LOCAL COURT of NEW SOUTH WALES

Coronial Jurisdiction

Inquest:	**Inquest into the death of Ian Donald PATIENCE**
Hearing dates:	30 August – 2 September 2010
Date of findings:	22 December 2010
Place of findings:	State Coroner's Court, Glebe
Findings of:	Deputy State Coroner H.C.B. Dillon
Findings:	I find that Ian Donald Patience died on 10 June 2007 at the Bankstown Hospital, New South Wales as a result of complications following colon surgery on a background of cirrhosis of the liver.
Recommendations:	***To the Minister for Health and the Royal Australasian College of Surgeons*** 1. I recommend to the Royal Australasian College of Surgeons and the NSW Minister for Health that they require that a copy of any operation notes made by a surgeon be placed in the relevant hospital records as soon as practicable following the operation. ***To the Gastroenterological Society of Australia, the Australian and New Zealand Hepatic, Pancreatic and Biliary Association and the Royal Australasian College of Surgeons*** 2. I recommend that the Gastroenterological Society of Australia and the Australian and New Zealand Hepatic, Pancreatic and Biliary Association, in conjunction with the Royal Australasian College of Surgeons, formulate guidelines for the assessment and management of cirrhotic

patients undergoing surgery.

3. In formulating such guidelines, I further recommend that the Gastroenterological Society of Australia, the Australian and New Zealand Hepatic, Pancreatic and Biliary Association and the Royal Australasian College of Surgeons undertake or sponsor a study of the questions of where medium- and high-risk surgery on cirrhotic patients is best undertaken and of what facilities ought be available for post-operative care if the patient is classified in the Child-Pugh A, B or C category.

4. I recommend that any such general guidelines developed by the Gastroenterological Society of Australia, the Australian and New Zealand Hepatic, Pancreatic and Biliary Association and the Royal Australasian College of Surgeons address at least the following issues:

- Is the Child-Pugh system of pre-operative assessment of risk for cirrhotic surgical patients the optimal form of assessment or ought another be substituted or used in conjunction?

- If a cirrhotic patient previously assessed as being in the Child-Pugh A category suffers post-operative liver failure or decompensation, ought he or she be reclassified and his or her post-operative management be altered accordingly?

- Where should medium- and high-risk operations (as defined by the Royal Australasian College of Surgeons or other authoritative source(s)) on cirrhotic patients be performed? In particular, is it advisable that they be performed in high-volume hospitals with gastrointestinal review and back-up available?

- In determining the answer to that question, what facilities for post-operative care ought be available for patients assessed pre-operatively as being the Child-Pugh A, B or C categories ?

- If a cirrhotic patient is operated on in a hospital without specialist gastroenterological review and care available, when should such a patient be transferred to a hospital where such facilities are available?

- What is the appropriate fluid balance regime for management of post-operative ascites in cirrhotic patients? In particular, should saline be restricted? Should drainage be restricted? Should albumin be administered and, if so, when?

- Following an operation, what clinically significant

signs of possible liver failure or decompensation must practitioners be vigilant to look for ? Signs of possible infection? Mental deterioration?

- At what point, if any, should the patient be reviewed by a gastroenterologist or physician following an operation? Within 48-72 hours? Only when the clinical need arises?

- Ought the surgeon advise the cirrhotic patient of the specific increased risk of post-operative mortality and morbidity? If so, in what manner ought this advice ideally be given?

- Having regard to anticipated or potential post-operative complications, ought a simple post-operative care checklist of signs and symptoms be developed for cirrhotic patients who have undergone medium- to high-risk surgery to ensure that post-operative care is focussed and complete? If so, what should the content of that checklist be?

5. I also recommend that the guidelines for post-operative management of cirrhotic patients include a strong reminder to clinicians caring for such patients of the need to pay close attention to the concerns of family members about adverse changes in the patients.

File number: 970/07

Representation: Mr D. Hirsch (Counsel Assisting) instructed by Ms N. Malhotra (Crown Solicitor's Office)

Mr P. Griffin instructed by Ms K. O'Mullane (Avant Law) representing Dr Morgan

Mr S. Barnes instructed by Mr P. Baram (Norton Rose) representing Drs De Vera and Suttor

Mr G. Gregg instructed by J. Brooke-Cowden (MDA National representing Dr Hardy

Mr B. Hull instructed by instructed by D.Brown (Browns Legal & Consulting) representing Dr Wilson

Ms E. Quinn (Kennedys Lawyers) representing Sydney South West Sydney Private Hospital

REASONS FOR FINDINGS

Introduction

1. Ian Donald Patience was a 68 year-old Scottish man who had lived an adventurous life as an engineer, a businessman, a naval officer. He contributed to the community in various ways including as a volunteer driver for the Campbelltown Hospital. He was much loved by his wife Sandra and many others who knew him. Like all human beings, he had his foibles, including a fondness for his national drink, but he was intelligent, charming and generous. He is much missed by those who knew him. His sudden and unexpected death has left Mrs Patience bereft.

2. He died on 10 June 2007 at the Bankstown Hospital ten days after surgery to remove a colon cancer. Following his death, Mrs Patience raised concerns about the care and treatment he had received at the private hospital in which the surgery had taken place. Over the last few years the issue of preventable deaths in hospitals has received much publicity and a public inquiry aimed at reducing the numbers of preventable deaths has been conducted.[1] Mrs Patience's overriding concern was that her husband's death was premature and may have been preventable.

3. One of the purposes of an inquest may be to deal with the fears, suspicions and questions that trouble bereaved families. Civilised societies know that what harms one of its members may harm many others. Nevertheless, inquests are independent judicial inquiries. Neither the coroner nor Counsel Assisting represent the interests of the family of Mr Patience although, obviously, the questions raised by Mrs Patience were taken into account in defining the issues to be explored.

4. It is important to emphasise that coroners are not prosecutors nor do they conduct disciplinary hearings or determine questions of civil liability. The primary issues here who died? When and where did the person die? What was the physical cause of death? What was the manner of death or, in other words, how did this death come about?

[1] See *Report of the Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals* ["The Garling Report"] (2008)

5. And flowing from these issues is the question whether recommendations to improve public health or safety are appropriate or desirable. The power of making recommendations enables coroners to address systemic problems.

6. Finally, I should note that I have received submissions from a number of counsel for interested persons. I have closely considered them all. These reasons are lengthy and they do not constitute a judgment determining issues raised by the parties but rather my own independent assessment of the evidence presented and tested before me. In the interests of economy, therefore, I have made specific mention of submissions made by counsel for interested parties only where I have considered it critical to do so.

Undisputed facts

7. Much of the evidence concerning the facts in the case is undisputed. In late April 2007, Mr Patience received a positive result to a faecal occult blood test and attended his local General Practitioner, Dr Bing Taylor. Dr Taylor referred him to Dr Matthew Morgan, a very experienced colo-rectal surgeon. Dr Morgan saw Mr Patience a few days later and recommended a colonoscopy. The following day, 12 May, Mr Patience suffered abdominal pain and diarrhoea and was taken to Campbelltown Hospital.

8. At the hospital, he was examined by Dr Lawson Levy, a consultant gastroenterologist. The investigations revealed that Mr Patience suffered from ascites, an abnormal intra-peritoneal accumulation of fluid. There may be a number of sources of ascites but in this case it was from Mr Patience's liver, which was cirrhotic. At that stage, however, a definitive diagnosis was not made but abnormal liver function was found. Mr Patience was treated for the ascites and was discharged on 16 May.

9. On 22 May, Dr Morgan performed a colonoscopy on Mr Patience and found a large mass in his right colon that was consistent with cancer although biopsy did not reveal whether or not it was malignant.

10. A week later, on 29 May, Mr and Mrs Patience saw Dr Morgan in his rooms. Mr Patience mentioned that Dr Levy was investigating the possibility of cirrhosis. Dr Morgan advised Mr Patience of the need for surgery and that he was aware of Mr Patience's liver condition. He also told Mr Patience about the nature of the planned surgery – a laparoscopic right hemicolectomy – and about the general nature of the risks of the surgery.

11. He did not emphasise to Mr Patience that the risks for cirrhotic patients are more severe than for patients without liver disease. He knew how distressing the news of cancer is for patients and did not wish to add further to Mr Patience's anxieties. He did, however, advise that recovery was likely to take longer than normal because of Mr Patience's liver condition.

12. At this stage, Mr Patience was assessed on the Child-Pugh system of classification of liver function as being in the "A" category, meaning that his cirrhosis was well-compensated. He was in as good a condition as the treating doctors were able to get him for the operation. Dr Morgan estimated that, all other things being equal, Mr Patience would be discharged after five days.

13. The surgery was scheduled for 31 May in the Sydney South West Private Hospital, one of a number of hospitals at which Dr Morgan operates as a consultant surgeon. The operation took place on that day. It was uneventful except for the fact that Mr Patience was seen to have more than normal oozing from blood vessels secondary to his cirrhosis and a need to convert from laparoscopy to an open procedure using a transverse approach. Mr Patience's ascitic problem did not cause any difficulties during the operation.

14. Following the operation, Mr Patience was transferred to the recovery unit in a stable condition. All seemed well at that time. During the operation, Dr Morgan found that the mass had not metastasised, that is, spread from its site. He had also observed that the liver was indeed cirrhotic as previously suspected.

15. In the recovery unit, Mr Patience was treated with prophylactic antibiotics (for two days), morphine for pain relief and saline. He was noted that night to be draining a quantity of clear haemoserous fluid from his abdomen but there was no active bleeding seen by nurses.

16. Immediately after the operation, the hospital records indicate that Mr Patience looked and felt well. He had little difficulty with pain and, at his own request, was taken off morphine at the end of the first day after the operation. He was mobilised by the physiotherapy staff and appeared comfortable to nurses.

17. On 2 June, it was observed that drainage increased significantly from his abdomen. His liver function tests were outside normal parameters but this was not unusual in the immediate post-operative period. He was reviewed by the on-duty doctor, Dr De Vera, because of nurses' concerns about the large quantity of fluid (ascites) being drained from

his abdomen. Nevertheless, Dr De Vera otherwise found Mr Patience to be stable and well although mildly dehydrated. She ordered increased saline.

18. Mr Patience was reviewed by Dr Morgan on 1 June and on 2 June by Dr Lucia Saliba, a consultant general surgeon standing in for Dr Morgan that day. Dr Saliba found that Mr Patience was in some pain and had some distension of the abdomen. According to the statement tendered in evidence, her impression, however, was that he was generally stable and that the increased fluids being drained were most likely due (as they certainly were) to his liver disease. Mr Patience had drained more than a litre of fluid during the 24 hours to the time Dr Saliba saw him. Otherwise, he appeared to her to be stable and progressing normally, given his condition.

19. Dr Saliba was asked in her oral evidence whether she had been told by Dr Morgan about Mr Patience's cirrhosis. Dr Morgan was unable to recall specifically having done so but stated that it would have been his practice to do so. Dr Saliba, in her oral evidence, was also unable to recall specifically whether she was told or not. While she made no explicit note about cirrhosis, among other things she observed that the albumin level was low (25) and that there was a large quantity of fluid draining from the abdomen. Dr Morgan had found significant cirrhosis. It seems unlikely that he would have overlooked telling Dr Saliba about this and, in any event, the combination of ascites and low albumin levels would probably have alerted her to the fact that Mr Patience had liver disease.

20. On 3 and 4 June, Mr Patience had an elevated white cell count but this did not cause immediate alarm being a normal post-operative sign. On 3 June, he was unhappy and not feeling well. He continued to drain large quantities of fluid and in the evening he vomited about 600 mls of coffee-coloured fluid. It appears that he was not seen that day by a surgeon, it being a Sunday.

21. On 4 June, Mr Patience was reviewed by Dr Morgan who encouraged Mr Patience to walk as much as possible. He ordered fluids and the removal of the abdominal drain to prevent fluid loss. Dr Morgan's impression at that stage was that Mr Patience's cirrhosis was retarding his recovery. Mr Patience's white cell count was slightly higher than the previous day and liver function tests showed low albumin, indicative of poor liver function. Mr Patience was tired and unwilling to walk. Mrs Patience observed that he was "digressing and not understanding what [she] was saying." She thought he was "going down hill" that day. Whether these were normal signs of post-operative exhaustion or the beginnings of hepatic encephalopathy is difficult to say. When transferring Mr Patience to Bankstown

Hospital on 7 June, Dr Morgan told that hospital that Mr Patience had been suffering confusion for two or three days.[2]

22. In any event, significant signs of deterioration had become obvious by 6 June. Mr Patience was clearly lethargic and confused on that day. Mrs Patience became very concerned. Abdominal and chest x-rays were ordered. Although Mr Patience's white cell count was in the normal range on 6 June (no tests having been done on 5 June), he was suffering from a chest infection and almost certainly hepatic encephalopathy, a neurological manifestation of significant liver disease. The provisional diagnosis of the on-duty medical officer at Sydney South West Hospital, Dr Leonie Hardy, however, was that the chest infection and hyponatraemia (low sodium levels) were probably causing the drowsiness and confusion.

23. Antibiotic treatment to cover the chest infection was begun. Dr Hardy's management plan was to order urgent blood and urine tests, to restrict fluids, to follow up previously ordered chest and abdominal X-rays and to commence antibiotics to cover the chest infection. Dr Hardy spoke to Dr Morgan who approved the plan. He asked her to arrange for Dr Lance Day, a consultant physician, to see Mr Patience "over the next few days". Dr Hardy took careful and reasonably comprehensive notes. There is no mention of cirrhosis in them. She was unaware at the time that Mr Patience had a cirrhosis issue and clearly was not told of this by Dr Morgan.

24. Dr Hardy spoke to Dr Day who conducted the review at about 9pm that evening. As he did not speak to Dr Morgan and as Dr Hardy did not know of the cirrhosis, his review was conducted without that vital piece of information. He was naturally concerned about the signs of encephalopathy and considered a number of differential diagnoses, including the possibility of a stroke, the chest infection, post-operative ileus (or "sleeping bowel") and alcohol withdrawal. Dr Day did not speak to Dr Morgan that evening.

25. The following day, however, the two consultants spoke and the decision was made to transfer Mr Patience to Bankstown Hospital under Dr Morgan's supervision. The admission notes show that Dr Morgan gave a history to Bankstown Hospital that included the hemicolectomy, Mr Patience's confusion and his cirrhosis. Dr Morgan requested a CT-scans of Mr Patience's head and abdomen and review by medical and surgical Registrars. He was admitted at about 2pm. The brain-scan revealed that there had been no intra-cerebral event. Mr Patience's bowel was functioning. The abdominal scan demonstrated

[2] See Bankstown Hospital progress notes 07 June 2007.

the presence of ascites in the abdomen but no free gases. At that stage, there appeared to Dr Morgan to be no evidence of intra-abdominal pathology requiring surgical intervention. To the clinicians, Mr Patience appeared stable.

26. On 8 June, Mr Patience appeared to Mrs Patience to be somewhat better than he had been the previous day. A neurological assessment at about midday found that Mr Patience was suffering from "low grade encephalopathy". Dr Hsu's impression was that it may be secondary to "recent surgery and cirrhosis" with a possibility of infection also being involved.

27. That evening, he was carefully assessed by Dr Vid Suttor, a gastroenterological Registrar, under the Child-Pugh scheme as being in the "C" (or badly decompensated) category. She found him to be "delightful" and "quite lucid". She noted the cirrhosis and portal hypertension. She hypothesised that the encephalopathy may have been caused by sepsis but her impression was that he was improving. Although she did not diagnose peritonitis she queried whether there may have been an anastomotic leak, that is, a leak from the join where the two ends of the bowel had been stapled together after the cancerous section had been cut out. She noted that this needed to be watched although in her view he was "certainly not peritonitic at this stage". Before she had realised that he was a post-operative patient she had considered tapping the ascites to test the fluid. On learning of Mr Patience's status she decided against this due to the significant risk of puncturing the bowel. She developed a comprehensive plan of management for Mr Patience. This is the sort of plan that might have been developed from the start in a facility with greater experience of dealing with cirrhotic patients and ready access to specialist gastroenterological review.

28. On 9 June, Mr Patience became acutely unwell and was transferred to the Intensive Care Unit. He was again seen by Dr Suttor who diagnosed sepsis, encephalopathy and renal failure. He was then on the way to multi-organ failure. A CT scan confirmed an anastomotic leak. That evening Dr Robert Wilson operated. He discovered a concealed retroperitoneal leak from the anastomosis. He resected the anastomosis and repaired the bowel. Mr Patience was by then in multi-organ failure and in a very critical condition. The operation finished in the early hours of 10 June.

29. Mr Patience's position by then was, unfortunately, hopeless and life support was withdrawn on that afternoon.

The issues

30. Mr Patience's identity is not in question, nor are the date, place or physical cause of his death. The real question in this case is to do with the manner of his death. In considering that, we must look at the chain of causation and the surrounding circumstances of his death.

31. That larger question raises a number of subsidiary questions which were identified by Counsel Assisting, Mr Hirsch, in a list of issues circulated prior to the commencement of the inquest:

- Whether the nature and extent of Mr Patience's liver dysfunction was adequately assessed and managed by Dr Morgan prior to the hemicolectomy procedure performed by him at Sydney South West Private Hospital on 31 May 2007 ("the operation").
- Whether the decision to perform the operation at all on 31 May 2007 was or should have been influenced by the assessment of Mr Patience's liver dysfunction and if so in what way?
- Whether the decision to create an anastomosis rather than a stoma during the operation was or should have been influenced by the assessment of Mr Patience's liver dysfunction and if so in what way?
- Whether the operation ought to have been performed at Sydney South West Private Hospital or at a larger public hospital and if so, why?
- The clinical significance of any changes in Mr Patience's condition whilst at Sydney South West Private Hospital from 31 May to 7 June 2007 and the adequacy of the response thereto.
- The reason for the transfer of Mr Patience from Sydney South West Private Hospital to Bankstown Hospital on 7 June 2007 and whether this transfer should have taken place earlier.
- If earlier transfer should have occurred why it did not occur.
- To what extent, if any, would the chances of Mr Patience dying on 10 June 2007 have been reduced if:

(i) the nature and extent of Mr Patience's liver dysfunction had been assessed and managed differently

(ii) a stoma had been created rather than an anastomosis

(iii) the operation had taken place at a larger public hospital rather than at Sydney South West Private Hospital, and/or

(iv) Mr Patience had been transferred from Sydney South West Private Hospital to Bankstown Hospital earlier.

- The evidence also raises the question whether Mr and Mrs Patience could have been better prepared for the possibility of serious complications and even death resulting from or following the operation.

32. In addition to seeking answers to these issues, it is necessary to consider whether it is necessary or desirable to make any recommendations in relation to any matter connected with the death. In my view, a number of recommendations suggest themselves and they will be considered below.

Was the nature and extent of Mr Patience's liver dysfunction adequately assessed before the operation?

33. As noted above, Mr Patience had been seen at Campbelltown Hospital by Dr Levy who treated him with diuretics for his ascites. Insofar as Mr Patience's liver function could be assessed without an internal examination, it appears to have been conducted thoroughly by Dr Levy and treated appropriately. Dr Morgan was aware of Dr Levy's assessment and treatment of Mr Patience. The general consensus of the medical experts who gave evidence is that, after treatment by Dr Lawson, Mr Patience's liver disease appeared well compensated under the Child-Pugh system which combines bio-chemical tests with clinical observations to gauge liver function. They agreed that when the operation was performed Mr Patience would have been classified in the Child-Pugh A category.

34. That said, it is evident that, before treatment by Dr Levy for his ascites, Mr Patient had not been well. He had had significant ascites placing him in the Child-Pugh B category. Professor David Morris, one of the independent medical experts, gave evidence that the difference between a Child-Pugh A patient and a Child-Pugh B patient is not great if the patient has previously been in the "B" category. This was an important piece of evidence because it is common ground that the risks for a "B" category patient are significantly higher than for an "A" category patient. This will be discussed further below.

35. Methods of assessing patients more sophisticated than the Child-Pugh system are sometimes used but they are available only in highly sophisticated institutions. In the ordinary case, or ordinary hospital environment, the Child-Pugh system, despite its relative crudity, is the best available to most working clinicians.

Given Mr Patience's liver dysfunction, was it appropriate to operate on him?

36. Mr Patience suffered a colon cancer that required treatment. If left untreated, it would metastasise. Dr Morgan's own information booklet for his patients suggests a 1-2 per cent mortality rate for patients undergoing colon surgery. His own record suggests about one per cent. For a normal patient whose cancer has not spread, the rate may be lower. Dr Phillip Truskett, another expert, suggested that the rate may be as low as 0.1 and 0.5 per cent.

37. Dr Morgan gave oral evidence that the mortality rate for cirrhotic patients in the Child-Pugh A category was not significantly different from that for non-cirrhotic patients (all other things being equal). The evidence before me, however, indicates that the mortality risk for Child-Pugh A patients is significantly higher than for non-cirrhotic patients and much higher again for cirrhotic patients in the "B" and "C" categories. I will come back to this issue when discussing the post-operative care provided to Mr Patience.

38. The fact that the risks were significantly higher for him than for non-cirrhotic patients, however, did not make it inappropriate to operate on Mr Patience. The medical evidence is clear: Mr Patience needed an operation for his colon cancer. Dr Morgan and Dr Levy prepared Mr Patience as well as possible for the operation. Dr Morgan cannot be criticised for operating on Mr Patience or advising Mr Patience that he needed surgery.

Was it appropriate to create an anastomosis rather than a stoma?

39. A stoma is an opening in the abdomen where part of the small or large intestine protrudes. Faecal waste is collected in a bag outside the body. Professor Morris suggested in his expert report of 14 March 2009 that this was an option that ought to have been considered because the creation of a stoma would have obviated the risk of a leaking anastomosis. On the other hand, as he acknowledged, "most patients would not wish to have an avoidable

stoma". In his oral evidence, he maintained his view that a stoma ought to have been considered but agreed that the decision to create an anastomosis was reasonable.

40. Evidence was also given by other experts that an ileostomy, which involves the creation of a stoma, brings other risks with it. The most important of these, according to Dr Truskett's evidence, is the risk of infection. He thought that with ascites a stoma is a "no-no" and that without ascites it would be contraindicated anyway. He said that he would avoid creating a stoma in a cirrhotic patient "at all costs… because they get bathed in faecal fluid" which is likely to cause a fatal infection. Dr Morgan agreed with Dr Truskett's view.

41. In my view, because most patients would prefer to avoid a stoma if possible and because of the serious risk of infection from a stoma, it was reasonable and appropriate for Dr Morgan to have decided to create an anastomosis.

Ought the operation to have been performed at Sydney South West Private Hospital or at a hospital with specialist facilities for cirrhotic patients?

42. In his expert report of 14 March 2009, Professor Morris wrote:

> It is my opinion that this patient's surgery was necessary and I can make no criticism of the operation. The decision to do this operation in a small private hospital was, I think, inappropriate in view of the known cirrhosis. Whilst Dr [Morgan] states in one of his letters that he decided to perform a primary anastomosis because the Albumin was of a sufficient level, it is to be noted that the Bilirubin and the INR [a test of blood clotting] were not normal and whilst I do not think that these were absolute reasons not to do an anastomosis, they might well have been good reasons not to do this operation at a facility that doesn't have an intensive care unit or where post op observation of the patient might be limited…

43. In his oral evidence, he amplified this point saying that "a facility that takes on operating on cirrhotics needs to be capable of managing the tasks involved". While no criticism is made of Dr De Vera's decision to order saline – she was not a gastroenterologist and made a reasonable clinical judgment based on her training and experience -- Dr Truskett gave evidence that saline ought in fact be reduced for patients such as Mr Patience. This is a small illustration of the point made by Professor Morris. I endorse his view.

44. The magnitude of the risks involved in operating on Mr Patience became one of the main controversies during the hearing. In a second statement by Dr Morgan dated 30 August

2010, he provided further evidence directed to the issues identified by Counsel Assisting in a list circulated to the interested parties before the hearing. He acknowledged that that the risk of complications is higher for cirrhotic patients than for patients without liver dysfunction.

45. In his oral evidence, however, he said at one point that the risks for a Child Pugh A patient are similar to those for people without cirrhosis and at another that "Group A patients typically do well". He disagreed with the suggestion that a hemicolectomy was "high-risk" surgery and said that it is generally safe to operate on a Child-Pugh A patient. Later in his evidence, however, when discussing what he had told Mr and Mrs Patience about the risks, he agreed that cirrhotic mortality rates are significant.

46. Dr Morgan helpfully provided a number of medical papers on this subject. The evidence is somewhat variable as no meta-study collating the results of all the available major studies is available to my knowledge.

47. The proposition that a hemicolectomy is "high-risk" surgery comes from one of the research papers Dr Morgan provided. A 2007 study from the Johns Hopkins University School of Medicine[3] incorporated a table entitled "surgical severity risk stratification" adopted from an earlier study.[4] The table categorised different types of surgical procedures according to their *relative* risks. Bowel surgery and laparotomy were categorised as relatively high-risk procedures.[5]

48. It is submitted for Dr Morgan that I ought place relatively little weight on the "surgical severity risk stratification" table in this study because it is based on old data. While I accept that the data are relatively old, the 2007 study is not. Although, of course, the categorisation of such procedures is to some degree arbitrary, and the relative risks may have altered in some cases, and the overall mortality and morbidity risks for high-risk operations have probably declined since the list was formulated in 1984, it is significant that the John Hopkins researchers apparently regarded it as a reliable *comparative* guide in 2007.

49. The Johns Hopkins study found that the mortality rate in cirrhotic surgical patients undergoing non-transplant procedures varied from 8.3 per cent to 25 per cent compared

[3] F. Millwalla, GC Nguyen, PJ Thuluvath "Outcomes of patients with cirrhosis undergoing non-hepatic surgery: risk assessment and management" *World J of Gastroenterology* (2007) August 14; 13(30): 4056-4063.
[4] RN Garrison and others "Clarification of risk factors for abdominal operations in patients with hepatic cirrhosis" *Ann Surg* 1984; 199: 648-655.
[5] Millwalla et al (20070 p.4057.

with the non-cirrhotic patients' rate of 1.1 per cent. In that study, 87 cirrhotic patients had undergone colon surgery and 36 (41%) died. That included patients in all three Child-Pugh categories. Unfortunately, the study did not break down the patients into their Child-Pugh categories. It noted, however, that "elective surgery is tolerated in patients with [Child-Pugh] class A cirrhosis, permissible with pre-operative preparation in patients with [Child-Pugh] class B cirrhosis… and contra-indicated in patients with [Child-Pugh] class C cirrhosis."[6]

50. I interpolate here that statistics provided by Dr Morgan concerning major Australasian studies of laparoscopic surgery for colon cancer suggest a median mortality risk of 1 per cent. That is very close to the Johns Hopkins 1.1 per cent figure for non-cirrhotic patients undergoing non-transplant procedures. It should also be noted that Dr Morgan converted from a laparoscopic procedure to an open procedure which brings with it a generally higher morbidity risk.

51. A 2003 study from the Mayo Clinic, Rochester, Minnesota considered a series from 1976 to 2001.[7] Of the 72 patients studied, 31 (43%) were Child-Pugh class A patients. Only 39 (54%) had an uneventful post-operative course. Nine patients (13%) died post-operatively. Of the Child-Pugh A patients, 2 (6%) died post-operatively, whereas the mortality rates for Child-Pugh B patients was 13 per cent and for Child-Pugh C patients 28 per cent. The complications developed by the 44 per cent of unlucky patients included respiratory illness (8%), liver failure (7%), sepsis (3%), leaks (3%) and death. [8]

52. That study found that the long-term survival rates of non-cirrhotic patients and Child-Pugh class A patients were similar.[9] That, however, is very different from the immediate post-operative mortality rates of those categories of patients. When giving his oral evidence, it appears that Dr Morgan was (no doubt unintentionally) conflating these two sets of data.

53. Other international studies provided by Dr Morgan also demonstrate that the risks of post-operative complications and death for cirrhotic patients are considerably higher than for non-cirrhotic patients.[10],[11] In only one study cited by Dr Morgan, was the mortality rate for

[6] Millwalla et al (2007). p 4056.
[7] P. Gervaz and others "Colorectal adenocarcinoma in cirrhotic patients" *J Am Coll Surg* Vol 196 No 6 June (2003): 874 – 879.
[8] Ibid p.876.
[9] Ibid p.878.
[10] An Italian study by Morgan. Franzetta and others "Prognositic factors of cirrhotic patients in extra-hepatic surgery" *Minerva Chir.* (2003) Aug; 58(4): 541-4 found in their Palermo series that post-operative mortality for cirrhotic surgical patients was 7.1% for Child-Pugh A patients, 23% for Child-Pugh B patients and 84% for Child-Pugh C patients.

Child-Pugh A patients similar to that of non-cirrhotic patients (see footnote 11 below). Even in that study, the rate of complications was 10 per cent higher for Child-Pugh A patients than for non-cirrhotic patients. Generally, it appears that the mortality rate for Child-Pugh A patients undergoing elective surgery is in the order of 6-10 per cent.[12] This was Professor Morris's estimate from his own experience and research.

54. These data from teaching hospitals at which high-level research has been conducted raise a number of serious issues. First, even in teaching hospitals where consultants from a number of specialties are working, the risks for cirrhotic patients of serious post-operative complications and death are significantly higher than for non-cirrhotic patients. This suggests that the risks for cirrhotic patients being cared for in hospitals where gastroenterologists are not readily available to review patients are likely to be higher still because of that lack of specialist care.

55. Second, the development of serious post-operative complications may not be recognised or fully assessed in environments where specialist gastroenterological review is not readily available. This again suggests that the risks for cirrhotic patients are probably higher in small hospitals than in large teaching or research hospitals or hospitals at which gastroenterological review is readily available.

56. Third, there is good evidence that high volume is associated with better outcomes for patients across a wide range of procedures.[13] Commonsense dictates that many of the advantages of high-volume derive from the skill and experience of surgeons who carry out large volumes of particular procedures. There can be no doubt that Dr Morgan was a very experienced and skilled colorectal surgeon with an estimable record in carrying out such surgery. His level of experience in dealing with cirrhotic patients in 2007, however, is not so clear. In any case, it is evident that Sydney South West Private Hospital is not a hospital

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[11] A Spanish study by JA del Olmo and others "Risk factors for non-hepatic surgery in patients with cirrhosis" *World J Surg* 27, 647-652 (2003) found that in Child-Pugh classes B and C, the mortality rates were significantly higher than for a non-cirrhotic control group. The mortality rates for non-cirrhotic patients and Child-Pugh A patients were very similar (3 in each group died: 3.5 v 3.6%). The complication rates, however, were markedly higher for the Child-Pugh A patients (29.1 v 39.7%).

[12] See, for example, A Mansour and others "Abdominal operations in patients with cirrhosis: still a major surgical challenge" *Surgery* (1997) Oct; 122(4): 730-736; Suman A & Carey WD "Assessing the risk of surgery in patients with liver disease" *Cleveland Clinic J of Med* Vol 73(4) Apr (2006): 398-404

[13] See for example, MA Choti and others "Should hepatic resections be performed at high-volume referral centers?" Journal of Gastrointestinal Surgery Volume 2, Number 1, 11-20. While the subject matter of that article is hepatic resections, it refers to 13 studies supporting the broad proposition that there is a well-established association between high volumes and patient outcomes.

that carried out high volumes of operations on cirrhotic patients at that time. It was not set up or equipped to do so. No criticism is made of the hospital on that account.

57. In a letter to the court, and in a bundle of research articles responding to Professor Morris's argument, it was submitted for Dr Morgan that the high-volume effect is not referrable to a particular type of hospital [small v large; public v private] but to a variety of factors including the volume of cases performed by a particular surgeon. His lawyers submitted that there is a learning curve for surgeons performing laparorscopic colectomies and that the logical consequence of Professor Morris's argument is that:

> … a public teaching hospital with trainee surgeons at the lowest points on their learning curves performing these procedures is to be preferred by Professor Morris to a very experienced surgeon such as Dr Morgan performing the procedure at Sydney South West Private Hospital.

58. That mischaracterises Professor Morris's argument. His point was that hospitals that deal with high volumes of certain types of patients or procedures achieve generally superior outcomes than hospitals with low volumes of such patients or procedures. From this he suggested that the post-operative risks to Mr Patience would have been lower in a hospital with high volumes of cirrhotic patients undergoing serious surgical procedures than in a small hospital with less experience of such patients and without the specialised facilities to cater for them.

59. Dr Robert Wilson, the on-call surgeon who performed an emergency laparotomy on Mr Patience on 9 June, found "gross cirrhosis". Dr Morgan, according to a pre-operation note, originally thought that the cirrhosis was relatively slight. He found during the operation that there was significant cirrhosis. With the benefit of hindsight, it seems clear that the risks to Mr Patience were significant wherever the operation was performed. He would, however, have been in a better position to weather any post-operative morbidity in a teaching or large general hospital with early gastroenterological review and intensive or high dependency care available if it arose.

60. The difference between the kind of assessment and treatment Mr Patience was able to be given in the Sydney South West Private Hospital and the Bankstown Hospital is very well illustrated in the hospital records. Dr Hardy, although an obviously good Career Medical Officer with general skills and experience, was not in a position to carry out the comprehensive assessments or formulate and execute the plans of the neurological and gastroenterological Registrars who examined Mr Patience at Bankstown Hospital. A

comparative study of the Bankstown Hospital and Sydney South West Private Hospital notes shows that he received much more sophisticated care and treatment for his cirrhosis-related conditions than was available at the small private hospital. Dr Truskett offered the opinion that "in relation to his post-operative care, it is clear that his management under-estimated the potential for his liver disease" [to deteriorate post-operatively]. It is reasonable to infer that had Mr Patience been operated on at Bankstown Hospital or somewhere similar, his liver function decompensation would have been picked up earlier and managed more aggressively from an early stage because of the higher degree of specialist care available there.

61. Fourth, there is, in any event, a subtle problem of definition when assessing a patient as a Child-Pugh A or Child-Pugh B category patient. The gastroenterological expert witnesses described the Child-Pugh system as relatively crude as a risk-assessment tool. Its usefulness would appear to decline if a patient is assessed as being in the B category at one point and is then treated for a relatively short time to raise him or her back into the A category just before an operation. The Child-Pugh A class of patient is that group with well-compensated cirrhosis. But can it be said that a person whose ascites have been treated for a few weeks has in fact "well-compensated" cirrhosis if the stress of an operation leads immediately to decompensation and production of large quantities of ascites? How should a patient who was, before treatment for ascites, a Child-Pugh B class patient, and who, under the stress of an operation immediately reverts to the B class, be properly categorised? Professor Morris's evidence was that such patients ought in practice be treated as though they were Child-Pugh B class patients. This seems a reasonable application of the precautionary principle.

62. For these reasons, in my opinion, it would have been highly advisable to perform this operation on this patient at a teaching hospital such as Bankstown Hospital or another hospital with the specialist capability and capacity to deal with the potential morbidity issues a patient such as Mr Patience might present post-operatively.

How did Mr Patience's condition at Sydney South West Private Hospital change from 31 May to 7 June 2007 and how adequate were the responses?

63. The relevant facts have been set out above at pp 7-12. In summary, although he was producing large quantities of ascites immediately after the operation, Mr Patience appeared

in other respects initially to be making a good recovery. In the first few days, his liver function was outside normal parameters and there was some elevation of his WCC. These signs, however, were not unexpected or abnormal for a patient in his overall condition.

64. The ascites do not seem to have been managed in optimal fashion in the early stages. On 2 June, Mr Patience was seen by Dr De Vera whose impression was that he was stable but mildly dehydrated. She ordered an increase in intravenous fluids to replenish sodium as she thought his levels were mildly low. In retrospect, the expert evidence suggests that this was not the correct approach at that time. Dr Truskett gave evidence that cirrhotic patients do not handle sodium well peri-operatively. He said that they should receive about one-third the quantity of sodium given to normal patients and that it is crucial to limit sodium for cirrhotic patients post-operatively because otherwise they may produce large quantities of ascites. He considered that the large volume of ascites produced by Mr Patience after the operation may have resulted not only from too much sodium but also lower than estimated hepatic reserves. If so, Mr Patience would almost certainly have benefited from a review by a gastroenterologist or physician to plan his fluid management and assess his level of liver decompensation.

65. Review by a gastroenterologist does not appear to have been contemplated by any of the doctors caring for Mr Patience at Sydney South West Private Hospital until Dr Morgan transferred Mr Patience to Bankstown Hospital on 7 June.

66. On 3 June, Mr Patience was not so well and continued to drain significant quantities of haemoserous fluids. It was on 4 June that Mrs Patience formed a firm view that Mr Patience was becoming unwell. Mr Patience was very tired and unwilling to be mobilised by a physiotherapist. Mrs Patience perceived that he was tired and vague in his thinking. According to Mrs Patience, she spoke to Dr Morgan about him and Dr Morgan said that his liver was not producing enough protein and would take longer than normal to recover. On 4 June, Mr Patience's white cell count was elevated but, according to the expert evidence, this was not necessarily significant because the WCC will usually rise following an operation. Mr Patience was probably suffering a lung infection at that time which may have contributed to the elevation.

67. Mr Patience's condition on 5 June is somewhat difficult to assess now because the evidence is equivocal. On the one hand, the medical records suggest that Mr Patience was mobile and told the physiotherapist that he was feeling better than the previous day. Mrs Patience's impression was, however, that he was deteriorating, falling in and out of sleep

and becoming more vague. Dr Morgan saw Mr Patience and increased his fluids but otherwise did not detect any alarming signs or symptoms.

68. Dr Morgan also saw Mr Patience on the morning of 6 June. He ordered an abdominal X-ray but made no observations concerning his mental state. Mrs Patience was very concerned about Mr Patience's mental state when she saw him that day and raised her concerns with Dr Leonie Hardy, the Career Medical Officer working in the hospital. Dr Hardy found that he was delirious.

69. Her reaction was immediate and entirely appropriate. She ordered a chest X-ray and blood tests. The WCC and neutrophils were elevated suggesting an infection. Mr Patience was found to have a chest infection for which Dr Hardy ordered antibiotics. She also spoke to Dr Morgan and advised him of her findings. He requested that she have Dr Day review Mr Patience. Critically, at this time, neither Dr Hardy nor Dr Day knew that Mr Patience was cirrhotic nor were told this by Dr Morgan. That was a significant lacuna because, compounded by the fact that the handwritten operation note on the hospital file does not mention cirrhosis and the type-written operation note made later by Dr Morgan which recorded significant cirrhosis was not on the hospital file. I am also unable to locate any mention of liver disease in the progress notes that would have alerted Dr Day to this condition.

70. Mr Patience was not reviewed by Dr Day until approximately 9pm on the night of 6 June. Mrs Patience had been so concerned about Mr Patience's condition that earlier that evening she had called Mr Patience's GP to ask him to transfer Mr Patience to Liverpool Hospital ICU. He attempted to do so but was told by the hospital that either Dr Morgan or Dr Day had to arrange the transfer (Mr Patience being their patient at that time).

71. On his review, Dr Day ordered a continuation of the current treatment. He was concerned about the possibility of a stroke or subdural haemorrhage and ordered a CT scan for the following morning. He noted that the WCC was normal, that the abdominal X-ray showed gaseous distension of the small bowel with fluid levels consistent with post-operative ileus. His differential diagnosis did not take cirrhotic decompensation into account because he was unaware of that part of Mr Patience's history.

72. The following day, 7 June, Mrs Patience spoke with Dr Morgan who also spoke with Dr Day. Dr Morgan arranged for Mr Patience to be transferred to Bankstown Hospital (a hospital at which he practised) for CT scans and review by the medical and surgical teams there. While he said in his evidence that the confusion suffered by Mr Patience was hepatic

encephalopathy, this does not seem to have been considered by him or by Dr Day at the time. Dr Morgan arranged for his senior surgical Registrar to review Mr Patience on his arrival at Bankstown Hospital. That morning Dr Morgan ordered CT scans of head and abdomen and reviews by medical and surgical Registrars. Mr Patience was ultimately admitted to Bankstown Hospital at about 2pm that day.

73. At the hospital investigations were performed. CT scans revealed no evidence of a cerebral event and no intra-abdominal pathology requiring surgical intervention. The abdominal scan showed ascites but no free gas. At that stage, Dr Morgan's impression and that of his senior surgical Registrar, Dr Daniel Kozman, was that the clinical picture and investigations did not appear to indicate an anastomotic leak requiring surgery.

74. In summary, Mr Patience's deterioration appears to have commenced on 4 or 5 June. Although Dr Hardy reacted very well to the clinical picture unfolding in front of her as best as she could understand it, the response to Mr Patience's decline, taken as a whole was, in my opinion, inadequate for two principal reasons.

75. First, apart from Dr Morgan and perhaps Dr Saliba, those caring for Mr Patience during the post-operative period, and in particular when the crisis became obvious on 6 June, were unaware of, and not informed by Dr Morgan of, Mr Patience's liver disease.

76. Second, in any event, he was not cared for as a patient with a high risk of post-operative morbidity or a significant risk of mortality even when he manifested signs of significant liver decompensation such as the production of large quantities of ascites in the peri-operative period.

Why was Mr Patience transferred on 7 June 2007 and should this transfer have taken place earlier?

77. As discussed above, Mr Patience was transferred on 7 June 2007 because of concerns about his confused state of mind following Dr Hardy's and Dr Day's examination of him. In particular, he was transferred because of the need or desirability of CT scans of both his head and abdomen and the unavailability of those investigations at Sydney South West Private Hospital.

78. There is a strong argument that this transfer ought to have taken place earlier, when the signs of confusion first manifested themselves. The cause of the confusion was not self-

evident. The WCC did not indicate any particularly virulent infection at work although there were signs of a chest infection. What should have been a real concern, however, was that it was hepatic encephalopathy, indicating a serious issue to do with Mr Patience's liver function that needed urgent investigation, especially in the light of the production of large quantities of ascites and the known risks of morbidity and mortality for people with poor liver function.

79. I accept Dr Morgan's statement that colo-rectal surgeons think and worry constantly about the possibility of anastomotic leaks and pay close attention to the patient's signs for this reason (among others). I also accept his evidence that cirrhotic patients take longer to heal because their livers are not contributing to the healing process as well as those of non-cirrhotic patients do. When Mr Patience started to show signs of confusion, this might have raised a red flag. It stands to reason that an anastamosis that is healing slowly is more likely to break down or leak than one that is healing fast. A decline in liver function must logically also slow the healing process and therefore increase the risk of an anastomotic leak.

80. Dr Robert Wilson, the surgeon who undertook emergency surgery on 9 June, found adhesions around the site of the anastomosis. Adhesions are the body's way of sealing such a leak and take some days to form. Thus it appears that the leak had been present for at least a few days. An abscess cavity containing the leak also operating as a form of seal but, according to Dr Wilson's evidence, such abscesses are not perfect seal and the possibility of some bacterial infection is always present. Dr Wilson also gave evidence that peritonitis can occur in the presence of ascites and, indeed, when conducting the operation he found turbid fluid indicating this.

81. In my view, there was even a cogent argument for transferring Mr Patience immediately after the operation at Sydney South West Private Hospital. As I have discussed above, on 9 June Dr Wilson found "gross cirrhosis". Dr Morgan found during the operation that there was significant cirrhosis. The cirrhosis was worse than he appears to have anticipated before the operation. On discovering this, it was open to Dr Morgan to revise his estimation of the risk of post-operative morbidity and to transfer Mr Patience.

82. If that would have been premature, it almost certainly would not have been once Mr Patience began to produce large volumes of ascites, bringing with it difficult issues of fluid management as well as the possibility of spontaneous peritonitis. With the benefit of hindsight, it seems evident that Mr Patience should have been transferred at least once the

ascites problem developed to enable it to be managed and to allow for Mr Patience to be regularly reviewed by the gastroenterological Registrar. This would also have enabled abdominal CT scans to be ordered promptly as required.

If earlier transfer should have occurred why it did not occur?

83. In my opinion, the reason the transfer did not take place earlier was because of two things. First, before the operation, Dr Morgan appears to have underestimated the degree of cirrhosis he would find on performing the operation and therefore to have underestimated the risk of mortality and morbidity that would follow it. Even on seeing the liver itself during the operation, he does not appear to have revised his pre-operative estimation of the risk. Everything appears to have followed from this.

84. Second, the severity of his cirrhotic morbidity was not recognised at the Sydney South West Private Hospital by any of the medical practitioners who attended on Mr Patience. This has been discussed above.

To what extent, if any, could the chances of Mr Patience dying on 10 June 2007 have been reduced?

85. It is very difficult to say whether the outcome would have been any different for Mr Patience had the operation been performed in a teaching hospital such as Bankstown Hospital. The raw statistics suggest that while the odds would have generally been in his favour, there was still a very significant risk of severe complications and death. As I have noted above, the studies done in teaching hospitals show this. Logic suggests that the odds would have been better for him if he had been able to be reviewed regularly by a gastroenterologist in the days after his operation. That form of review was not available (or not readily available) at Sydney South West Private Hospital.

86. This view is reinforced by Dr Morgan's own evidence that it would be helpful to have a gastroenterological review of cirrhotic patients shortly after abdominal surgery. If that is the case, and I agree with Dr Morgan, Mr Patience really needed to be in a hospital with the staff and facilities to conduct such reviews.

Dealing with the risk and actuality of unexpected death

87. Dr Morgan is a highly experienced colorectal surgeon with an impressive record. Very few of his elective patients have died as a result of surgery. Like Mrs Patience, he did not expect his patient to die. Despite his very considerable experience of colonic resections, it is not clear how experienced he was in dealing with cirrhotic patients and, in particular, cirrhotic patients whose liver function decompensated as a result of the stress of the abdominal surgery he had performed. In any event, he was not a specialist in dealing with cirrhotic patients.

88. Professor Morris argued in oral evidence that "a facility that takes on operating on cirrhotics needs to be capable of managing the tasks involved". He argued that one way of reducing risk from peri-operative complications in cirrhotic patients is to operate on such patients in high-volume facilities where specialist gastroenterologists and other support staff are available. He argued that experience in looking after cirrhotic patients is the key to reducing risk of morbidity and mortality. It is no criticism of the Sydney South West Private Hospital to say that it is not such a facility and does not purport to be.

89. As I have said above, I cannot say with any degree of certainty whether Mr Patience would have survived in a teaching hospital. One of the reasons why Mrs Patience has been so obviously stricken by her husband's sudden death is that she was taken by surprise. This raises the question whether patients and their families need to be prepared better by their treating doctors for facing the risks of surgery and medical treatment and meeting bad outcomes when they occur.

90. Dr Morgan understandably did not wish to alarm an already very distressed patient by talking about the added risks for cirrhotic patients. It was submitted for him that "Dr Morgan did not specifically say that [Mr] Patience may die because there was no medical reason to do so." I cannot accept that submission. As difficult and distressing as it may be for a surgeon to be the bearer of bad news, a 6-10 per cent chance of fatal complications is a very powerful medical reason to warn a patient and his or her family about the risks of surgery. How the delicate question of possible death or serious complications is approached obviously cannot be reduced to a formula or a prescriptive coronial recommendation.

91. Yet the issue needs addressing because the effect on families of people who die unexpectedly following surgery or medical treatment is often shattering, as it has been in

this case. An unexpected death following surgery also affects clinicians. I also observe that at the end of his evidence Dr Morgan broke down in tears and that Dr Hardy also appeared upset. It may be that as a society we are poor at facing up to such life and death questions, medical practitioners being no exception. Nevertheless, surgeons are far better placed than their patients to weigh the odds and offer them and their families the chance to prepare for the possibility of bad outcomes.

92. The American surgeon, Professor Atul Gawande, wrote recently about breaking bad news to terminally ill patients but his view applies more generally: "But our responsibility, in medicine, is to deal with human beings as they are. People die only once. They have no experience to draw upon. They need doctors and nurses who are willing to have the hard discussions and say what they have seen, who will help people prepare for what is to come…"[14]

93. Honesty between doctors and patients is also critical for another reason. Even the best doctors will make errors during their careers. It is sometimes argued, when complications arise or a death occurs following treatment or surgery, that the possibility of medical litigation drives a wedge between doctors and patients. Many doctors are just as reluctant to admit mistakes as the rest of the human race. As the American legal commentator, Steven Lubet, argues, however, "there is considerable evidence that malpractice claims actually decrease when doctors are open and candid about their errors."[15]

94. Lubet cites the example of the Veterans Affairs Medical Center in Lexington, Kentucky which in 1987 adopted a policy of "extreme honesty" in reporting medical errors. A staff specialist at that hospital is quoted as saying, "In the vast majority of cases, people don't stay angry when they realize they are being told the truth and are being treated respectfully".[16]

95. Of course, not every bad outcome means a mistake has been made or that there is someone to blame. Sometimes people only need an explanation delivered humanely. While it does not happen in all cases, I have observed such a "truth and reconciliation" effect in a number of inquests. In those cases, the frankness and empathy of doctors has provided catharsis for families and the clinicians themselves. It is an approach I would commend to clinicians in all medical cases involving unexpected deaths.

[14] "Letting Go" *The New Yorker* 2 August 2010 www.newyorker.com/reporting/2010/08/02/100802fa_fact_gawande
[15] "Mistakes and cover-ups" in *The Importance of Being Honest: How Lying, Secrecy and Hypocrisy Collide with Truth in Law* NY University Press, NY, 2008 p. 233.
[16] Lubet p.233.

In conclusion…

96. Human beings make mistakes or errors of judgment. In most cases they are lapses or arise from lack of relevant knowledge or skill. They do not usually flow from gross negligence or recklessness. Nor are all errors of judgment mistakes. Very often it is only with the benefit of hindsight that we discover that reasonable judgments made with limited information were the wrong calls.

97. If human error were a function of character, it would be relatively easy to eliminate: the "bad" could be identified and excluded from practising in areas which might lead to harm to others. The flaw in such an approach is obvious. The truth is that even highly competent professionals make mistakes from time to time. Paradoxically, an approach which gives primacy to blaming someone for an error is one that leads to a reluctance to take responsibility and, in particular, to report mishaps and mistakes. By over-emphasising personal responsibility and culpability, we may be distracted from rectifying systemic faults.

98. On the other hand, it is important that when mistakes are made they are recognised and learned from. Although, unlike negligence or criminal cases, inquests are not directed towards attributing personal responsibility or liability for fatal events, an inquest conducted without consideration of such questions in appropriate cases would be both incomplete and unsatisfactory. It is critical for our community's confidence in them that when mistakes are made by health systems, hospitals or individuals in the health system they are identified not so that they will be punished or scapegoated but so that they will improve their performances in future.

Findings: s 81 *Coroners Act 2009*

99. I find that Ian Donald Patience died on 10 June 2007 at the Bankstown Hospital, New South Wales as a result of complications following colon surgery on a background of cirrhosis of the liver.

Recommendations: s 82 *Coroners Act 2009*

100. In this case, a number of recommendations suggest themselves:

101. First, I propose to recommend to the Royal Australasian College of Surgeons and NSW Health that they require that a copy of any operation notes made by a surgeon be placed in the relevant hospital records as soon as practicable following the operation.

102. Second, I propose to recommend that the Gastroenterological Society of Australia and the Australian and New Zealand Hepatic, Pancreatic and Biliary Association in conjunction with the Royal Australasian College of Surgeons formulate guidelines for the assessment and management of cirrhotic patients undergoing surgery.

103. Third, in formulating such guidelines, I will further recommend that the Gastroenterological Society of Australia, the Australian and New Zealand Hepatic, Pancreatic and Biliary Association and the Royal Australasian College of Surgeons undertake or sponsor a study of the questions of where medium and high-risk surgery is best undertaken and of what facilities ought be available for post-operative care if the patient is classified in the Child-Pugh A, B or C category.

104. Fourth, arising from this inquest, I will recommend that any such general guidelines developed by the Gastroenterological Society of Australia, the Australian and New Zealand Hepatic, Pancreatic and Biliary Association and the Royal Australasian College of Surgeons address at least the following issues:

- Is the Child-Pugh system of pre-operative assessment of risk for cirrhotic surgical patients the optimal form of assessment or ought another be substituted or used in conjunction?

- If a cirrhotic patient previously assessed as being in the Child-Pugh A category suffers post-operative liver failure or decompensation, ought he or she be reclassified and his or her post-operative management be altered accordingly?

- Where should medium- and high-risk operations (as defined by the Royal Australasian College of Surgeons or other authoritative source(s)) on cirrhotic patients be performed? In particular, is it advisable that they be performed in high-volume hospitals with gastrointestinal review and back-up available?

- In determining the answer to that question, what facilities for post-operative care ought be available for patients assessed pre-operatively as being the Child-Pugh A, B or C categories ?

- If a cirrhotic patient is operated on in a hospital without specialist gastroenterological review and care available, when should such a patient be transferred to a hospital where such facilities are available?

- What is the appropriate fluid balance regime for management of post-operative ascites in cirrhotic patients? In particular, should saline be restricted? Should drainage be restricted? Should albumin be administered and, if so, when?

- Following an operation, what clinically significant signs of possible liver failure or decompensation must practitioners be vigilant to look for ? Signs of possible infection? Mental deterioration?

- At what point, if any, should the patient be reviewed by a gastroenterologist or physician following an operation? Within 48-72 hours? Only when the clinical need arises?

- Ought the surgeon advise the cirrhotic patient of the specific increased risk of post-operative mortality and morbidity? If so, in what manner ought this advice ideally be given?

- Having regard to anticipated or potential post-operative complications, ought a simple post-operative care checklist of signs and symptoms be developed for cirrhotic patients who have undergone medium- to high-risk surgery to ensure that post-operative care is focussed and complete? If so, what should the content of that checklist be?

105. Fifth, I will also recommend that the guidelines for post-operative management of cirrhotic patients include a strong reminder to clinicians caring for such patients of the need to pay close attention to the concerns of family members about adverse changes in the patients.

Magistrate Hugh Dillon
Deputy State Coroner