Surgeon – Mr Ian Breeze

A Report by the

Health and Disability Commissioner

(Case 03HDC18359)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Mrs A	Consumer
Mr B	Complainant/Consumer's son
Ms C	Consumer's daughter
Mrs D	Consumer's daughter
Mr Ian Breeze	Provider/General surgeon
Dr E	Surgical registrar
Dr F	Anaesthetist/Intensivist
Mr G	Locum general surgeon
Dr H	General practitioner
Dr I	Anaesthetist/Intensivist

Complaint

On 4 December 2003 the Commissioner received a complaint from Mr B about the care and treatment that his mother, Mrs A, received from Mr Ian Breeze in early 2000. An investigation was commenced on 18 December 2003, as part of a Commissioner initiated inquiry into the quality of care provided by Mr Breeze to a number of patients on whom he performed surgery. The issue the Commissioner investigated was:

- *whether Mr Breeze provided services of an appropriate standard to Mrs A, on whom he performed bowel surgery at Tauranga Hospital in March 2000, and who developed post-operative complications.*

Information reviewed

- Letter of complaint from Mr B, dated 3 December 2003
- Further information from Mr B, dated 15 and 24 December 2003
- Transcript of interview with Mr B on 23 March 2004
- Transcript of interview with Mrs A on 23 March 2004
- Transcript of interview with Ms C on 23 March 2004
- Transcript of interview with Mrs D on 26 April 2004
- Mr Breeze's response to the complaint, dated 9 February 2004
- Further information from Mr Breeze, dated 3 March 2004
- Information from Bay of Plenty District Health Board, dated 20 February and 30 April 2004
- Information from 15 nurses involved in Mrs A's care and treatment during her admission at Tauranga Hospital from 1 to 28 April 2000
- Information from a surgical nurse case manager, dated 16 April 2004

Names (other than Mr Breeze, the Commissioner's expert advisor and the hospitals) have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

- Information from Dr F , anaesthetist/intensivist, dated 20 April 2004
- Information from Dr I, anaesthetist/intensivist, dated 22 April 2004
- Information from Mr G, general surgeon, dated 7 May 2004
- Information from Dr E, surgical registrar, dated 28 May 2004
- Mrs A's general practitioner records
- Mrs A's clinical records from Tauranga Hospital

Independent expert advice was obtained from Mr Mischel Neill, colorectal and general surgeon.

Information gathered during investigation

Diagnosis of bowel cancer
On 31 December 1999 Mrs A's general practitioner, Dr H, referred her to the Surgical Outpatient Department at Tauranga Hospital. The letter of referral asked for a review of Mrs A in light of symptoms of iron deficiency anaemia and positive faecal occult bloods. Dr H recorded that Mrs A had been feeling tired, with no upper gastro-intestinal symptoms, no altered bowel habit, malaena or bright rectal blood, no post-menopausal bleeding, no haematuria, and that she was not a vegetarian. A recent blood test had shown her haemoglobin to be low at 93. Dr H advised Surgical Outpatients that Mrs A had a history of peptic ulceration many years ago. Finally, Dr H advised that on observation, Mrs A's abdomen was soft and non-tender, with no masses.

Mrs A consulted Mr Breeze at the Outpatient Department on 1 February 2000. Following the consultation, Mr Breeze wrote to Dr H. He noted that Mrs A had no symptoms other than feeling tired. He noted that she had a co-morbidity of polymyalgia rheumatica and was on prednisone. She also had a past history of peptic ulceration and a family history of possible colorectal cancer. On examination she was healthy, although slightly pale. She had initial deep-seated tenderness in her right upper left side on abdominal examination, but no masses or organomegaly. He advised that rectal examination disclosed iron-stained stool, but no other abnormality. He advised that he had listed Mrs A for a colonoscopy and gastroscopy on 15 February 2000, to further investigate her transient iron deficiency anaemia.

On 15 February Mrs A underwent the colonoscopy, which revealed a large polypoidal carcinoma of the ascending colon. Mr Breeze took a biopsy of the carcinoma. At colonoscopy, Mr Breeze also found a 10mm diameter pedunculated villous adenomatous polyp, 50cm above the anal verge corresponding to the sigmoid colon. Mr Breeze removed the polyp with a snare diathermy. Following the colonoscopy, Mr Breeze wrote to Dr H and advised that he would arrange an appointment to review Mrs A in his outpatient clinic, to discuss the findings and recommend the surgical procedure of a right hemicolectomy. Mr

Breeze advised that because of the findings on colonoscopy, he considered that a gastroscopy was not necessary.

Mrs A was reviewed by Dr E, surgical registrar, in the Outpatient Department on 22 February. In consultation with Mr Breeze a bowel resection and right hemicolectomy was recommended. Mr Breeze advised me that Mrs A gave her consent to the proposed procedure, after having the risks of surgery (including the risk of major abdominal infection requiring re-operation) explained to her.

Dr E wrote to Dr H following the consultation to advise her that colonoscopy had revealed a polyp in Mrs A's sigmoid colon and a large annular carcinoma in the right colon. He advised Dr H that biopsies of the tumour did not histologically prove that it was a cancer, but Mr Breeze was sure that it was an adenocarcinoma of the right colon, and Mrs A had been booked in for a right hemicolectomy.

Operation
Mrs A was admitted to Tauranga Hospital on 16 March 2000 for a right hemicolectomy on 17 March. On 16 March pre-operative bowel preparation commenced. Mrs A was given an oral Fleet in the morning, and was due for a further Fleet at 4pm. She was put on nil by mouth. Mrs A was given antibiotics (Fasigyn 2 grams orally at 6.30am and gentamicin 365mg intravenously at 7.45am) on 17 March, as antibiotic prophylaxis. To prevent clot formation during and after surgery, she was also given 2500 units of Fragmin subcutaneously at 8.20pm on 16 March. Mr Breeze advised me that Fragmin was given twelve hours pre-operatively rather than one hour pre-operatively in order to be compatible with an epidural block for post-operative pain control.

The operation was performed between 8am and 10.15am on 17 March by Mr Breeze, assisted by Dr E. The typed operation note records:

> "**Indication:** Progressive iron deficiency anaemia. Colonoscopy reveals malignant polypoidal tumour right colon.
>
> **Procedure:** Thrombo prophylaxis with Fragmin and intermittent calf compression. Antibiotic prophylaxis with Gentamicin and Fasigyn, pre-emptive analgesia with Marcain wound infiltration. Midline incision.
>
> Laparotomy confirmed a mobile, malignant feeling polypoidal cancer on the mid ascending colon. There were adhesions from previous open cholecystectomy but despite this reasonable palpation of the liver was possible and no metastases were evident. Laparotomy was otherwise unremarkable.
>
> The right colon was restored to its primitive mesentery by dividing the peritoneum lateral to it, the right side of the gastrocolic ligament was serially clamped, divided and ligated, detaching it from the stomach. A right hemicolectomy was then carried out resecting radical portions of ascending mesocolon and transverse mesocolon but preserving the middle colic vessels. Bowel continuity was restored using the 75mms

linea cutting stapler. The gap in the mesentery was closed. The abdomen was lavaged with saline and closed with 0 Novafil to the linea alba and staples to skin. Blood loss was approximately 200 mls.

Post op: Routine cares."

Mr Breeze recalled that the localised cancer of the colon, confirmed at operation, was removed uneventfully. The bowel was rejoined (by anastomosis) using a mechanical stapling device, and the blind ends of the bowel were also stapled closed.

The anatomic pathology from the specimen taken during Mrs A's right hemicolectomy (reported on 22 March) noted that sections showed an ulcerated tumour composed of proliferating malignant epithelial cells, and that the tumour extended through the full thickness of the bowel wall into the immediately adjacent mesenteric tissues. The tumour showed an expansive invasive margin. The specimen report noted that none of the 15 identified nodes showed evidence of metastatic carcinoma. The diagnosis was ascending colon adenocarcinoma (moderately differentiated, Dukes B), and tubular adenoma. Mr Breeze advised me that Dukes B indicated that the tumour was a localised bowel cancer, with no unexpected adverse features, and was associated with a 65% five-year survival. He advised that no further treatment, such as chemotherapy, was indicated.

On the postoperative caremap form, it is noted that Mrs A was febrile, with a temperature of 37.7 degrees, which decreased four hours later to 36.9 degrees.

Post-operative care and treatment
Mrs A was returned to the ward at 12.30pm. It was noted that there was a small amount of ooze from her wound, her observations were stable and she was afebrile and comfortable. At 11.45pm she was also noted to be comfortable, with no wound ooze, nausea or vomiting. She was not seen by Mr Breeze that evening.

On 18 March the morning nurse noted that Mrs A was afebrile, and her blood pressure and pulse were stable. She was also noted to be comfortable, and her wound satisfactory. The afternoon nurse noted an increase in Mrs A's blood pressure (up to 178/78), and noted that her heart rate was 89 beats per minute. It is recorded in the progress notes that Mrs A sat in a chair for a short time, but became very hot, sweaty and clammy. A moderate amount of fresh looking blood was noted under the Tegaderm on the wound. Her blood test results for 18 March show that her haemoglobin was 101, and her white blood cell count was 11.7.

On 19 March Mrs A was febrile, with a temperature of 37.8 degrees at 2am, which decreased to 36.9 at 5am.

On 20 March Mrs A was reviewed by a surgical registrar during a ward round, who noted that she was well, not passing wind, afebrile, and her observations were okay. The plan was to continue with present cares.

On 21 March Mrs A was reviewed by Mr Breeze. There was no note in the progress notes of Mr Breeze's observations of Mrs A at this time, only that the plan was for FOF [full oral feeding] and light diet. The house surgeon also reviewed Mrs A on 21 March. The house surgeon noted that she was feeling well, with no nausea, vomiting or abdominal pain, she was afebrile, and her blood pressure was 180/90. The house surgeon also noted that her abdomen was soft, and bowel sounds were present. The plan recorded in the progress notes by the house surgeon was for FOF in the evening if tolerated (to be decreased if she experienced nausea), to continue other cares and to check her bloods. Her blood test results for 21 March showed that her haemoglobin had decreased to 109, and her white blood cell count had slightly increased to 11.8.

The nursing notes for 21 March record that Mrs A had a loose bowel motion, and was tolerating small amounts of water and jelly. Mrs A was afebrile, with a blood pressure of 150/80 and heart rate of 70 beats per minute. She was comfortable, and her abdomen was soft, non-tender, with occasional bowel sounds. The afternoon nurse recorded that Mrs A continued to have diarrhoea (three times), which was mixed with urine.

Mr Breeze saw Mrs A on 22 March during his ward round. He noted that she had increased nausea and diarrhoea, but that she was afebrile and her observations stable. Her abdomen was noted as being soft. He advised that she was to finish her current intravenous fluids and then have that stopped. During the evening of 22 March, no complaints were voiced. She had some diarrhoea, but was comfortable.

On 23 March Mrs A was reviewed by the registrar, who noted that she was tolerating her diet well. Mrs A was afebrile and her observations stable. Her abdomen was soft and non-tender. The registrar noted that he explained to Mrs A the Dukes B adenocarcinoma. The registrar noted that Mrs A was for discharge the following day, with a follow-up with Mr Breeze in four to six weeks.

On 24 March Mrs A was noted to be well, with no complaints, no pain, and less diarrhoea. She was afebrile and her observations stable. She was seen by Mr Breeze, who decided that she could be discharged that day, with her clips to be removed in 10 days by the district nurse. It was recorded that Mrs A would not need chemotherapy, and that he would review her in four to six weeks.

Mrs A was discharged from Tauranga Hospital on 24 March 2000. The discharge summary noted that post-operatively Mrs A had a good and uncomplicated recovery.[1] The follow-up plan was for her to see her GP the following week, attend an outpatient appointment in four to six weeks, and have her staples removed by the district nurse on 27 March. A referral to the district nursing service was sent on 24 March, asking them to remove the staples in situ on 27 March, and to check the wound site for signs of infection.

[1] This was supported by Dr E, who advised me that Mrs A's post-operative course was uncomplicated, and he had no particular concerns about her condition.

Mrs A recalled that she was not feeling 100% when she was discharged – she was still vomiting a bit and had diarrhoea. However, because she was told she could go home, she thought she was on the mend. Mr B expressed concern that his mother was discharged while she was still suffering from diarrhoea and pain, which may have been an early sign of an anastomotic breakdown.

Deteriorating condition following discharge
Mrs A's daughter, Mrs D, looked after Mrs A following her discharge from hospital. Mrs D advised me that on the first day at home (25 March) her mother seemed fine. However, on 26 March Mrs A reported pain and the feeling that something was "pulling apart inside". She also had difficulty getting out of bed. Mr B recalled that when he visited his mother on 26 March she looked to be in pain, and was up and down to the toilet. Mrs A's other daughter, Ms C, also recalled that her mother was in pain, and could hardly get out of her chair. She recalled that they were all very concerned about their mother's condition.

Mrs D telephoned the local medical centre on 26 March, and a GP came to the house to review Mrs A. The GP noted that Mrs A had been vomiting bile, and had diarrhoea overnight. Mrs A had lower abdominal pain, had passed wind and had no fever. On examination, her pulse was 100 beats per minute, and her blood pressure was 110/50. Mrs A's chest was clear, and she had light abdominal tenderness and normal bowel sounds. The notes of the consultation are very difficult to read, but it appears that she was prescribed Baccstam and Stemetil, and Mrs D was told to monitor Mrs A and arrange a review if she deteriorated.

On 27 March a district nurse visited Mrs A. This was the day on which it was planned to remove Mrs A's stapling, however, it is not clear from the patient record whether the district nurse did remove the stapling. Mrs D recalled that the nurse told her that Mrs A did not need to go back into hospital. Mrs D recalled that her mother was getting weaker, had persistent diarrhoea, and was uncomfortable. Accordingly, on 28 March, she contacted Mrs A's GP, Dr H, who reviewed Mrs A. Dr H recorded that following Mrs A's consultation with the GP from the medical centre on 26 March, her vomiting had stopped and she was managing clear fluids, but she still had small volumes of "watery yellow" diarrhoea and increasing left lower abdominal pain. On examination, Mrs A was mildly dehydrated. Her temperature was 36.2 degrees, her pulse 84 beats per minute, and her blood pressure 134/70. Mrs A's abdomen was soft and she had a very tender left lower quadrant. Her bowel sounds were "high pitch". Dr H queried whether Mrs A had an ileus or obstruction, or gastroenteritis, and referred her to Tauranga Hospital.

Re-admission to hospital
Mrs A presented at the Emergency Department at Tauranga Hospital on 28 March with abdominal pain 11 days post-operatively. Ms C advised me that her mother was experiencing extreme pain on the left side of her body (not at the site of her surgery), and was very tender. It was recorded in the clinical records that Mrs A had been vomiting and had had diarrhoea since 24 March, with worsening pain especially on movement. Mrs A was reviewed by a house surgeon at 10.45am. He noted that she had been well post-operatively,

however on the previous Saturday evening had developed left-sided abdominal pain, nausea, vomiting, and diarrhoea. Mrs A was then reviewed by Dr E, who noted that she looked hot and unwell. Her temperature was 36.8 degrees, and he queried whether she was feverish. Mrs A had an elevated pulse rate and mild hypotension – evidence of septic shock. On examination, Dr E noted that Mrs A's abdomen was soft, and that she had a large, very tender mass in the left iliac fossa. He queried whether she was suffering from diverticular disease, an abscess, or an anastomotic leak. His plan was to admit Mrs A, start her on antibiotics if her temperature increased, take a CT scan, and for her to have nil by mouth and intravenous fluids.

Mrs A was discharged from the Emergency Department and admitted to the ward at 12.30pm.

On 28 March 2000 Mrs A had a CT scan of her abdomen and pelvis, which was reported by a radiologist. The indication for the scan was left-sided pain, elevated white cell count plus fever and clinical fullness of the left post right hemicolectomy. His finding was:

> "There is significant pathology with a large amount of loculated fluid and air in the left abdomen, which is outside of bowel loops and is within the peritoneal cavity, plus there is also extensive inflammatory change and there is also a large amount of fluid collected in the pouch of Douglas over at least 8-10cm in diameter.
>
> In addition there are distended small bowel loops in the left mid to upper abdomen and in the mid to lower abdomen there is a small bowel transition associated with some high density material and below this there is free fluid and this finding is thought to represent decompressed small bowel associated with perforation, possible at anastomotic site.
>
> A tiny left sided pleural effusion is noted and there is minor bibasal atelectasis. In addition there is an apparent 4-5mm nodule in the right lower medial lung.
>
> Impression: Extensive fluid and air shown in the abdomen and pelvis with probable anastomotic breakdown."

On 28 March Mrs A also had a chest and abdomen X-ray. The radiologist reported that the abdomen radiograph showed distended small bowel loops in the left mid and upper abdomen, and that there were multiple air and fluid levels in the mid and lower abdomen with a relative paucity of bowel gas on the left. The chest radiograph noted that the lungs were clear.

A blood test taken on 28 March showed severe infection – Mrs A's white cell count was 41.1 at 11.17am (in comparison to a count of 11.7 on 18 March). The report with the blood test noted that the results showed marked neutrophilic leucocytosis, marked neutrophil toxic changes, and moderate thrombocytosis.

Following the CT scan, Dr E discussed Mrs A's condition with Mr Breeze, who requested Dr E to arrange a laparotomy by the on-call surgeon, Mr G.[2]

Further surgery – laparotomy
Mrs A was taken to theatre for a laparotomy, resection of ileocolic stapled anastomosis, formation of end ileostomy and muscous fistula of the descending colon. The operation commenced at 7.44pm on 28 March and finished at 9pm. The surgeon was Mr G, with Dr E assisting. The operation note recorded:

> "History: This 80 year old lady underwent a right hemicolectomy with a stapled ileocolic anastomosis approximately eleven days ago. She had been discharged from Hospital on 25th March well, then developed nausea vomiting and abdominal pain over the past three days. On examination in the Emergency Dept she had a palpable tender mass in the left side of the abdomen with peritoneal irritation. She went forward for a CT scan of the area which showed free air and fluid in the abdomen consistent with a perforation most likely of the anastomosis. She was booked for laparotomy, consented, in the standard fashion. After resuscitation she was brought forward to theatre.
>
> Findings: Faecal peritonitis from a blow out of the stapled ileocolic anastomosis from what appeared to be the horizontal staple line.
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> Procedure: Once anaesthetised the patient had received triple antibiotics in the form of Cefuroxime, Gentamicin and Metronidazole. Previous laparotomy incision was opened. On entering the peritoneum free pus and faecalent material was seen. After identifying the anastomosis which was surrounded by omentum it was seen that the horizontal anastomotic staple line had perforated. The anastomotic site was then mobilised both proximally and distally with a clip and tie technique with 2/0 Dexon ties and then stapled anastomosis was resected. Washout was then performed of the abdomen with 6 litres of warm, normal saline. Two Yates drains were placed, one in the pelvis and one around the mucous fistula. Terminal ileum was brought out in to the right iliac fossa as was the descending colon to form mucous fistula in the upper left quadrant. The abdomen was then closed with tension sutures of 1 Nylon, and continuous 1 Dexon to the linea alba. Clips were applied to the remaining skin after tension sutures had been tied. The ileostomy and mucous fistula were sutured in place with 2/0 interrupted Chromic sutures, ostomy bags were placed on top of these. Drains were stitched in place with a 1 silk. Dressings applied.
>
> Post op: Will be as directed by intensivists. Continue IV antibiotics. Pus swabs sent for microbiology and histology sent also."

[2] Mr G was a locum surgeon at Tauranga Hospital at the time.

Dr E recalled that there was no problem with the surgery – the horizontal staple line had leaked, causing intra-abdominal sepsis. The anastomosis was resected, with formation of an end ileostomy and a mucous fistula.

Mr G recalled that the finding at operation was of a leakage of faeces from the ileo-transverse stapled anastomosis, with associated purulent peritonitis. He advised me that the anastomosis had been performed in the prescribed fashion. Mr G stated:

> "The likely cause of her problem was that an abscess developed at the site of the anastomosis despite standard care. This abscess, probably small at first, and not detectable during her stay in hospital, on the 8th postoperative day started to weaken the anastomosis, then on the 11th postoperative day the weakened anastomosis would have burst allowing bowel contents to suddenly enter into the abdominal cavity causing a violent, acute peritonitis and septic shock.
>
> Such an occurrence can happen in relation to any large bowel anastomosis. Her age (80 years) and long standing administration of Prednisone for poly-myalgia rheumatica would have enormously enhanced the chances of this occurring. Her immunity to infection would have been impaired. I would regard the sequence of events in the case of [Mrs A] as non-preventable."

The wound swab of peritoneal fluid taken on 28 March and reported on 4 April showed large numbers of Gram negative and positive bacilli and moderate numbers of Gram positive cocci on the Gram stain. On culture, a heavy growth of mixed anaerobic organisms, a light growth of Clostridiun species, heavy growth of coliform bacillus, and moderate growth of enterococcus species were found.

Mr Breeze recalled that Mr G discussed the surgery with him the following day, and the nature of Mrs A's condition. In particular, that the end of the divided transverse colon that had been stapled closed transversely had broken down and leaked bowel contents into the abdomen, but that the stapled anastomosis adjacent to that was intact.

Admission to ICU

Mrs A was admitted to the Intensive Care Unit (ICU) at 9.20pm, straight from theatre. She was ventilated and sedated, and given intravenous antibiotics and fluids. While in ICU, Mrs A was under the primary care of the intensivists, which is the usual policy.

Mrs A was regularly reviewed while she was in ICU, and there are extensive nursing notes reporting on her condition.

Dr I, intensivist, was the intensive care specialist on duty when Mrs A was admitted to ICU and remained responsible for her care until 8am on 29 March. He advised me that on admission there were two areas of medical concern with Mrs A – her age and that she had undergone a laparotomy for a large bowel perforation. These factors placed her at risk of severe medical complications, including multiple organ failure. However, he advised that Mrs A did have "comforting" signs. In particular, although she required ventilation, her

oxygen requirements were not high (and improved overnight); she did not require medication to support her blood pressure; her renal function was not abnormal; and her blood clotting tests were satisfactory. Accordingly, Mrs A's condition was relatively stable over the evening of 28-29 March, although she did require intensive medical and nursing care. At 11.15pm on 28 March it was noted that her abdominal wound was wet with serous fluid oozing from all sides, and her dressings were reinforced. Her condition that night was recorded in the notes as labile.

Another intensivist cared for Mrs A on 29 March. He noted a gradual improvement in her condition, but continued with her ventilation and sedation. On 29 March Mrs A required further fluid resuscitation in the form of colloid and blood, but was otherwise stable. It was noted that there was extensive ooze from her wound, she was very diaphoretic (sweating) despite being afebrile, and she was receiving intravenous antibiotics. At 10.30pm Mrs A's haemoglobin had decreased to 80. That evening she was afebrile, with a temperature of 37 degrees.

Dr F, intensivist, cared for Mrs A on 30 and 31 March. Dr F advised me that during those days her general condition continued to improve. Her white cell count, which had been 23.4 on admission to ICU, had fallen to 11.6 on 30 March. Regular intravenous steroids and antibiotics were continued.

Mrs A had chest X-rays on 30 and 31 March. On 30 March it was noted that the right dome of her diaphragm was elevated, linear atelectases were present in the right base of the lung, and the left dome of her diaphragm was obscured by a small amount of fluid. On 31 March it was noted that there was a pulmonary oedema plus infiltrate in the right lower lobe with a probable small pleural effusion.

On 31 March it was noted that Mrs A was stable and increasingly more awake, although her blood pressure had increased. At 11pm she was hypertensive, alert and orientated, and her temperature was 36.5 degrees.

On 1 April Mrs A remained hypertensive and afebrile, and her mucus fistula (colostomy) was producing a moderate amount of bile-stained fluid. There was a small amount of ooze from her abdominal wound. Mrs A's white blood cell count was 12.1 and her haemoglobin was 127.

Dr F advised me that at no time between 28 March and 1 April was there extreme concern about Mrs A's condition. He advised that the laparotomy, antibiotics, and steroids appeared to treat her effectively.

Transfer to the ward

Mrs A was extubated at 12.05pm on 1 April and transferred to the ward at 2pm. On transfer, her observations were stable and she was afebrile. Dr F discussed Mrs A's requirement for oral fluid and light diet with Mr G, and advised him that her abdomen and ileostomy should be observed. At the time of transfer, Mrs A remained on antibiotics

(ceftriaxone and metronidazole), with Panadol for pain relief. Mrs A remained under the care of Mr G until 7 April, when she was placed back under the care of Mr Breeze.

Summary of condition from 1 April to 10 May
Initially Mrs A's condition improved. However, on 7 April Mrs A developed a faecal fistula.[3] A fistula is an abnormal passage or communication, usually between two internal organs or leading from an internal organ to the surface of the body. Mr Breeze advised me that in Mrs A's case, the fistula led from the large bowel to the surface of the body (her abdomen). Mr Breeze chose to treat Mrs A's fistula conservatively, with oral nutrition. A fistula can take a long time to heal, and Mrs A's faecal fistula did not resolve until early May 2000. Mrs A's care and treatment between 1 April and 10 May, when she was discharged from hospital, is set out in detail in the following section.

Post-laparotomy care and treatment – 1 April to 10 May 2000
Mr B recalled that when he visited his mother on 1 April after her transfer to the ward, she appeared listless. Mrs A recalled that she spent a lot of time sleeping when she was first transferred to the ward.

On 2 April Mrs A was reviewed by Mr G on his ward round. He noted that she was afebrile and stable, and was for solids that day, as tolerated. He noted that her fluid balance should be monitored, and that she should be transferred back to Mr Breeze's care.

Mr G saw Mrs A again on his ward round on 3 April, and noted that she was doing well. Her antibiotics were discontinued.

On 4 April Mrs A was reviewed by the house surgeon, who noted that she felt better, was afebrile, and her blood pressure was stable. She was also visited by a social worker on 4 April regarding her requirements for support.

On 5 April Mrs A's vital signs were stable, and her wound was noted as remaining slightly red around the staples. On the evening of 5 April she was reviewed by the house surgeon and registrar. It was noted that her intravenous antibiotics had not been commenced, and that she was to be reviewed the next morning. It was also noted that Mrs A's daughter was concerned about infection risks and Mrs A's lethargy and low spirit. At 10pm Mrs A's temperature was 37.2 degrees. On the evening shift it was noted that there was discharge from her wound in two areas, and that it remained red in places, especially around the stoma.

On 6 April Mrs A was reviewed by the house surgeon during his ward round. He noted ooze from the drain site exit on her wound and a fungal rash on her right groin, for which he prescribed an anti-fungal. His plan was to recheck her bloods, and he queried whether she should be handed back to Mr Breeze. He noted that she could mobilise, and her prednisone

[3] The faecal fistula is distinct from her mucous fistula, which was created during surgery for her colostomy.

should be reduced the next day. He advised that a swab should be taken of the ooze from the drain site exit. He recorded that her haemoglobin was 122 and her white blood cell count was 15.8. In the evening of 6 April it was noted that Mrs A's drain had fallen out, and that both her drains were now out. Her abdominal dressing was changed and a swab was taken from her suture line. The nurse also recorded a request for other staff to watch for faecal drainage from sites other than ileostomy, and to send a sample for analysis, if obtained. It was noted that her white blood cell count had decreased and her temperature was 37.5. She was given mycostatin cream for her groin and other reddened areas on her abdomen.

Dr E did a ward round on 7 April. He noted that Mrs A felt crampy abdominal pain and that she was afebrile. He noted that a faecal fistula was developing and informed Mr Breeze of the additional complication. Dr E recalled that he wondered whether Mrs A might require total parenteral nutrition in view of her compromised nutritional status, and he discussed that with Mr Breeze. Mr Breeze decided not to begin total parenteral nutrition immediately, but advised that he would review her on Monday 10 April.

A house surgeon's note on that date states that the case had been discussed with the registrar, and Mr Breeze's instructions were that Mrs A was to be on nil by mouth and intravenous fluids until the following Monday, when she would be reviewed. Her bags and dressings were removed, as they were soaked in faecal matter from her fistula. Her haemoglobin was 120 and her white blood cell count was 16.5. Her observations were noted as being stable.

Mrs A advised me that the faecal fistula smelt putrid. Mrs D recalled that it was a grey colour, and looked and smelt like pus.

It was noted on 7 April that abdominal swabs taken on 6 April had grown a large growth of negative bacilli, a moderate growth of positive bacilli, and a small growth of cocci. The house surgeon discussed the results with Dr E, who directed the house surgeon to note in the weekend plan that Mrs A was not for antibiotics unless her temperature spiked or the wound looked infected. Dr E could not recall discussing the plan with Mr Breeze. The weekend plan noted that the house surgeon should be contacted to consider registrar review if she deteriorated.

On 8 April Mrs A was reviewed by Dr E. He noted that she was well, afebrile, had a soft and non-tender abdomen, her faecal fistula was leaking, and her ileostomy was working. The plan was to continue with her current cares, and to reconsider total parenteral nutrition on Monday, and Buscopan, an antispasmodic. The nursing notes for that morning record a large amount of ooze from Mrs A's fistula on the suture line. The dressing was changed twice, and the ooze was very offensive smelling. It was also noted that there was moderate ooze from the right drain site, which was purulent looking, and that she was experiencing spasms when passing urine. Her temperature increased to 38.5 degrees at 5pm, but had decreased to 36.5 at 9pm. The nurse recorded "? Blood cultures if spikes again." The nurse

also recorded, "4° temp please. Prone to sepsis with faecal matter draining from wound. Requires 4° dressings during the day – due to excoriation/faecal matter."

At 6.15am on 9 April Mrs A was unable to pass urine because of spasms. She was seen later that morning by a doctor during his ward round. He noted her spasms, and recorded, "much ooze from wound [especially] lower end – leakage of 2 types of fluid – one looks like ileostomy fluid. Temperature spike to 38.5 yesterday. Afebrile now. [Abdomen] soft, mildly tender." And:

> "Explained that probably small and large bowel fistula and large one may close quickly by itself. Explained that closure of these fistulas may take weeks. Need to (1) control infection (2) contain fistulas. [Plan] (1) Take out staples and lower tension suture. Put bag over that fistula (2) Not for antibiotics at this stage – risk of fungal infections and [increased] mortality in fistula [indecipherable]."

The abdominal staples and lower tension suture were removed, revealing a large bowel fistula. Mrs A's temperature was 37.9 degrees.

On 10 April Mrs A's observations were stable and her temperature was 37.2 degrees. Dr E reviewed Mrs A during his ward round. He noted that she felt okay, and that her temperature was levelling off. He recorded that there was moderate output from her fistula. His plan was to discuss with Mr Breeze; in particular, to discuss the need for total parenteral nutrition.

Mr Breeze saw Mrs A during a ward round on 10 April. He noted that there was minimal output from her fistula, and that the fistula was likely distal to ileostomy. He decided to trial fluids and light diet, but noted that if there was an increase in fistula output, then she was for nil by mouth, and the house surgeon should be called. Mr Breeze decided that Mrs A did not need total parenteral nutrition, and he took a conservative approach to heal the fistula with oral nutrition. He requested a dietician review. Mr Breeze noted that her haemoglobin was 107 and her white blood cell count 13.3. The dietician reviewed Mrs A on 10 April. The dietician noted that Mrs A had started a low residue diet, which she was tolerating, and she was drinking well. The dietician's plan was for Mrs A to continue with the low residue diet, to encourage fluids, and for her to take Complan with each meal to increase her protein, total calorie and sodium intake.

Mr Breeze advised me:

> "As the fistula discharge was of low volume, and as the ileostomy continued to discharge normally, I considered the fistula originated from the large bowel, and being disconnected from her functioning bowel, that it would stop spontaneously reasonably quickly. The optimal treatment of such a fistula is:
>
> 1. Protection of the skin surrounding the fistula from the corrosive effect of the discharging fluid.

2. Adequate nutrition and maintenance of fluid and electrolyte balance.

3. Treatment of any significant underlying sepsis.

These measures were all employed. As [Mrs A] was nutritionally depleted, a dietician was consulted and an oral dietary regimen involving high calorie, and high protein intake was instituted."

Mrs D could not recall who discussed the complication of the fistula with her and her mother, but she was informed that it was not life-threatening, although Mrs A would need to be kept in hospital for some time before she recovered. Mrs D advised me that it was her who encouraged Mr Breeze to obtain the input of a dietician. Mrs D, Mr B and Ms C informed me that they took food to the hospital specifically to address Mrs A's deficiencies, identified by blood tests. They were concerned that the food she was receiving at the hospital was inadequate and inappropriate to address her condition.

At 2.30pm on 10 April Mrs A's abdominal wound drained 25ml of faecal output. This was discussed with Mr Breeze; however there is no note of any instructions from Mr Breeze following that discussion. At 4pm Mrs A's temperature was recorded as 38.3 degrees. She was given Panadol, and her temperature decreased to 36 degrees at 8pm. At 10.15pm it was noted that 35ml had drained from the wound fistula, and there was a small amount of ooze from her drain site.

At 6am on 11 April Mrs A's temperature increased to 37.5 degrees. She was given Panadol. She was seen by Mr Breeze during his ward round. He noted her spiking temperatures, and her output, but there is no mention of consideration of antibiotic treatment. He noted, "likely large bowel fistula", and his plan was a high Fleet enema and a high calorie diet. The dietician arranged to review Mrs A on 11 April but recorded in the progress notes, "[Patient] not available". The dietician did note, however, that Mrs A was tolerating her diet, although probably not enjoying the Complan. The dietician noted that he/she would send yoghurt and dairy food to Mrs A to increase her calorie and protein intake.

On the evening of 11 April it was noted that Mrs A's observations were stable, but she was very tired and tearful. Her fistula drained 20ml, and slight ooze from her abdominal wound was noted. The nurse on duty discussed the possibility of a psych liaison consulting Mrs A, and it was agreed that it would be helpful. The notes record, "Please contact psych liaison in AM. Please also check with Dietician in AM, as daughter states Complan/yoghurts not on meal trays."

On 12 April Mr Breeze reviewed Mrs A again. He noted the faeces/pus from her fistula, and that she was afebrile. He noted that it was likely she had a large bowel fistula, which was settling. His plan was to have the dietician review Mrs A, as she needed a high calorie diet and other supplements. The nursing notes for 12 April record that there was small faecal output from her abdominal wound, her vital signs were stable, and "[patient] passed large amount of green ?pus mucous ?[per rectum] approx 200-500mls."

On 13 April Mrs A's fistula was noted to have drained 25ml. Mrs A was reviewed by Dr E on his ward round. He noted that she was well and recorded her fistula output. He requested that she be reviewed by the dietician that day.

On Friday 14 April Mrs A was reviewed by Mr Breeze. He noted that she was afebrile and her fistula output was decreasing. He also noted that she had difficulty keeping down her Complan. Mr Breeze ordered a blood test for the following Monday and Thursday, and advised that she could possibly be discharged in 7-10 days. He also requested dietician review.

The dietician reviewed Mrs A on 14 April. The dietician recorded that she had a lengthy discussion with Mrs A and her family about her dietary intake. Mrs A was keen and motivated to increase her dietary intake, but was not confident about eating certain foods. The dietician noted that on 11 April Mrs A's blood test results had shown that her sodium was 130, her haemoglobin was 105, and her albumin was 22. It was also noted that "inbetween" snacks were not reaching Mrs A, and dairy food and yoghurt had been found sitting in the ward fridge. The dietician's plan was for Mrs A to have small frequent meals, with sips of high calorie/protein fluids in between – she was to eat every two to three hours and continuously sip Complan/Fortisip. The dietician noted that Mrs A should have a small amount of fruit juice with her meals to increase the absorption of iron. She noted, "will send Green Cup to aid fluid intake, please provide a straw if [patient] prefers." The dietician recorded that she would liaise with the kitchen to ensure that Mrs A 's food was sent to the ward, and recorded in the notes for the nurses to ensure that Mrs A received the extra "snacks" from the ward kitchen. It was noted that the proposed plan should provide Mrs A with approximately 2500 calories and 80g of protein a day. She arranged to review Mrs A the following Monday.

The house surgeon recorded a weekend plan for Mrs A's care, noting that she had a fistula that was settling with conservative management, that she was nutritionally depleted and required dietician input and a high calorie and protein diet, and that the plan for continuing care was as documented by Mr Breeze. At 11pm on 14 April the progress notes record, "discharge in bag now very liquidy and smells like urine – ?further fistula."

On 15 April it was noted that there may be pus coming from her urethra or vagina, as a small amount was found in her nappy. On 16 April the nurse caring for Mrs A at the time, collected a midstream urine sample because Mrs A had "cloudy offensive urine".

On Monday 17 April the house surgeon note records that the nursing staff noticed vaginal or urethral discharge, but that she had minimal urinary symptoms, was afebrile and stable. He stated that there was no obvious fistula or discharge (including from the urethra) and a small pustular lesion in her labia. He stated that she was non-tender on digital examination, and on speculum there was thin white discharge, pale cervix and vaginal walls, and swabs were taken. He recorded that Mrs A was to be reviewed by the registrar that afternoon, but to call the house surgeon if there was further discharge, to try to identify the source. He again noted that Mrs A was not for antibiotics.

The nurse caring for Mrs A on 17 April, was concerned about Mrs A's abdominal wound, which was exudating pus from her mucous fistula, abdominal wound, and around her stoma. The nurse contacted Dr E. Dr E reviewed Mrs A, and noted that her tension sutures were removed and swabs taken from all sites. He noted there was pus from the mucous fistula, abdominal wound, and around the stoma. He also noted that there was abdominal bleeding from around the stoma, and that Mrs A was feeling depressed and tearful.

The dietician reviewed Mrs A on 17 April, as planned. She noted that Mrs A's sodium, haemoglobin and albumin had all increased to 135, 127, and 30 respectively. However, the dietician noted that Mrs A was struggling to consume everything that was presented to her. The plan was to continue with encouragement, and to follow up by the end of the week.

On 18 April Mr Breeze reviewed Mrs A during a ward round. He noted that she felt well, not febrile or septic, and there was a pus discharge. He noted under the heading "impt" that she was not septic, she was improving, and there was no evidence of a collection. The afternoon nurse noted that there was pus oozing from Mrs A's rectum, but she was drinking well and afebrile.

On 19 April Mrs A was reviewed by Mr Breeze again. He noted that her fistula was draining, her temperature was 37.4 degrees and her observations stable. His plan was to continue with present cares.

The surgical case manager,[4] met with Mrs A and Mrs D on 19 April. The surgical case manager could not recall the meeting, but advised that the notes indicate that Mrs A had two concerns. First, a concern about the support she would receive on discharge, and secondly, the time it was taking for her fistula to heal. The progress notes record that Mrs A voiced concerns about the healing of the fistula, for example timeframes, and whether or not the clinicians were doing everything they could. It is noted that the house surgeon was contacted, and that there was no benefit from fasting and total parenteral nutrition therapy because the fistula was originating from a non-functional part of the bowel. The need to continue with improving nutritional status was emphasised.

Mrs A was reviewed by Dr E on Thursday 20 April. He noted that she was well, afebrile, and the plan was to continue. The house surgeon recorded that there was thin mucosal pus output from the fistula. With regard to the abdominal wound, he noted that the skin sutures had been removed, and there was copious purulent discharge from the wound, and he was unable to see the depth of the wound. The house surgeon noted that he discussed Mrs A with the registrar, and the plan was to continue, and to irrigate the wound and watch for integrity of deep sutures. Provided that the deep sutures remained intact, her care was to continue unchanged. The house surgeon then wrote up a weekend plan for Mrs A's care and treatment. He summarised her history, noting that she initially had a good recovery, but

[4] The surgical case manager assists with complex discharge planning and promotes interdisciplinary communication.

had now formed a large bowel fistula in the superior part of her laparotomy wound, that she was nutritionally depleted, and that she was discharging pus from the fistula, ileostomy, and abdominal wounds. It was noted that she was not septic. The house surgeon noted that the registrar instructions were that she was not for antibiotics unless she became septic, and that the wound should continue to be monitored – if the integrity of the deep sutures came into question, then she was to be reviewed. He noted that the nursing staff were otherwise to allow the pus to discharge, to send off bloods on Saturday and Wednesday, and to maintain her high calorie and protein diet.

At 2pm on 20 April it is recorded in the notes that the drainage bags on the wound and the ileostomy had fallen off in the morning, and that Mrs A was very distressed at the continued leakage of her wound bag. Her wound was irrigated and large debris was present and expressed. It was noted that her wound needed irrigating twice daily and Mrs A was afebrile. In the evening the nurse recorded that Mrs A might need some slough tissue debrided from the wound.

In the morning of 21 April Mrs A's ileostomy bag fell off again. Her wound fistulas were irrigated and large debris expressed. It was noted that the wound was looking better, though there was an area of dead tissue in the central wound. Her temperature increased to 37.7 degrees at 1pm. The evening nurse recorded, "central dressing redone on setline (pus ++) – some tissue debrided from [abdominal] cavity: purulent and offensive ooze with dead necrotic tissue. Requiring dressing over lower drain site by ileostomy bag also as discharging pus." The nurse also noted, "temp not elevated this pm ? wound swabs tomorrow ? need antibiotic cover."

On 22 April the wound was debrided of slough tissue. At 11.45pm her temperature increased to 37.8 degrees, and her wound and fistula were irrigated.

On 23 April it was noted that her abdominal wound was looking much cleaner.

At about this time Ms C returned to New Zealand from a three week holiday. She recalled that her mother looked worse than when she left for England (when her mother was first transferred out of ICU) – she was "flat" and "her colour was terrible". Ms C recalled that she viewed Mrs A's fistula, which was about 8-9cm long and 3-4cm wide and was draining.

On Monday 24 April the nurse, noted that Mrs A had approximately 100mls of fresh bleeding from an old drain site that was situated near her ileostomy. Mrs A also had a hardened area on the upper edge of her ileostomy. Mrs A was reviewed by a registrar. The registrar recorded that Mrs A had a temperature of 37.5 degrees and that her temperature was spiking. She also noted that Mrs A was settling, although she was bleeding from her drain exit site. The plan was for a complete blood count to be taken. At 10.30pm the nursing notes record, "Ileostomy bag required changing x 3 times. Difficult to site owing to lump on right side of ileostomy. Pus expressed from lump [through] ileostomy. Wound fistula irrigated x2." It was also noted that the drain site was draining thick pink coloured liquid, and her temperature had increased to 37.8 degrees. Mrs A 's blood results were

discussed with the house surgeon, as her white blood cell count had increased to 11.5. It was recorded that she was not for antibiotic treatment at that stage.

On 25 April Dr E reviewed Mrs A. He noted her spiking temperatures (between 21 and 24 April), her increased white blood cell count, her increasing pus discharge from her abdominal wound and stoma, and the hard lump. Dr E subsequently advised that those symptoms indicated infection. His plan was for wound/dressing cares, and for Mr Breeze to review her the following day. The nursing notes for that morning record that Mrs A was miserable, and that a large amount of pus had been expressed from the wound stoma. It was also noted that Mrs A's bags had been removed for inspection by doctors. Mrs A's wound was debrided. It was noted that the wound was smaller than two days ago. It was also recorded that the stoma had broken away from the subcutaneous layer on the outer layer aspect, which was discharging pus and bleeding a little. In the evening nursing notes it is recorded that the ileostomy bag was draining thick faecal matter, and that minimal pus had been expressed from the abscess. It was noted that the wound fistula was irrigated with minimal drainage. Her temperature was 37.5 degrees at 8pm.

On 26 April Mrs A was reviewed by Mr Breeze. He noted that she had improved, but that she had spiking low grade temperatures. He charted antibiotics, and requested a swab. The house surgeon noted that Mrs A's haemoglobin had dropped to 111 and her white blood cell count had increased to 13.4. At 10.30am the nursing notes record that the wound and fistula were irrigated, and it was noted that a further hole had developed at the lower end of her wound and was leaking pus/serous type fluid. At 10.30pm her wounds were irrigated again, with only small returns; however the lower aspect of her abdominal area looked reddened. Her temperature at 10.30pm was 37.6 degrees.

On 27 April Mrs A was reviewed by the house surgeon, who recorded that she was stable, afebrile, and tearful regarding her illness and lack of progress. In the morning the nursing notes record that Mrs A passed a small blood clot from the top of her abdominal wound, and that there was also some scant blood in the bag draining her mucous fistula. The house surgeon was notified, and he was to discuss it with the registrar. Otherwise her observations were stable, and her wounds were irrigated. The evening nursing notes record that cellulites had developed on the lower edge of the mucous fistula and the lower end of her abdominal wound. The notes also record that the deep wound was very sloughy and that the ileostomy was changed and pus expressed.

On Monday 28 April Mr Breeze reviewed Mrs A. He noted that she was well, her temperature settled, and the discharge was slowly drying. He noted the clot. His plan was to review the wound on Monday 1 May, and to have Mrs A reviewed by the dietician. Mrs A's bloods showed her haemoglobin was 110, and her white blood cell count was 10.7. Mr Breeze queried whether there was a necrotic area in the wound. The plan was for a diet review, continue antibiotics, and for review by Mr Breeze the following Monday.

On 1 May the house surgeon noted that abdominal swabs had grown S*taphylococcus aureus* in the abdominal wound, heavy *E coli* in the mucous fistula, and moderate

S*taphylococcus aureus* in the drain. An infection was also identified in the lower wound. Mrs A's antibiotics were changed to the appropriate sensitivities for the swab results. Mr Breeze reviewed Mrs A that day, noting that she had no new complaints, was afebrile, and her observations were stable. He recorded that there was pus and debris in the abdominal wound and that the sinus was going deeper (not into the abdominal cavity). Mr Breeze's plan was to continue irrigation of the wound, and the aim was to discharge her in two weeks' time.

The nursing notes for 1 May record at 1.30pm that a large area of necrotic tissue came away exposing a deep cavity that was clean and granulating well.

On 2 May Mr Breeze noted that Mrs A's fistula output had decreased, she was afebrile and stable. The plan was to continue. The morning nursing notes record very little drainage from the central wound, and no drainage from the mucous fistula.

Discharge from hospital

Mrs A continued to improve, and was discharged on 10 May. Her discharge summary noted that she had an acute admission on 28 March, with a history of right hemicolectomy on 17 March (Dukes B adenocarcinoma), was well post-operatively and was discharged on 24 March, but presented acutely on 28 March with abdominal pain. She had a laparotomy on 28 March, which showed a blow-out of the anastomosis. It noted that post-operatively Mrs A went to ICU until 1 April, and that she initially had a good recovery, but then developed a large bowel fistula in her abdominal wound and associated wound infection. Copious amounts of pus were drained from the fistula. She was managed conservatively, monitoring the output from her abdominal sites. The summary noted that her temperatures had spiked and she received oral antibiotics, after which she settled. Her discharge plans were for district nurse follow-up, review at Surgical Outpatients in three weeks, and to see her GP for blood tests in one week. She was advised to seek early medical advice if she developed any problems. A referral to the district nursing service was sent on 9 May 2000. On 12 May Mrs A consulted Dr H, who noted that she was doing well.

Condition following discharge

On 30 May 2000 Mrs A was reviewed by Dr E, surgical registrar, in the Outpatient Department, who noted that she had made a slow recovery, but that her wounds were now almost healed apart from one small area in the midline laparotomy wound.

On 19 December 2000 Mrs A had an outpatient appointment with a surgical registrar. He noted that Mrs A was now well and happy, and that her mucous fistula was not bothering her. Mrs A was not interested in having her ileostomy reversed or a referral to oncology. He arranged to review her again in six months. The surgical registrar explained to Mrs A the histology of her tumour and her prognosis.

Mrs A had a further outpatient appointment on 3 July 2001, with a different surgical registrar. It was noted that she was well, that her wound had healed satisfactorily, that she was keen to have her ileostomy reversed, and that he would review her again in six months.

Mrs A chose not to have the ileostomy reversed, and she still has a mucous fistula. She advised me that on occasion, mucous comes out of the fistula, which smells terrible.

Information about her condition
Mrs A recalled that the only information she received about the cause of her condition (anastomotic breakdown) was from Dr E. She asked Dr E what happened, and he advised her that the clips were in place, and there must have been "a nick". She recalled that he did not say categorically what happened, just what he thought might have happened. She also advised me, "That's the only inkling we had of what might have gone wrong." Mrs A recalled that Mr Breeze did not explain the nature of her condition to her (ie that she had experienced an anastomotic breakdown, and the possible causes and implications).

Mrs D recalled asking Mr Breeze about what happened. She advised me "… as far as I can remember, he said something like the bowel had come apart and it happens sometimes." She also advised, "There was something in the way he replied that I just thought something's not quite right here but I didn't feel I was going to get anywhere fast any more from him."

Complaint to Tauranga Hospital
Mr B advised me that he is familiar with difficulties that arise during surgery, and was not significantly concerned about his mother's course until the Coroner's finding on the case of Mr Crowley was released (mid 2000). It was at that point that he and his family became concerned about what happened to Mrs A. Accordingly, on 17 August 2000 Mr B wrote to the District Health Board to advise them of his mother's case. In his letter, he stated:

> "We do not want to make any formal complaints, but we wish to draw the hospital's attention to Mr Breeze's difficulties with our mother's operation, in case that Mr Breeze is having some procedural difficulties with this type of operation and that the hospital management may not be aware of our mother's difficulties."

Mr B did not receive an acknowledgement that his letter had been received by the hospital, or that any action had been taken.

Bay of Plenty District Health Board advised me that Mr B's letter was not filed in the complaints system, as it specifically stated in the letter that he was not making a formal complaint. Instead, the letter was held in a general file. The fact that the letter was not responded to was an oversight, and the Chief Executive Officer of the Bay of Plenty District Health Board apologised for the oversight. Usually, all such communications to the District Health Board office are acknowledged.

Concluding comment – Mr Breeze
Mr Breeze advised me that there are always significant risks of complications inherent with major surgery, especially in the elderly. Mrs A was at a further increased risk because she was on prednisone. In Mr Breeze's view, the breakdown of the staple line ten days after surgery was not the result of a technical failure.

Mrs A's case was reviewed in the course of an audit undertaken as part of the Medical Council of New Zealand's review of Mr Breeze's competence. Mr Breeze advised that the reviewers had no concerns after reviewing Mrs A's case.

Independent advice to Commissioner

The following expert advice was obtained from Mr Mischel Neill, colorectal and general surgeon.

"**Background**

[Mrs A] aged 80 years was referred to Mr Breeze because of progressive iron deficiency, and anaemia in spite of being on iron. She was seen by Mr Breeze in the Surgical Outpatients on 1 February 2000 for investigation of the iron deficiency anaemia. She was noted to have polymyalgia rheumatica and was on Prednisone 4 mg per day. Mr Breeze booked her for a gastroscopy and colonoscopy. This was carried out on 15 February 2000 and during colonoscopy a carcinoma of the ascending colon was found and biopsied and a polyp in the sigmoid colon was removed. Because of this finding gastroscopy was not proceeded with. She was then seen in clinic by the registrar [Dr E] on 22 February 2000, who placed her on the waiting list and arranged admission for her for a right hemicolectomy. She underwent a right hemicolectomy on 17 March 2000. At laparotomy through a midline incision, a localised carcinoma was found in the ascending colon. A routine right hemicolectomy was carried out, and a side-to-side stapled and end-stapled procedure was carried out between the terminal ileum and the mid transverse colon. She made an uneventful recovery post-operatively, and on discharge on 24 March 2000 she was reported to be well with no complaints and no pain. Her early diarrhoea was slowly settling, and she was tolerating full meals. She was also afebrile with a soft abdomen. There was no evidence at this stage of impending disruption of the anastomosis. The following day 25 March 2000 she felt nauseous with some vomiting and later diarrhoea, which slowly progressed to abdominal pain. On 27 March she was seen by an emergency doctor, and then on 28 March was seen by her general practitioner who admitted her back to hospital. She was examined by [Dr E], Surgical Registrar [who noted that] she was afebrile, but looked unwell, and abdominal examination revealed a large tender mass in the left iliac fossa. Blood tests suggested a severe infection, and so he ordered a CT scan of her abdomen, which showed free fluid and air within the abdominal cavity consistent with an anastomotic disruption. He reported this to Mr Breeze who was not on duty and Mr Breeze requested that the on-call surgeon [Mr G] be consulted and asked to take over the treatment. [Mrs A] was taken to theatre where the anaesthetist reported that she was tachycardic, mildly hypotensive, and suffering from abdominal pain. She suffered no problems during the anaesthetic. He old wound was opened and fluid and pus were found within the abdominal cavity. The anastomosis was inspected and found to be leaking from one

Names (other than Mr Breeze, the Commissioner's expert advisor and the hospitals) have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

corner of the transverse anastomosis. The tip of the anastomosis looked necrotic, and this was confirmed on pathology. The anastomosis was resected and the two ends, that is the ileum, which is the proximal end and the distal end of the transverse colon were brought out as separate stomas. The abdomen was then lavaged and open drains were inserted into the abdomen for drainage.

She was transferred at that point to the Intensive Care Unit, where she made a steady recovery, and on 1 April 2000 was extubated and sent back to the ward under the care of [Mr G].

[Mrs A's] care was handed back to Mr Breeze on 7 April 2000, and it was around this time that it was thought she had developed a faecal fistula, in the upper part of the wound. There was also ooze from the lower end of the wound, which is thought to have been a second fistula. Sutures were removed and tension suture removed, and the two areas were bagged to collect the fluid content. The wound itself looked infected, and this was dealt with by removing the sutures from the wound, so that the wound would drain and antibiotics were not considered appropriate at that time. The question of intravenous feeding was raised, but she was eating a reasonable diet orally, and it was not felt necessary to proceed with TPN. Her albumin slowly improved on oral diet. From 17 April 2000 the temperature charted showed a spiking sawtooth pattern temperature chart suggestive of abscess formation. Her white count was persistently raised from 10 April 2000 and sat around 13,000. This continued to remain at this level until 26 April 2000. Over this time she was on varying regimes of antibiotics. On 5 April 2000 she was charted Rocephin and Metronidazole. There was no definite date in the notes when the antibiotics were stopped. On 26 April 2000 she was started on Ciproxim, Metronidazole, and Augmentin, as a broad spectrum antibiotic cover. On 1 May she was started again on Rocephin and Ciprofloxacillin. Unfortunately there is no mention in the notes that I could find when these courses of antibiotics were stopped.

The ileostomy continued to work well. The fistula bagging did not produce great volumes at all, and it became clear with time that there was no communication with the small gut, but it was likely that the communication was with the colon at some point. Unfortunately there was no imaging of the fistula to establish its origin. On 28 April the nurses notes describe pus from the wound and from around the ileostomy and from the supposed colonic fistula. This all slowly disappeared and her wound improved and started to heal. The large bowel fistula stopped draining on 3 May 2000 and once she was coping with the ileostomy well she was discharged home on 10 May 2000. Incidental note is made of a melanoma excised from her leg on 27 May 2000.

Complaint

The issue that the Commissioner is investigating is:

Whether Mr Breeze provided services on an appropriate standard to [Mrs A], on whom he performed bowel surgery at Tauranga Hospital in March 2000, and who developed post-operative complications.

Supporting Information
Please refer to the attached sheet Supporting Information, 10 June 2004, Page 2.

Expert Advice Required
The Commissioner requested my professional opinion on whether Mr Ian Breeze provided services to [Mrs A] with reasonable care and skill and in accordance with professional standards. He was particularly interested in the following points.

The Operation
Whether it was appropriate for Mr Breeze to proceed with a right hemicolectomy in this case

This lady had a carcinoma of the right colon and had had anaemia for a number of months. It was therefore entirely appropriate for Mr Breeze to carry out a right hemicolectomy on this lady to stop her from becoming anaemic and to treat her for a carcinoma of the colon. The operation itself was performed with reasonable care and skill in accordance with professional standards.

Any other matters
Stapling of the ileo colic anastomosis is carried out by some people in this operation, while others do a hands anastomosis, that is with suture material. Both procedures carry a small risk of leakage post-operatively and there is probably no real advantage with either technique.

Post-operative care and treatment
The adequacy and appropriateness of Mr Breeze's post-operative management of [Mrs A] between 17 and 24 March 2000

The management of the post-operative course of [Mrs A] was routine management, and did not carry any variables from the normal course. There were no signs or symptoms of an anastomotic breakdown prior to her discharge on 24 March 2000. Both nursing notes and the medical staff notes record that she had no complaints, was feeling well, and was feeling happy to be discharged. She did have some diarrhoea, which is to be expected after a right hemicolectomy and it sometimes takes a few weeks to settle down. I would not consider this to be an early sign of anastomotic breakdown. It was appropriate to discharge [Mrs A] on 24 March. She had progressed well from surgery, was tolerating a normal diet, and her bowels were functioning, and it would appear from the notes that she was going to her daughter's place, rather than to her own home by herself.

The adequacy and appropriateness of Mr Breeze's management of [Mrs A] following her laparotomy on 28 March 2000

[Mrs A] was admitted to Tauranga Hospital acutely with symptoms of peritonitis consistent with an anastomotic breakdown. Mr Breeze was not on-call that night, and requested that the on-call surgeon deal with the case. This is a common occurrence in

many public hospitals, and is acceptable practice. At laparotomy carried out by [Mr G] it was found that the anastomosis had leaked from the corner of the transverse staple line, and that the area of leakage was reported as being necrotic. The causes of anastomotic leak are poor blood supply to the ends of the bowel being joined, poor technique, or too much tension on the anastomosis. In this case I think the necrotic area would suggest a poor blood supply to the area. There are several factors in this lady which may account for that. She was known to have polymyalgia rheumatica, and was taking Prednisone. Both these conditions can affect healing. The blood supply to the colon in elderly people is often tenuous, and so there may well have been an anatomical reason for the poor blood supply to that area. Leakage from the anastomosis of a right hemicolectomy is said to be around 2%, and while there are definite factors in this lady's case it can occur with no obvious cause.

(a) Mr Breeze's management of [Mrs A's] wound infection
There were times as recorded in the notes that [Mrs A] was in fact put on antibiotics. This was picked up by the date of commencement on the treatment chart, but it was difficult to find dates of the time the antibiotics were stopped. The management of wound infections is usually to remove some of the sutures, and to open up the wound so that any pus can discharge. This appears from the notes to have been carried out.

(b) Mr Breeze's management of [Mrs A's] faecal fistula
It appears that the faecal fistula arose within the wound. It is unfortunate that radiograph imaging of the faecal fistula was not carried out, so that the definite cause for it could be established. By that I mean was the fistula just in the wound tracking down from the mucous fistula created from the colon or was it arising from a defect in the wall further down from the mucous fistula. This was unfortunately never established. I suspect that it was the former situation where the leakage was coming out through the wound from the previously established mucous fistula. A faecal fistula in this situation is treated by opening the wound allowing drainage, and as the colon itself was defunctioned the fistula would be expected to heal quite readily. It was treated in a standard manner by bagging it. The use of antibiotics is only needed when there is infection, and initially it was reasonable to just open the wound to prevent collection of pus. Clearly from 17 April 2000 where her temperature was typically that of abscess formation, then it became apparent that she needed antibiotics. As mentioned in the summary she was on antibiotics intermittently from 28 March 2000 through to early May. So it would appear that she was covered by antibiotics for at least some of the time that she had the fistula. With the management of bagging the fistula this eventually settled down and dried up on 3 May 2000.

I believe it was appropriate to treat [Mrs A's] fistula conservatively initially. The management of the fistula should be reviewed on a daily basis, and consideration for added treatment made. She does appear to have been started on antibiotics on 26 April 2000, Ciproxin, Metronidazole and Augmentin, which is a very broad spectrum cover, and she had been on Rocephin and Metronidazole from 5 April, although it was unclear from the notes just when these were stopped. Given that there was no other underlying

cause established I think the management was reasonable. TPN was suggested by the registrar, but I do not think that this was indicated. [Mrs A] was eating, taking oral food. Her albumin slowly improved with time, and the faecal fistula was in a non-functioning bowel. One would put a person on TPN if the fistula was in a functioning bowel, stop them eating, and use medication to dry up any secretions, so that the output would be reduced from the fistula. This was not the case in this lady's situation. I do not think that TPN was indicated.

The potential causes of the faecal fistula
Unfortunately as mentioned above the cause of the faecal fistula was not established. The most likely source was due to leakage through the wound from the mucous fistula or the proximal end of colon. Other causes may have been an area of the colonic wall that had been partially denuded during dissection, producing a weakened wall, which had erupted into the wound, or possibly a stitch while sewing up the wound had caught a piece of the colonic wall, and this leads to a fistula, or possibly a diverticulum rupturing and leaking into the wound. All of these are causes for faecal fistula, but can only really be established by putting some dye down the fistula and x-raying the abdomen to see where it leaks into the bowel. Unfortunately this was not done in this case, and in fact as the fistula settled down reasonably quickly (for a faecal fistula) the cause was probably academic.

Other Matters

The appropriateness of Mr Breeze's record keeping in this case
There was very little in the way of notes made by Mr Breeze in the records, and this is frequently normal practice in the public system. A ward round is carried out by the consultant with the registrars and house surgeons, and at the completion of the ward round or often at the foot of the bed the registrar or house surgeon makes appropriate notes in the case notes. This was adequately carried out by the junior staff and Mr Breeze's opinions recorded accordingly.

It is my opinion that Mr Breeze acted with reasonable care and skill in the treatment of [Mrs A]. It is unfortunate that she developed an anastomotic leak after returning to her home, but this is a well recognised complication of colonic surgery. The faecal fistula and wound infection were treated in an acceptable manner."

Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights are applicable to this complaint:

Right 4(1)

Right to Services of An Appropriate Standard

(1) Every consumer has the right to have services provided with reasonable care and skill.

Opinion: No breach – Mr Ian Breeze

Mrs A had a prolonged post-operative recovery from her right hemicolectomy by Mr Breeze on 17 March 2000. Mrs A suffered from the serious complication of anastomotic breakdown 11 days after her surgery, followed by a faecal fistula and associated wound infection, which took over four weeks to resolve. Mrs A's complications were clearly very distressing, and caused her a significant amount of pain and discomfort. However, I am satisfied that Mr Breeze acted with reasonable care and skill in his treatment of Mrs A, and did not breach the Code of Health and Disability Services Consumers' Rights (the Code), for the reasons set out below.

Decision to perform a right hemicolectomy
Mrs A, who had a family history of colorectal cancer, consulted Mr Breeze on 1 February 2000 with tiredness and low haemoglobin. On examination, she had deep-seated tenderness in her right upper left abdomen, but no masses or organomegaly. Mr Breeze arranged a colonoscopy and gastroscopy to investigate Mrs A's transient iron deficiency anaemia.

The colonoscopy was performed on 15 February 2000 and revealed a large polypoidal carcinoma of the ascending colon, and a 10mm diameter pedunculated villous adenomatous polyp, 50cm above the anal verge corresponding to the sigmoid colon. Mr Breeze removed the polyp during the colonoscopy with a snare diathermy, and took a biopsy of the carcinoma. Given the findings at colonoscopy, Mr Breeze did not consider that a gastroscopy was also necessary.

Although the biopsy did not histologically prove cancer, Mr Breeze was sure that it was an adenocarcinoma of the right colon, and he booked Mrs A in for a right hemicolectomy. The anatomic pathology from the specimen removed during surgery confirmed the carcinoma was a Dukes B adenocarcinoma of the ascending colon.

My advisor informed me that it was "entirely appropriate" for Mr Breeze to perform a right hemicolectomy on Mrs A, in light of her carcinoma of the right colon. I accept my expert

advice. Accordingly, in my opinion Mr Breeze did not breach Right 4(1) of the Code in relation to his decision to operate on Mrs A.

The operation – right hemicolectomy
The operation was performed on 17 March 2000 by Mr Breeze, who was assisted by Dr Martin. Mrs A was prepared for surgery on 16 March and the morning of 17 March – her bowel was cleaned with oral Fleets, and she received thrombolytic prophylaxis and antibiotic prophylaxis. Laparotomy confirmed a mobile polypoidal cancer on the mid-ascending colon, with no evident metastases. Mr Breeze noted that the laparotomy was otherwise unremarkable. The right hemicolectomy was carried out, and bowel continuity was restored by rejoining the bowel anastomosis with a mechanical stapling device (75mm linea cutting stapler). The blind ends of the bowel were also stapled closed. Mr Breeze lavaged Mrs A's abdomen with saline and closed the wound.

My advisor informed me that the operation was performed with reasonable care and skill, and in accordance with professional standards.

Mrs A's anastomosis subsequently broke down, which was identified when she was admitted acutely to hospital on 28 March. My advisor explained that leakage from an anastomosis of a right hemicolectomy is reported to occur in approximately 2% of cases. The question is whether the subsequent breakdown of Mrs A's anastomosis indicates that Mr Breeze did not act with reasonable care and skill in rejoining the bowel during surgery on 17 March.

My advisor informed me that the causes of anastomotic leak are poor blood supply to the ends of the bowel being joined, poor technique, or too much tension on the anastomosis. It does not appear that poor surgical technique was the cause of Mrs A's anastomotic breakdown. When Mr G operated on Mrs A to repair the anastomotic leak on 28 March, he noted that the anastomosis had leaked from the corner of the transverse staple line, and that the area of leakage was necrotic. The necrotic finding suggests that the cause of Mrs A's anastomotic breakdown was poor blood supply to the area. There are several other factors that support that finding – Mrs A was known to have polymyalgia rheumatica and was taking prednisone, which can affect healing; and the blood supply to the colon in elderly people is often tenuous, which indicates that there may well have been an anatomical reason for the poor blood supply to the area.

I accept my expert advice, and conclude that it is probable that the subsequent breakdown of Mrs A's anastomosis was due to poor blood supply to the area, rather than any technical fault by Mr Breeze during surgery on 17 March. Accordingly, in my opinion Mr Breeze did not breach Right 4(1) of the Code in operating on Mrs A on 17 March.

Post-operative care and treatment – 17 to 24 March
The clinical records note that Mrs A had an uncomplicated post-operative recovery prior to her discharge from Tauranga Hospital on 24 March. On 18 March she was afebrile, and her pulse and blood pressure were stable. She was also noted to be comfortable, although she

did become hot, sweaty, and clammy when she sat up in her chair. Although she had a temperature of 37.8 degrees on 19 March, her temperature reduced over a couple of hours, and by 20 March she was progressing well. She had no nausea, vomiting or abdominal pain, and on 21 and 22 March her abdomen was noted to be soft, with bowel sounds present. On 22 and 23 March Mrs A developed increasing nausea and diarrhoea. Mr Breeze discharged Mrs A on 24 March. At that time she still had diarrhoea, but it was recorded that her diarrhoea had lessened. In other respects her condition was unremarkable. Mrs A was discharged with the knowledge that she would be in the care of her daughter, rather than at home by herself.

My advisor informed me that Mrs A's post-operative management was routine and did not vary at all from the normal course. There were no signs or symptoms of an anastomotic breakdown prior to Mrs A's discharge on 24 March. Although she was still suffering from diarrhoea on 24 March, diarrhoea can be expected after a right hemicolectomy and may sometimes take a few weeks to settle down. Accordingly, in itself, Mrs A 's diarrhoea was not an early sign of an anastomotic breakdown. My advisor explained that it was appropriate for Mrs A to be discharged from Tauranga Hospital on 24 March.

I accept my expert advice that Mrs A progressed well following her surgery on 17 March, and that Mr Breeze's decision to discharge her on 24 March was appropriate and reasonable – she was tolerating a normal diet and her bowels were functioning. Accordingly, in my opinion Mr Breeze did not breach Right 4(1) of the Code in relation to his management of Mrs A following her right hemicolectomy on 17 March.

Management of Mrs A post-laparotomy on 28 March – faecal fistula and wound infection
Following her discharge from Tauranga Hospital, Mrs A's condition deteriorated. She continued to have diarrhoea, vomited bile and suffered from lower abdominal pain. On 28 March Mrs A's GP referred her back to Tauranga Hospital.

Mrs A presented at the Emergency Department at Tauranga Hospital on 28 March. She was reviewed by Dr E, who ordered a CT scan and admitted her to the ward. The CT scan identified that Mrs A had extensive fluid and air in the abdomen and pelvis, with a probable anastomotic breakdown. Mrs A's blood tests showed severe infection. Dr E discussed the findings with Mr Breeze, who requested Dr E to arrange a laparotomy by the on-call surgeon, Mr G. My advisor informed me that it is common and acceptable practice in public hospitals for a surgeon to request that the on-call surgeon respond to emergency cases.

Mr G performed a laparotomy, resection of ileocolic stapled anastomosis, and formation of end ileostomy and mucous fistula of the descending colon. On laparotomy, it was identified that the horizontal anastomotic staple line had perforated, and the peritoneum was full of free pus and faeculent material. The abdomen was lavaged, the anastomosis resected with the formation of an end ileostomy and a mucous fistula, and drains placed.

Following surgery, Mrs A was admitted to ICU. She remained in ICU, where she was under the care of the ICU specialists, until 1 April, when she was transferred back to the ward. At

no time during her admission to ICU was there any concern about her condition. The laparotomy, antibiotics, and steroids appeared to treat her effectively.

On transfer to the ward, Mrs A remained under the care and treatment of Mr G until her care was handed back to Mr Breeze on 7 April. Mrs A's condition was stable between 1 and 7 April, although her wound site was discharging and remained red in places.

On 7 April, Dr E noted that Mrs A had developed a faecal fistula. Dr E informed Mr Breeze of the fistula, and discussed with him whether Mrs A required total parenteral nutrition in view of her compromised state. Mr Breeze advised against total parenteral nutrition at that stage, and decided to review Mrs A again on 10 April. The notes record that Mr Breeze recommended that Mrs A be kept on nil by mouth and intravenous fluids until he reviewed her on 10 April.

Mr Breeze reviewed Mrs A on 10 April. Mr Breeze advised me that because the fistula discharge volume was low, and the ileostomy continued to discharge normally, he considered that the fistula originated from the large bowel. He opined that being disconnected from her functioning bowel (which was covered with the ileostomy), the fistula would heal reasonably quickly. Mr Breeze did not conduct any tests to confirm his suspicion that the fistula originated from the large bowel.

Mr Breeze decided against total parenteral nutrition, and took a conservative approach to heal the fistula with oral nutrition. He recommended that if there was an increase in fistula output, she was to be put on nil by mouth, and the house surgeon should be contacted. I understand that the skin staples and tension sutures were removed to encourage free drainage.

Mr Breeze advised me that the optimal management of a fistula is to protect the skin surrounding the fistula from the corrosive effect of the discharging fluid, to ensure adequate nutrition and maintenance of fluid and electrolyte balance, and to treat any significant underlying sepsis. Mr Breeze advised me that he employed all three measures in his management of Mrs A's faecal fistula. In particular, a dietician was consulted because Mrs A was nutritionally depleted, and an oral dietary regime involving a high calorie and high protein diet was instituted; the wound dressing was regularly changed; and she was closely monitored for signs of infection/sepsis.

The clinical records indicate that on 10 April the fistula had drained up to 35ml of faecal output. Although the fistula kept draining, the amount of drainage slowly decreased from that time. On 12 April Mr Breeze noted his intention to arrange a dietician review of Mrs A. On 14 April Mr Breeze noted that the fistula was settling with conservative management. The clinical notes confirm that Mrs A was being monitored closely for signs of infection/sepsis. Any spikes in her temperature were noted by nursing and surgical staff, and her blood count was checked regularly. On 18 April Mr Breeze recorded that Mrs A was not septic; this was again noted on 20 April. By 26 April it was noted that Mrs A's blood

count and spiking temperatures indicated infection, and she was commenced on triple antibiotics. From that time she slowly improved until her discharge on 10 May.

My advisor informed me that a faecal fistula has a number of potential causes, including:

- leakage through the wound from the mucous fistula or proximal end of the colon;
- an area of the colonic wall partially denuded during dissection, producing a weakened wall that erupts into the wound;
- catching a piece of the colonic wall in a stitch while sewing the wound, which can lead to the development of a fistula; or
- a ruptured diverticulum leaking into the wound.

The cause of a faecal fistula can only be definitively established by putting dye down the fistula and X-raying the abdomen to see where it leaks into the bowel. My advisor noted that unfortunately radiograph imaging of Mrs A's faecal fistula was not carried out, so the cause of her fistula was not definitively established. However, the likely cause was that leakage was coming out through the wound from the previously established mucous fistula. A faecal fistula of that nature is treated by opening the wound to allow drainage, and bagging the fistula. Antibiotics are needed only if there are signs of infection. My advisor noted that the management of a fistula should be reviewed on a daily basis, with consideration of additional treatment. He also noted that because Mrs A's colon was defunctioned, the fistula would be expected to heal quite readily (and indeed did in this case).

My advisor stated that that it was appropriate for Mr Breeze to treat Mrs A's fistula conservatively, and that it was treated in a standard manner – it was reasonable to initially open the wound to prevent the collection of pus and bag the fistula. Mrs A's faecal fistula appears to have been regularly reviewed and special note made of the drainage and whether she was septic. From 17 April, Mrs A 's temperature indicated that she may be developing an abscess and, following blood tests confirming infection, Mrs A was commenced on antibiotics on 26 April (Ciproxin, metronidazole, and Augmentin).

My advisor noted that total parenteral nutrition, as recommended by Dr E, was not indicated in Mrs A's case, because she was taking oral food.

Mrs A's condition was clearly very distressing to her and her family, and caused them a significant amount of concern. The clinical records clearly document Mrs A and her family raising concerns with clinical staff about the fistula, and the length of time it was taking to heal. The notes also record the emotional impact the faecal fistula had on Mrs A. However, I understand from my expert advice that a faecal fistula can take a significant amount of time to fully heal, and that Mr Breeze's decision to treat the fistula conservatively was appropriate. It appears that Mr Breeze's subsequent management of the fistula was

reasonable. Accordingly, in my opinion Mr Breeze did not breach Right 4(1) of the Code in relation to his management of Mrs A's faecal fistula.

However, Mr Breeze should consider my advisor's comments about the benefit of radiograph imaging of a fistula, to establish its definitive cause.

Between the period 7 April to 10 May, Mrs A also suffered from a significant wound infection. It is difficult to separate the treatment of the wound infection from the treatment for the fistula, because of the association between the two. Insofar as treatment for her wound infection can be separately considered from the treatment of her fistula, I note that:

- Mrs A was commenced on antibiotics on 5 April however it is not clear when the antibiotics were discontinued.

- On 7 April, in conjunction with the development of her faecal fistula, Mrs A's sutures were removed to open the wound and allow free pus drainage.

- Between 7 April and early May, Mrs A had intermittent spiking temperatures, and pussy discharge from her abdominal wound, mucous fistula, and stoma. From mid-April her wound was regularly irrigated, and debris and dead tissue expressed.

- Antibiotics were recommenced on 26 April, in response to increasing signs of infection – spiking temperatures, increased white blood cell count, and a large amount of pussy discharge from her wound.

- On 1 May an abdominal swab grew S*taphylococcus aureus*, and her antibiotics were changed to the appropriate sensitivity for the infection. A large area of necrotic tissue came away on 1 May, exposing a deep cavity that was clean and granulating well. The wound infection slowly resolved.

My advisor informed me that the appropriate way to manage a wound infection is to remove some of the sutures and open up the wound so that any pus can discharge. Mrs A's wound was opened up on 7 April, to allow free pus drainage. She was also intermittently on antibiotics between 5 April and her discharge on 10 May. Clearly the ability of Mrs A's infection to heal would have been affected by her faecal fistula, which by its very nature took a significant amount of time to resolve. However, I accept my expert advice that Mrs A's wound infection was treated in an appropriate manner. Accordingly, in my opinion Mr Breeze did not breach Right 4(1) of the Code in his management of Mrs A's wound infection.

Other comments

Open disclosure
I am concerned by Mrs A's comment about the limited information she received from Mr Breeze about her complication. Where a patient has been inadvertently harmed as a direct result of receiving medical treatment, even if the harm is an accepted risk of the treatment given, the provider has an obligation to disclose that harm to the patient. Open disclosure of harm contributes to an effective therapeutic relationship, by fostering an open and honest professional relationship between the health professional and patient. A surgeon's responsibility to inform a patient when that patient has been inadvertently harmed as a direct result of medical treatment (in this case, the anastomotic breakdown), is supported by several rights in the Code.[5] The Code as a whole supports honesty and candour in the aftermath of an adverse event.

Mrs A suffered from an anastomotic breakdown which, although an accepted risk of a hemicolectomy procedure, resulted in harm to her. In my view Mr Breeze should have explained to Mrs A that she had suffered from an anastomotic breakdown, and the potential causes of the complication and its implications on her condition, care and treatment. In this case, without that information, Mrs A and her family were left wondering whether the complication was the result of poor surgical technique by Mr Breeze, which subsequently led to the complaint to my Office.

I note that the timing of disclosure is important. Clearly it would have been inappropriate for Mr Breeze to discuss this matter with Mrs A at the time she was admitted acutely to hospital or while she was in ICU. It is well known that a patient who is acutely unwell may be unable to retain information. Mr Breeze should have arranged follow-up discussions to ensure that Mrs A understood what had happened to her, and what the implications were for her care and treatment, at a time when she was able to fully comprehend the information – such as when she was transferred back to the ward on 1 April, or following her discharge from hospital on 10 May.

[5] For example: Right 1 of the Code provides that patients have the right to be treated with respect. Failure to disclose inadvertent harm involves tacit deception – respect for patient autonomy supports a truthful and sensitive discussion about what went wrong and why; under Right 5(2) of the Code every patient has the right to an environment that enables both patient and doctor to communicate openly, honestly, and effectively. Open and honest communication requires candour about inadvertent harm on the part of the doctor; and Right 6 of the Code affirms that a patient has the right to information that a reasonable patient, in that patient's circumstances, would expect to receive. Several studies support the proposition that a reasonable patient would expect to be told if the care that was intended to heal has in fact caused harm (Witman A, Park D, and Hardin S, "How do patients want physicians to handle mistakes? A survey of internal medicine patients in an academic setting" (1996) 156 *Archives of Internal Medicine* 2565; Higorai M, Wong T, and Vafidis G, "Patients' and doctors' attitudes to amount of information given after unintended injury during treatment: cross-sectional, questionnaire survey" (1994) 318 *BMJ* 640).

Recommendation

I recommend that Mr Breeze review his information disclosure to patients in light of my comments about open disclosure.

Further actions

- A copy of my final report will be sent to the Medical Council of New Zealand and the Royal Australasian College of Surgeons.
- In light of the significant public interest in my inquiry into Mr Breeze's practice, a copy of my final report, with details removed identifying parties other than Mr Breeze, my expert advisor and the hospital, will be released to the media and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes, upon completion of my full inquiry.

Names (other than Mr Breeze, the Commissioner's expert advisor and the hospitals) have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.