General Surgeon, Dr C

Waikato District Health Board

A Report by the

Health and Disability Commissioner

(Case 09HDC01505)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

Background

1. This report is about the circumstances of general surgeon Dr C operating on Mrs A on 9 June 2009 to remove her gall bladder by laparoscopic cholecystectomy,[1] when he had already removed her gallbladder in 1996.

2. In May 2009, as part of the preoperative assessment, Dr C organised for Mrs A to have an abdominal CT scan. The scan result, sent electronically to Dr C, showed an absence of a gallbladder. Although Dr C viewed this report, he did not mentally connect the report to Mrs A, and mislaid the report when he forwarded it for printing. The paper copy was not attached to Mrs A's file at that time. Mrs A's old notes, which contained the records of her 1996 surgery, were not provided to Dr C and he did not request them.

3. During the surgery, Dr C initially believed that he had removed a shrunken gallbladder, but then found that a major duct injury had occurred. A post-surgical radiological examination confirmed Dr C's concerns and Mrs A was transferred to another hospital, where hepatobiliary and general surgeon, Dr E, performed corrective surgery.

Decision summary

4. The serious consequences Mrs A sustained arose as a combination of individual error on the part of Dr C and Waikato District Health Board (Waikato DHB) systems issues.

5. Dr C failed to obtain full and accurate information about Mrs A's previous medical history, and then at surgery misread the anatomy. However, once the error was identified, Dr C took prompt and appropriate action.

6. Dr C breached the following provisions of the Code of Health and Disability Services Consumers' Rights (the Code):

- Rights 4(1)[2] and 4(4)[3] by not providing services with reasonable care and skill and failing to minimise harm.
- Right 6(2)[4] by failing to provide the information that was necessary for Mrs A to make an informed choice about the surgery.

[1] Cholecystectomy is the surgical removal of the gallbladder. It is the most common method for treating symptomatic gallstones. Surgical options include the standard procedure, called laparoscopic cholecystectomy, and an older, more invasive procedure, called open cholecystectomy.
[2] Right 4(1) of the Code states: "Every consumer has the right to have services provided with reasonable care and skill."
[3] Right 4(4) of the Code states: "Every consumer has the right to have services provided in a manner that minimises the potential harm to, and optimises the quality of life of, that consumer."
[4] Right 6(2) of the Code provides that "Before making a choice or giving consent, every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, needs to make an informed choice or give informed consent".

- Right 7(1)[5] by failing to obtain informed consent.

7. An incomplete set of Mrs A's clinical records was provided to the treating clinician in 2009. Waikato DHB had a duty to have a system in place to ensure that the responsible clinician was alerted to the existence of relevant information.

8. Waikato DHB breached the following provision of the Code:

- Right 4(1) by failing to have adequate systems to ensure information was provided, which adversely affected the care provide to Mrs A.

Investigation process

9. On 30 July 2009, the Health and Disability Commissioner (HDC) received a complaint from Mr and Mrs A about the services provided to Mrs A by general surgeon Dr C. An investigation was commenced on 12 October 2009.

10. Information was obtained from:

Mrs A
Mr A
Mrs A's daughter, Ms B
Dr C
Hospital A Emergency Department medical officer, Dr D
Waikato DHB
Hospital A

Also mentioned in this report

Dr E, hepatobiliary and general surgeon

11. The following issues were identified for investigation:

- *Whether Dr C provided Mrs A with surgical services of an appropriate standard on 9 June 2009.*

- *Whether Waikato DHB provided Mrs A with health services of an appropriate standard on 9 June 2009.*

12. On 25 May 2010 the scope of the investigation was extended as follows:

- *Whether Dr C provided Mrs A with surgical services of an appropriate standard from 6 May to 10 June 2009.*

[5] Right 7(1) of the Code provides that "Services may be provided to a consumer only if that consumer makes an informed choice and gives informed consent".

- *Whether Waikato DHB provided Mrs A with health services of an appropriate standard in 2009.*

13. Independent expert advice was obtained from general surgeon, Dr Mark Sanders (attached as **Appendix A).**

Information gathered during investigation

Mrs A — 1996 surgery

14. In February 1996, Mrs A presented at a regional hospital (Hospital A) Surgical Unit for assessment of long-standing low-grade right subcostal[6] pain. Her symptoms had worsened since the beginning of 1996. On 13 February, general surgeon Dr C examined Mrs A and advised her to have a laparoscopic cholecystectomy.

15. Mrs A consented to the surgery and signed the appropriate consent forms. The Hospital A Surgical Unit pre-admission health questionnaire noted that Mrs A had had a partial stroke, but further detail about this condition was not recorded. However, an incomplete, unsigned admission note dated 6 December 1995 recorded that Mrs A had suffered a left sided cerebral vascular accident in May 1995 which resulted in a right hemiparesis[7].

16. On 13 February 1996, Dr C wrote to Mrs A's general practitioner. Dr C stated:

> "This woman has been under our care for some years. She had low grade right subcostal pain in the 1980s but no stones were seen on oral cholecystogram. Finally she had had an ultrasound which demonstrates multiple stones. She had investigations for left hydronephrosis and right hemiplegia in May of 1995. …
>
> The last two months [Mrs A] has been in hospital with epigastric pain not entirely typical of biliary colic. This has been called non-ulcer dyspepsia and she has been on H2 antagonists and proton inhibitors and I hope that when we get her gall bladder out we will be able to get her off all medication. My only concern is that we ensure that a surgical procedure is safe and we are not placing her at risk for a vascular cerebral event. … I think it would be safe to cover surgery with a low dose Heparin and I have given her a date to come in on 28 February."

17. Dr C performed the laparoscopic cholecystectomy on Mrs A at Hospital A on 28 February 1996. Dr C's operation note recorded that a thin-walled gallbladder was readily mobilised, and "cystic duct then artery clipped and divided". Dr C noted, "Gallbladder was stripped off with minimal bleeding". Mrs A was discharged home the following day.

[6] Upper abdominal.
[7] Left-sided stroke resulting in paralysis of her right side.

Hospital A — 2004

18. On 21 March 2004, Mrs A was acutely admitted to Hospital A with appendicitis. The admission note recorded Mrs A's medical history which included the laparoscopic cholecystectomy. A surgical registrar performed a laparoscopic appendicectomy. The surgical registrar's operation note recorded that Mrs A was found to have early inflammatory adhesions to the terminal ileum[8] and omentum,[9] and purulent fluid within her pelvis. Mrs A was treated with antibiotics and discharged home on 24 March 2004.

1 April 2009

19. On 1 April 2009, Mrs A (then 61 years of age) presented to Hospital A Emergency Department (ED) with sudden severe right upper abdominal colicky pain, and chest pain radiating to the shoulders, associated with sweating, pallor, nausea and vomiting.

20. Mr A advised HDC that he took his wife to the hospital and then returned home. He said he did not speak to the doctors about his wife's condition.

Emergency Department

21. Mrs A was assessed by Hospital A ED medical officer Dr D. Dr D is unable to recall the details of his examination of Mrs A. However, he recorded in the clinical record "BIB [brought in by] husband". Dr D stated, "I would only write this if he was around to see". Dr D recalled that he only spoke to Mr A to verify he was Mrs A's husband and he spoke to Mrs A about her symptoms.

22. Dr D noted that Mrs A had had a history of recurrent epigastric pain "for many years now". He ordered blood tests, which included liver function tests, and an abdominal ultrasound scan. The interim result of the scan, reported to Dr D, was recorded in Mrs A's clinical records as, "U/S abdomen; contracted Gall Bladder, CBD[10] 11mm, couldn't [find] any stone (done by […] private U/S), await final report." The report noted "Told she had gallstones many years ago". The blood test results indicated normal liver function.

23. Dr D discussed the scan report and Mrs A's presentation with Dr C. Dr D had already discussed the scan report with the sonographer who had reported, "The gall bladder is not seen and may be contracted."

24. Dr C recalls that the sonographer could not see any gall stones, which he thought may have been due to technical issues. He said that the sonographer was not confident to make a statement about the presence of a gallbladder. Dr C said that Dr D had noted that Mrs A had previously had stones and biliary type pain, and it was decided to admit her to the surgical ward.

25. Dr C recalls that more family members than just Mr A accompanied Mrs A to the ED, however, Mr A was the only other person present in the cubicle when he examined Mrs A, as the cubicles are small and do not allow for a number of persons being

[8] End of small bowel.
[9] Lining of abdominal cavity.
[10] Common bile duct.

present. Dr C recalled, "[Mrs A] and her attending husband provided a story of recurrent upper abdominal pain and evidence of gallstones but could not recall previous surgery". However, Mr A is adamant that he was not present and did not talk to the doctors about his wife's medical issues.

26. Dr C stated that Mrs A stayed in the Emergency Department from about 9am to 4pm. He said he discussed Dr D's findings with him and recalls having a "three-way conversation" with Mrs A about her previous pain and investigations.

27. He said the conversation is alluded to in the medical history recorded by Dr D. The notes record "[Mrs A] had a history of recurrent epigastric pain for many years now. Gastroscopy 1987, 1995. CVA, May 1995. Smoker, 20 a day."

28. Dr C stated:

> "I did not add my own documentation as I was satisfied with what he had documented. The detailed reference to gastroscopy in 1987 and 1995, and CVA in May 1995 was discussed with [Dr D] as background history and the question of previous surgery was raised with the patient."

29. Dr C advised HDC that he conducted a "limited physical examination" on Mrs A in the ED at 8pm. He said he did not completely bare her abdomen as he usually would when examining a patient, as there was only a curtain screening Mrs A and she was reluctant to be exposed.

30. Dr C stated that Mrs A had surgical access marks on her abdomen − a camera port scar under her umbilicus and a 5mm mark in the right flank as well as a suprapubic port. These were typical of appendicectomy. He said that the scars under the right rib margin or centrally under the ribs, indicative of a cholecystectomy, had faded significantly in 13 years and could not be seen. He said that Mrs A's skin tone makes it very hard to see any scars. Dr C recorded in the clinical records, "Biliary dyspepsia likely. Gastroscopy possibly if needed".

2 April

31. Mrs A stayed in the ED overnight. When Dr C saw Mrs A at 8.20am the next morning, her pain had eased. Mrs A's most recent clinical notes, which referred to the 2004 surgery, were available for this review. Mrs A thought she had previously had investigations for either kidney or gallbladder stones. Dr C said she because she "did not admit" to previous investigations or surgery for similar symptoms, the earlier notes were not called for. He did not record that he asked her about her previous history or any information she provided.

32. Mrs A was discharged at 11am with an appointment for follow-up at the Surgical Outpatient clinic. The clinical notes record she was accompanied by her sister and was happy to leave the ward.

May 2009

33. At 7.50am on 3 May 2009, Mrs A experienced an episode of abdominal pain and vomiting and was assessed at Hospital A's ED. She had taken Losec,[11] Voltaren[12] and a morphine tablet, but requested a Stemetil injection to settle her nausea. Blood tests were taken, and she was given anti-nausea medication. Mrs A's symptoms settled and she was discharged at 9.30am, with an appointment for the surgical outpatient clinic for 6 May.

34. On 6 May, Dr C saw Mrs A at the surgical outpatient clinic. Dr C stated that she was anxious to expedite surgery to reduce her pain.

35. Dr C had been sent the final report on Mrs A's 1 April abdominal ultrasound scan (which he had discussed with Dr D) that noted:

> "Gallbladder not seen ? contracted (no distal acoustic shadowing seen). Dilated CBD with no calculi identified. For further assessment an abdominal CT is recommended."

36. Dr C advised HDC that "shadowing" can be indicative of gallstones.

37. Dr C discussed with Mrs A the symptoms she was experiencing, and explained the ultrasound results. He explained laparoscopic surgery and its general risks. Dr C stated that he "believes" he spoke specifically with Mrs A about the laparoscopic cholecystectomy. He said:

> "I believe I spent a long time ensuring [Mrs A] understood what was being offered by way of laparoscopic cholecystectomy and the risks involved. I outlined, in the simplest terms possible, that the surgery specifically meant surgery guided by telescope to remove the gallbladder (which is exactly what the words 'laparoscopic cholecystectomy' as seen on the consent form means)."

38. However, the "Consent for surgical procedures" form records the procedure as "laparoscopic cholecystectomy" and the risks as "injury to the common bile duct and vessels: open procedure possible" and the benefits as "remove the gall stones". There is no record of any other information being provided. Dr C stated that Mrs A did not at any stage express the thought that she had had this surgery done before.

39. Dr C obtained Mrs A's formal consent for the surgery. She signed the consent form on 6 May. Dr C stated there was further discussion about the proposed surgery at this time, although no discussion is documented.

40. Dr C advised that "the pressure on surgical waiting lists creates an incentive for efficiency in terms of informed consent. The waiting list systems do not provide in any way an incentive for surgeons to keep rebooking patients for repeated informed consent discussions while further investigations are awaited."

[11] Slows/prevents the production of acid in the stomach.
[12] Anti-inflammatory.

41. Dr C advised Mrs A about the advantage of having a follow-up CT examination if a decision was made to proceed with surgery and told her that he wanted to see the result of her blood tests before making a decision about surgery. Dr C recorded that he planned to conduct liver function blood tests to rule out obstruction and that Mrs A's next investigation "might be a CT scan to see why the bile duct is dilated", before arranging for her to be admitted for a laparoscopic cholecystectomy. Dr C noted:

> "I will need to get back in touch with [Mrs A] to recommend the safe sequence would be CT of the abdomen first to remeasure the common bile duct and see if there are any lesions within the pancreas or within the bile duct contributing to her clinical picture."

42. There is discrepancy in the information provided by Dr C and the family about who attended this consultation. Dr C's impression is that Mrs A's daughter, Ms B was present. Dr C said that Mrs A's daughter was present for some of the time, but left the room to answer her cell phone and then stayed outside.

43. The family stated that Mrs A attended the outpatient clinic alone. Ms B clearly recalls that she met Dr C for the first time after the surgery on 9 June 2009.

Mrs A's recall

44. Mrs A said that when Dr C talked to her about having her gallbladder out she thought, "I am sure I have had this done". However, she admits that her memory is "shocking", and she is confused about the number of surgeries she has had. Mrs A said she remembered having an operation for "stones" but was not sure whether that was kidney or gallbladder stones. She thought that her medical notes would record her operations and that Dr C would remember them.

45. Dr C stated that he was unaware that Mrs A suffered memory problems. However the notes record that Mrs A had suffered a CVA. Dr C has acknowledged to HDC that he was aware of the CVA.[13] He recalled that she gave a "good history … in the context of giving a history of the trip [overseas]. She relayed, in some detail, becoming unwell while on the trip and of attending the hospital there".

Blood tests

46. Mrs A had the blood tests Dr C ordered. The results, which showed that her liver function was within the normal range, were sent to Dr C on 7 May. He acknowledged the receipt of the results electronically. Dr C said that although the blood test results indicated that there was no liver blockage, it still showed that there was something causing issues with Mrs A's liver, which could have been caused by her lifestyle or a temporary obstruction.

CT scan

47. Dr C stated that he completed and signed a CT request form and left this in Mrs A's file. The indications for CT scan that Dr C noted were, "Contracted gall bladder noted

[13] See paragraphs 16, 28 and 29 above.

on ultrasound. Colicky epigastric pain, normal LFTs[14]. Dilated CBD ?pancreatic/CBD lesion."

48. Dr C stated that he was "not expecting the procedure to have been carried out at all". He said that the usual way in which a request for a CT scan was actioned was by the request form for the X-ray being handed to the reception staff with instructions on a separate sheet. He claimed that the administration staff took it upon themselves to remove the form from the file and action it, without reference to him. Dr C stated that he did not expect the administration staff to depart from the usual process.

49. It appears that the administration staff saw the request form in Mrs A's file and delivered it to Radiology. As a result, Mrs A was sent an appointment for the CT scan, and on 22 May had a CT abdomen and pelvic scan at Hospital A.

50. The result of the CT scan was sent electronically to Dr C on 29 May. The report stated:

> "Cholecystectomy clips are seen. …
>
> IMPRESSION:
> Post-cholecystectomy status with mild prominence to the common hepatic duct and left hepatic duct. Correlation with liver functions is recommended.
>
> Incidental non-obstructive left renal calculus."

51. In response to the provisional opinion, Dr C stated, "The context needs to be acknowledged here. The CT scan report only makes sense if consciously married with [Mrs A's] clinical situation and the previous ultrasound report".

52. Dr C advised HDC that Mrs A's CT scan report was sent to him as an electronic copy only. He said when he opened the report, which was one of a number of reports sent to him that day, he noted Mrs A's name at the top of the report. Dr C said, "I acknowledged the CT report without recognising it as [Mrs A's] particular case."

53. Dr C said he attempted to print the report but lost it when he unintentionally sent the report to a remote printer and he could not find it again on the computer. Dr C said that he expected to receive a printed copy of the report so that he could check it later with the appropriate patient's file. He said no paper copy of the CT report appeared in Mrs A's clinical notes.

54. Waikato DHB advised that, at that time, the DHB was still using the paper-based system whereby the paper results were delivered to the doctors and placed on the paper file. There was a dual system, paper and electronic, for about three months until the DHB was satisfied the electronic system was functioning as expected.

55. Dr C, responding to the provisional opinion, stated:

[14] Liver function tests

> "I note that the Waikato District Health Board says that there was a dual based system in place. I can't comment on what might have been happening in [Hospital B], but at [Hospital A] the dual system was patently not operating. The hardcopy of the CT scan never made it to me. Indeed, in the hardcopy Volume 2 notes, which I have reviewed on a number of occasions, the hard copy of the CT scan is still not there."

June 2009

56. On 2 June, the Hospital A admission clerk contacted Dr C to advise him that Mrs A had telephoned the Admission Unit because she was troubled by ongoing pain, and asked if her laparoscopic cholecystectomy could be brought forward. Dr C said he checked Mrs A's liver function tests, but it did not occur to him that she might have had the CT scan. He knew that the ultrasound scan had showed that the bile duct was larger than normal, which was possibly due to pancreatic back pressure. Dr C advised HDC that he thought that it would be "prudent to take a look at the structures [in theatre] and do an X-ray on the table if needed". He arranged for Mrs A to be admitted for the surgery.

57. On 9 June, Mrs A was admitted to the Hospital A Same Day Admission Unit for the surgery. Dr C recalls that when he saw Mrs A prior to the surgery, she asked him about the results of the scan. Dr C stated:

> "I discussed the ultrasound findings, not the CT report (with its obvious alarm comments, available solely on computer). Both [Mrs A] and her daughter enthused about my expediting surgery, 'at last something was being done about her pain'. She completed the consent form, confirming that I was to undertake laparoscopic cholecystectomy, acknowledging that discussion about possible complications had taken place."[15]

58. Again there is discrepancy in the information provided to HDC about whether a family member accompanied Mrs A. Ms B denies that she accompanied her mother to the hospital on the morning of 9 June. She stated that she did not meet Dr C until after the surgery when Mr A introduced them[16].

Surgery

59. Dr C's operation note recorded that he believed he was operating on a scarred gallbladder remnant. He divided small vessels leading from the hepatic artery to the scarred tissue, then opened into a hollow duct close to the liver and was able to see duct openings into the liver itself. At this point, Dr C recognised his error and that the hollow duct he was looking at was the extrahepatic bile duct. He placed a soft rubber drain into the left hepatic duct to allow controlled drainage until Mrs A could be transferred to the hospital in the main centre (Hospital B) for further treatment. Dr C took clinical photographs to help identify the injury to the bile duct for the information of the next surgeon.

[15] Mrs A had signed the consent form on 6 May. When she was admitted on 9 June she signed a "confirmation of consent" witnessed by a nurse.
[16] Mr A and Dr C had met prior to 2009.

60. Dr C contacted Waikato DHB hepatobiliary and general surgeon specialist Dr E immediately following his completion of Mrs A's surgery to advise him of the situation, and to arrange for Mrs A to be admitted to Hospital B.

61. Dr C explained to Mr and Mrs A and Ms B what had occurred, and told them that Mrs A needed to be transferred to Hospital B for further investigations.

Hospital B

62. On 10 June, Mrs A was transferred to Hospital B where Dr E saw her at midday. He told Mr and Mrs A and Ms B that he had viewed Dr C's clinical photographs, and was concerned that a major duct injury had occurred. He arranged for Mrs A to have a cholangiogram[17] which confirmed his concerns. Mrs A had a CT scan to assess for arterial injury. The scan showed that there was no injury to the arteries.

63. Dr E stated:

> "On questioning [Mr and Mrs A] about her previous surgery, she was unaware of her previous cholecystectomy or removal of gallbladder and thought that this had been done for her kidneys. I note that she has previously had kidney stones in the past. On review of the notes from Waikato we have no record of her original operation, but I note on an admission note of 2004 a documented history of laparoscopic cholecystectomy on admission for laparoscopic appendicectomy."

64. Dr E performed corrective surgery on 11 June. Mrs A had a difficult and protracted recovery.

Additional information

Dr C

65. Dr C advised HDC that "the primary mistake was one of information processing". Mrs A's clinical history was contained in two separate files. Chart 1 contains her medical records from 1981 to 1996, and includes an assessment for renal colic in 1993, a stroke in 1995 and the gallbladder removal in January 1996. Chart 2 contains Mrs A's clinical records from 1999 to 2009, including a record of her March 2004 laparoscopic appendicectomy.

66. Dr C advised that he did not ask for the first file of Hospital A notes or Mrs A's Hospital B notes from 2004 to be made available, and therefore he and Mrs A, were unaware of her previous gallbladder surgery when he offered her the laparoscopic cholecystectomy in May 2009. Mrs A gave a history of having been treated for "stones (either biliary or renal)" but not of surgery. Dr C did not indicate that he asked how the "stones" were treated. However, he stated: "The available notes indicate 'fit' for anaesthesia in 1999 and referred for laparoscopic appendectomy in 2004". He claims the record of past surgery was sought, but not found in the notes available.

67. Dr C said:

[17] Radiological examination of gallbladder.

> "It takes a careful reading of the Waikato notes to pick up the inconsistencies that once only acknowledges laparoscopic cholecystectomy, and one of five diagrams show any abdominal scars (small port sites for laparoscopic surgery). Similarly, the first volume of notes must be read systematically to locate records of imaging and endoscopy of the upper gastro-intestinal tract, culminating in the admission for laparoscopic cholecystectomy in 1996."

68. Dr C stated that when he filled in the CT scan request form when he reviewed Mrs A at the outpatient clinic on 6 May 2009, he anticipated that he would be having further discussion about Mrs A's blood test results, which indicated that there was no obstruction. He said that the CT result "came up unexpectedly on the new iSOFT Clinical Results computer program" on 29 May. He expected to have an opportunity to check the printed report with the appropriate patient file later. Dr C stated, "I missed cues that might alert that the gallbladder had been removed, and other causes for her abdominal pain still need to be considered."

69. Dr C stated:

> "The key abnormality requiring follow-up was an enlarged bile duct measurement rather than the absence of the gallbladder (that is, what follow up was needed for someone with an enlarged bile duct after cholecystectomy?). Unfortunately the printed form was misplaced as I failed to recognise that the default printer was not with our medical typists. Having misplaced the file I was unable to locate it either on the computer or at the printer outlet …
>
> The CT report was crucial, but was lost with a new information systems process.
>
> I have since become aware of ways to highlight and save key information. … Finding results, retrieving information, saving for review, and linking patient information are all learned skills in process. Inspection of [Mrs A's] computerised laboratory record shows a histology of the gallbladder from 1996 if one scrolls down through several pages of results. …
>
> Documentation of the laparoscopic cholecystectomy in 1996 was stored in 'Chart 1' held in the hospital basement; only 'Chart 2' was made available for clinical review in the emergency department or outpatients."

70. Dr C advised that he has discussed this case with colleagues at Hospitals A and B informally and in the context of a clinical audit. He has also discussed the information issues with the Waikato DHB IT advisor.

71. Dr C has spoken to Mr and Mrs A and acknowledged his mistake, and has offered to meet with them to discuss these events should they wish.

Response to expert advice

72. Dr C was provided with a copy of Dr Sanders' independent expert advice and invited to comment. Dr C provided more detail of his discussions with Mrs A on 1 April and 6 May, which has been included in this report.

73. Dr C stated:

> "I was certainly open to the use of a cholangiogram, but I need to explain the sequence of events clearly. My dissection was part of the preparation for a possible cholangiogram. The dissection was necessary before a cholangiogram catheter could have been inserted. The point at which a cholangiogram could have been done was the point at which I realised that something was not right and I stopped the procedure."

74. In relation to his training and experience as a hepatobiliary surgeon, Dr C advised that he trained as a general surgeon and has held a fellowship with the Royal Australasian College of Surgeons since 1981. In 1993 he attended a laparoscopic cholecystectomy course overseas, and returned to New Zealand to practice laparoscopic procedures with the guidance of two specialists from other centres. Dr C advised that cholecystectomy laparoscopic surgery has remained his most frequently performed procedure. He performs between 50 and 80 of these procedures each year. Dr C said he regularly takes part in peer reviews with colleagues in Hospitals A and B.

75. Dr C stated that he has now undertaken training to develop his skill in managing the computerised clinical work station, covering topics such as patient information retrieval, dictating, and X-ray reporting and imaging. He has also discussed the "error trap"[18] and the technical details of his surgical procedures with the Waikato DHB General Surgery Clinical Director, and Dr E.

Hospital A – computer training

76. The Hospital A Service Manager advised that the new computer programme was introduced on 2 April 2009 to a small group of senior nurses and doctors. A memo was sent to senior medical staff advising them of training dates. Dr C was provided with an individual 20-minute training session in his office on either 7 or 12 May 2009. The Service Manager stated that Dr C presented as computer literate and confident in CWS application.

77. Waikato DHB operates an electronic clinical information system, Clinical Workstation (CWS), which is an application that enables the DHB to store electronic results and letters from the laboratory and radiology. It was introduced in three phases, the first being a repository only. The second phase which was being introduced in April/May 2009 was the e-acknowledgement of laboratory results, which required the person who ordered the result to acknowledge when they received the electronic report. The third phase was the e-acknowledgement of radiology results. At the time of these events the DHB was still using the old fashioned paper-based system whereby the paper results were delivered to the doctors and placed on the clinical file. There was a dual system, paper and electronic for about three months, until the DHB was satisfied that CWS was functioning as expected.

Hospital records

78. The Service Manager advised that it is current practice for the most current file to be made available to consultant medical staff. Many patients have multiple files that are

[18] The trap of seeing what one expects to see.

available on request. The current Hospital A clinical notes are provided as normal practice. Old notes in separate files are stored in the hospital basement and may have to be specially requested.

Waikato DHB

79. On 12 August 2009, Dr E wrote to Mrs A to advise her about plans for her ongoing pain management and treatment of her continuing symptoms. Dr E also addressed questions that Mr and Mrs A had about how Mrs A, "having had a previous operation with one surgeon, [was] able to have the same operation with the same surgeon at a later date". He stated that the DHB has identified a number of issues that contributed to this event. Dr E noted that patients and their families do not always remember exactly what operation they have had, and other events, like stroke, affect recall. He stated that the DHB should have systems in place that can identify the surgeries the patient has previously had, even when they have moved and there is no ability to access old notes, or when documents are missing from the file. (Current practice at Waikato DHB is for the patient's most current file to be made available to the consultant medical staff. Multiple files are available upon request.)

80. Dr E covered the issues that Dr C detailed as to how information was not available about Mrs A's medical history and the CT scan. Dr E concluded his letter to Mr and Mrs A:

> "None of us are proud of the care that you have received and believe that we could do much better. We are all part of a team that has let you down and we apologise for this."

ACC

81. On 20 June 2009, Mrs A made a treatment injury claim to ACC. On 10 July 2009, ACC advised Mrs A that her claim was accepted.

Responses to provisional opinion

Mr and Mrs A

82. Mr and Mrs A advised HDC that they believe that Dr C should have had access to Mrs A's old notes. They reiterated that they disagree with Dr C's statements that members of the family accompanied Mrs A when she was admitted to the Hospital A Emergency Department on 1 April 2009 and attended the Surgical Outpatient clinic to be reviewed by Dr C on 6 May 2009.

Waikato DHB

83. Waikato DHB advised HDC that the information it had previously provided about the training support for CWS application was incomplete, and apologised for that oversight. Waikato DHB stated that it is the DHB's practice to ensure that any new technology, particularly where this impacts on patient care, is fully supported by staff training.

84. Training for the CWS application began on 2 April 2009, with a Powerpoint presentation to senior medical and management staff, and there was discussion on process change requirements. On 16 April, a memo was distributed to senior medical staff to advise them of the training dates. On 30 April, consultants and ED staff were provided with individual training on CWS requirements. The Electronic Acknowledgement segment of the CWS application was first introduced in Hospital A on 20 May 2009.

85. Waikato DHB also commented on the recommendations in the provisional opinion. The first recommendation was that the DHB "introduce a system whereby a summary of the significant medical history of those patients whose clinical records are contained in more than one volume is readily accessible to the current treating clinicians". The DHB stated that although it accepted the recommendation, it is a difficult matter to implement, as there are a number of categories of clinical notes, for example, some patients have old multiple paper files with more recent electronic records, some patients have one or two paper files and some electronic records (which is the majority of patients), and there are those who have recently recorded paper and electronic records, and have the "significant medical history" recorded electronically. It was noted that the DHB would have difficulty in providing a summary for those patients whose information is held primarily on paper, as a clinically trained person would be needed to review all the files and prepare a summary. Also there is no uniformity in the information that is held electronically. However, Waikato DHB stated that is prepared to consider this issue and liaise with other DHBs who may have already worked on this issue.

86. Waikato DHB advised that the second recommendation — that the DHB "ensure that clinicians are aware of all clinical files which contain relevant information" is not "logistically or clinically feasible". Waikato DHB's record department currently provides approximately 24,000 paper files to clinicians per month, and has systems in place for ensuring that clinicians are aware of the number of paper files held for a particular patient. However, it is not the DHB's current practice to supply all volumes of clinical notes to all practitioners asking for clinical notes, as in many cases providing all the volumes would not meet the clinical needs of the patient and may cause undue delay.

87. In relation to the third recommendation, that Waikato DHB "ensure that the implementation of new technology and its administration is fully supported by staff training", the DHB advised that it currently has robust processes in place to do so. The DHB provided a memorandum which illustrates the roll-out and staff training for the implementation of the Electronic Acknowledgement aspect of the CWS application.

88. Waikato DHB stated that the recommendation that the DHB "ensure that patients placed on the waiting list when results are pending have an alert to ensure all results are reviewed prior to surgery", has been implemented. Clinicians are required to acknowledge all outstanding results. A clinician who has not acknowledged results will receive a "pop-up message" on the clinical workstation, which will notify him or her that there are unacknowledged reports waiting to be read and reviewed.

Dr C

89. Dr C provided a written apology to Mrs A.

90. Dr C stated:

> "Right from the outset, I have always acknowledged to [Mrs A] the mistake I made. I do not resile from that and I have to accept the breach finding. […]
>
> I have learnt a tremendous amount from this event. I have taken active steps to prevent a similar thing occurring, and to upskill. I have made three visits to [Hospital B] to perform laparoscopic cholecystectomy with a colleague. I have presented an audit to my peers on two occasions by video conference, and I am due to do another one on 22 September. I have fully maintained my continued medical education from the College of Surgeons."

Opinion: Breach — Dr C

Introduction

91. Mrs A had been under the care of Hospital A surgical services since the 1980s. In 1995, she suffered a CVA and she advised HDC that her memory is "shocking". In 1996, she had a laparoscopic cholecystectomy, performed by Dr C, after some years of ongoing upper abdominal pain and a number of admissions for this problem. In 2004, Mrs A had a laparoscopic appendicectomy at Hospital A. In April and May 2009, Mrs A was assessed at Hospital A ED for ongoing abdominal pain and nausea. Dr C saw her in April and again at the surgical outpatient clinic in May.

92. Mrs A's Hospital A notes are in two volumes. Chart 1 contains her clinical records up to 1999 and Chart 2 contains her records after that date.

Preoperative assessment — 1 April

93. Dr C advised HDC that when Dr D referred Mrs A to him on 1 April 2009 for assessment of her ongoing upper abdominal pain and nausea, he had no recollection that he had operated on her to remove her gallbladder in 1996.

94. My independent general surgery expert Dr Mark Sanders was critical of Dr C's history taking. He stated, "In the clinical assessment of the patient a whole history should always be elicited. This would include obviously a discussion with the patient and any attending family members." Dr Sanders commented that it appears that Mrs A was unable to provide Dr C with the information that she had had a previous

cholecystectomy. But, he thought it probable that Mr A would have been aware that his wife had had gallbladder surgery in 1996, as he was recorded as the next of kin on the consent form for that surgery.

95. Dr C stated that Mrs A and her husband provided a history of recurrent upper abdominal pain, but could not recall any previous surgery. However, Mr A says that when Mrs A was admitted to Hospital A ED on 1 April 2009, his wife's surgery was not discussed with him. He stated that he dropped his wife off and then left.

96. The examining ED medical officer, Dr D, recorded that Mrs A was brought in by Mr A, and advised HDC that he does not record this fact in the clinical records unless he had seen the patient's husband. He said he verified that Mr A was Mrs A's husband, but does not remember discussing Mrs A's medical condition with him.

97. In contrast, Dr C said he recalls Mr A's presence during his examination and assessment of Mrs A in the ED on 1 April 2009. However, there is no record in the notes of Mr A being present or providing any information.

98. I am unable to resolve the differing accounts of who was or was not present at this consultation. In the end this is not the issue. The important issue is that Mrs A's previous cholecystectomy was not discussed with Dr C. Mrs A advised HDC that she has had problems with her memory. However, Dr C says he was unaware of this, although the CVA is recorded in the notes that he had. He also stated to HDC that he discussed Mrs A's history, including the CVA, with Dr D. As he was aware she had suffered a CVA, Dr C should have considered the possibility that Mrs A's memory could be affected.

99. Dr C recalled that Mrs A seemed able to give a "good history". He later advised that this "history" related to her becoming unwell while on holiday overseas. He did not record any other questions he asked about her clinical history, although he said he discussed her previous pain and investigations with her on 1 April 2009 and had further consultations with her on 2 April and 6 May.

100. This Office has frequently stated[19] that health professionals whose evidence is based solely on their subsequent recollections (in the absence of written records offering definitive proof) may find, as in this case, their evidence is discounted. There is no record made in 2009 of Mrs A's clinical history, other than the notes made by Dr D on 1 April 2009.

101. Dr C had the most recent folder of Mrs A's notes. He could have called for her previous notes, but said as he was not alerted to previous gallbladder investigations or surgery, he did not think it necessary. However, he had notes which included Mrs A's 2004 admission notes, which referred to her history and the laparoscopic cholecystectomy in 1996. Dr C advised HDC that his primary mistake was one of "information processing". He said that it takes "careful reading to pick up the inconsistencies that once only acknowledges laparoscopic cholecystectomy, and one of five diagrams show any abdominal scars".

[19] Opinion 08HDC10236 (28 November 2008) page 11.

102. Dr C stated that he conducted a "limited physical examination" on Mrs A on 1 April in one of the ED cubicles. He said he did not bare her abdomen as he usually did when examining one of his patients, because of privacy issues. However, he had opportunities to carry out a more thorough examination when he saw her again on 2 April and 6 May.

103. Dr C recalls seeing faint surgical access scars when he examined Mrs A. Dr C said, "I did not identify these [as] indicating previous gallbladder removal". He recalls that the marks were difficult to see because of Mrs A's skin colouring.

104. In response to the provisional opinion, Dr C stated that the only port sites that could be seen on Mrs A's abdomen were "a subumbilical and a right flank (as well as a suprapubic) port, which were all consistent with an appendectomy. The other port sites, consistent with the cholecystectomy, could not be seen".

105. Dr C submitted that he was unaware of the previous surgery because Mrs A's Chart 1, which contained the record of the 1996 cholecystectomy, was not made available to him in May/June 2009, and Mrs A did not advise him of the previous surgery.

Informed consent

106. The principle of informed consent is at the heart of the Code. The key issue for determination is whether Dr C complied with his obligations under the Code to fully inform Mrs A and obtain her informed consent prior to her gall bladder surgery.

107. Dr C saw Mrs A again on 6 May at the hospital outpatient clinic. He examined her, and although he again noted "very subtle marks" from her previous laparoscopic surgery, he did not associate these with gallbladder removal.

108. Dr C talked to Mrs A about the surgical option of laparoscopic cholecystectomy, and advised her to have liver function tests before the surgery. He said he "emphasised that going ahead with surgery depended on laboratory evidence of bile duct obstruction, as any obstruction would prompt referral for CT examination". Dr C stated that he explained in "very clear language and at some length that laparoscopic cholecystectomy, to remove the gall bladder, was the intended surgery". He said Mrs A did not at any stage express the thought that she had had this done before. She signed the consent form on 6 May and confirmed her consent by signing the confirmation form on 9 June after further discussion about the proposed surgery.

109. Dr C advised that, "the pressure on surgical waiting lists creates an incentive for efficiency in terms of informed consent. The waiting list systems do not provide in any way an incentive for surgeons to keep rebooking patients for repeated informed consent discussions while further investigations are awaited".

110. I accept that Dr C explained to Mrs A that she may need to have her gallstones removed, subject to the results of further tests. However, I am concerned that he obtained Mrs A's consent to having a laparoscopic cholecystectomy at that time, despite the need for further investigations and before deciding to proceed with the surgery. This was very poor, and I do not accept that waiting list systems should have

influenced his decision making. Dr C had not carried out an adequate preoperative work-up, so he was in no position to inform Mrs A about her condition or provide an explanation of the options available to her, including an assessment of her expected risks, side effects and benefits of the surgery. Mrs A could not give informed consent with this paucity of information. She was experiencing pain and unlikely to refuse to sign, as she wanted relief from the pain.

Preoperative assessments

111. I agree with the assessment of my expert, Dr Sanders, who considers that Dr C's departure from the normal standard of care in the preoperative work-up was a severe departure from good practice.

112. Dr C referred Mrs A for liver function studies and wrote a referral for a CT scan. The CT scan referral was actioned by the outpatient clinic staff, and Mrs A had the scan on 22 May. Dr C stated that he had not expected the CT scan request he completed and filed in Mrs A's file to be actioned. However, he did not take any steps, such as not signing the form, to ensure the administrative staff knew they were not intended to action this request.

113. The scan report noted that "cholecystectomy clips are seen", a clear indication that the patient had had a cholecystectomy. The report was sent to Dr C electronically on 29 May 2009, via the hospital computer system.

114. Dr C advised this Office that when the electronic report was sent to him on 29 May, "[he] was unable to connect the CT scan report to [Mrs A's] case when [he] read it." He recalls that when he keyed that he acknowledged the electronic report and directed it to a printer, it was "lost in the new information systems" that the hospital had introduced on 2 April 2009. In my view, the report was not lost in the systems — he sent it to the wrong printer and, rather than take steps to recover it, such as seeking IT assistance or requesting another report, he relied on the dual system. He expected to receive a paper copy of the report which would be attached to the file. This did not happen at that time.

115. Dr C advised HDC that he received and sent this CT scan report for printing at 6.23pm. He said he did not call for after-hours IT assistance and could not easily seek the print-out from a locked administration office until the morning. However, despite the difficult situation Dr C found himself in that evening, in my view, he could have followed up the result the next day.

116. Mrs A's blood results were reported to Dr C. When Mrs A contacted the surgical unit admissions clerk on 2 June asking if her surgery could be brought forward because of her distressing symptoms, Dr C arranged for her to be admitted. Dr C acknowledged that this admission was based on a "doubtful" ultrasound and liver function tests that were equivocal.

117. On 9 June, on the morning of the surgery, Dr C went over the details of the laparoscopic cholecystectomy when he talked to Mrs A. Dr C said that Mrs A asked about the results of her scan, but did not specify that she was asking about the results

of the CT scan. He believed that she was referring to the April ultrasound scan, and repeated the information he had already provided at the consultation on 6 May. Dr C stated that "made no connection" with the CT scan report he had seen on 29 May, and did not know of the existence of Mrs A's CT scan result until after Dr E operated on her at Hospital B.

118. I appreciate that Dr C said he did not intend to order a CT scan for Mrs A in May. However, he had discussed this matter with her, documented that he intended to talk to her again about this as a "safe sequence" prior to any surgery, and he had received a CT scan result for her. Unfamiliarity with new electronic information systems might have explained Dr C overlooking his receipt of the critical CT scan report, if it were not for the fact that Mrs A asked him about the result of a scan on the morning of her surgery. This was a missed opportunity for Dr C to review his preoperative work-up of this patient. The April ultrasound scan had raised questions about Mrs A's biliary anatomy, and this together with the results of her liver function tests, should have prompted him to review his diagnosis or, at least, consider whether further investigations were necessary.

119. Dr Sanders stated:

> "[Mrs A] was consented and planned for a laparoscopic cholecystectomy before all the results had been viewed and this coupled with not picking up the relevant history or examination findings has I feel led to a departure from the normal standard of care in the preoperative work up of this patient which I would regard as a severe departure from good practice."

120. Dr Sanders stated that the mitigating circumstances of the lack of relevant information being passed on by the patient and family, the absence of appropriate notes and the issues with the changing information systems must be borne in mind. However, he was of the opinion that Dr C was going into this surgery with the misperception that Mrs A's gallbladder was in situ, and therefore this was going to be a routine cholecystectomy. Dr Sanders advised, "This is the area of care where the primary error arose i.e. the non-appreciation of the previous cholecystectomy."

121. Dr C acknowledged that he missed the cues that Mrs A's gallbladder had been removed and that he needed to consider other causes for her abdominal pain.

Surgical approach

122. Dr C's record of Mrs A's operation indicates that he believed he was operating on a scarred gallbladder remnant. Dr C stated that when he proceeded to divide the small blood vessels from the hepatic artery, and opened into a hollow duct close to the liver, he realised that this duct was the extrahepatic bile duct. Dr C immediately realised his mistake, and that Mrs A would need to be transferred to a tertiary centre for further assessment and treatment. He inserted a drain, took clinical photographs to help identify the injury to the bile ducts, and completed the surgery.

123. Dr Sanders advised that Dr C proceeded with Mrs A's laparoscopic cholecystectomy with the assumption that the anatomy he was seeing was a shrunken gallbladder with

slightly abnormal vascular anatomy. Dr C apparently did not feel that further visualisation of the biliary system with an examination such as a cholangiogram, was necessary, and felt happy to continue his dissection in this obviously scarred area.

124. Dr C stated:

> "I was certainly open to the use of a cholangiogram, but I need to explain the sequence of events clearly. My dissection was part of the preparation for a possible cholangiogram. The dissection was necessary before a cholangiogram catheter could have been inserted. The point at which a cholangiogram could have been done was the point at which I realised that something was not right and I stopped the procedure."

125. Dr Sanders commented that Dr C's misreading of the anatomy led to the duct excision, noting that the most common reason for bile duct injuries is the "visual perception illusion", i.e. seeing what you believe to be true even though it might not be so. Dr Sanders advised that Dr C's operative management up to the point of recognition of the injury was a moderate departure from good practice.

Postoperative management

126. Immediately after he completed Mrs A's surgery, Dr C contacted the Hospital B surgical specialist, Dr E, to advise him of the situation and arrange for Mrs A's transfer. Dr C informed Mr and Mrs A what had occurred.

127. Dr Sanders advised HDC that Dr C's postoperative management, in immediately acknowledging the error, providing Dr E with very adequate information and his subsequent involvement in the resolution process, was quite appropriate. I accept that Dr C's actions, once he realised the error, were appropriate.

Summary

128. It is evident that a combination of factors contributed to this very serious incident and what was a grave situation for Mrs A. Mrs A's symptoms were causing her distress and she was brought forward for cholecystectomy surgery before all the results of the preoperative investigations had been viewed. In addition, her surgeon was unaware that he had performed this same surgery on her 13 years earlier.

129. Although a surgeon who performs 50 to 80 laparoscopic cholecystectomies a year may not remember each and every patient, it is understandable that the patient would assume that he would and would rely on the surgeon's advice about what was the most appropriate treatment.

130. I accept that Dr C's unfamiliarity with the newly introduced clinical record computer system caused him to send the critical May CT scan report to the wrong printer. However, he failed to follow the report up even though he had read and acknowledged it. He noted that Mrs A was the patient and that cholecystectomy clips were visible − evidence that a cholecystectomy had been performed — but did not connect this to Mrs A when he saw her 10 days later. He overlooked other important cues, the equivocal liver function test results, the ultrasound scan and the 2004 operation notes,

which should have alerted him to the possibility that his diagnosis and management plan should be reviewed.

131. It is important for a patient to take some responsibility for his or her treatment and wellbeing by giving the clinicians as full and accurate information as he or she is able in order to assist the decision making process. However, in this case, Mrs A had suffered an earlier stroke, and she acknowledged that her memory was "shocking". She was also confused about the difference between gallstones and kidney stones. She had insufficient information to be in a position to ask the right questions and accepted the advice given to her by her surgeon. The onus is on the clinician to ask the relevant questions, examine the patient and keep proper records. Only then is the clinician in a position to properly consider all the risks, review all available appropriate information, and then and only then, proceed to perform the surgery. It is inappropriate, in my opinion, to claim that these events were the result of a mislaid CT scan report, missing clinical files and a failure of the patient to provide information.

132. In my view, when Dr C operated on Mrs A in these circumstances, he did not exercise an appropriate degree of care by reviewing all the information available to him, and therefore did not minimise the potential harm to Mrs A. Accordingly, in my opinion, Dr C breached Rights 4(1) and 4(4) of the Code.

133. It was inappropriate for Dr C to complete the informed consent process at a time when there was insufficient information available to assess the suitability of the procedure for Mrs A, including the risks and benefits. Consequently, he did not provide her with an adequate explanation of her condition. This was information she needed before making an informed choice or giving informed consent. Accordingly, in my view, Dr C breached Rights 6(2) and 7(1) of the Code.

Opinion: Breach — Waikato DHB

134. Mrs A suffered a stroke in 1995. She had numerous hospital admissions after that time for abdominal related problems, requiring a laparoscopic cholecystectomy in 1996, and a laparoscopic appendicectomy in 2004. Her clinical notes were contained in two volumes. When Mrs A attended Hospital A in 2009, she had no clear memory of her previous surgeries or that she had her gall bladder removed in 1996. Dr C was also apparently unaware of that she had had a cholecystectomy when he assessed her in 2009, in spite of the fact that he was the surgeon who had performed that surgery.

135. When Mrs A was admitted to Hospital A in June 2009, Hospital B was in the process of changing from a paper-based to an electronic system for the storing and reporting of laboratory and radiological examination reports. The system was introduced on 2 April 2009. Two weeks later senior medical staff were sent a memo advising them of available training dates. At that time, Dr C, who was considered to be computer literate, was provided with an individual 20-minute training session, and judged to be

confident in Clinical Work Station application. I note that Dr C has undertaken further training in the DHB computer systems of information retrieval, X-ray reporting and imaging and dictating since these events.

136. Communication of information to the right person at the right time is critical to safe care. I acknowledge that it takes time for new systems to be bedded down, and for all users of the system to become proficient in its operation. In this case the right person, Dr C, received the critical information in the CT scan in a timely manner, but because of his unfamiliarity with the system this important information was misplaced. It would be unfair to hold the DHB liable for Dr C having sent the report to the wrong printer and then failing to follow-up the report.

137. The management of Mrs A's clinical records has already been discussed. Her clinic records were contained in two volumes, the most current being the one that was provided to Dr C in 2009. I appreciate that in some cases, where a patient has had multiple admissions over a long period, the volume of notes would be considerable. Although the critical factors in these events were determined by individual clinical decisions, I believe that this case highlights the importance of the significant details of a patient's clinical history, such as previous surgeries and allergies, being readily available to current clinicians. I appreciate that the volume Dr C received made a brief reference in the 2004 notes to Mrs A having had a laparoscopic cholecystectomy. This could have been ascertained by careful perusal of the notes, but the history of Mrs A's 1996 cholecystectomy would have been more apparent to Dr C if he had been provided with her old notes.

138. Dr Sanders advised that delivering just the current set of a patient's notes, rather than all the old notes, amounts to a moderate departure from the expected standard on the part of Waikato DHB.

139. Waikato DHB stated that it is not "logically or clinically feasible" to ensure that clinicians are aware of all clinical files which contain relevant information and that, in many cases, providing all the volumes of notes would not meet the clinical needs of the patients and might cause undue delay. Waikato DHB pointed to practical difficulties in providing all notes to clinicians, especially in cases where a patient has an extensive history. It also advised that it would be time consuming to prepare a summary of major procedures undergone by each patient.

140. Given that many patients lack medical knowledge and some may have impaired capacity to communicate, this is an unsatisfactory situation. Clearly, it is risky to rely on clinicians' memories of events of many years ago, and patients may lack medical knowledge or have impaired capacity to communicate relevant medical histories.

141. I accept that it may be impractical where voluminous amounts of material exist, to deliver all notes to clinicians. Nonetheless, it is axiomatic that relevant history should be considered when treating patients. The system needs to reliably alert treating clinicians to the existence of relevant information, particularly in relation to that patient's history in that institution. I recommend Waikato DHB takes action to minimise the possibility of a recurrence of an event such as this.

142. It is clear that the care provided to Mrs A was detrimentally affected by the DHB's failure to take reasonable steps to alert her treating clinician to relevant clinical information in May/June 2009. Therefore, in my opinion, Waikato DHB breached Right 4(1) of the Code.

Recommendations

143. I recommend that Waikato DHB:

- Confirm by **30 November 2011**, that it has taken action and has systems in place to ensure that clinicians are alerted to the existence of relevant patient information.
- Provide HDC with an update, by **30 November 2011**, of any action taken to liaise with other DHBs working on the issue of summarising the significant medical history of those patients whose clinical records are contained in more than one volume.

Follow-up actions

- Dr C will be referred to the Director of Proceedings in accordance with section 45(2)(f) of the Health and Disability Commissioner Act 1994 for the purpose of deciding whether any proceedings should, be taken.
- A copy of the final report will be sent to the Medical Council of New Zealand.
- A copy of the final report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Royal Australasian College of Surgeons. They will be advised of Dr C's name.
- A copy of the final report with details identifying the parties removed, except the DHB and the expert who advised on this case, will be sent to ACC, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Addendum

The Director decided not to take a disciplinary proceeding against the surgeon in this case or to bring a claim for damages before the HRRT (the consumer having ACC cover for treatment injury that would preclude an award of compensatory damages).

Appendix A — Independent expert general surgery advice

The following expert advice was obtained from general surgeon Dr Mark Sanders.

"I have been asked to provide an expert opinion to the Commissioner on case no. 09-01505 and the following is my report. I have read and followed the Commissioner's guidelines in the preparation of this report.

Professional Credentials of 'expert advisor' relevant to this report

My name is Mark Nathan Sanders and I am a vocationally registered surgeon employed by Northland District Health Board.

I hold an MBBS from the University of Newcastle upon Tyne, U.K., awarded in 1988. I hold a fellowship of the Royal College of Surgeons of London, England, gained by examination; a fellowship of the Royal College of Surgeons of Edinburgh gained by examination; and a fellowship of the Royal Australasian College of surgeons gained by examination in 2001. Following fellowship training I was appointed a consultant senior lecturer at the University of Bristol and the Bristol Royal Infirmary in the U.K. Since 2002 I have worked as a consultant general surgeon based at Whangarei Area Hospital. My practice here encompasses a wide range of general surgical conditions in this provincial hospital setting. I am the Advanced Trainee Supervisor for Whangarei Hospital and a member of the Education Committee of the Board in General Surgery. I am a member of the NZ Trauma Committee of the Royal Australasian College of Surgeons, an Advanced Trauma Life Support Director, and current NZ Regional Representative for the early management of severe trauma.

I declare no conflict of interest in this case.

SYNOPSIS OF THE CASE

[Mrs A] (hereafter known as 'the patient') had been seen several times at [Hospital A] with upper abdominal pain culminating in the provisional diagnosis of 'biliary dyspepsia' being made by [Dr C], consultant surgeon at [Hospital A]. During this time certain investigations were ordered and undertaken. The patient was duly placed onto the surgical waiting list and proceeded to laparoscopic cholecystectomy by [Dr C] on 9th May 2009. During this procedure, what was believed to be a shrunken gallbladder was removed but a bile duct was also opened. The operative field was drained and the patient was transferred to [Hospital B] where she underwent further imaging. It was found that the extrahepatic bile duct had been excised together with a hepatic arterial injury. The patient proceeded to have a reparative procedure. It subsequently came to light that the patient had had a laparoscopic cholecystectomy in 1996. Some of the investigations ordered pre-operatively which were apparently not viewed prior to undertaking the surgery, had shown an absence of the gallbladder in line with the previous cholecystectomy.

EXPERT ADVICE REQUIRED

The Commissioner has requested of me specifically to address the following questions:

1. Did [Dr C's] surgical approach comply with professional standards?
2. Was [Dr C's] pre-operative management of [Mrs A] appropriate?
3. Was Waikato DHB's information system adequate in regards to ensuring that [Dr C] had the information he required before undertaking surgery on [Mrs A].

EVIDENCE TO SUPPORT CONCLUSION

I have been furnished with information from the Commissioner's office. After preliminary reading I requested additional information which was duly forwarded to assist me in the study of this case. These include letters from the patient's representative, surgeon [Dr C], [Dr E], hepatobiliary and general surgeon at [Hospital B], relevant hospital notes pertaining to the pre-operative work-up including scan results, operative notes, and post operative notes from her stay in [Hospital B]. In addition some relevant past notes have been included pertaining to the original cholecystectomy back in 1996.

TIMELINE OF RELEVANT EVENTS

[Mrs A] had been seen in the beginning of 1996 with upper abdominal pain. Investigations had confirmed the presence of multiple gallstones which were clearly documented in [Hospital A] notes. She underwent a laparoscopic cholecystectomy on 28th February 1996, the operation notes also being present in her [Hospital A] clinical record. Histology confirmed the presence of chronic cholecystitis in the resected gallbladder specimen.

In 2004 she was admitted to [Hospital B] with what subsequently turned out to be appendicitis. From the admissions notes I have available it has been documented that her past medical history had included a laparoscopic cholecystectomy. Examination findings on 21st March 2004 included the presence of scars consistent with a previous laparoscopic cholecystectomy. I note that the GP's referral letter for that acute admission does not however comment on this operation, and therefore I cannot be certain if the patient or somebody with the patient at that time disclosed that information.

Note:

- In 1995 [Mrs A] suffered a cerebrovascular accident which may have possibly impaired her memory although this is difficult to confirm.
- It appears that the patient's [Hospital A] notes are in two files – one from 1999 onwards which has been labelled as (2), and another presumably file1 preceding that date.

On April 1st 2009 the patient presented acutely to the Emergency Department at [Hospital A] with right upper abdominal pain. It would appear that at no point was her past history of a cholecystectomy mentioned by any of the reviewing physicians or in the General Practitioner's referral letter and therefore presumably was not mentioned

by the patient or attending family members. As part of that acute admission an ultrasound scan was undertaken with the report that 'the gallbladder is not seen and may be contracted. The common bile duct is 11mm into the head of the pancreas but no calculi are seen' [Dr C] reviewed the patient that evening with the diagnosis of likely "biliary dyspepsia" being made. Discharge summary the following day by [Dr C] makes comment on a "contracted gallbladder" and follow-up in the outpatients department was advised.

[Mrs A] was re-admitted with a similar clinical picture on the 3rd March 2009 and subsequently followed up on 6th May in the Outpatient Department at [Hospital A]. At that visit to [Dr C's] clinic, again biliary dyspepsia and a contracted gallbladder were mentioned whereas the actual ultrasound report, as mentioned above, comments that the gallbladder is not seen and may be contracted. The ultrasound report also commented on the 11mm common bile duct and, as a consequence of that a CT scan was organised by [Dr C]. Arrangements were however also started at that time for the patient to undergo a laparoscopic cholecystectomy based on the diagnosis of biliary dyspepsia and a waiting list card, dated that day, was filled out. Around this time there were changes to the information systems at [Hospital A] for reporting of radiology results on to an electronic format but it would appear that the CT scan was not followed up on and/or acted upon prior to the patient presenting for a laparoscopic cholecystectomy. The CT scan clearly comments on the absence of a gallbladder consistent with the previous cholecystectomy.

A laparoscopic cholecystectomy was undertaken on 9th June 2009. The operation note describes a scarred gallbladder, with dissection continuing it would seem, with this understanding resecting tissue that was believed to be a gallbladder. A bile duct was opened into close to the liver and it was then that some type of duct injury was recognised and drains placed to the region. Immediate discussion with the regional tertiary centre was undertaken and transfer planned. [Mrs A] subsequently underwent a cholangiogram evaluation of the ductal system with the finding of an excised extrahepatic ductal system, and underwent a biliary reconstruction with hepaticoduodenostomy on 11th June 2009.

The key factors in this case are, I believe, as follows:

a) The preoperative work-up of [Mrs A] would have normally been expected to have identified the fact that she had a previous laparoscopic cholecystectomy either from the history, examination findings or the full review of preoperative tests ordered.
b) Once the decision had been effectively made to undergo what was felt likely to be a cholecystectomy then I feel the largest part of this incident had already occurred. Subsequently upon embarking upon the procedure itself progress was made based on the misconception that the gallbladder was still in situ. [Dr C] proceeded with the planned operation, at least in the early stages, presumably visualising what he thought was routine but certainly somewhat scarred anatomy. When the injury to the major ductal system was recognised this was acted on appropriately, and on discussion, transfer happened expeditiously.

SPECIFIC COMMENTARY

1. Did [Dr C's] surgical approach comply with professional standards?

   [Dr C] was going into this operation with the misperception that the gallbladder was in situ and therefore that this was going to be a routine cholecystectomy. I have reviewed the operation notes regarding this surgery and it would certainly indicate that he proceeded with the assumption that the anatomy he was seeing was that of a shrunken gallbladder with a slightly abnormal vascular anatomy. To this end he also did not feel the need for further visualisation of the biliary system such as an intraoperative cholangiogram which would have helped clarify the situation but was obviously felt not to be necessary at the time. Given [Dr C's] experience he presumably felt happy to continue his dissection in this obviously scarred area, however his misreading of the anatomy led to the duct excision. This visual perceptual illusion/'visual misperception' (seeing what you believe to be true even though it may not be true / error trap) is the most common reason for bile duct injuries[1,2] with the surgeon failing to appreciate the truth of what they are seeing. I think it is apparent that this is the case here. Once a duct injury had become apparent appropriate operative management in terms of drainage was undertaken. Post operatively I feel quite appropriate management of the patient was undertaken by [Dr C] in terms of discussing with and providing very adequate information to [Dr E], the tertiary centre surgeon, and arranging a timely transfer. A note should be mentioned of [Dr C's] immediate acknowledgement of the events and his involvement in the resolution process including using this as, no doubt, a significant learning experience.

   I feel that the operative management is therefore a moderate departure from good practice. I have no issues with the post op management.

   When the patient was transferred to [Hospital B] the investigation management of this difficult case would appear to have been exemplary.

2. Was [Dr C's] pre-operative management of [Mrs A] appropriate?

   This raises several issues. This is the area of care where the primary error arose i.e. non appreciation of the previous cholecystectomy. The first is the availability of [Mrs A's] notes to [Dr C] in his outpatient review. It would appear that file 1, the file in which the previous cholecystectomy was documented, was not available to [Dr C] at this review. In the clinical assessment of a patient a whole history should always be elicited. This would include obviously a discussion with the patient and any attending family members. It would seem apparent that at no point was the patient able to offer the information that she had had a previous cholecystectomy. Whether this had any relationship to the CVA is difficult to know. It is probable that the patients' husband however, from the notes back in 1996, would certainly have been aware of the fact that [Mrs A] had had that operation as he was documented as being the next of kin on the consent form for that operation. An examination is also an integral part of any assessment and the scars from the previous laparoscopic cholecystectomy were visible as documented in the Waikato Admission from 2004 for appendicitis but these scars may have been faint and therefore were presumably overlooked.

The issue of the investigations:

a) Reasonably appropriate investigations in terms of the ultrasound and then the CT based on the ultrasound findings were ordered however another failing in the system has come with the non-following up of this CT. This would certainly have alerted any operating surgeon to the fact that the gallbladder had been removed and obviously therefore vastly changed the approach to management of this case. Any investigations ordered do fall upon the ordering doctor to follow up and act upon those results. In this case there are mitigating circumstances in that the information systems were changing from a paper to an electronic system however I think there is little doubt, that had the fact that the CT scan been ordered been recalled by [Dr C] there would have been means available to obtain that result. Indeed in [Dr C's] letter of 31st August 2009, he states that he did 'acknowledge' the CT scan result on 29th May. Issues with printing however lead to the lack of a hard copy being available immediately. It seems therefore to have been a genuine oversight that the result was not linked to the patient. There is an obligation however on practitioners to follow up on and act upon as necessary any ordered investigations by whatever means available be that paper, verbal or electronic.

b) [Mrs A] was consented and planned for a laparoscopic cholecystectomy before all results had been viewed and this coupled with not picking up the relevant history or examination findings has I feel led to a departure from the normal standard of care in the preoperative work-up of this patient which I would regard as a severe departure from good practice. I think however the mitigating circumstances of the lack of any relevant information being passed on by the patient or their representative; the absence of appropriate notes; and the issues with the changing information systems must be borne in mind.

3. Was Waikato DHB's information system adequate in regard to providing the information for [Mrs A's] case?

   It would appear that some of the relevant old notes were not available to [Dr C] at his clinic review with them apparently being in the basement at [Hospital A]. In a letter from [Hospital A] on the 14th April 2010 it is stated that '[Hospital A] clinical notes are provided as normal practice'. In a recently arrived e-mail (26/4/10) this has been updated to 'The *current* [Hospital A] Clinical notes are provided as normal practice. *Old notes in separate file in the hospital basement may have to be specially requested'*. It would appear therefore that, in this case, just the current set of notes were delivered rather than all the old notes. This would consist of a moderate departure from the standard expected and can obviously be quite simply corrected. At the time of this case there was the change over between electronic and paper reporting systems. It would seem that this would certainly be a mitigating circumstance and it would be inappropriate of me to comment on the adequacy of Waikato DHB's current electronic system now that presumably the whole system is in place and it is no longer a change over period.

I think it must be noted that Mr & [Mrs A] would appear to have been given very full, frank and adequate information regarding this case as it has proceeded.

Recommendations:

1. That [Dr C] ensures that any pre-operative work-up is thorough and that any investigations ordered are followed up on especially prior to definitive intervention. This could involve the development of a pre-operative check list to include scanning for and the sighting of all recent investigations. I have little doubt however that [Dr C] has already learnt a lot from this case. Indeed in his correspondence I note that for example he has apparently already found ways of ensuring that future electronic results do not go astray. I would not have any further specific recommendations regarding any additional management

2. Waikato DHB to ensure that all old notes as well as anything current are updated on the electronic system and are available for all hospital visits including the preoperative work-up of patients undergoing surgery.

MARK SANDERS MDBS FRCS (Eng) FRCS (Ed) FRACS
Consultant General Surgeon"

1. Lawrence W Way et al. Causes and Prevention of Laparoscopic Bile duct Injuries. *Ann Surg* 2003 Apr; 237(4) 460-469
2. Dekker SW, Hugh TB. Laparoscopic Bile duct Injuries: understanding the psychology and heuristics of the error. *ANZ J Surg* 2008 Dec; 72(12): 1109-14

Additional advice provided by Dr Sanders

"This is an addendum to the original report following the receipt of electronic version of a verbal transcript between HDC officers and [Dr C] concentrating on certain aspects of this case.

These notes, headed under the headings of the original report, are in addition to my original report comments.

EVIDENCE TO SUPPORT CONCLUSIONS

In addition to those previously mentioned I have also received, on the 14/12/2010, an electronic version of a verbal discussion between HDC officers and [Dr C] concentrating on certain aspects of this case.

TIMELINE OF EVENTS

These comments, based on information from the verbal interview, expand on those previously made and are specific to various points of the case rather than being a full chronological history.

During assessment in the Emergency Department, examination of the patient had been undertaken and scars noted consistent with a previous laparoscope insertion, only which was felt to have been explained by the appendicectomy. No upper abdominal scars were elicited, but even in retrospect it was mentioned that these were very difficult to see by [Dr C] and others. Examination was described as limited due to patient reluctance in a busy department but it should be noted that the patient had been examined by other medical staff before then. There were some family members around at that time apparently including the husband (the only time that he was present during consults) but no history of a cholecystectomy was offered although [Dr C] recalls discussing 'stones' with those present.

[Mrs A] was seen in the clinic where her daughter was present on 6th May. It was noted that her daughter would only have been a teenager at the time of her original cholecystectomy therefore may well have not recalled it and also left part way through the consultation. [Dr C] stated that during the consenting process, for clarity, he would have made reference to gallstones, gallbladder and not just mentioned cholecystectomy. It had never been put to [Dr C] that [Mrs A] may have had a poor memory indeed he described that she seemed to be able to give a good history otherwise citing details of a recent trip to the Islands as an example.

During that consultation a real desire for the surgery was expressed by the patient. [Dr C] had recent blood results available which were assessed in the context of the Ultrasound report. A CT scan was mentioned, largely to assess the dilated bile duct it would seem rather than the presence or not of the gallbladder, but my impression from the interview is that [Dr C] did not actually order the CT scan rather put the completed request form in the patient's notes presumably for consideration later. It did not appear that [Mrs A] was told it was going to be done definitely rather was just discussed at the time. This form was the picked out of the notes by the administrative staff and sent to Radiology anyway.

During the same clinic review the operation of a cholecystectomy was fully discussed and the consent form and booking/waiting list form completed and sent with the notes to the administration staff where formal placement on to the waiting list was made.

The CT scan result was therefore not expected by [Dr C] and also happened to come to [Dr C] at the time of a change over to an electronic results service. It was however seen by him during review of his unacknowledged results but was presumably not mentally directly linked to the patient and her history. There does seem, in the system, to be the ability to link results with other aspects of the patient's case such as blood results and clinic letters. [Dr C] however did chose to print the letter to get a hard copy presumably to put things together at a later time. Unfortunately the result did not go to the intended printer due to possible confusion over the choices given by the computer, and the result was therefore not followed up on. This remains a key oversight in this case.

A request was then made to expedite [Mrs A's] surgery as she had been having further episodes of pain. [Dr C] comments that he rechecked the blood results and ultrasound but was presumably not expecting a CT result, nor had the hard copy made it into the

notes having gone to another printer, nor did he mentally link the electronic signed off result with the case before deciding to bring surgery forward.

At the pre-operative visit on the day of surgery where [Mrs A's] daughter was also present, 'scans' were apparently discussed but these were felt to have been the ultrasound by [Dr C] rather than the CT which made have been meant by the patient and family.

SPECIFIC COMMENTARY

2. Was [Dr C's] pre-operative management of [Mrs A] appropriate?

My earlier comments stand with respect to the history and examination for any pre-operative patient. It remains that neither the patient nor variously attending family members were able to offer up the past history of a cholecystectomy but, as that can not always be relied upon, relevant notes should have been present and it remains that file 1 was not available at the time of consultation. The scars from that previous operation were obviously faint and the examination missed them.

One of the main updates from this verbal transcript is that the CT scan was not formally requested by [Dr C] rather having been just (appropriately) considered, although a request form was completed, therefore a result would not have been expected. Despite this [Dr C] did however review the result after it was completed and, it would seem, had the intention of acting on it, in so much as he printed out, it to review later. It is obviously unfortunate, and maybe an issue to make computer commands as straightforward as possible, that it went to a remote site from where it was not going to make it into the patient's notes. Nevertheless when a result comes to a clinician with their name on the request form, it remains their job to link it together with any other relevant information regarding that patient and it would seem that this is possible with the computer system in place at Waikato DHB.

RECOMMENDATIONS

The additional information from this transcript gives further details of the sequence of events and circumstances, possibly mitigating in some respects, which prevailed.

My original recommendations stand but in addition:

1. Waikato DHB ensure that the implementation of new technology is fully supported by a training period and efforts made to minimise confusing elements within any such system (such as printer selection).
2. Waiting list cards are only completed after all results are reviewed rather than pending any results.

MARK SANDERS MBBS FRCS (Eng) FRCS (Ed) FRACS
Consultant General Surgeon"