

SOUTH



AUSTRALIA

FINDING OF INQUEST

An Inquest taken on behalf of our Sovereign Lady the Queen at Naracoorte and Adelaide in the State of South Australia, on the 2nd, 3rd, 4th and 9th days of May, and 21st day of July, 2000, before Wayne Cromwell Chivell, a Coroner for the said State, concerning the death of Julie Ann Howieson.

I, the said Coroner, do find that Julie Ann Howieson, aged 43 years, late of Naracoorte, died at the Royal Adelaide Hospital on the 3rd day of June, 1998 as a result of sepsis secondary to extensive acute peritonitis following perforation of small bowel wall.

1. **Background**

- 1.1 Julie Ann Howieson was married with two children. She lived with her family in Naracoorte in the South-East of South Australia. She was a large woman, weighing 123kgs.
- 1.2 Mrs. Howieson first consulted Dr. Richard Henshaw, a specialist obstetrician and gynaecologist practising in the South-East, in 1997 about an unrelated matter. She came back to see him about that matter on 28 April 1998, and took the opportunity to request tubal ligation at that time.
- 1.3 Dr. Henshaw said that he discussed the operation in detail with Mrs. Howieson, and gave her a pamphlet issued by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, which explained the issues.
- 1.4 Mrs. Howieson had a history of abdominal surgery. She had undergone a laparotomy for gastric surgery, another laparotomy for gastric bypass (stapling), and a caesarean section (T.193). She was a heavy smoker, smoking 40 cigarettes a day.

- 1.5 Dr. Michael Cooper, a specialist gynaecologist practising in Sydney, and a leading expert in the field of laparoscopic gynaecological surgery, told me that, with Mrs. Howieson's history:-

“Yes, I think given the story that I have read, I think Mrs. Howieson would have to be regarded as somebody at high risk for the development of bowel adhesions to the anterior abdominal wall and therefore at high risk for the possibility of perforation in the setting of a laparoscopic procedure. At her age of 43 she was really, as I have indicated, nearing the end of her likelihood of spontaneous conception and therefore it may have been possible to offer alternative types of contraception. She was a smoker and therefore probably hormonal manipulation by utilising the pill is probably not appropriate. But it may have been possible to use something as simple as an IUCD for perhaps one or two years and I would imagine by the age of 45 her chances of spontaneous conception would be extremely low indeed”. (T.228).

- 1.6 Dr. Cooper said that there was a risk of bowel damage no matter which method of operation (laparoscopic or open) was chosen. He said:-

“My suspicion is that the underlying problem here was that the bowel was stuck to the abdominal wall and that was the cause of the problem. Therefore no matter how you entered the abdomen, if you were to enter anywhere near those adhesions, you were likely to damage the bowel”. (T.230).

- 1.7 It is not for me to enter into the issue of whether Dr. Henshaw obtained Mrs. Howieson's “informed consent” to undergo the operation (see Rogers v. Wittaker (1992) 67 ALJR 47). To do so may transgress Section 26(3) of the Coroners Act. I will proceed on the basis of Dr. Henshaw's evidence that alternative methods of contraception were discussed, and that Mrs. Howieson insisted on the procedure (T.218). He said that Mrs. Howieson's previous surgery produced a “slightly increased risk” of bowel damage (T.219).

2. **The operation**

- 2.1 Dr. Henshaw performed a laparoscopic tubal ligation on 26 May 1998 at Naracoorte Hospital. I have described laparoscopic gynaecological surgery in detail in previous inquests (see Sowik, Inquest. No. 14/98). In summary, a long needle called a Veress needle is inserted into the abdominal cavity through a small incision just below the umbilicus. Carbon dioxide is then pumped through the needle in order to inflate the cavity and provide a space in which to operate. The Veress needle is then withdrawn, and a trocar (a pointed instrument within a cylindrical tube called a cannula) is then inserted. The trocar is then withdrawn, leaving the cannula in place and the

laparoscope, a fibre-optic instrument, is then inserted through the cannula into the abdominal cavity. Another, lower incision is made and a further trocar and cannula are inserted, through which instruments are passed to perform the tubal ligation. The tubes are usually ligated by the application of Filshie clips.

- 2.2 The operation lasted from 10.45a.m. to 11.05a.m., and was described by the anaesthetist, Dr. C. Collin, as “straightforward” (Exhibit C.4a, p2), and by Dr. Henshaw as “entirely routine” (Exhibit C.34, p2).

3. **Post-operative progress**

- 3.1 Mrs. Howieson was discharged from the Naracoorte Hospital on the afternoon of 26 May 1998. She returned to the Accident and Emergency Department at around 1.00a.m. the next morning, complaining of abdominal pain and tenderness. Registered Nurse Robyn Huddleston, who saw her then, said:-

“She was unable to stand straight without experiencing pain, rates the pain at present as 6 out of 10. Has been 10 out of 10 during the evening”. (Exhibit C.7a, p2).

Ms. Huddleston telephoned Dr. Dixon, a local general practitioner, and then gave Mrs. Howieson Panadeine Forte for her pain, and Phenergan to help prevent further vomiting.

- 3.2 During the evening of 27 May 1998, Mrs. Howieson telephoned Dr. Collin, and told him that the pain had still not settled. Analgesia did not help, so he arranged to see her at the hospital.

- 3.3 At about 8.30p.m., Dr. Collin noted Mrs. Howieson’s complaints of abdominal pain, an area of “dullish redness” below and to the right of the umbilicus, a slightly distended abdomen, and some air in the tissues of the abdominal wall. He admitted her to hospital and administered intravenous morphine. After a telephone consultation with Dr. Henshaw, the plan was to admit her and observe her progress overnight (Exhibit C.4a, p3).

- 3.4 Dr. Cooper told me that he would have been very concerned at that stage that Mrs. Howieson may have suffered a bowel perforation. He said:-

“I mean I think that anybody who requires a narcotic injection after a laparoscopic procedure like this, there’s either really one of two things going on. One is that they

(had) some significant intra abdominal event or two, that they have an extremely poor capacity to deal with discomfort. I think - yes, if she turned back up to hospital within the first 24 hours and then needed to come back again then I think that would indicate there was a problem". (T.259).

4. **Transfer to Mount Gambier**

- 4.1 The situation became more serious next morning (Thursday 28 May 1998), by which time Mrs. Howieson had developed a raised temperature (37.5°), tachycardia (a raised pulse rate - 102), and her oxygenation had slipped from 96% to 91%. She had required morphine and oxygen therapy throughout the night. Dr. Collin attended at 8.30a.m., and transferred Mrs. Howieson to Mount Gambier Hospital. He said that the differential diagnoses included wound infection, lung infection, pulmonary embolism, and perforated bowel (Exhibit C.4a, p3).
- 4.2 By this time almost 48 hours had elapsed since the operation. By the time Dr. Henshaw saw Mrs. Howieson in Mount Gambier, she was even more obviously unwell. Her temperature had increased to 38°, her tachycardia had increased to 107, her breathing rate had increased to 28, she had pain on both sides of the abdomen and extending to the right shoulder tip, and her bowel sounds were diminished (see the statement of Registered Nurse Underwood, Exhibit C.11a, p2-3). Dr. Henshaw acknowledged that her condition was "significantly worrying" at that point (T.222).
- 4.3 Dr. Henshaw saw Mrs. Howieson again at 2.15p.m. His findings were similar to those of R.N. Underwood, except that he found bowel sounds to be present. He thought that she had developed an infected wound haematoma (T.204). He requested an ultrasound scan, but because there was gas in the abdominal cavity, this was unhelpful. A CT scan was performed instead. The radiologist reported that the presence of gas in the abdomen was compatible with the previous laparoscopic surgery, and that "perforation of the bowel would be less likely on these appearances" (the report is in the Medical Record, Exhibit C.27). In retrospect, Dr. Henshaw agreed that this was a "bold statement" by the radiologist, who did not have any knowledge of the clinical picture (T.206). The CT scan also noted the presence of some inflammatory consolidation and collapse in the right lung with "accompanying small pleural effusion".
- 4.4 Having seen the results of the CT scan at 5.10p.m., Dr. Henshaw made a note in the Medical Record that Mrs. Howieson had "surgical emphysema" (T.208). This

condition is not unusual after laparoscopic surgery, and develops when the carbon dioxide gas pumped into the abdominal cavity escapes into the soft tissues around the abdominal wall.

- 4.5 Dr. Cooper was critical of this diagnosis, saying that the clinical signs Mrs. Howieson were displaying at that stage were “overwhelmingly more important” (T.239). He said that by this stage, Mrs. Howieson was displaying signs of systemic illness (fever, tachycardia, tachypnoea, pain and generalised tenderness), and these signs should not have been present 48 hours after the operation. He said:-

“So my thinking would be that if one was concerned that a bowel perforation had occurred, if there wasn’t very rapid resolution of the critical symptoms you’d have to think that probably had occurred and then one would need to make steps to completely exclude that and the only way unfortunately to do that is to do a repeat operation and possibly a laparotomy”.(T.237).

- 4.6 From this time onwards, Mrs. Howieson’s condition fluctuated considerably. By Friday 28 May 1998 her condition had improved. Her temperature had dropped, her pain had eased, to the extent that morphine was discontinued and replaced with Capadex, she was able to mobilise by herself and shower independently (T.210). Dr. Henshaw was convinced that she did not have peritonitis. He said:-

“People with ... peritonitis do not get up, eat and drink, and go to the shower etc. ... I really do not believe in my heart of hearts that Mrs. Howieson had peritonitis at that stage”. (T.221-2).

- 4.7 Dr. Cooper disagreed. He said that this fluctuating course is common, and does not exclude peritonitis. He said:-

“The cases that I have been involved in or have heard about or spoken to people about are not dissimilar to this where initially there’s quite significant pain that appears to be out of proportion to what would be expected for the procedure. Classically what then happens is that the omentum or the fatty covering of the bowel will go to wherever the perforation has been and will (wall) off and localise that problem to a small area. At that point the patient’s condition may well improve. Then depending on the size of the leak and how big the hole is and what has happened, that may resolve spontaneously, if it’s been a small hole, or if it’s been a larger hole then there will be continuing infection, abscess formation and ultimately that abscess will break down and then complete peritonitis will set in with ileus and clinical deterioration. The signs of necrotising fasciitis are rare as well but again that would point to a substantial infection or source of infection; it’s not just a simple skin contaminant and there’s more likely to be an anaerobic bug from the bowel that is causing the infection through the abdominal wall.

So I think what has happened here is not what I would have thought would be dissimilar to lots of similar situations”. (T.236).

- 4.8 Dr Cooper acknowledged that it is “easy in retrospect” (T240), and that he could understand why Dr Henshaw took the conservative approach. However, he said that the modern thinking is the other way - the cautious approach is to operate. He said:-

“The general feeling is that if you think there is a bowel perforation with laparoscopy, then pretty much as soon as you have made that thought, then you are committed to going back to theatre”.(T.241).

5. **Handover to Dr. Barry**

- 5.1 Dr. Henshaw was travelling to Adelaide to do some work at the Queen Elizabeth Hospital, so he asked his specialist colleague, Dr. C.L. Barry, to care for Mrs. Howieson in his absence. There was a formal handover at noon on Friday 29 May 1998, at which Mrs. Howieson seemed “relatively well” (Exhibit C.33, p3). Indeed, Mrs. Howieson’s condition had improved to the extent that she was transferred out of the High Dependency Unit to the “Gynae Ward”.
- 5.2 On Saturday 30 May 1998, Mrs. Howieson’s condition deteriorated again. Her pain increased, she became breathless and nauseous. Her antibiotics were monitored, and intravenous antibiotics were considered. Dr. Barry thought her condition was more in keeping with a worsening chest infection, and did not think that she had developed peritonitis (T.116).
- 5.3 In the afternoon of 30 May 1998, Mrs. Howieson became even worse, her pulse and temperature increased again, her oxygenation decreased, to the extent that her fingers went blue (cyanosis), and the area of redness on her abdomen increased in size and the skin became “tight”. Dr. Barry thought that there was still no “good signs” of peritonitis (T.118). He instituted intravenous antibiotics and oxygen therapy.
- 5.4 Later that afternoon, Mrs. Howieson’s condition improved again. There was concern that her urine output had decreased, but this improved when a catheter was inserted and intravenous fluids were administered (T.121).
- 5.5 On Sunday 31 May 1998 Mrs. Howieson deteriorated again, and Dr. Barry called in Dr. Paul Goodman, an anaesthetist, for advice. Dr. Goodman thought that she was developing pneumonia, and he suggested that she be returned to the High Dependency

Unit, that her fluids be increased, and further investigation of her oxygenation status be undertaken (Exhibit C.15a, p1).

- 5.6 After admission to the High Dependency Unit, Mrs. Howieson improved again. Dr. Barry discussed her case with an Intensivist at the Flinders Medical Centre, and was fortified in the belief that they were “catching up” with her condition, and that conservative management remained appropriate (T.128).
- 5.7 At about 10.30p.m. that night (31 May 1998), an extraordinary thing happened. Mrs. Howieson coughed, and a small amount of bowel contents were expelled from the umbilical wound. Dr. Barry was called immediately (he was elsewhere in the hospital), and he attended. He noted that Mrs. Howieson felt much more comfortable after this occurred (T.135). He directed that a colostomy bag be placed around the wound site. It was Dr. Barry’s opinion that Mrs. Howieson had developed a “fistula”, a tunnel or passage from the bowel, through the abdominal wall and along the laparoscopic wound track to the skin surface. He did not think that Mrs. Howieson was expelling bowel contents into her abdominal cavity (T.134, 181). He thought that Mrs. Howieson was not at risk that night, so he arranged for her to be reviewed by the surgeon next day.
- 5.8 Dr. Cooper agreed that Dr. Barry’s approach at this stage was reasonable. He said:-

“I suppose the difficulty is that she has a background of several days of becoming increasingly unwell with dehydration. One would assume generalised peritonitis has now - localised and therefore if she was to return to theatre immediately with perhaps inadequate surgical expertise and inadequate post-operative capacity, that is in terms of being able to ventilate her and possibly requiring an intensive care unit, she may have developed overwhelming sepsis which is unable to be treated at the particular location she was at. So I think from my assessment of what happened that was a reasonable thing to do”. (T.244).

6. **Evacuation to Adelaide**

- 6.1 Mrs. Howieson was reviewed by Dr. Goodman at 7.30a.m. on Monday 1 June 1998. In view of her weight and her chest condition, he considered that she would be a poor anaesthetic risk at Mount Gambier, and recommended transfer to Adelaide if surgery was indicated (Exhibit C.15a, p2).
- 6.2 Mr. Strickland, the surgeon, saw Mrs. Howieson at 9.00a.m., and thought that she had developed intra-abdominal sepsis. He concluded that a laparotomy was indicated, and

so arrangements were made to transfer her to Adelaide. This occurred at 3.00p.m. that afternoon, by air ambulance.

7. **Progress at the Royal Adelaide Hospital**

7.1 The progress of Mrs. Howieson's illness after transfer to the Royal Adelaide Hospital can best be summarised by quoting from the report of the pathologist, Dr. Andrzej Ruskiewicz, as follows:-

“The deceased was a 43 year old female retrieved from Mt Gambier Hospital to Royal Adelaide Hospital on 1.6.98 (admission time 1747 hours). On admission to Royal Adelaide Hospital, she had symptoms of acute peritonitis but was haemodynamically stable. There was small bowel content leaking out of her umbilical wound and erythema of the skin in the region of the anterior abdominal wall.

...

After admission to the Royal Adelaide Hospital, an emergency laparotomy was performed which revealed a 4mm hole in the mid portion of the small bowel with associated massive contamination of the peritoneal cavity with small bowel content and pus. In addition, widespread necrotising fasciitis of the anterior abdominal wall was diagnosed. Fibrous adhesions related to past surgeries were present within the abdominal cavity.

On 2.6.98 further surgery was performed which consisted of extensive debridement of the abdominal skin and fascia.

On 3.6.98 the patient had a laparotomy with peritoneal lavage and further debridement of necrotic fascia and muscle tissue of the anterior abdominal wall.

Despite active management including hyperbaric treatment the patient developed cardiac arrest and could not be revived.

Death was pronounced at 1930 hours on 3.6.98”. (Exhibit C.2a, p1).

8. **Cause of death**

8.1 Dr. Ruskiewicz's examination of the gastro-intestinal system revealed:-

“The mid portion of the small bowel showed an area of serosal tissue disruption approximately 5mm in greatest dimension which was sutured. This lesion was situated in the superficial small bowel loop located in the lower left upper abdominal quadrant just beneath the abdominal wall. The position of this lesion corresponded to the sutured incision in the overlying fascial layer present in the lower left upper abdominal quadrant

...

Proximally to this lesion, the small bowel wall showed two separate areas measuring less than 5mm with surgical sutures. These lesions were present 2 and 4cm proximally from the lesion with serosal disruption, however the presence of extensive inflammatory exudate and formation of recent adhesions precluded precise assessment of the continuity of the bowel wall structure.

The small bowel and large bowel serosal surfaces were extensively covered by yellow/white inflammatory exudate with the formation of early adhesions between intestinal loops. Inflammatory exudate was also seen on the inner aspect of the abdominal wall and the diaphragm”. (Exhibit C.2, p4).

8.2 Dr. Ruszkiewicz commented:-

- “1. The autopsy examination revealed extensive acute inflammation of the serosal lining of intra-abdominal organs and abdominal wall (acute peritonitis) and acute necrotising inflammation of the anterior abdominal wall.
2. The lesions in the superficial small bowel loop in the left upper abdominal cavity area were consistent with no less than one small bowel full thickness injury which were surgically repaired (sutured).
3. Injuries to the small bowel with subsequent leakage of bowel contents into the peritoneal cavity are recognised causes of acute peritonitis and may lead to necrotising inflammation involving abdominal wall (necrotising fasciitis).

In the presence of extensive inflammation (peritonitis) precise identification of bowel wall injury, such as a small puncture may not be possible particularly in the case where a surgical repair had been performed.
4. The autopsy revealed no natural disease process which might have directly contributed to death.
5.”. (Exhibit C.2a, p6-7).

8.3 Dr. Ruszkiewicz diagnosed the cause of death as “sepsis secondary to extensive acute peritonitis (following) perforation of small bowel wall” (Exhibit C.2a, p7). I accept Dr. Ruszkiewicz’s conclusions, and find that the cause of Mrs. Howieson’s death was in accordance with his diagnosis.

9. **Treatment given to Mrs. Howieson**

- 9.1 I have already discussed, in section 1 of these findings, the process by which Dr. Henshaw decided to operate on Mrs. Howieson, and the risks associated with the operation. I make no further comment about that.
- 9.2 What is now clear is that during the laparoscopic surgery, Mrs. Howieson's bowel was perforated, and bowel contents leaked into her abdominal cavity causing peritonitis, necrotising fasciitis and her eventual death.
- 9.3 Dr. Cooper said that such instances are rare, occurring between 0.3 and 5.0 per 1,000 cases (T.236). Taking that factor into account, the question is whether the fact of a bowel perforation having occurred should have been recognised earlier and remedial action taken.
- 9.4 Dr. Cooper said that it would have been appropriate for Dr. Henshaw to examine the bowel at the conclusion of the operation and check for damage. He said that this can be done by removing the lower, 7mm trocar port, replacing it with a 10mm port under vision through the laparoscope, and then inserting the laparoscope through the lower port and looking back up towards the umbilicus for damage. He said that this can be done without substantial risk to the patient (T.233). Dr. Henshaw said that he would not routinely undertake this manoeuvre "unless there was some specific indication to do so" (Exhibit C.34a, p2). In light of the experience in this case, he may consider changing his routine in this way, particularly when the patient is at high risk due to abdominal adhesions.
- 9.5 Once the operation was completed, the question of when Mrs. Howieson's peritonitis should have been recognised becomes problematic. Dr. Cooper said that, although it is never easy, peritonitis should have been recognised by either Thursday 28 or Friday 29 May 1998. He said:-

"I think this is a very difficult question to answer because there is no - as I indicated in my report there is no definitive test to confirm or not as to whether there has been bowel damage. The clinical cause of many people who've had a bowel injury is not dissimilar to what has happened here in that there appears to be a somewhat fluctuant course with episodes of deterioration and then apparent improvement. I would be concerned in that someone who was at high risk of a bowel injury, who then developed what appeared to be an infection outside what would be the norm, that bowel infection wasn't thought of as a distinct possibility or probability". (T.235).

9.6 As I said earlier, Dr. Henshaw still does not believe that Mrs. Howieson had peritonitis until quite late in the piece. He said:-

“I think that what happened, with the benefit of hindsight, is that clearly there was a bowel perforation occurred with the Veress needle at the time of the original laparoscopic procedure. I think that she then got a fistula from her small bowel into her anterior abdominal wall. I don’t believe that any small bowel contents had leaked into her peritoneal cavity at that stage. I think that explains the gas in the lower anterior - on the lower right side of the abdominal wall. I don’t think that was surgical emphysema at all. I think that was small bowel gas, and if there is small bowel contents leaking into the umbilical wound, it is going to get infected. It is going to become red and tender. So I honestly think that that is the case, and then - and that explains why she got necrotising fasciitis as well, because she had bowel contents in her anterior abdominal wall, which set off the necrotising fasciitis. So when she was transferred from Naracoorte to Mount Gambier Hospital, I don’t believe she had peritonitis. I believe she had, with the benefit of hindsight, and thinking about this at very great length for long periods of time, I believe the explanation that fits in with all her symptoms, and all her signs, is a small bowel fistula from a Veress needle perforation.

...

I think the fistula broke down, I forget how much later it was, but when pus started coming out of the anterior abdominal wall.

...

Well it is the only way I can fit together all the symptoms and signs and physical findings, and that would explain why she responded to the IV antibiotics to start with, because the temperature is clearly due to the wound infection. You give the IV antibiotics, the infective process goes away, so her temperature falls, but she has still got small bowel contents leaking into her anterior abdominal wall. That has not been fixed, so therefore later ... She is re-infecting herself, yes. It is the most logical explanation”. (T.223-224).

9.7 Dr. Cooper does not accept Dr. Henshaw’s theory. He does not agree that the Veress needle caused the damage. He said:-

“A. I don’t think the Veress needle was the cause of the injury or it may have been a contributor but it certainly wasn’t a major problem in that the post mortem report ultimately describes a hole of between 4mm to 5mm and that could only be done by a trocar and not by a Veress needle. The post mortem report and the surgery when she has the bowel repaired indicate that there was fibrous adhesions in the bowel to the abdominal wall and my assumption is that at the time of placement of the umbilical trocar that’s when the damage occurred. The autopsy, and I think the original surgery, or the secondary surgery also show widespread peritonitis, and I suppose my assumption is that there was damage by the trocar, widespread peritonitis developed and then the area was localised probably by the omentum in the region of the umbilicus, an abscess developed at that area with ongoing faecal material spilling into that area and then ultimately it tracked along - that fluid and gas tracked backwards along the path that had been taken by the trocar to enter the abdominal cavity and infection developed in those fascial planes until ultimately the abscess reached a point

where it sort of pointed and then burst out through that area. That would be my assessment as to how the injuries occurred.

Q. Quite clearly that's your assessment as well, that doesn't change in any way your opinion that surgery or a laparotomy should have taken place essentially within that first 24 hours with those initial signs when Mrs. Howieson came back to the hospital.

A. Yes, very difficult, because the signs that we are talking about are subjective not objective, and it's with that in mind as to whether you might proceed or not and it's very difficult to say, but I think it would have been my preference to return to theatre rather than not". (T.244-245).

9.8 I prefer Dr. Cooper's evidence on this topic to Dr. Henshaw's evidence. Dr. Cooper has wider experience in laparoscopic surgery, and is at the forefront of research and development in the sub-specialty. This wider experience, and greater contact with other specialists in the field, enabled him to explain the fluctuations in Mrs. Howieson's condition when Dr. Henshaw (and Dr. Barry) could not.

10. **Recommendations**

10.1 Dr. Cooper told me that the issue of complications from laparoscopic surgery, particularly damage to the bowel or to the major blood vessels, had been the subject of anxious consideration over the last few years in his profession. The entire January edition of the journal of the Australian Gynaecological Endoscopy Society is devoted to the subject (T.246).

10.2 A consensus document was developed by an international group of laparoscopists in 1999 in the United Kingdom, and appears in Gynaecological Endoscopy 1999 8, 403-406. That consensus statement includes the following:-

“5.2 Attempts should be made to identify adherence of bowel to the anterior abdominal wall prior to insertion of trocars. A history of prior laparotomy, particularly with a midline scar, or previous peritonitis and inflammatory bowel disease are associated with a significant increase in the risk of bowel damage.

5.3 If such adhesions are suspected, an alternative entry site should be selected ...

...

8.3 Patients and their doctors should expect a progressive and maintained improvement after laparoscopic surgery. Increasing pain or vomiting is not usual after this type of procedure, and either occurrence should alert the patient and doctor to the real risk of complications. Increasing pain should be assumed to be a consequence of bowel damage until proven otherwise. It is essential that all concerned maintain a very high index of suspicion about these rare but potentially very serious complications". (p.404-5).

10.3 I therefore recommend, pursuant to Section 25(2) of the Coroners Act, that gynaecologists using laparoscopic surgery should be reminded that:-

- there is a small but appreciable risk of damage to bowel and/or major blood vessels associated with the technique;
- patients who have undergone previous abdominal surgery are at significantly increased risk of such damage;
- surgeons should give close consideration to the suitability of such patients for laparoscopic surgery, and if considered suitable, the selection of alternative entry sites to the abdominal cavity should be considered;
- any unusual symptomatology after the operation should give rise to a “very high index of suspicion” that bowel or blood vessel damage may have occurred and that a laparotomy may be indicated;
- the need for early intervention in such cases should be borne in mind.

Key Words: laparoscopic surgery; medical practitioners; hospital treatment; peritonitis

In witness whereof the said Coroner has hereunto set and subscribed his hand and

Seal the 21st day of July, 2000.

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Coroner