. On 1 Month2 Dr D handed over care to Dr C, who was on call until 2 Month2. Dr C's role on call was to manage any deterioration in patients on the ward until rounds the next day. Ms A remained Dr B's patient.

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185. Ms A was discussed by Dr B, Dr D and Dr C early on 1 Month2. Neither of Dr C's more senior colleagues felt that an operation or other intervention was necessary at that point. Dr C considered all working diagnoses and felt that while there was some degree of uncertainty, Ms A was responding well to antibiotic treatment. He did not feel that there was sufficient uncertainty to alter the clinical decisions made by his colleagues.

186. Dr C observed Ms A regularly and prepared her for a possible surgical intervention the next day if Dr B thought it necessary. Dr C was not involved in Ms A's care again until 10 Month2 2013.

187. On 10 Month2, after Ms A's readmission, Dr C offered to assist primary surgeon Dr B with the mesh removal and fistula repair surgery. Dr C said that, on two occasions during the fistula repair, he made suggestions to Dr B regarding Ms A's treatment. Dr B continued with his particular approach. Dr C told HDC that he was assisting a senior colleague, Dr B justified his clinical decisions, and that he had no basis to doubt Dr B's decisions.

188. Dr C reviewed Ms A over the weekend of 13 and 14 Month2. A repeat CT scan was undertaken on 13 Month2. Dr C considered transfer to another DHB for drainage if Ms A deteriorated, but she remained stable. Ms A's management then involved insertion of a central line on 13 Month2 commencing Total Parenteral Nutrition (TPN) and control of fistula drainage using wound dressing per Dr B's instructions.

189. The small bowel repair performed by Dr B broke down sometime on 14 Month2. This resulted in wound dehiscence and discharge of small bowel fluid. When laboratory specimens grew bacteria, Dr C was called at home in the early hours of 15 Month2.

190. Dr C was comfortable with Ms A washing the wound and discharge in the shower. Later on 15 Month2, as a result of Ms A's request, care was formally transferred to Dr C. From 15–19 Month2, Dr C treated the wound as a controlled fistula, and his management included guided radiological (CT) drainage of fluid collections. Ms A remained stable with no overt sepsis.

191. Later scans showed improvement, and antibiotics and TPN were continued. Dr C arranged for Ms A to be transferred to another region to be nearer whānau for a period of her care.

192. I accept Dr Johnston's advice that the care provided by Dr C was reasonable in the circumstances and therefore, in my view, he did not breach the Code.

Other comment

193. While noting in this case that Dr B's management of the fistula was adequate, I note Dr C's reflections on the degree to which he felt able to voice his view on its management to a senior colleague, and the changes he has made to his approach to such matters since. I support all steps taken by providers to ensure they have in place cultures that empower people, embody transparency and engagement, and that foster a willingness and ability to discuss and query treatment options with colleagues where appropriate.

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Opinion: The District Health Board — Adverse comment

194. The general surgical team runs a system of handover of patients that includes a Friday morning ward round through the surgical ward and ICU to meet patients and discuss and establish a weekend patient's management plan for the on-call team. However, there was no ward round on the morning of 29 Month1 because it was a public holiday, which meant that Ms A's care was not handed over from Dr B to Dr D.

195. Dr Johnston advised:

> "This [structure of the surgical group] appeared to be appropriate in that it clearly included patient cover in after-hours and on-call situations with a point of responsibility for each patient at any time, and included joint ward rounds of the whole surgical consultant team to familiarise the team with all the inpatients, particularly for weekend cover. [Dr D's] report for the Commissioner identifies some areas for improvement, notably specific handovers for public holidays …"

196. In response to the provisional opinion, the DHB stated that its view is that clinical handover is a professional activity, and it was the absence of any handover from Dr B that compromised the continuity of care. Nevertheless, during the course of the investigation, the DHB acknowledged that in Ms A's case the system in place for handing over patients on a weekend had not been carried over to the public holiday situation. I remain of the view that this deficiency contributed to suboptimal co-operation and continuity of services in Ms A's case.

Recommendations

197. I recommend that the DHB provide to HDC, within three months of issue of this report, an evaluative report on the effectiveness of all system and policy changes implemented as result of this case. The report should include:

a) An explicit description of the expectations surrounding minimum information required to be legibly recorded in operation notes.

b) An evaluative update report on the DHB's advice to HDC that the recruitment of surgical registrar support had occurred to increase the on-call general surgery staff.

c) Details of the review undertaken regarding surgical team discharge processes.

d) Details of the formal handover and patient management processes put in place for all periods of surgical team member absence and leave including public holidays.

198. I recommend that Dr B provide a formal written apology to Ms A for his breaches of the Code. The apology is to be sent to HDC within three weeks of issue of this report, for forwarding to Ms A.

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199. I recommend to the Medical Council of New Zealand that in the event that Dr B returns to New Zealand and applies for re-registration and an annual practising certificate, the Council review Dr B's competency and fitness to practise.

Follow-up actions

200.
- An anonymised copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand, and it will be advised of the names of Dr B, Dr D, and Dr C in the accompanying cover letter.
- An anonymised copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Royal Australasian College of Surgeons (RACS).
- An anonymised copy of this report with details identifying the parties removed, except the expert who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

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Appendix A — Independent surgeon's advice to the Commissioner

The following expert advice was obtained from a general and hepatobiliary surgeon, Dr Peter Johnston:

"**General Surgeon Expert Advice 13/00478**

This report is given by Peter Stuart JOHNSTON MB ChB (1978) FRACS (1985). I am a General and Hepatobiliary Surgeon, and have practiced as a Consultant Surgeon in these areas since 1986. I have been asked by the Commissioner to provide an opinion on case 13/00478.

The numbered questions as given to me by the Commissioner are given below in italics, followed by my responses. Questions 12–15 were posed to me by the Commissioner after submission of my draft response.

With reference to professional standards where applicable, please provide your expert comments on the following:

1. *The adequacy of information provided to [Ms A] by [Dr B] prior to the surgery.*

It is difficult to know from the hospital records exactly what information was provided prior to the surgery. The consent form for the procedure lists 'bleeding, infection, return of hernia, damage to bowel' under 'summary of information provided'. This is all appropriate and stands as record of these issues having been mentioned. We know from research, however, that patients retain very little of an informed consent discussion, and it is really a question of what particular points the surgeon has chosen to emphasise that constitutes effective provision of information, and this is not recorded.

2. *The standard of [Dr B's] preoperative assessment/review of [Ms A].*

[Dr B] clinically assessed that this was an incisional hernia, on the basis of an abdominal wall hernia in infancy and a Caesarean section some 18 months previously. He obtained an ultrasound scan which confirmed that the palpable lump was a hernia. He determined (according to his clinic letter) that the symptoms generated by the hernia were sufficient to warrant repair. He did not, however, obtain the very significant history of the abdominal wall problem in infancy: later in the file it is mentioned that [Ms A] [had being born with a condition requiring significant abdominal surgery], and that she spent years in hospital with an abdominal wall defect that slowly closed. It could be that [Ms A] had forgotten this history and could not give it accurately, but I also note that this history was obtained from [Ms A] some time after her surgery by the Mental Health specialist nurse, suggesting that [Ms A] had known this all along. This omission is significant: to me, this history would suggest that there may be very dense adhesion between the bowel and the overlying abdominal wall, and that any surgical treatment would have to be done with particular care and not with the expectation that this was a typical incisional hernia.

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3. *The standard of laparoscopic hernia mesh repair surgery performed on 28 [Month1].*

As far as the operation note goes, the performance of the surgery was along standard lines and contains nothing remarkable; however, there is discordance between this operation record and [Dr B's] recollection of the operation as noted in his email response to the Commissioner's request for information. In the latter account, he writes: 'This took quite a bit of time because of extensive adhesions I encountered. During the takedown of adhesions, I did feel that one part of the small bowel was a bit compromised. I look[ed] at it repeatedly and very closely numerous times, I attempted to make bile come out and I thought about resecting it'.

This difficulty is not reflected in the operation note, nor in any handwritten comment in the case notes. It would have been of value to [Dr B's] colleagues who looked after [Ms A] in his absence and on-call to have been aware of this.

4. *The standard of [Ms A's] postoperative care, including drainage management, pain management and wound management.*

[Ms A's] postoperative care was adequate in the sense of receiving regular attention and consultant reviews, but unsatisfactory in the sense that collectively the surgical staff 'walked around' the relatively obvious evidence that [Ms A] had a serious infection in her hernia repair site, which equates to a leakage from the bowel. Of course it is easy for me to say this in hindsight, but the need for admission to intensive care and the development of renal impairment were clear pointers to this; no other form of fluid collection in the wound would have had this result. In his response to the Commissioner's questions, [Dr C] seems to acknowledge this, albeit somewhat indirectly, in his comments that he would aim to give more voice to his opinions in the future, implying he felt led by more senior surgeons and did not feel particularly comfortable with the decisions made; however I could be over-reading his message. I would think that if [Dr B's] subsequent comments on the operation were known at the time, the suspicion would have been higher and appropriate action (opening and drainage of the wound, with management of the fistula) would have been taken earlier, with less discomfort and suffering for [Ms A].

5. *The decision to cancel the incision and drainage procedure.*

In retrospect, this was not the correct decision, and is another feature of 'walking around' a problem in the hope or belief that the problem was not serious; the latter is a fairly common factor in management of postoperative care and complications, and one that all surgeons should be aware of. [Dr B] was the clinician directly involved with the decision about this, and does not cover it in his response.

6. *The appropriateness of the decision to discharge [Ms A], and the standard of discharge arrangements.*

In retrospect, this was not a correct decision either, given that a new appearance of fluid which appeared to be bowel content was noted about the wound earlier on the day of discharge; it is not clear if this had been brought to [Dr B's] attention

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when he authorized her to leave hospital; if not, there was a communication error. In [Ms A's] account, she had great pain and flow of bowel fluid from her wound in the taxi on the way home, which must have been distressing.

7. The overall standard of documentation relating to [Ms A's] care.

The documentation is of reasonably good standard in terms of regular entries and accurate information, as best I can tell.

8. The standard of communication with [Ms A] regarding her care.

[Dr C] appears to have made a particular point of communicating carefully with [Ms A]; it is not clear from the file what the level of communication between [Dr B] and [Ms A] was; clearly [Ms A] was not happy with it at the time.

9. The appropriateness of the timing of senior clinician assessment of [Ms A] when she was readmitted on 8 [Month2].

It appears that [Dr B] was asked about this on the day and saw [Ms A] a little later that day, which is appropriate.

10. The surgical management of the fistula.

When the decision had eventually been taken to re-operate on [Ms A], the management was adequate; the attempt to close the fistula, [redacted as not relevant to care provided] was admittedly not likely to succeed but would have done no harm and not altered or extended the subsequent course of the problem.

11. An overall summary and conclusion regarding the standard of care provided to [Ms A].

The formation of firm conclusions is somewhat limited by the lack of any detailed response from [Dr B], who is no longer in New Zealand. In my view, a series of errors of judgment, mainly on [Dr B's] part, led to a more prolonged and difficult illness for [Ms A] than may have otherwise occurred. The occurrence of a small bowel fistula can complicate any operation which involved dividing dense adhesions of the bowel, as [Dr B] does point out in his response; this complication could indeed have occurred if various errors of judgment had not occurred. However, I believe that [Ms A] has been subject to more discomfort and suffering because of these errors. All surgeons and surgical procedures can be attended by errors of judgment and complications, this is inherent in the process of surgery; the question is, at what level a breach of [Ms A's] rights occurs.

The decision to do the operation laparoscopically was reasonable in the hands of an experienced surgeon. The failure to obtain the relevant past history was an error of mild degree, which may or may not have affected how the surgeon viewed the procedure. The failure to communicate the operative findings was a significant error [redacted as not relevant to care provided]. The delay in realising there was a serious problem is a complex issue involving surgical expectations and thinking, and certainly caused [Ms A] suffering, but given that [Dr C] and [Dr D] did not know the full extent of the operative findings [redacted as not relevant to care provided] they attended [Ms A] diligently. Both the responses of [Dr D] and [Dr C] imply that they recognized the need for some improvement in the collective

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work pattern of the General Surgery service, although this is not explicitly stated. Having [Ms A] leave hospital with a new discharge of bowel content from the wound was an error which should not have occurred.

12. *In your view, based on the information provided, who had overall responsibility for the decision to discharge [Ms A] on 5 [Month2]?*

[Dr B] was responsible and was directly involved in the decision to discharge [Ms A] at that time; this is documented in the case record.

13. *Please comment on the appropriateness of [the DHB's] policy documents provided relating to pain management and patient discharge (ie, the Midland Lippincott procedures).*

These documents are appropriate for daily management of these issues in a New Zealand Hospital. The pain document is possibly rather long and wordy which may reduce the chance of it being read, but this is probably a minority view. The discharge document is comprehensive.

14. *Please comment on the structure of [the DHB's] surgical group.*

This appeared to be appropriate in that it clearly included patient cover in after-hours and on-call situations with a point of responsibility for each patient at any time, and included joint ward rounds of the whole surgical consultant team to familiarize the team with all the inpatients, particularly for weekend cover. [Dr D's] report for the Commissioner identifies some areas for improvement, notably specific handovers for public holidays and liaison with anaesthesia service to formalize protocols for postoperative pain; [Dr D's] identification of the need for these improvements as head of the surgical department is consistent with a well-functioning service.

15. *Please comment on the overall appropriateness of DHB systems and processes in place during [Ms A's] admission.*

I do not see any further issues to be commented on here — the events were the result of surgical judgment rather than a reflection of a deficiency in DHB processes, in my view.

In summary, [Ms A] has sustained an unfortunate complication of surgery, which could sometimes happen in the absence of any errors or inadequacies in treatment. I think [Ms A] has had a greater degree of suffering than necessary in her postoperative course due to (1) failure to adequately record the operative findings and (2) being allowed to go home in the presence of a newly apparent discharge of bowel content from her wound. This is a departure from adequate standards of care; in my view this departure from standard of care would be seen with moderate rather than severe disapproval by surgical peers, such that an apology and a review of practice would be appropriate (and have probably both occurred).

Peter Johnston"

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