

Dr B

Dr C

**A Report by the
Health and Disability Commissioner**

(Case 02HDC09815)



Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Mrs A	Consumer
Mr A	Consumer's husband
Dr B	Provider, Colorectal and Endoscopic Surgeon
Dr C	Provider, Colorectal and Endoscopic Surgeon
Dr D	Anaesthetist
Ms E	Registered Nurse
Ms F	Manager, Ward and Day Stay Services, Private Hospital A
Dr G	Radiologist
Dr H	Obstetrician and Gynaecologist, friend of Mr A
Dr I	Colorectal Surgeon
Dr J	Colorectal Surgeon
Dr K	Intensivist, Public Hospital

Complaint

On 10 September 2002 the Commissioner received a complaint from Mrs A about Dr C and Dr B. The complaint was summarised as follows:

Dr B

Dr B did not provide services to Mrs A with reasonable care and skill at the time of and following an elective adhesiolysis on 13 February 2002. In particular, Dr B did not diagnose a perforated bowel and consequent peritonitis.

Dr C

Dr C did not provide services to Mrs A with reasonable care and skill following an elective adhesiolysis on 13 February 2002. In particular, Dr C did not:

- respond appropriately to Mrs A's possible diagnosis of a perforated bowel and peritonitis*
- respond appropriately to Mrs A's deteriorating condition.*

An investigation was commenced on 31 October 2002.

Information reviewed

- Letter of complaint from Mrs A, dated 5 September 2002.
- Letter of response from Dr C, dated 25 November, and accompanying documentation.
- Letter of response from Dr B, dated 2 December 2002, and accompanying documentation.
- Letter of response from the Private Hospital A, dated 18 November 2002, and attached letter to Mr A in response to his complaint, dated 18 April 2002.
- Copy of letter from Dr C to Mrs A's general practitioner following consultation at the Private Clinic on 11 January 2002.
- Further information obtained from Dr C, dated 27 June 2003.
- Letter from Private Hospital B, dated 1 October 2003 listing Mrs A's operations there.
- Medical records from the Private Hospital A.
- Letter from Ms F, Private Hospital A, dated 3 October 2003, listing Mrs A's operations there.
- Medical records from the Public Hospital.
- Letter from Public Hospital A, dated 7 October 2003 and listing operations and admissions there.
- Dr J's (Colorectal Fellow) record of examination of Mrs A on admission to the Public Hospital on 16 February 2002 at 10.15am.
- Operation record written by Dr I on 16 February 2002.
- Letter of information from Dr K, Intensivist, Public Hospital, dated 14 March 2003.
- Discharge summary from Mrs A's discharge from the Public Hospital on 13 March 2002 written by Dr I.
- Information from Dr D, dated 27 July 2003.
- Record of blood results transmission from a laboratory in a city.
- Action notes of investigation officer's telephone interview with Mr A, dated 6 December 2002.
- Transcription of taped interview with Mr A, dated 19 February 2003.
- Transcription of taped interview with Mrs A, dated 19 February 2003.
- Transcription of taped interview with Ms E, registered nurse, Private Hospital A, dated 20 February 2003.
- Action note of conversation between investigation officer and Dr G, dated 7 August 2003.
- Record of conversation between investigator and Mrs A dated 6 October 2003, concerning Mrs A's previous surgery.
- A report from provider's expert, dated 25 September 2003.
- Response to the provisional opinion from Mrs A to the Health and Disability Commissioner, dated 12 September 2003.
- Response to the provisional opinion from Dr C, dated 25 September 2003.
- Independent expert advice from Dr Kenneth Menzies, general and colorectal surgeon, dated 28 April 2003.
- Supplementary expert advice from Dr Menzies, dated 13 October 2003.

Information gathered during investigation

Mrs A had a long history of endometriosis for which she had undergone abdominal and laparoscopic surgery. Prior to 2002 Mrs A had a perforated uterus and three laparotomies and a long history of recurring adhesions. Mrs A had consulted Dr B for seven years and he had undertaken five abdominal operations on her during this time. Dr B referred Mrs A to his colleague, Dr C, on 11 January 2002, following two occasions of abdominal pain suggestive of incomplete bowel obstruction. Dr C wrote to Mrs A's general practitioner reiterating that Mrs A's surgical history included numerous laparoscopies and a recent hysterectomy with dense adhesions, and added that Mrs A might be admitted to Private if obstruction was identified. Dr C referred Mrs A for an urgent CT scan and arranged to telephone her with the results.

On 30 January Mrs A consulted Dr B, who advised that there was a possibility that "further adhesions were causing these episodes of bowel obstruction" and suggested two options: wait and see, and laparoscopy. Dr B said he went to some lengths to inform Mrs A of the limitations of laparoscopic adhesiolysis and the "not insignificant risks of the procedure, specifically including the risk of occult perforation".

Mrs A recalled that Dr B told her she would be in hospital "probably overnight if everything went well". Mrs A's previous experience with laparoscopic operations was as a day patient, discharged home at the end of the day of surgery with minor pain relief. She had not required narcotic pain relief. Mrs A has no memory of events following the operation. In the operation record Dr B wrote: "I expect [Mrs A] will stay in hospital for a night or two but I will maintain contact with her until everything has resolved."

12 February – day of operation

At 1.50pm Mrs A had a laparoscopic adhesiolysis at Private Hospital A. Dr B performed the operation under general anaesthetic administered by Dr D. The operation lasted one hour and Mrs A left the operating theatre at 3pm. Postoperatively, Mrs A had oxygen at 2 litres via nasal prongs and her saturations were recorded at 97-98%. Dr B said the operation was uneventful and he provided medical care for the first postoperative day. On the afternoon of 12 February Mrs A was given intramuscular pethidine at 7.10pm and 10.10pm and tramadol 50mgs at 7.20pm and 12pm for pain relief. Mrs A was noted to be nauseated. Dr D had prescribed ondansetron hydrochloride 4mgs intravenously four hourly as required for nausea postoperatively and this was given at 9.30pm. Mrs A's vital recordings at 9pm were blood pressure 120/80, pulse 58 and temperature 36.2°C.

13 February – first day post operation

Dr B saw Mrs A that morning and documented that she was "very sore", had not passed flatus, and her abdomen was noted to be "rather tight and slightly tender". According to the medical record she complained of some shoulder-tip pain and the nasal oxygen was discontinued. Dr B ordered blood tests and an abdominal X-ray, which he said was intended as a baseline reference point for Dr C. (Dr C was to take over the medical supervision of Mrs A's care as Dr B was leaving town early the next day.) Mrs A's vital

recordings at 10am were blood pressure 120/70, pulse 68 beats per minute (bpm) and temperature 36.2°C. The blood test results showed a white blood cell count (WBC) of 16.3 (normal 4.0–11.0) and neutrophils 15.0 (normal 2.0–7.5).

Although Mrs A was taking prescribed antihypertensives (atenolol 5mgs three times daily and Inhibace Plus 5mgs daily) on admission, they were withheld on the first day postoperatively, and blood pressure recordings of 120/70 and 118/70 were noted. The antihypertensive medication was not recommenced during Mrs A's stay at Private Hospital A.

At 3.30pm the nursing staff contacted Dr B, as Mrs A had not passed urine. He ordered one litre of normal saline to be given (intravenously) immediately. At 5.45pm Dr B saw Mrs A again, noted that she had not passed flatus or urine, and requested that a urinary catheter be inserted. According to Dr B's entry in the patient record, Mrs A was still sore and complaining of a sore shoulder. Her abdomen was distended. The results of the X-ray showed a dilated small bowel with gas present and some free gas. Dr B noted that this was presumably a postoperative effect but that it was "worth repeating [the X-ray] in the morning if the pain not beginning to ease". Dr B also noted in the medical record that Dr C would be covering from 4am on 14 February.

At 6pm the nursing staff inserted a urinary catheter, and 360mls of concentrated urine was obtained. Dr B was notified. At 9.45pm the nursing staff again rang Dr B to advise him of further problems with Mrs A's urinary output. Mrs A had minimal urine output (60mls in three hours) and Dr B ordered a further one litre of normal saline to be given immediately.

Mrs A's vital recordings at 8.40pm were blood pressure 120/70, pulse 77 bpm and temperature 37°C. Nasal oxygen was recommenced at 2 litres and oxygen saturations were 97%.

Dr B advised me that in retrospect it is obvious Mrs A had evolving peritonitis. However, during the time he cared for her, and taking into consideration his concern about the possibility of an occult perforation, there was no clinical change that would justify the operation required to confirm and treat such a diagnosis.

Pain relief and antinausea medication

On 13 February, Mrs A received pethidine 100mgs intramuscularly at 1.45am, 5.30am, 8.40am, 1.45pm, 5.30pm and 11pm, and tramadol 5mgs orally at 8pm for pain relief. Because Mrs A remained nauseated and vomited, she was given ondansetron hydrochloride 4mgs intravenously during the early morning (1.50am) and early afternoon (1.45pm). During the afternoon Mrs A vomited again and she was given different antiemetics, Stemetil 12.5mgs intramuscularly at 5.30pm and cyclizine 25–50mgs intramuscularly at 11pm. Dr D prescribed these antiemetics on 13 February but there is no record in the medical notes that he saw Mrs A at this time.

14 February – second day post operation

As previously arranged, Dr B transferred Mrs A to Dr C at 4am on 14 February. Dr C commented as follows about the handover of care:

“[Dr B] asked me to take over [Mrs A’s] care in the morning as he was travelling overseas on a planned commitment. We spoke at length about her operation and the subsequent post-operative course. [Dr B] was concerned about certain aspects of her post-operative recovery, in particular that she was not recovering as quickly as would be expected for the degree of surgery. He felt that the most likely scenario was a protracted post-operative ileus.¹ We discussed the possibility of a perforated viscus [bowel] but given the extent of the surgery and that there was no evidence of a perforation at the time of surgery, he conveyed the sentiment that this was unlikely.”

At 4.15am on 14 February, the nursing staff rang Dr B, concerned that Mrs A’s urine output had reduced further (20mls), and he ordered an additional litre of normal saline to be given over four hours if the urine output remained less than 20mls for two hours. Dr B then left for another country.

On the morning of 14 February, Dr C visited Mrs A for the first time. Dr C later “spoke at length” to Dr B, who by this time was in another country.

Dr B recalled the conversation as follows:

“[Dr C] took over [Mrs A’s] care as arranged and saw her first thing the following morning. I telephoned him from [another city] to see how [Mrs A] was getting on and to discuss her care. We discussed her status, which he indicated was stable. I mentioned that I would have a low threshold to look further for an occult perforation.”

In response to my provisional opinion Dr C said he did not recall Dr B stating that he would have a low threshold for having a further look and that Dr B did not suggest that he re-operate.

Dr C did not document his visit on 14 February. However, in response to the complaint, Dr C said that Mrs A was complaining of abdominal discomfort, distension and nausea, and had not passed flatus. She appeared “reasonably settled” and her abdomen was hard to assess owing to her obesity. Dr C noted the blood test results showing leukocytosis and mild hyponatraemia – WBC 21.0 (normal 4.0–11.0) and neutrophils 19.3 (normal 2.0–7.5). The laboratory report for 14 February identifies a “marked neutrophilia with a left shift” and questions whether there is “any evidence of infection or inflammation”.

¹ Ileus: intestinal distension from lack of muscular action of the bowel, in the absence of any direct mechanical blockage. Adynamic ileus: ileus from paralysis of intestinal muscle. Postoperative ileus: adynamic ileus occurring after an operation. (British Medical Dictionary, 1961. Caxton Publishing Company Ltd.)

According to the patient record Mrs A had still not passed flatus. Mrs A's vital recordings at 6.45am were pulse 92 and temperature 37.2°C (blood pressure was not recorded at this time). At 1pm Mrs A's vital recordings were blood pressure 100/80, pulse 92 and temperature 36.6°C. Nasal oxygen was administered at 2 litres.

At 2.15pm the nurse recorded that Mrs A complained of shoulder-tip pain and "wind" pain and was noted to be "lightheaded".

On the afternoon of 14 February anaesthetist Dr D saw Mrs A. Dr D said he visited Mrs A on the afternoon of 14 February as a normal postoperative follow-up to her surgery. Dr D said that "Mrs A was in a good condition, although still uncomfortable". There is no documentation of this visit. Anaesthetists at Private are usually involved only for the first 24 hours postoperatively, and any issues regarding pain relief or fluid management are referred to the anaesthetist. Thereafter the surgeon usually takes over that role. The anaesthetist makes decisions in consultation with the surgeon who has overall responsibility.

According to the medical records, Mrs A had still not passed flatus but bowel sounds were heard. During the night Mrs A's vital recordings were blood pressure 120/70, pulse rate 102 and temperature 36.8°C (recorded at 6.45am). Nasal oxygen was continued at 2 litres and oxygen saturations were 96%. Mrs A had still not passed flatus and continued to feel nauseated.

Pain relief and antinausea medication

According to the medical records Mrs A had persistent nausea and was in pain, and the following medications were given:

- pethidine 100mgs intramuscularly at 4.20am, 10.40am, 1.45pm and 8pm
- ondansetron hydrochloride 4mgs intravenously at 10.45am and 7.40pm for nausea
- Stemetil 12.5mgs intramuscularly at 8pm for nausea.

15 February – third day post operation

Morning

On the morning of 15 February Dr C and Dr D saw Mrs A. Dr C recorded that Mrs A was "a little better, still painful and distended". Dr C explained that his finding of distension should be qualified by his previous statement regarding Mrs A's obesity. Dr C also noted that Mrs A had still not passed flatus and that bowel sounds were absent. Dr C documented his plan of care to include a plain abdominal X-ray, sips of water, and to "try and ween opiates" (pethidine 100mgs IM had been given early morning and again at 9.25am). According to the medical record the nursing staff drew Dr C's attention to Mrs A's low urinary output and he ordered a litre of normal saline to be infused over two hours. Dr C said that the leukocytosis was noted to have increased and that the liver function tests and electrolytes were normal, with the exception of mild hyponatraemia and low albumin. Dr C said that he was aware that Mrs A was afebrile, had a pulse rate of 95bpm and was

hypotensive with a blood pressure of 100/70mmHg. Further, he was concerned that Mrs A's condition had not improved over the preceding 24 hours.

Dr D explained that he knew Mrs A socially and his visit on the morning of 15 February "was a brief visit involving no formal assessment". His impression of her condition that morning was that her "condition had not changed significantly". Dr D said that he and Dr C discussed Mrs A on 15 February as Dr C was concerned about Mrs A's slow recovery. Dr D understood this to be a pattern following previous laparoscopies Mrs A had had. Dr D said that Dr C told him he would order a CT scan and then assess the need for further surgery. Dr D planned to come in the next morning to see if he could help "in view of [his] previous involvement in Mrs A's surgical care".

During the course of the morning, nursing staff contacted Dr C again as they had administered one litre of normal saline over a two-hour period with no improvement in Mrs A's urinary output. According to the patient record, Dr C contacted Dr B in another country. Dr C said he considered bowel perforation to be a "distinct possibility". Following his conversation with Dr B, Dr C ordered a CT scan "to rule out any possibility of perforation". He also ordered a further litre of normal saline over two hours as Mrs A's urine output continued to be low. The nursing staff recorded in the medical records that Mrs A appeared slightly confused and had trouble following instructions.

At 12.25pm results of the complete blood count, renal function tests and electrolytes obtained on 15 February were autofaxed to Private Hospital A from a laboratory. The results were as follows:

Complete blood count:

WBC 21.4 (normal 4.0–11.0) and neutrophils 19.26 (normal 2.0–7.5)

Renal Function Tests:

Urea 11.4 mmol/L (normal 3.0–7.1)

Serum Creatinine 0.19 mmol/L (normal 0.04–0.10)

Electrolytes:

Sodium 130 mmol/L (normal 136–147)

Afternoon

At 2.30pm Mrs A went to Private Hospital B Radiology for a CT scan of the abdomen and pelvis. The results of the scan are attached as Appendix 1.

Dr G said that he rang Dr C "immediately" following the scan as the findings were of concern, suggesting bowel perforation, but needed to be interpreted with reference to Mrs A's clinical picture.

Dr C said that he reviewed the CT report and found it to be "inconclusive". He saw Mrs A again "sometime later in the afternoon". (Dr C could not remember the exact time.)

According to the medical record, Dr C noted that she was “a little better” but also “a little dyspnoeic”. He also noted that Mrs A had “few bowel sounds” but an increase in urinary output. Nursing staff continued to record that no bowel sounds were heard. According to the medical record, by 3.15pm Mrs A had a distended abdomen, poor urinary output with concentrated urine, had still not passed flatus, had become slightly confused and had “trouble following instructions e.g. getting out of bed”. Pethidine 100mgs was given at 9.25am and 2.10pm and Panadol 1gm and Voltaren 75mgs were given between 2.15pm and 2.30pm. According to the fluid balance record for the 24-hour period 7am on 15 February to 7am on 16 February, the total intravenous fluid input was 5,500mls and the total urine output was 1,632. Between 7am and 6pm on 15 February Mrs A had 3,700mls of fluid infused intravenously and 492mls was measured in urinary output.

Dr C commented:

“On 15 February [7am 15 February until 7am 16 February] the total input was 5500mls and the total output 1632mls. Taking into account insensible losses once again amounting to approximately 1500mls, this resulted in a positive balance for this period of 2500mls. ... It was my impression [Mrs A] was a little dyspnoeic. On examining her chest there were a few crepitations in the lung bases consistent with some mild heart failure. The abdomen was still distended and soft, and there was a paucity of peritoneal signs. There were a few bowel sounds.”

According to the medical record, Mrs A’s pulse recording was rising during the afternoon of 15 February. At 2.30pm her pulse rate was 98bpm, blood pressure 100/70 and temperature 36.6°C, and at 6.30pm her pulse rate was 118bpm, blood pressure 110/60 and temperature 36.8°C. Mrs A continued to have two litres of oxygen and oxygen saturations of 97%. The nursing record for the afternoon shift records that Mrs A was “up x 1 in corridor”.

Ms E, the nurse caring for Mrs A that afternoon, recalled that Dr C came in to review Mrs A and stated that if there were no further improvements overnight they would consider transfer to the Public Hospital the following morning. Ms E said that Dr C was aware that Mrs A was confused. Dr C’s concluding remark, recorded in the medical record “sometime later in the afternoon”, was “continue conservative management and review in the morning”.

Dr C’s version of events

Dr C responded that Mrs A was adamant that she did not want further surgery. He recalled that he:

- discussed the findings of the CT scan with Mrs A and recommended that she have a laparoscopy as he was increasingly concerned about the possibility of bowel perforation. Dr C said Mrs A was insistent she did not wish to have further surgery
- assumed Mrs A was fit to consent to surgery if she agreed it was necessary

- considered that Mrs A was fully orientated to time and place and therefore competent to make decisions
- obtained Mrs A's consent to talk with her husband about her condition
- rang Mr A to talk about Mrs A's condition. Mr A told him he respected his wife's wishes (with regard to the proposed surgery) but was "a little unclear as to whether she was completely competent"
- asked Mr A to speak to Mrs A and telephone him back if he felt she was not able to make this decision
- did not hear from Mr A and therefore assumed they had decided to continue with close observation until the morning.

Mr A's version of events

Mr A visited his wife between 6pm and 7pm. He said that her tummy seemed to be getting bigger and bigger and that "they were certainly pouring fluids into her".

Mr A recalled his wife's condition at the time as follows:

- she was very short of breath and visibly distressed
- she had no recollection of having gone to Private Hospital B Radiology for the X-ray
- she did not know what day it was
- she did not know how long she had been in hospital or what was happening to her
- in his daughter's opinion was getting worse – getting sicker rather than better
- in his opinion she was deteriorating.

When he got home on Friday evening, Mr A:

- rang his sister, a registered nurse, who advised him to request a second opinion immediately
- tried unsuccessfully to contact Dr C via his practice and the after-hours telephone number
- rang his friend, Dr H, who worked in the same practice as Dr C, and asked him for help
- received a telephone call from Dr C at approximately 9.30pm, following his telephone call to Dr H, who had telephoned Dr C and asked him to call Mr A
- expressed his concern to Dr C and asked for a second opinion.

Mr A said Dr C acknowledged that Mrs A's condition was deteriorating but that up to that point there had been no signals to intervene earlier. He was happy to get a second opinion but, as it was late, they agreed to meet at the hospital for a review in the morning.

Mr A said that he thought his wife was the "last person in the world that Dr C would be consulting about what was required for her". She was so distressed and disorientated that even a lay person would notice, let alone a professional. Mr A said he was so concerned about his wife that, had Dr C suggested he go back to the hospital and talk to her, he would have "gone like a shot". Mr A telephoned his wife at her bedside to tell her that he would

be there in the morning when the doctors came to review her care. However, she did not seem to understand what he was talking about. Mr A said that his wife was no longer able to make decisions about her own care.

In response to my provisional opinion, Dr C said that he did not understand Mr A's inability to contact him, as both his home and mobile numbers are freely available at both the Private Hospital A and the Private Clinic. Mr A said that he went straight home from the hospital and remained there looking after his daughter, and was therefore contactable on his home phone number. Further, Mr A said that he also tried to contact Dr C by ringing Dr B's home, but Dr B's children did not know how to contact Dr C.

Pain relief and antinausea medication

According to the medical records, Mrs A had some nausea during the morning and her pain continued. The following medications were administered:

- Pethidine 100mgs intramuscularly at 3.05am, 9.25am and 2.10pm
- ondansetron hydrochloride 4mgs intravenously at 4.30am
- Stemetil 12.5mgs intramuscularly at 2.10pm.

Night

Mrs A's pulse rate rose to 118bpm during the night and her blood pressure was 130/70. She was noted to be confused and to sleep little. According to the patient record, Mrs A was again complaining of difficulty in breathing. The nursing staff contacted Dr C at 4.35am. Dr C recalled that they told him Mrs A had once again become mildly dyspnoeic and he ordered 40mgs of Lasix IV. At 6.30am the urinary output was 85mls following the Lasix and, according to the night nurse, Mrs A was confused.

16 February – fourth day post operation

At 8.30am Dr C and Dr D saw Mrs A. Mrs A was experiencing auditory hallucinations. According to the nursing notes there had been no improvement and a decision was made to transfer Mrs A to the Public Hospital.

Mr A arrived at Private Hospital A to find that Dr C, Dr I and Dr D were already there and had examined Mrs A. A decision had been made to transfer Mrs A urgently to the Public Hospital.

According to the referral letter to Dr I at the Public Hospital, Dr C recorded that “clinically and radiologically (CT) the concern is a perforated viscus [bowel]”.

Dr C's overview

Dr C summarised his postoperative care for Mrs A as follows:

“[Mrs A] presented to me on 14 February, two days post-laparoscopic adhesiolysis, with an undiagnosed perforation of the small bowel. The diagnosis of a perforated viscus [bowel] is often less than straightforward and has to be based primarily on

clinical assessment with investigations used as an adjunct. My working diagnosis when I took over [Mrs A's] care was that of [Dr B's], namely a protracted ileus. Like [Dr B], I did however maintain a high index of suspicion of a perforation and instigated the correct management, ie, very close observation, frequent assessment and appropriate investigation.

There were distinct elements about [Mrs A's] case which mitigated against a diagnosis of perforation.

1. From the history, whilst she complained of abdominal pain, she never described it as severe.
2. The frequent examinations revealed abdominal distention but peritoneal signs were notable by their absence, with the exception of the morning that I decided to transfer her.
3. At no time did she develop a pyrexia.
4. With the exception of a three hour period between 1100 hours and 1400 hours on 15 February (where her systolic blood pressure fell to 100), she remained normotensive throughout.
5. Her oxygen saturation was maintained at 97% or above (on 2 litres of O₂ via nasal cannulae).
6. A satisfactory urine output was maintained.
7. Her assessment was made very difficult due to her morbid obesity (BMI in excess of 30).

I was fully aware of the CT findings in particular the amount of intraperitoneal fluid. This together with the clinical findings prompted me to advise exploratory surgery on the evening of 15 February. I regret that I was not successful in impressing upon [Mrs A] the importance of this, and not able to persuade her to consent to this. I was happy, however, that I had satisfactorily explained the clinical situation to her and her husband, and he intimated that he would consent on her behalf if he felt that she was unable to do this herself.

The bowel perforation occurred at the time of the initial surgery. In retrospect, she would have required exploratory surgery, even if we had been successful in establishing a diagnosis 24 hours earlier. Any perceived delay did not alter [Mrs A's] eventual management and outcome. I sincerely regret that these events took place but I maintain that I did everything in my power to ensure she received the appropriate management. It follows that I do not accept the allegations made in the complaint."

In response to my provisional opinion, Mrs A stated that regardless of whether her pain was articulated as mild or severe, the clinical notes record that she had (in addition to other analgesia) 16 doses of pethidine 100mgs intramuscularly from 12 February up until the time of transfer to the Public Hospital. Further, Mrs A said that her normotensive state may have been explained by the withholding of her usual hypertension medications of atenolol, Inhibace Plus and felodipine. Mrs A said that although Dr C stated that her urine output was satisfactory throughout, the clinical notes document concerns held by the

nursing staff and transmitted to the medical staff. In relation to Dr C's comments about her obesity, Mrs A commented that her Body Mass Index (BMI) at the time of surgery was 31.6, which placed her in the obese category. Mrs A identified morbid obesity as a BMI over 40.

Admission to the Public Hospital

Mrs A was admitted to the Emergency Department at the Public Hospital. According to the ambulance record, she had a Glasgow Coma Score of 14 at 9.10am. When assessed by the admitting doctor, Mrs A was noted to have intermittent confusion and when seen prior to surgery by Dr J, the assistant surgeon, Mrs A was noted to be confused. Mrs A was transferred to the operating theatre and, at operation, Dr I and Dr J found that Mrs A had a jejunal perforation with gross intraperitoneal sepsis. The wound was left open and Mrs A was transferred to Intensive Care. Dr K, Intensivist, advised:

“Upon admission to Intensive Care she [Mrs A] was being artificially ventilated and was in a drug induced coma. She had some evidence of haemodynamic instability with a reduced peripheral perfusion and a lowered blood pressure at 95/55.”

Dr K noted that Mrs A's diagnosis when she was admitted to Intensive Care included small bowel perforation, peritonitis, systemic inflammatory response syndrome, acute lung injury and renal dysfunction.

Mr A recalled that Dr I spoke to him after Mrs A's admission to intensive care and told him she was seriously ill. Mr A also recalled that a doctor (possibly Dr I or the intensive care doctor) spoke to him and spread his arms about 600 or 700mm apart, saying, “we are dealing with a scale where this end she lives and this end she dies and really we are right at this end” (indicating the end where she dies).

Dr I's discharge letter to Dr B and Mrs A's general practitioner, dated 4 April 2002 stated:

“When she presented here she had a distended abdomen, abdominal pain and evidence of multiorgan failure, with impaired renal function, disordered liver function tests and was confused.”

Independent advice to Commissioner

The following independent expert surgical advice was obtained from Dr Kenneth Menzies, general and colorectal surgeon:

“Re: MEDICAL/PROFESSIONAL EXPERT ADVICE – 02HDC/09815/SR

[Mrs A] : DOB [...]

This consumer complaint relates to two doctors – [Dr B] and [Dr C]. Mrs [A] was admitted to [the Private] Hospital in [a city] for operation on 12 February 2002. A laparoscopic adhesiolysis was performed by Dr [B]. On 16 February 2002, Mrs [A] had a further operation in [the Public] Hospital. The findings at operation on that occasion were that she had a perforation of the jejunum, generalised peritonitis and the presence of approximately 2,500mls of free enteric fluid within the peritoneal cavity. The complaint relates to the care provided to Mrs [A] by Dr [B] and by Dr [C] during the four day period between 12 February and 16 February 2002.

This report is based on the following supporting information:

- Letter of complaint from Mrs [A].
- Letter of response from Dr [B] and accompanying documentation.
- Letter of response from Dr [C] and accompanying documentation.
- Letter of response from [Private Hospital A].
- Medical records from [Private Hospital A].
- Medical records from [the Public] Hospital.
- Action note of telephone interview with Mr [A].
- Transcription of taped interview with Mr [A].
- Transcription of taped interview with Mrs [A].
- Transcription of taped interview with Ms [E], Registered Nurse, Private Hospital A.
- Information from Dr K, Intensivist, [Public] Hospital.

In relation to Dr [B's] actions, I have been asked to advise the Commissioner on the following matters:

1. Dr [B] said that he told Mrs [A] of the risk of 'occult perforation'. What is the risk of bowel perforation during a laparoscopic adhesiolysis?
2. Are there any factors that accentuate this risk? If so, what are these factors?
3. Dr [B] said he told Dr [C] that he would have a 'low threshold to look further for an occult perforation'. What does this mean in practice?
4. Should Dr [B] have diagnosed the perforation while he still had responsibility for Mrs [A]? Please comment.
5. Dr [B] knew that an occult perforation was a possibility. Did he convey this to Dr [C] clearly when handing over care?

1. What is the risk of bowel perforation during a laparoscopic adhesiolysis?

The risk of bowel perforation is dependent on quite a number of factors. These include the extent and severity of intra-abdominal adhesions which are present. For example if there was just a single band adhesion this could be divided with negligible risk.

The location of the intra-abdominal adhesions would influence the risk. There are some sites within the abdominal cavity where access laparoscopically may be more difficult.

Probably the most important factor is the extent of adhesiolysis undertaken by the surgeon. The longer and the more difficult the operation the greater the risk of an occult perforation occurring.

Another factor of importance is the expertise and experience of the surgeon undertaking the laparoscopic adhesiolysis operation.

2. Are there factors that accentuate this risk? If so, what are these factors?

As I have mentioned, very extensive adhesions accentuate the risk of bowel perforation. The risk is also accentuated when there have been multiple previous intra-abdominal operations. [Mrs A] had had at least five previous abdominal operations. If surgery were to be undertaken in someone with acute intestinal obstruction the risk would be considerable because the gut is likely to be distended and friable. (This was not the case in this particular patient).

3. *Dr [B] said he told Dr [C] that he would have a 'low threshold to look further for an occult perforation'. What does this mean in practice?*

To my mind this implies that he would have a high index of suspicion that intestinal perforation had occurred if the patient had significant symptoms and signs post-operatively. I interpret the words 'to look further' to imply that he would undertake a further operation if he suspected the possibility that an occult perforation had occurred.

4. *Should Dr [B] have diagnosed the perforation while he still had responsibility for Mrs [A]?*

This is the key question in relation to Dr [B]'s management of Mrs [A]. I cannot give a dogmatic 'yes' or 'no' answer to this question. In retrospect there is no doubt that intestinal perforation and peritonitis did exist on 13 February 2002, *ie* the day following her operation when she was still under the care of Dr [B]. It can be difficult to differentiate between the anticipated post-operative pain following a laparoscopic operation and the pain resulting from peritonitis. The patient states that she had not experienced ongoing pain of this severity following previous laparoscopies. Between 01:45 and 2300 hours on 13 February, [Mrs A] was given 100 mg of Pethidine intramuscularly on six separate occasions. This seems rather more than I would expect during the first post-operative day following laparoscopic adhesiolysis. Looked at in retrospect it is an indicator that all was not well. Dr [B] indicates that he examined the patient in the morning of the first post-operative day and again at 17:45 hours on 13 February. The fact that she had been given large doses of Pethidine on a regular basis may have masked some of the intra-abdominal signs which he might otherwise have detected. Peritonitis is largely a clinical diagnosis. The classical signs are abdominal tenderness and guarding and these can be negated when a patient has recently been given a narcotic such as Pethidine intramuscularly prior to the clinical examination. The reported findings on the plain abdominal x-ray taken on 13 February, in particular the presence of free intra-peritoneal gas are not diagnostic of intestinal perforation in someone who has had abdominal surgery the previous day. The only investigation, which may have given conclusive evidence at that stage of a bowel perforation, would have been an abdominal CT study with contrast.

5. *Dr [B] knew that an occult perforation was a possibility. Did he convey this to Dr [C] clearly when handing over care?*

The arrangement to hand over the care of Mrs [A] to Dr [C] had been made prior to the operation. Both of these doctors as well as Mrs [A] were aware of this arrangement and there does not appear to be any dispute about this.

The time of the hand-over was 4:00 a.m. on the morning of 14 February. Dr [B] last saw Mrs [A] at 17:45 hours on the evening of 13 February. There is no documentation in the hospital records that Dr [B] discussed Mrs [A]'s condition with Dr [C] at that

time. Dr [B] was contacted by the nursing staff of [the Private] Hospital at some time during the night when they were concerned that her urine output had dropped. There is no evidence of any communication between Dr [B] and Dr [C] at this time. One would have to question whether 4:00 a.m. is an appropriate time for a patient to be handed over from one specialist to another. There was a communication on the morning of 14 February when [Dr B] telephoned Dr [C] from [another city] to discuss her condition and her management. Dr [B] states 'I mentioned that I would have a low threshold to look further for an occult perforation'.

In his report dated 25 November 2002, Dr [C] states 'We spoke at length about her operation and the subsequent post-operative course'. I presume this discussion was the telephone conversation on the morning of the 14 February with Dr [B] in [another city] and Dr [C] in a city. Dr [C] says that the possibility of a perforated viscus was discussed and as there was no evidence of a perforation at the time of surgery, Dr [B] 'conveyed the sentiment that this was unlikely'. It seems that Dr [B] did convey that an occult perforation was a possibility, however the reports from these two surgeons show a differing opinion as to the likelihood that Mrs [A] had sustained an intestinal perforation. Dr [C] appears to have gained the impression that Dr [B] thought this to be unlikely but that rather her slow progress was due to a 'protracted post-operative ileus'.

In relation to Dr [C's] actions, please advise the Commissioner on the following matters:

1. What are the signs and symptoms of a bowel perforation?
2. At what point in Mrs [A's] post-operative period did signs and symptoms of a bowel perforation or peritonitis occur?
3. What is the relevance of an increasing pulse rate during the post-operative period?
4. What actions should Dr [C] have taken in relation to Mrs [A's] deteriorating condition?
5. At what point was such action required?
6. Please comment on the findings of the CT scan in relation to Mrs [A's] clinical state.
7. Was it appropriate not to operate but to continue care under close observation on the evening and night of 15 February 2002?
8. In your experience and from the information available, was Mrs [A] in an appropriate state of mind to give or refuse consent on the afternoon of 15 February 2002?

9. Are there any other issues raised in the information you have reviewed that warrant comment?

1. What are the signs and symptoms of a bowel perforation?

The main symptom of a bowel perforation is abdominal pain. The pain is generally constant and is usually a generalised abdominal pain. It is likely that the pain would be aggravated by physical movement or by deep inspiration or coughing. Other symptoms may include vomiting and the failure to pass flatus per rectum.

The signs include the following:

Tachycardia, fever, signs of dehydration, abdominal distension, absence of bowel sounds on auscultation of the abdomen, abdominal tenderness and guarding on abdominal palpation.

When dehydration occurs there is likely to be a decrease in the patient's urine output. When peritonitis is well established the patient may become confused.

2. At what point in Mrs [A's] post-operative period did signs and symptoms of a bowel perforation or peritonitis occur?

In retrospect there were early indications on 13 February. As I have mentioned previously, the patient was requiring injections of Pethidine 100 mg for pain at four hourly intervals. On the evening shift her temperature was noted to be 37.2. The patient vomited on two occasions on the 13th. The abdomen was noted to be distended during the afternoon and the evening shift and there was concern regarding her urine output during the early hours of the 14 February when hourly volumes dropped to 20 mls of urine per hour. Additional normal saline was given intravenously late on the evening of 13 February and during the early hours of the morning of 14 February. This requirement for additional intravenous fluid could be interpreted as an indication of dehydration. The hospital notes for 14 February indicate that she had persistent nausea and that there was no passage of flatus PR. She was still requiring regular Pethidine injections on the 14th.

By 15 February it was evident that the patient still had considerable abdominal pain. Normally one would have anticipated that by the third post-operative day the pain would have been significantly improving. On this day she was noted to have a very distended abdomen. There was still concern regarding her poor urine output and the fact that the urine was very concentrated. It was noted that she had not passed any flatus PR. Dr [C's] notes state that the abdomen was silent (*ie* there were no bowel sounds on auscultation of the abdomen). It was noted on the 15th that she was having difficulty with breathing and that she had become somewhat confused.

In other words there was a gradual evolution of symptoms and signs of perforation and peritonitis from the 13-15 February.

3. *What is the relevance of an increasing pulse rate during the post-operative period?*

The patient's chart indicates that her pulse rate on admission on 12 February was 60 per minute. There is a steady rise in the pulse rate over the next four days such that by 4:00 a.m. on 16 February it was recorded at 120 per minute. This is indicative of the evolution of peritonitis over that period.

4. *What actions should Dr [C] have taken in relation to Mrs [A's] deteriorating condition?*

5. *At what point was such action required?*

By the time Mrs [A] was admitted to [the Public] Hospital on 16 February, she was confused and had evidence of multi-organ failure.

Laparotomy, that is formal opening of the abdominal cavity, identification and closure of the site of perforation and peritoneal toilet (*ie* washing out of the abdominal cavity with warm saline) was required. At that stage she required admission to Intensive Care and assisted ventilation. In retrospect, one can state that operation should have occurred earlier.

I believe Dr [C] should have performed a laparotomy on Mrs [A] on 15 February. This would hopefully have avoided the marked deterioration which occurred in her condition over the subsequent 12 to 24 hours.

6. *Please comment on the findings of the CT scan in relation to Mrs [A's] clinical state.*

A CT of the abdomen and pelvis was performed at [Private Hospital B] Radiology on 15 February. The report states 'there is a moderate to large amount of free intra-abdominal fluid. This is seen surrounding the right and left lobes of the liver ... There is free fluid within the small bowel mesentery and in both paracolic gutters. There is a moderate amount of free fluid in the pelvis along with a small amount of free gas anteriorly'.

In my opinion the presence of such a large amount of free fluid within the peritoneal cavity in this clinical setting is strong evidence for the presence of a bowel perforation.

7. *Was it appropriate not to operate but to continue care under close observation on the evening and night of 15 February 2002?*

In my opinion it would have been more appropriate to undertake a laparotomy on 15 February.

8. *In your experience and from the information available, was Mrs [A] in an appropriate state of mind to give or refuse consent on the afternoon of 15 February 2002?*

It is difficult for me to determine Mrs [A's] state of mind on the afternoon of 15 February from the information available in the [Private Hospital A] notes. Nurse [...] (who was on the shift from 0645 to 1515) noted the following 'patient appears to be slightly confused and has trouble following instructions.' The Nurse on for the shift from 1445 to 2315 notes that Mrs [A's] emotional state was 'low' and that she was slightly confused.

Dr [C] made an entry in the notes, which I presume was made on the afternoon or early evening of 15 February. It was after she had had the abdominal CT. He does not comment on her mental state. He does not indicate in the notes that he attempted to obtain consent from Mrs [A] or from her husband. His stated plan at that stage was 'continue conservative management. Review AM'.

In the light of what was found at laparotomy at [the Public] Hospital on 16 February, it is likely that Mrs [A] would have been toxic (from peritonitis) on 15 February. It is not surprising therefore that she was somewhat confused.

In my experience such a patient is not likely to refuse operation if it is carefully pointed out to them that there is a probability of bowel perforation and peritonitis and that delay in dealing with this by operation could result in serious consequences.

9. *Are there any other issues raised in the information you have reviewed that warrant comment?*

No.”

Response to provisional opinion

The provider's expert

The following submission, on behalf of Dr [C], was received from the provider's expert:

"I, [the provider's expert], medical practitioner of [a city], say:

1. My full name is [the provider's expert].
2. I have been asked to provide an opinion on the management of the care of Mrs [A] by [Dr C] with specific reference to the expert opinion of Mr Menzies and the provisional opinion of the Health and Disability Commissioner.

Training and Experience

3. Completed BHB 1979, MBChB 1982.
4. Completed FRACS 1991 with subsequent training at [a clinic in another country], in colon and rectal surgery.
5. From 1993 I practised in private and public in [a city], before moving to [another city] in January 2000.
6. Since January 2000 I have been a Consultant Surgeon at [a Public] Hospital in [a city] providing colorectal, breast and general surgical services to a catchment area of [...] people. Services provided also include acute general surgery on call. [The Public] Hospital is a busy teaching hospital with 4th and 5th year medical students, trainee interns and surgical trainees. I am currently the supervisor of basic surgical training.
7. I do not provide a summary of the clinical events as these have already been summarised both in the Health and Disability Commissioner report and in the expert opinion. [Dr C] also provided a summary of events, as do the [Private Hospital A] notes.
8. The Commissioner has reached the conclusion that Dr [C] is in breach of Section 4(1) of the Code of Rights, in not diagnosing a bowel perforation and peritonitis and not responding appropriately by strongly recommending surgery on 15 February 2002.
9. I have reviewed the opinion of Mr Kenneth Menzies, who I hold in the highest regard. This opinion is prepared with the benefit of seeing the response of [Dr C] to the provisional opinion of the Health and Disability Commissioner and therefore it may be that in light of the information the point and matters of degree Mr Menzies and I differ on are resolved after this information is made available to him.

10. In my view the suggestion that Mrs [A] was at high risk of an occult perforation is not clear-cut. I note that she had five previous abdominal operations, but these were laparoscopies not laparotomies. The operation for laparoscopic adhesiolysis took only one hour. The length of time of the operation is consistent with the clinical circumstances being that the adhesions were not particularly complex or difficult to deal with.
11. Determining whether a patient has bowel perforation or some other explanation for their symptoms is a decision that is always easier to make in hindsight. This is properly acknowledged in the opinion of Mr Menzies. It is a significant step to subject a patient to a further anesthetic and surgery and the difficulty is always in balancing the concerns. In this respect it is an inevitable disadvantage in assuming the care of a colleague's surgical patient.
12. The clinical information supports the view that a perforation occurred on 12 February 2002 and that over the subsequent four days there was a gradual evolution of symptoms and signs of perforation and peritonitis. The crucial question is at what point along that gradual evolution was it no longer acceptable to manage the patient conservatively? The Commissioner has determined that that time occurred on 15 February 2002, and that to continue conservative treatment after that was a breach of patient care. I am not sure that Mr Menzies when not qualifying his opinion as being retrospective sees the position as so clear-cut. In providing this opinion I have endeavored to put from my mind knowledge of the full course of Mrs [A's] postoperative care in order to avoid outcome bias. After a careful review of the notes and information provided I do not agree with the Commissioner's opinion.
13. Mrs [A] had constant generalised abdominal pain, vomiting and the failure to pass flatus which are symptoms consistent with diagnoses including bowel perforation. These were generally present from 12 February 2002, when her own surgeon saw her. The report of [Dr C] is that [Dr B] told him that the most likely scenario was protracted post-operative ileus. Certainly [Dr B] was not contemplating that he perform surgery at that time. Also present was some evidence of dehydration (noted by decrease in urine output), abdominal distension and abdominal tenderness. However a fever was never present during the entire period of time and an elevated pulse rate only became evident on 15 February 2002. The increase in pulse rate occurred to a mild extent on 15 February 2002 but at a rate of 95 to 98 beats per minute. It only increased to 120 towards the morning of 16 February 2002. Mrs [A] had previously been on Atenolol, which is a beta blocker designed to slow the heart rate. This had not been administered from the onset of her stay at [Private Hospital A], and a mild elevation in her pulse rate over this period of time could be attributed to her not being on her normal beta blocker medication.

14. An issue arises as to whether the reported confusion of Mrs [A] on 15 February, (these symptoms being consistent with but not diagnostic of perforation and peritonitis), should have caused [Dr C] to make a definitive diagnosis at that time. The notes suggest that she was confused on the afternoon of 15 February 2002. However, on admission to [the Public] Hospital on 16 February 2002, she had a Glasgow Coma Score of 14/15, which implies that she was fully orientated in time, place and person. This is consistent with [Dr C's] view that she was competent on the afternoon/evening of 15 February 2002. It may very well be that her confusion was a fluctuating event.
15. There is comment in the report of the CT scan performed on Mrs [A] on 15 February 2002, that there was evidence of free fluid within the abdomen and concern that this was in excess of what may be expected at this time. On reviewing the CT scan report, it is evident that the CT scan was performed with contrast, and no contrast leaked out of the bowel into the peritoneal cavity. If this had occurred and been documented at the time of the CT scan, then it would have provided conclusive evidence of a leak. Or, put another way, the fact that this did not occur meant that Dr [C] was not able to make a diagnosis conclusive of a leak. The expert opinion from Mr Menzies states that a CT scan with contrast is a definitive evaluation. However, even though this was done, it was not definitive.
16. As the expert states, 'Peritonitis is a clinical diagnosis'. [Dr C] was at a disadvantage in taking over Mrs [A's] care on 14 February 2002. He had not seen her on 12 or 13 February and therefore his baseline for his clinical assessment was from his initial visit with her on the morning of 14 February 2002. Therefore, any change in her condition would have been directly measured from this point in time rather than from her post-operative condition on 12 February 2002. As mentioned previously, the only clinical change in her condition over that time was an increase in her heart rate. As documented by [Dr C] and in the [Private Hospital A] nursing notes, [Mrs A] was walking up and down the corridor on the afternoon of 15 February 2002, and this is not generally the picture of someone who is in acute strife with a perforation and peritonitis. In fact this would have been generally reassuring. Her signs and symptoms were consistent with a post-operative ileus and were interpreted as such initially by [Dr B] then [Dr C]. It is my considered view that it is only in retrospect that one can say these signs and symptoms were due to perforation and peritonitis.
17. The expert opinion was that it was more appropriate to undertake laparotomy on 15 February 2002. This opinion is given with the benefit of hindsight and has been interpreted by the Commissioner as a statement that laparotomy should have been undertaken. My interpretation of the expert's comment is that he is not so unequivocal.

18. The Commissioner has stated that if Dr [C] had performed laparotomy on 15 February 2002 then this may have avoided the marked deterioration that occurred in her condition over the subsequent 12 to 24 hours. I would dispute this. It is often the case that a patient remains very stable physiologically up until the time of surgery. However, at the time of surgery, with the surgical insult and the release of inflammatory mediators into the circulation, a deterioration occurs. The timing of that deterioration being during the surgical intervention. It is very likely that this would have happened on 15 February 2002 had surgery been undertaken at this time.
19. It is commented on page 16 that 'By the time Mrs [A] was admitted to [the Public] Hospital, she was confused and had evidence of multi-organ failure'. This is in fact not the case. When Mrs [A] was admitted to [the Public] Hospital she did not require intensive care monitoring prior to surgery. She was breathing on her own, had a good blood pressure although an elevated heart rate. She had mild renal impairment but was not in renal failure. She was awake and orientated. Post-operatively she required ventilatory support for 48 hours, however this was required so that she could undergo a subsequent operation the following day. She required inotrope support for her blood pressure for only six hours post-operatively and her renal function was returning to normal within six hours of surgery. So although it is true that she developed multi-organ impairment, i.e. required ventilatory and circulatory support post-operatively, this occurred after her surgery and it is likely it would have occurred on 15 February had she had surgery on that day. Also, it was only of short duration and along with her renal impairment, returned to normal very quickly. The degree of severity of her condition post-operatively has been overstated in the expert opinion and is not consistent with the documentation in the notes.

Conclusion

20. In making decisions on Mrs [A's] management, [Dr C] consulted with her surgeon [Dr B] by phone. [Dr C] was of the opinion on the afternoon of 15 February 2002 that there was a suspicion of perforation and peritonitis to the extent that he **recommended** she should undergo a laparoscopy. In endeavoring to obtain the patient's agreement to this course he had the disadvantage of a relationship with this patient that had only commenced postoperatively. It became more clear on the morning of 16 February 2002 that a laparotomy was essential. With the continuum of change from 12 to 16 February 2002, the Commissioner has decided that it was unacceptable to delay surgery from the day of the 15 February. I would suggest that [Dr C] made an appropriate decision in that although he had a suspicion of perforation on 15 February, it was not until 16 February that her condition was such that it was no longer acceptable for Mrs A to be managed conservatively.

21. I have the deepest sympathy for Mrs [A] and the surgery she has endured. It is understandable that with knowledge of the outcome it is said that surgery should have been carried out a day earlier. However, putting to one side the circumstances that are in dispute, the circumstances [Dr C] faced were that:
- 21.1 A definitive diagnosis had not been made.
- 21.2 Mrs [A] **according to [Dr C]** insisted she did not wish to undergo surgery. In Mr C's opinion she was competent to make that decision. The Glasgow coma scale at [a city] is consistent with the opinion she was competent.
- 21.3 Mrs [A] gave reasons for her refusal which were understandable, that is not of an illogical character that suggested she was not competent.
- 21.4 There had not been a significant deterioration over the time [Dr C] had assumed care from her surgeon."

Dr [C]

In response to my provisional opinion Dr [C] made the following points:

- Dr [C] had not met Mrs [A] previously, and did not have a pre-existing relationship
- Although tachycardia, fever, dehydration, abdominal distension, absence of bowel sounds on auscultation of the abdomen and abdominal tenderness, and a guarding on abdominal palpation are signs of perforation, Mrs [A] did not have a fever at any stage and did not develop a tachycardia or show signs of dehydration until late on the fourth postoperative day. Mrs [A's] rising pulse could equally have been attributed to dehydration secondary to protracted ileus or to heart failure or change in her atenolol medication
- Abdominal distension, absence of bowel sounds on auscultation of the abdomen and abdominal tenderness are also signs of an ileus
- Mrs [A] did not have abdominal guarding
- While the requirement for additional fluid could be indicative of dehydration it was also consistent with an ileus, as was persistent nausea and no passage of flatus rectally
- Mrs [A's] requirement for opiate analgesia had decreased substantially by 15 February
- The finding throughout of a distended abdomen is consistent with an ileus and with obesity
- The CT scan was not definitive
- The term multi-organ failure is a misnomer as there was no evidence of multi-organ failure and Mrs [A] was not transferred to Intensive Care Unit prior to surgery. Organ effects were caused by systemic inflammatory response syndrome at the time of the perforation
- Delay in treatment had 'little if any effect on the long term outcome'

- Dr [C] came to the conclusion on 15 February, following the CT scan, that a perforation was likely and that Mrs [A] required a laparotomy but was unable to convince Mrs A. Mrs [A's] confusional state was either minimal or intermittent
- Dr [C] had difficulty establishing contact with Mr [A] and Mr [A] did not request a second opinion.

Dr [C] stated:

“I am deeply sorry that Mrs [A] suffered a perforation and did not have surgery earlier. At all times I tried to do my best with the information available in light of the possible diagnoses. I extend my apologies to Mrs [A] and wish my notes reflected all the steps I took and considerations made.”

Independent advice to Commissioner following response to the provisional opinion

The following supplementary independent expert surgical advice was obtained from Dr Kenneth Menzies, general and colorectal surgeon:

“I have been requested to supply a supplementary report in relation to responses received by the Commissioner to his provisional opinion from Dr [C] and [the provider's expert].

This report is based on the following new material:

- Provisional report by the Health and Disability Commissioner (case 02-09815) dated 15 August 2003.
- A report from [the provider's expert].
- The copy of an e-mail from Dr C sent to the Commissioner via the Barrister, [...].
- A letter from [Mrs A] to the Health and Disability Commissioner, dated 12 September 2003.
- Record of conversation between the Investigator and Mrs [A], dated 6 October 2003, concerning Mrs [A's] previous surgery.
- Letter from [Private Hospital B], dated 1 October 2003 listing Mrs [A's] operations there.

- Letter from [Ms F], [Private Hospital A], dated 3 October 2003, listing Mrs [A's] operations there. Facts received from the [Private] Clinic on 6 October 2003.
- Dr [J's] (Colorectal Fellow) record of examination of Mrs [A] on admission to [the Public] Hospital on 16 February 2002 at 10:15 a.m.
- Operation record written by [Dr I] on 16 February 2002.
- Discharge summary from Mrs A's discharge from [the Public] Hospital on 13 March 2002 written by [Dr I].

I have been asked to comment on the following:

1. What is your view on the extent of the adhesions (eg, dense)?

Does a history of multiple previous intra-abdominal operations increase the risk of bowel perforations regardless of whether the operations are laparoscopic rather than laparotomies?

Mrs [A] had a Caesarean Section in 1998. In the following two years she had two miscarriages and two D & Cs. Following the second D & C Mrs [A] had severe pain and she was readmitted 48 hours later. A diagnostic laparotomy at that time confirmed the diagnosis of uterine perforation. As a consequence of the uterine perforation she developed endometriosis. This resulted in intermittent severe abdominal pain for which a number of laparoscopies were performed to free adhesions during the mid 1990s.

She had a second laparotomy for a bladder reconstruction in 1997 and an abdominal hysterectomy in February of 2000. At the time of her hysterectomy the Gynaecologist, [...] noted that there were dense adhesions within the pelvis.

There is documentation of a perforated uterus and of three laparotomies prior to 2002. It is probable therefore that Mrs [A] did have significant intra-abdominal adhesions particularly within the pelvis. I would conclude that the preceding history, as I have outlined it, would place Mrs [A] at a higher risk than average of sustaining an occult intestinal perforation during laparoscopic adhesiolysis.

2. Can you conclude that because the laparoscopic adhesiolysis operation took only one hour, the adhesions were not particularly complex or difficult to deal with?

Only the surgeon who performed the operation (ie Dr [B]) would know how complex or difficult the adhesions were to deal with. I would regard one hour as an average time for a laparoscopic adhesiolysis operation. An operation where only a few adhesions were divided would probably take no more than 30 minutes.

3. Was Mrs [A's] overall clinical picture consistent with a bowel perforation rather than a postoperative ileus?

The answer to this question is yes, for the following reasons: Pain is not a significant feature of post-operative paralytic ileus. Mrs [A] was requiring intra-muscular Pethidine in a dosage of 100 mg on a regular four hourly basis from 13 to 15 February 2002. This is significantly more narcotic analgesia than I would expect would be required following a laparoscopic operation. This requirement for regular Pethidine was more consistent with a diagnosis of bowel perforation. It is recorded that Mrs [A] complained of shoulder tip pain on the afternoon of 14 February. Shoulder tip pain is not uncommon during the first 24 hours following a laparoscopic operation, but it has usually resolved by day two.

Mrs [A] had an increasing white cell count post-operatively. On 14 February the white cell count was 21.0 with neutrophils being recorded at 19.3. The laboratory report identifies a marked neutrophilia with a left shift and in fact the laboratory questioned whether there was any evidence of infection or inflammation. A rising neutrophil leukocytosis is not a feature of post-operative ileus and again points to the probability of a bowel perforation.

There is definite documented evidence that Mrs [A's] urine output was poor during the post-operative period from 13 to 16 February. On several occasions she required additional intravenous fluids in order to try and maintain an adequate urine output. This feature of her clinical picture is again more consistent with a bowel perforation than a post-operative ileus.

4. The report of the CT scan performed on 15 February 2002 did not state that contrast leaked out of the bowel into the peritoneal cavity. Are the findings of a medium amount of free intraperitoneal gas and a moderate to large amount of free intra-abdominal and pelvic fluid features of a bowel perforation, despite the absence of any contrast leaking out of the bowel?

It would be very difficult to account for the CT findings on the basis of a diagnosis of post-operative paralytic ileus. The CT findings are certainly consistent with a diagnosis of bowel perforation. With such a large amount of free fluid within the peritoneal cavity the oral contrast material would tend to be diluted as it passed from the gut into the peritoneal cavity such that it would be difficult to identify. Another possibility is that the site of perforation had sealed over to some extent by the time the CT was performed. The body's natural defence mechanisms tend to attempt to seal over a site of perforation. Sealing off the perforation does not, however, alleviate the consequences of the underlying peritonitis.

5. If you take over a patient's care, are you responsible for knowing about their condition or progress before the time?

I would like to answer this question in the following way:

If a surgeon arranges for a colleague to take over the care of one of his or her patients during the post-operative period it is the responsibility of the operating surgeon to ensure that the colleague is well acquainted with the patient's condition and progress, when the handover occurs.

6. Can a distended abdomen as a result of a perforation be distinguished from obesity or an ileus by clinical examination?

Distension of the abdomen can occur as a result of peritonitis secondary to a bowel perforation and it can also occur during a post-operative paralytic ileus. There is no one feature which enables a precise diagnosis to be made. The surgeon has to weigh up multiple factors in order to reach a provisional diagnosis. I have mentioned some of these factors in answering question No. 3. One physical sign which may well be important is the presence of abdominal guarding. This was not a notable feature during the post-operative course with regard to Mrs [A]. However, as I attempted to explain in my original report, I believe that features such as abdominal guarding were masked by the regular injections of Pethidine (100 mg) that she was having.

7. Could the rising tachycardia have been due to relative dehydration secondary to a protracted ileus, or mild heart failure, or the impact of the change in Mrs [A's] medication rather than a perforated bowel?

The factors mentioned could have resulted in the development of a tachycardia. This again is just one of the factors in the overall clinical picture which needs to be considered in assessing a patient such as this during the post-operative period.

8. Comment of the GCS assessment in relation to a bowel perforation.

I don't feel that the Glasgow Coma Scale is particularly relevant in this case. The Glasgow Coma Scale was developed to provide clinical assessment of patients who have had a head injury. There is definite evidence from a review of the nursing notes that Mrs [A] was noted on several occasions and by different nurses to be confused.

9. Further issues

Are there any further issues that you consider are important?

In paragraph 11 of the report from [the provider's expert], she states 'In this respect it is an inevitable disadvantage in assuming the care of a colleague's surgical patient.' I agree with this comment of [the provider's expert]. It ought to be noted, however, that Dr [C] had met Mrs [A] on a previous occasion. He had a consultation with her on 11 January 2002. In paragraph 15 of her report, [the provider's expert] states 'The expert opinion from Mr Menzies states that a CT scan with contrast is a definitive

evaluation.’ My reports states ‘The only investigation, which may have given conclusive evidence at that stage of a bowel perforation, would have been an abdominal CT study with contrast.’

In paragraph 18 of her report, [the provider’s expert] implies that delay in her [Mrs A] having a second operation was not a factor in her deterioration but rather the deterioration was a result of the operation itself. In my opinion in a patient with peritonitis the earlier that surgical intervention occurs the better the outcome and the quicker is the recovery. It is unusual for a patient having a laparotomy for peritonitis to have their abdomen left open and to require transfer to the Intensive Care Unit. These factors imply that the peritonitis was very severe and that the patient’s clinical condition was quite poor.”

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

Right to Services of an Appropriate Standard

- 1) Every consumer has the right to have services provided with reasonable care and skill.*
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Opinion: No Breach – Dr B

Diagnosis of a perforated bowel and peritonitis

On 13 February 2002, the first day following her operation, Mrs A was seen by Dr B in the morning and at 5.45pm. Dr B noted that Mrs A’s abdomen was “rather tight and slightly tender” in the morning and still sore and distended in the afternoon. My expert advised that abdominal tenderness and guarding are classical signs of peritonitis.

Between 1.45am and 11pm on 13 February Mrs A received 100mgs of pethidine on six separate occasions. Mrs A said she had not previously required narcotic pain relief following a laparoscopy. My expert advised that the amount of pethidine Mrs A received was more than he would expect to be required during the first postoperative day following laparoscopic adhesiolysis.

My expert noted that while, in retrospect, there is no doubt that intestinal perforation and peritonitis existed on 13 February, the signs of peritonitis can be obscured when pethidine

is administered prior to a clinical examination. Differentiating between postoperative pain following a laparoscopic operation and the pain resulting from peritonitis can be difficult. The presence of free intra-peritoneal gas on abdominal X-ray immediately following abdominal surgery is not diagnostic of intestinal perforation.

Dr B was mindful of the possibility of an occult perforation of the bowel during the time he cared for Mrs A. Dr B obtained a baseline X-ray (as a baseline for Dr C when he took over care) and recorded that a further X-ray should be done the following morning if the pain had not eased. While there is inconsistent evidence about Dr B's verbal handover to Dr C, I am satisfied that the possibility of an occult perforation was discussed.

I am guided by my expert advice. Although in retrospect it is apparent that the bowel perforation and peritonitis existed on 13 February – and therefore, as Dr C submits, in retrospect, Dr B did not diagnose a bowel perforation on the same signs and symptoms – Dr B could not reasonably be expected to have diagnosed the perforation during this time, while Mrs A was under his care. In my opinion Dr B treated Mrs A with reasonable care and skill and did not breach the Code.

Opinion: Breach – Dr C

Previous history

On 11 January 2002, Mrs A consulted Dr C with abdominal pain resulting from an incomplete bowel obstruction. Mrs A had a long history of adhesions and bowel obstructions and had been a patient of Dr C's colleague, Dr B, for a number of years. I note my expert's advice that the extent and severity of the intra-abdominal adhesions affects the risk of bowel perforation.

My expert further advised:

“The risk is also accentuated when there have been multiple previous intra-abdominal operations. [Mrs A] had had at least five previous abdominal operations.”

In response to my provisional opinion Dr C's expert stated that previous laparoscopies and the one-hour duration of the laparoscopy in question indicated that the adhesions were not complex or difficult to deal with. Dr Menzies advised that Mrs A had had a perforated uterus and three laparotomies prior to 2002. The gynaecologist's report at the time of Mrs A's hysterectomy in 2000 identified dense adhesions within the pelvis. Dr Menzies considered that it is probable Mrs A had significant intra-abdominal adhesions, particularly within the pelvis and, given such a history, she was at a higher than average risk of suffering an occult perforation during the laparoscopic adhesiolysis. The average time for a laparoscopic adhesiolysis operation is one hour and a simple adhesiolysis with few adhesions would probably take no more than 30 minutes.

I conclude that Dr C knew Mrs A's surgical history prior to assuming responsibility for her postoperative care following laparoscopic adhesiolysis, and was therefore aware that she was at increased risk of bowel perforation. I accept Dr C's submission that he did not have Dr B's advantage of having known Mrs A professionally (and performed numerous procedures on her) and socially for many years.

Handover

Dr B transferred Mrs A's care to Dr C at 4am on 12 February. Later that morning Dr B rang Dr C from another country to discuss Mrs A's care. According to Dr C, they "spoke at length about Mrs A's operation and her post-operative course". Dr B told Dr C that he was concerned at Mrs A's slow recovery and they discussed the possibility of a perforated bowel. I am satisfied that the possible complication of a perforated bowel was discussed at this time.

Signs and symptoms

Dr C was responsible for Mrs A's care from 4am on 14 February until her transfer to the Public Hospital on the morning of 16 February. During this time Dr C visited Mrs A three times, on the mornings of 14 and 15 February and in the late afternoon on 15 February.

On the morning of 14 February Dr C said Mrs A complained of abdominal discomfort, distension, and nausea, and had still not passed flatus. She had Pethidine 100mgs on four separate occasions between 4.20am and 8pm. Her pulse rate was recorded in the medical notes as 92 bpm at 6.45am and she remained on oxygen. At 2.15pm nursing staff noted that she was light-headed. During the night her pulse rate rose to 102 bpm. The laboratory report for 14 February alerted Dr C to look for evidence of infection or inflammation.

On the morning of 15 February Mrs A was noted to be still in pain and her abdomen was distended. She continued to feel nauseated, for which she received anti-nausea medication at 4.30am and 2.10pm, and had pethidine 100mgs three times between 3am and 2.10pm. Mrs A had still not passed flatus and had no bowel sounds. Her pulse rate was 95 bpm. During the day her pulse rate rose to 98 bpm at 2.30pm and to 118 bpm at 6.30pm. Mrs A again had a low urinary output and Dr C ordered additional fluids on two occasions during the day. Nursing staff noted that Mrs A was confused and had trouble following instructions. The laboratory report for the blood test taken on the morning of 15 February (faxed from the laboratory at 12.25pm) reported a further increase in the signs of infection.

Dr Menzies advised that constant, generalised abdominal pain, vomiting and the failure to pass flatus are all symptoms of a bowel perforation. Tachycardia (fast pulse rate), fever, dehydration (noted by a decrease in urine output), abdominal distension, absence of bowel sounds and abdominal tenderness are signs of a bowel perforation. Additionally, confusion can be a result of well-established peritonitis. In relation to the presence or absence of some of the signs of bowel perforation, my expert advised that it is more important to consider the overall picture. My expert advised that in retrospect early indications of

perforated bowel were present from 13 February and that there was a “gradual evolution of symptoms and signs of perforation and peritonitis from the 13-15 February”.

In response to my provisional opinion, the provider’s expert and Dr C contended that Mrs A’s clinical picture was equally that of a person suffering a prolonged ileus. Dr Menzies advised me that Mrs A’s overall clinical picture was consistent with a bowel perforation rather than a postoperative ileus for the following reasons:

“Pain is not a significant feature of post-operative paralytic ileus. Mrs A was requiring intra-muscular Pethidine in a dosage of 100 mg on a regular four hourly basis from 13 to 15 February 2002. This is significantly more narcotic analgesia than I would expect would be required following a laparoscopic operation. This requirement for regular Pethidine was more consistent with a diagnosis of bowel perforation. It is recorded that Mrs A complained of shoulder tip pain on the afternoon of 14 February. Shoulder tip pain is not uncommon during the first 24 hours following a laparoscopic operation, but it has usually resolved by day two.

Mrs A had an increasing white cell count post-operatively. On 14 February the white cell count was 21.0 with neutrophils being recorded at 19.3. The laboratory report identifies a marked neutrophilia with a left shift and in fact the laboratory questioned whether there was any evidence of infection or inflammation. A rising neutrophil leukocytosis is not a feature of post-operative ileus and again points to the probability of a bowel perforation.

There is definite documented evidence that Mrs A’s urine output was poor during the post-operative period from 13 to 16 February. On several occasions she required additional intravenous fluids in order to try and maintain an adequate urine output. This feature of her clinical picture is again more consistent with a bowel perforation than a post-operative ileus.”

In relation to the absence of abdominal guarding, my expert commented that this was not unexpected given the significant amount of pethidine Mrs A had received. I note also that Mrs A had not previously had narcotic pain relief following a laparoscopy.

CT scan

By late morning on 15 February, Dr C was sufficiently concerned about Mrs A’s condition to telephone Dr B in another country and confer with him. Dr C considered bowel perforation to be a “distinct possibility” and following discussion with Dr B he ordered a CT scan specifically to exclude bowel perforation. Dr G, radiologist, was sufficiently concerned about the scan findings and the possibility of bowel perforation to discuss the findings “immediately” with Dr C. My expert advised that the results of the CT scan demonstrated strong evidence of the presence of bowel perforation. Dr C reviewed the CT report but considered it “inconclusive”.

In response to my provisional opinion, the provider's expert stated that there was no evidence of contrast having leaked from the bowel into the peritoneal cavity and such leakage would have provided conclusive evidence of perforation. My expert commented that lack of contrast in the peritoneal cavity is readily explained as either dilution of the contrast by the large amount of free fluid in the peritoneal cavity or sealing of the perforation site prior to the CT scan. My expert advised that the findings of the CT scan were consistent with a bowel perforation but would be difficult to explain on the basis of a diagnosis of postoperative ileus.

Dr C saw Mrs A again "later in the afternoon". According to the medical record, by 3.15pm Mrs A had a very distended abdomen, poor urinary output with concentrated urine, had still not passed flatus, had become slightly confused and had "trouble following instructions e.g getting out of bed". Pethidine 100mgs was given at 2.10pm and Panadol 1gm and Voltaren 75mgs were given between 2.15pm and 2.30pm. Dr C recorded in the medical record "few bowel sounds" and a little difficulty breathing. Nursing staff continued to record that no bowel sounds were heard.

I note my expert's statement that by 15 February Mrs A should have been improving but was instead exhibiting most of the signs and symptoms of a bowel perforation.

Dr C informed me that he instigated correct management including very close observation and frequent assessment. Dr C visited Mrs A on three occasions only (one of which he did not record) and did not adequately assess her continuing pain, deteriorating blood picture, decreased urinary output and CT scan results. In my opinion Dr C did not closely monitor or frequently assess Mrs A.

I note that Dr I diagnosed Mrs A with multi-organ failure on her admission to the Public Hospital on the morning of 16 February 2002 and that Mrs A went straight to the operating theatre. The provider's expert and Dr C stated that Mrs A's condition was not sufficiently serious to warrant intensive care. However, Dr I's diagnosis and Mrs A's immediate transfer to surgery support Mr A's statement that he was told his wife was indeed seriously ill.

I accept my expert advice that given Mrs A's clinical presentation Dr C should have performed a laparotomy on or before 15 February and that this may have avoided the marked deterioration that occurred in her condition over the subsequent 12 to 24 hours.

Clinical decision

Dr C stated that when he visited Mrs A later in the afternoon of 15 February he advised Mrs A to have a laparoscopy as the CT scan had increased his concern about bowel perforation.

Dr C considered Mrs A to be fully orientated and capable of lucid discussion when he discussed surgery with her but she refused to have further surgery. The nursing staff noted that Mrs A was confused. Ms E, the nurse caring for Mrs A, said that although she was not

present when Dr C visited Mrs A, he was aware that Mrs A was confused. Dr C did not document his discussion with Mrs A. His documentation noted that the CT scan was not conclusive and that he would continue conservative management and review in the morning.

Mr A said his wife was not orientated to time and place when he visited her approximately one hour later; she was so distressed and disorientated that even a lay person would not expect a rational reaction from her. My expert advised that the laparotomy findings on 16 February suggest Mrs A “would have been toxic (from peritonitis) on 15 February” and therefore it would not be surprising if she was confused.

Dr C recalled that he rang Mr A, reiterating his concerns and identifying the need for further surgery, and that Mr A expressed concern about Mrs A’s ability to make a decision about surgery. Dr C said he asked Mr A to check how his wife was and get back to him.

I am not persuaded that Dr C took sufficient steps to convince either Mrs or Mr A that Mrs A should undergo further surgery on 15 February. I am not persuaded by Dr C’s explanation that his lack of a pre-existing relationship with Mrs A was the reason she refused consent to surgery. I note my expert’s comment that Dr C did not indicate in the notes that he attempted to obtain consent from Mrs A or from her husband but did document his stated plan to continue conservative management and review in the morning. Further, I note that when Dr C was notified of further deterioration in Mrs A’s condition, at 4.35am on 16 February, he simply ordered further diuretics and continued conservative management. I have concluded that it was Dr C’s intent to continue conservative management and review Mrs A in the morning after seeing her late in the afternoon on 15 February.

I am persuaded by Mr A’s account of events following his visit to Mrs A on the evening of 15 February. I accept that Dr C did telephone and have a conversation with Mr A later that evening (after 9.30pm), but this was in response to Mr A’s concern about his wife and his request to Dr H that Dr C telephone him. Dr C had a clinical responsibility to make the decision about surgical intervention required and a further responsibility to strongly advise both Mrs and Mr A of his recommendation. As noted by my expert:

“Such a patient is not likely to refuse operation if it is carefully pointed out to them that there is a probability of bowel perforation and peritonitis and that delay in dealing with this by operation could result in serious consequences.”

Mrs A was obviously seriously ill by 15 February. I am concerned that while Dr C stated that he “came to the conclusion on 15 February, following the CT scan, that a perforation was likely and that Mrs A therefore required a laparotomy”, he did not act decisively.

My expert advised:

“... [I]n a patient with peritonitis the earlier that surgical intervention occurs the better the outcome and the quicker is the recovery. It is unusual for a patient having a laparotomy for peritonitis to have their abdomen left open and to require transfer to the Intensive Care Unit. These factors imply that the peritonitis was very severe and that the patient’s clinical condition was quite poor.”

Summary

Dr C had met and examined Mrs A a month prior to taking over her postoperative care. Dr B advised Dr C of Mrs A’s postoperative clinical condition on the morning of 14 February, and noted that he would have a low threshold to look for a bowel perforation. I have concluded that Dr C knew Mrs A’s extensive history of open abdominal surgery and adhesions. Dr C diagnosed Mrs A’s postoperative state as a prolonged ileus but, as noted by my expert, Mrs A’s clinical picture including blood and radiological investigations was consistent with a bowel perforation.

Dr C said that he advised Mrs A to have further surgery late on the afternoon of 15 February as he suspected a bowel perforation, but Mrs A refused. Dr C did not document his concerns or attempts at persuasion in the clinical record. Late in the afternoon of 15 February Dr C documented that the CT scan result was inconclusive and his intent was to continue conservative management with a review in the morning. Dr C did not visit and assess Mrs A again when notified of further deterioration in her condition at 4.35am on 16 February.

In my provisional opinion I concluded that Dr C did not diagnose a bowel perforation and peritonitis and did not respond appropriately by strongly recommending surgery on 15 February. In response, Dr C agreed with my expert that it was appropriate to undertake a laparotomy on 15 February but explained that he did not do so as Mrs A did not consent to further surgery. I find Dr C’s explanation, that he was unable to obtain Mrs A’s consent, unconvincing in the light of my expert’s advice that the extent of Mrs A’s peritonitis was very severe and her clinical condition poor. In my opinion, Dr C failed to meet the standard of reasonable care and skill expected of a surgeon caring for an ill patient after major surgery. A competent surgeon would have diagnosed a bowel perforation and peritonitis at an earlier point and convinced his patient of the need for further surgery. Dr C’s care was substandard and amounts to a breach of Right 4(1) of the Code.

Opinion : No vicarious liability – Private Hospital A

Employers are vicariously liable under section 72(2) of the Health and Disability Commissioner Act 1994 for ensuring that employees comply with the Code of Health and Disability Services Consumers' Rights. However, under section 72(5) an employing authority has a defence if it shows that it took such steps as were reasonably practicable to prevent an employee from breaching the Code. Private Hospital A had granted Dr C privileges to use its facilities but could not reasonably be expected to prevent the shortcomings in Dr C's clinical practice. Accordingly, in my opinion Private Hospital A is not vicariously liable for Dr C's breach of Right 4(1) of the Code.

Other Comment

Handover time

I note my expert's advice about Dr B's arrangements to hand over Mrs A's care to Dr C:

“One would have to question whether 4:00 a.m. is an appropriate time for a patient to be handed over from one specialist to another.”

Dr B expected Mrs A to stay in hospital for a night or two and recorded his intent to “maintain contact with her until everything had resolved”. He apparently made a contingency plan for Dr C to take over care if required. However, there were indications by 11pm on 13 February that Mrs A's postoperative course was not straightforward. I note my expert advice that pethidine 100mgs administered three to four hourly over the first postoperative day “seems rather more than I would expect during the first postoperative day following laparoscopic adhesiolysis”. This is particularly relevant in light of Mrs A's statement that she had not required narcotic analgesia following previous laparoscopies.

In these circumstances, I agree that 4am was not an optimal time for handover of patient care.

My expert further commented:

“If a surgeon arranges for a colleague to take over the care of one of his or her patients during the post-operative period it is the responsibility of the operating surgeon to ensure that the colleague is well acquainted with the patient's condition and progress, when the handover occurs.”

Dr C had seen Mrs A previously. Dr B stated that Dr C took over Mrs A's care “as arranged”. Further, Dr B informed me that he telephoned Dr C from another country the morning he assumed care of Mrs A and discussed her care. In relation to Dr C's knowledge of Mrs A's condition and progress, I am satisfied that while the time of

handover was less than optimal, Dr B ensured that Dr C had the information he required to care for Mrs A.

Record keeping

I bring Dr C's attention to the New Zealand Medical Council's professional record keeping standard, which requires that medical practitioners "keep clear, accurate, and contemporaneous patient records which report the relevant clinical findings, the decisions made, the information given to patients and any drugs or other treatment prescribed".²

I note that the records provided by Dr C are incomplete. They give no indication that he visited and examined Mrs A on 14 February and no indication that he discussed his concerns with her on the afternoon of 15 February. Additionally, the timing of his visits to Mrs A is not indicated. Proper documentation would have assisted my investigation and provided support for Dr C's account of events.

Actions

- A copy of this opinion has been sent to the Medical Council of New Zealand with a recommendation that the Council consider whether a review of Dr C's competence is warranted.
 - A copy of this opinion, with all identifying details removed, will be forwarded to the Royal Australasian College of Surgeons, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.
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² *Good Medical Practice: A Guide for Doctors* (Medical Council of New Zealand, 2000).

Appendix 1 – Mrs A’s CT Scan Results

MRS [A] DoB: [...]
Age: [...]
NHI: [...]

Examination at: [Private Hospital B Radiology]

Visit:

Referred By: [Dr C]

CT ABDOMEN AND PELVIS: 15 Feb 2002

CLINICAL INDICATION: Laparoscopic adhesiolysis two days ago. Pain, distention and reduced urine output since. Assess for perforation or collection.

TECHNIQUE: Spiral scans have been performed through the abdomen and pelvis following oral and intravenous contrast (100ml Iopamiro 300).

FINDINGS: No abnormality seen in the liver, spleen, kidneys, pancreas or adrenals. There is a medium amount of free intraperitoneal gas, predominantly located in the subphrenic regions and anteriorly in the upper abdomen.

There is a moderate to large amount of free intra-abdominal fluid.

This is seen surrounding the right and left lobes of liver and extending along the undersurface of the left lobe of liver adjacent to the stomach. There is free fluid within small bowel mesentery and in both paracolic gutters. There is a moderate amount of free fluid in the pelvis along with a small amount of free gas anteriorly.

Small bowel loops are mildly dilated, particularly in the upper and mid abdomen.

Gas and faecal material are seen within non distended right colon and relatively collapsed transverse and descending colon.

No focal enhancing collection is seen.

Patchy collapse consolidation is noted at both lung bases along with moderate sized pleural effusions.

SUMMARY:

1. Medium amount of free intraperitoneal gas. Clinical correlation is recommended to ascertain whether or not this is more than would be expected two days post operatively.
2. Moderate to large amount of free intra-abdominal and pelvic fluid. This is more than would be expected post operatively and raises the possibility of bowel perforation.
3. Basal collapse consolidation and pleural effusions.
4. Findings discussed with Mr C by Dr G immediately following the scan.

Dr [...]