

# A Decision by the Deputy Health and Disability Commissioner (Case 21HDC00246)

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## Introduction

- 1. This report is the opinion of Carolyn Cooper, Deputy Health and Disability Commissioner, and is made in accordance with the power delegated to her by the Commissioner.
- The report discusses the care provided to Mrs A by Palmerston North Hospital (Health New Zealand | Te Whatu Ora (Health NZ)<sup>1</sup> Te Pae Hauora o Ruahine o Tararua MidCentral.<sup>2</sup>
- On 3 February 2021 this Office received a complaint from Ms B about the care provided to her mother, Mrs A, at Palmerston North Hospital between Month1<sup>3</sup> and Month6. The complaint concerns issues surrounding poor documentation and communication, resulting in unnecessary surgery for gallbladder removal, despite the gallbladder having been removed in 2005.

<sup>&</sup>lt;sup>3</sup> Relevant months are referred to as Month1–Month7 to protect privacy.



<sup>&</sup>lt;sup>1</sup> Formerly Te Whatu Ora|Health New Zealand.

<sup>&</sup>lt;sup>2</sup> Formerly Midcentral District Health Board. On 1 July 2022 the Pae Ora (Healthy Futures) Act 2022 came into force, which disestablished all district health boards. Their functions and liabilities were merged into Health NZ. All references in this report to Hawke's Bay District Health Board now refer to Health NZ Te Pae Hauora o Ruahine o Tararua MidCentral.

- 4. The following issue was identified for investigation:
  - Whether Te Whatu Ora|Health New Zealand provided [Mrs A] with an appropriate standard of care during [Month1] 2020 to [Month6] 2021 (inclusive).
- 5. The parties directly involved in the investigation were:

Mrs A Consumer
Ms B Complainant

Health NZ Te Pae Hauora o Ruahine

o Tararua MidCentral Provider

6. Independent clinical advice was obtained from radiologist Dr David Milne (Appendix A).

# **Background**

- 7. Mrs A (then aged 80 years) was admitted to the Emergency Department (ED) at Palmerston North Hospital on 25 Month1 with epigastric pain.<sup>4</sup> On admission, it was noted that she had had a right hemicolectomy<sup>5</sup> in 2005 for ascending colon adenocarcinoma (colon cancer) as well as previous coronary artery bypass graft surgery (2007), hypertension, and ischaemic heart disease.<sup>6</sup> It was recorded that Mrs A did not have a history of gallstones, and there is no mention that a cholecystectomy (surgical removal of the gallbladder) occurred in 2005 at the same time as the hemicolectomy.<sup>7</sup>
- During Mrs A's ED admission, an ultrasound identified the presence of at least one gallstone. The gallbladder was noted to be 'not well distended' with a 'thickened wall', some debris within the gallbladder, and some fluid around the gallbladder. The appearance was of cholelithiasis (gallstones) or probable cholecystitis (gallbladder inflammation).
- On 27 Month1 Mrs A was admitted to the ICU due to respiratory distress and severe pancreatitis (secondary to gallstones). Mrs A's history was noted, but again there was no mention of the previous cholecystectomy. A CT scan of Mrs A's abdomen and pelvis on 27 Month1 noted that the gallbladder was 'shrunken' with at least one gallstone seen. Mrs A had three sets of clinical records, and on 28 Month1 her first set (set one) was sent to ICU, and these records included reference to the cholecystectomy in 2005. This set of records also noted previous removal of polyps in 2012 and 2018.

<sup>&</sup>lt;sup>8</sup> With hindsight, it is now known that this was not the gallbladder.



<sup>&</sup>lt;sup>4</sup> Pain occurring in the upper central region of the abdomen.

<sup>&</sup>lt;sup>5</sup> A surgical procedure that involves removing a segment of the colon.

<sup>&</sup>lt;sup>6</sup> Also known as coronary artery disease (the major blood vessels in the heart become narrow and stiff).

<sup>&</sup>lt;sup>7</sup> Mrs A had been admitted to Palmerston North Hospital for this surgery on 23 December 2005. Health NZ provided a completed consent form setting out both procedures. Health NZ told HDC that the cholecystectomy was coded using ICD-10 coding and provided a copy of the clinical coding information recording this and the hemicolectomy.

- Consultant general and gastrointestinal surgeon Dr C told HDC that Mrs A's medical history was obtained both from Mrs A and from her electronic clinical records, which recorded hypertension, ischaemic heart disease, and a right hemicolectomy in 2005. Dr C said that based on the ultrasound and CT scan and with no known history of gallbladder or gallstone surgery, he assumed that the cause of Mrs A's severe pancreatitis was gallstones.
- In response to the provisional opinion, Ms B told HDC that it was unfair for Dr C to say that Mrs A's medical history was obtained from both Mrs A and the electronic records. While this may be the case, Mrs A was in ill health and in a lot of pain at the time of her admission. In addition, Mrs A had no recollection of being told that her gallbladder had been removed when she had her bowel surgery in 2005, as she was focused on her bowel surgery.
- Ms B also told HDC that Mrs A's records should have been looked at more closely, given her understanding that a cholecystectomy is common during bowel surgery.
- Subsequently Mrs A's condition improved, and on 30 Month1 she was transferred to the surgical ward and then to the STAR wards<sup>9</sup> for rehabilitation. Mrs A was discharged home on 14 Month2. The discharge summary noted Mrs A's medical history (no record of cholecystectomy), and she was put on a waiting list for a laparoscopic cholecystectomy following a consultation with Dr C.
- Mrs A's clinical records (sets one, two, and three) were provided to the pre-admission clinic on 22 Month5. On 23 Month5 Mrs A attended a pre-anaesthetic clinic, where the previous hemicolectomy and coronary artery bypass graft surgeries were recorded. However, again there is no record of a previous cholecystectomy.
- 15. Mrs A's surgery was scheduled for 15 Month6 (later rescheduled to 20 Month6), and her clinical records (sets one, two, and three) were provided to the pre-admission clinic on 13 and 19 Month6.

## Surgery — 20 Month6

- The consultant general surgeon performed the surgery on 20 Month6. He told HDC that having reviewed the electronic records combined with the fact that Mrs A had been seen in the outpatient clinic previously, he agreed to perform the surgery, and Mrs A was placed on the semi-acute list. He told HDC that Mrs A had had a thorough history taken and there was no record of the previous cholecystectomy. He stated that after commencing the laparoscopy, it became apparent that a cholecystectomy had been performed previously.
- 17. He documented that immediately he searched the electronic system, which showed no previous documentation of a laparoscopic cholecystectomy. However, the hard-copy notes record that a hemicolectomy and a cholecystectomy had been performed at the same time. He stated that this information was not made available to him by Mrs A or by the booking team.

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<sup>&</sup>lt;sup>9</sup> Wards that care for people who require assessment, treatment, and rehabilitation.

#### Clinical records

- Dr C told HDC that electronic records at Health NZ MidCentral have been in use since 2010–2011 and that there are few, if any, electronic clinical records available prior to that time. The clinical portal is used to access all clinic letters, assessment reports, peri-operative records, laboratory results, discharge summaries, medical imaging reports, as well as digital images. One of Mrs A's first electronic clinical records is a letter dated 13 February 2013 following a clinic consultation by the surgeon who had undertaken the hemicolectomy in 2005, and this letter makes no mention of the gallbladder removal that occurred at the same time.
- 19. Dr C told HDC that it is not routine practice to review clinical records of patients on a waiting list in the time interval between placement on a waiting list and the surgery date unless there is a clinical problem, which was not the case for Mrs A. All relevant clinical records and imaging would be reviewed by the operating surgeon immediately prior to the operation, particularly if the operating surgeon is unfamiliar with the case, as was the case here. Unfortunately, the electronic records, digital images, and imaging reports did not highlight the previous gallbladder removal. Dr C stated that hard-copy clinical records are often stored in several sets or volumes, which may or may not be available at the time. Older volumes are frequently stored off site and often it is the latest records that are made available.

## **Events following surgery**

Health NZ told HDC that a formal incident report was completed, and the incident was given a provisional severity assessment code (SAC) 3 rating<sup>10</sup> and categorised under the Te Tāhū Hauora|Health Quality and Safety Commission (HQSC) national adverse events policy as an 'always report and review' event.<sup>11</sup> Health NZ told HDC that a 72-hour review of the incident was undertaken immediately by the clinical lead for surgery.

## **Communication following discharge**

- 21. Ms B told HDC that her brother was contacted by a staff member from Palmerston North Hospital on 29 Month6. The staff member outlined several inaccurate details about the incident and Mrs A's medical history, which included the following:
  - The scans were misinterpreted by the radiologist;
  - Mrs A's clinical notes did not mention the gallbladder removal in 2007;
  - Mrs A had not been admitted to Palmerston North Hospital previously prior to her admission in Month1.

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<sup>&</sup>lt;sup>10</sup> SAC is a rating and triage tool for adverse event reporting, as set out by the HQSC. SAC 3 refers to moderate or temporary major loss of function.

<sup>&</sup>lt;sup>11</sup> The event is required to be reported to HQSC. The event must then be reviewed with findings to be sent to HQSC within set timeframes.

- Health NZ told HDC that it was unable to identify the staff member who made contact with Mrs A's son, but it apologised for the inaccurate information provided.
- On 25 [Month7] Dr C met with Mrs A and her family and apologised for the error. Health NZ also met with Mrs A and her family to formally acknowledge what had occurred and to apologise and provide them with a copy of the 72-hour report.

#### Serious adverse incident review

- A serious adverse incident review was completed on 10 May 2021. The review found that the paper clinical files with documentation of the gallbladder removal in 2005 is contained in set one of the clinical files, which was available for staff to review in the intensive care unit and available to the surgeon and the preoperative clinic. The records for Mrs A in the electronic clinical portal go back only to 2012. The hard-copy clinical records prior to 2012 are not captured in the clinical portal and were reviewed by the anaesthetist only during the abandoned surgery.
- Unfortunately, the hard-copy documentation of the gallbladder surgery that occurred in 2005 was not reviewed by the surgeon prior to the 2021 surgery, nor at the preoperative clinic. The surgeon and anaesthetist relied on the findings of the ultrasound scan of the abdomen performed on 26 Month1, and the CT abdomen and pelvis findings performed on 27 Month1.
- Mrs A's past medical history was reviewed by the medical practitioners via the clinical portal electronic clinic letters and investigative reports from radiology and the laboratory. However, the clinic letters on the clinical portal record the right hemicolectomy in 2005 with no mention of the cholecystectomy.
- 27. Open disclosure of the abandoned surgery to Mrs A and her daughter did take place immediately postoperatively. The review concluded that there was a delay in reporting the incident on Riskman<sup>12</sup> due to the surgical registrar not being trained in the use of Riskman.
- 28. The review made the following recommendations:
  - Staff to take all steps to ensure that both the electronic and hard-copy file have been reviewed sufficiently to enable informed decision-making;
  - Education for staff on policy and procedure for open disclosure and how to record clinical incidents on Riskman; and
  - Phone calls to patients to be recorded on a telephone consult form and filed in the clinical records.
- Health NZ told HDC that it unreservedly apologises to Mrs A and her family for the care Mrs A received.

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 $<sup>^{12}</sup>$  A database designed to enable reporting, investigation, and management of clinical incidents.

## Responses to provisional opinion

Ms B

Ms B was provided with an opportunity to comment on the 'information gathered' section of the provisional opinion and considers the facts gathered to be accurate. Ms B's additional comments have been incorporated throughout this report where relevant.

#### Health NZ

Health NZ was provided with an opportunity to comment on the provisional opinion, and it advised that it had no comment to make regarding the contents of the report or the findings. Health NZ advised that it is working through the recommendations and has since provided an apology to Mrs A and her family.

# Opinion: Health NZ — breach

First, I acknowledge the distress that these events have caused Mrs A and her family. After careful review of the information gathered over the course of this investigation, I have concerns about the care provided to Mrs A. I acknowledge that multiple staff were involved with Mrs A both during her admission in Month1 and prior to her surgery on 20 Month6, and, in my view, the responsibility for the deficiencies in care lay with Health NZ, as outlined below.

## Review and management of clinical records

- Mrs A was admitted to Palmerston North Hospital on 25 Month1. Her record on admission contains no mention of the cholecystectomy that took place in 2005. However, set one of Mrs A's records were sent to ICU on 28 Month1, and these records included reference to the cholecystectomy in 2005. Full sets of Mrs A's records were provided to the pre-admission clinic on 22 Month5 and again on 13 and 19 Month6.
- There were several missed opportunities by staff to review Mrs A's records over this time. Her records containing reference to the earlier cholecystectomy were available both when Mrs A was admitted to ICU and at the pre-admission clinic. While I acknowledge that an ultrasound and CT scan both referred to a gallbladder (discussed below), a proper review of Mrs A's hard-copy notes would have identified the earlier cholecystectomy. I am critical that this did not occur, and that Mrs A underwent an unnecessary and avoidable procedure. I accept that the information about her gallbladder surgery was in hard-copy form, and I am concerned that significant details of Mrs A's history were not readily available to treating clinicians.
- Health NZ stated that the records in the electronic clinical portal for Mrs A go back only to 2012, and the hard-copy clinical records prior to 2012 are not captured in the clinical portal. Mrs A's past medical history was reviewed by the medical practitioners via the clinical portal electronic clinic letters and investigative reports from radiology and the laboratory. Health NZ stated that the clinic letters on the clinical portal record the right hemicolectomy in 2005 but no mention of the cholecystectomy. Health NZ told HDC that the cholecystectomy was

coded using ICD-10 coding<sup>13</sup> and provided a copy of the clinical coding information recording this and the hemicolectomy.

- While I acknowledge that multiple staff members failed to review Mrs A's hard-copy clinical notes adequately, I consider that this case highlights the importance of significant details of a patient's clinical history such as previous surgeries being readily available and visible to treating clinicians. I note that Health NZ told HDC that it is now working through the implementation of scanning hard-copy clinical files into the electronic clinical portal, and I consider this to be an appropriate course of action to minimise the possibility of a recurrence of such an event.
- I find that Health NZ breached Right 4(1)<sup>14</sup> of the Code of Health and Disability Services Consumers' Rights (the Code) due to multiple staff failing to review Mrs A's records adequately and because Health NZ did not ensure that significant details of Mrs A's history were readily available to clinicians. This meant that Mrs A underwent surgery unnecessarily.

## **Communication** — other comment

Ms B told HDC that following Mrs A's discharge from hospital, her brother was contacted by a staff member from Palmerston North Hospital on 29 Month6. The staff member outlined several inaccurate details about the incident and Mrs A's medical history. Health NZ told HDC that it was unable to identify the staff member, but the serious adverse event review made a recommendation that telephone calls to patients be recorded on a telephone consult form and filed in the clinical records. Whilst I cannot make a finding on the content of the conversation with Ms B' brother, I am satisfied that the steps taken by Health NZ to address the issues with telephone communications identified after the serious adverse event review were appropriate.

## Ultrasound and CT interpretation — no breach

- During Mrs A's admission to ED, an ultrasound identified the presence of at least one gallstone. A CT scan of Mrs A's abdomen and pelvis on 27 Month1 noted that the gallbladder appeared 'shrunken' with at least one gallstone seen. On 28 Month1, Mrs A's records (set one) were sent to ICU, and these included reference to the cholecystectomy in 2005.
- I obtained independent advice from radiologist Dr David Milne. Dr Milne did not identify any departure from accepted practice in relation to the interpretation of the ultrasound and CT reports. On a blind reading of the imaging provided, without the relevant history, Dr Milne identified an abnormal gallbladder. Dr Milne advised that given the difficulties he and his own radiology colleagues encountered in interpreting the images correctly without an accurate history when they undertook a blind reading, the previous history of the cholecystectomy in 2005 is critical to the interpretation of this imaging. Dr Milne considers

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<sup>&</sup>lt;sup>13</sup> Clinical coding is a way of collating health data. Information from the clinical notes of all inpatient and sameday patients discharged from New Zealand public hospitals is coded clinically and recorded in the hospital's patient management system (PMS).

<sup>&</sup>lt;sup>14</sup> Right 4(1) states: 'Every consumer has the right to have services provided with reasonable care and skill.'

that the omission of this critical history made accurate interpretation and diagnosis unachievable.

I accept this advice. As noted above at paragraphs 33–37, I consider that the deficiencies in care are the result of multiple staff at Palmerston North Hospital not reviewing Mrs A's previous history adequately and Health NZ not ensuring that significant details of Mrs A's history were readily available. I note that Mrs A's history of cholecystectomy was not available to radiology at the time of the ultrasound and CT scan and was made available to ICU only on 28 Month1. Accordingly, I consider that there was no departure from the accepted standard of care in relation to this aspect of care.

# **Changes made since events**

- Health NZ told HDC that following on from the recommendations set out in the serious event review, it is working through the implementation of scanning clinical files into the electronic patient clinical portal, which means that staff must check the electronic patient clinical portal as well as the hard-copy file for all patients. Telephone consultations by consultants and registrars are followed up by either completion of the telephone consult forms or a dictated letter for the clinical records.
- Health NZ stated that the incident has been discussed with medical teams to ensure that all relevant information is reviewed to make informed decisions.

### Recommendations

- 44. I recommend that Health NZ Te Pae Hauora o Ruahine o Tararua MidCentral:
  - education of medical staff at Palmerston North Hospital. The case study should detail the actions taken and decisions made by staff, the results of these actions/decisions, and the appropriate course that should have been taken. Evidence confirming the content and delivery of the presentation, and to whom it has been presented and when, is to be provided to HDC within six months of the date of this report.
  - b) Provide an update to HDC on the implementation of scanning hard-copy clinical files into the electronic patient clinical portal, within three months of the date of this report.
  - c) Provide confirmation to HDC that coded medical issues are accessible and able to be reviewed by staff, within three months of the date of this report.
- In the provisional opinion, I recommended that Health NZ Te Pae Hauora o Ruahine o Tararua MidCentral provide an apology to Mrs A and her family for the breach of the Code identified in this report. This apology was received in response to the provisional opinion and has since been provided to Mrs A and her family.

# Follow-up actions

A copy of this report with details identifying the parties removed, except Palmerston North Hospital, Health NZ Te Pae Hauora o Ruahine o Tararua MidCentral, and the independent advisor on this case, will be sent to Te Tāhū Hauora | Health Quality and Safety Commission and placed on the Health and Disability Commissioner website, <a href="www.hdc.org.nz">www.hdc.org.nz</a>, for educational purposes.

# Appendix A: Independent clinical advice to Commissioner

The following independent advice was obtained from Dr David Milne:

'14 August 2023

RE: [Mrs A] HDC#: C21HDC00246

I have been requested by HDC to review and provide reports on ultrasound imaging performed on [Mrs A] on 26 [Month1] at Midcentral DHB and CT examination of the abdomen and pelvis performed the following day at Midcentral DHB. I am not aware how these investigations were reported at the time.

I have been sent DICOM images to review for both examinations as well as the clinical information as screen capture from the RIS (Radiology Information System) for each of the two imaging requests.

My reports for the examinations are as follows:

## Ultrasound abdomen 26 [Month1]

The liver is difficult to visualize and much of the imaging is intercostal. There is no focal liver lesion. No intra or extra hepatic biliary duct dilatation is shown. The gallbladder is difficult to visualize due to complex fluid and echogenic material in the gall bladder fossa. This echogenic material is not clearly within the gallbladder.

The pancreas is slightly echogenic but there is no focal abnormality and no pancreatic duct dilatation. The kidneys show occasional cortical cysts but no pelvicalyceal dilatation. Spleen normal. Mild fusiform dilation of the infra-renal abdominal aorta.

## Comment:

Complex fluid in the gallbladder fossa but appearances not typical for acute cholecystitis. Suggest CT to define further.

## CT abdomen and pelvis 27 [Month1]

Post contrast examination through the abdomen and pelvis.

There is a moderate volume of free peritoneal fluid and inflammatory peritoneal and retroperitoneal stranding within the abdomen and pelvis. Fluid is seen in the gall bladder fossa, however the gallbladder is difficult to define and a small gallstone is present in the gallbladder fossa as well. Further focal calcifications are seen posteriorly in the upper pelvic peritoneum on both sides and in the right deep pelvis and these have a similar appearance to the gallstone in the gall bladder fossa.

No intra or extra hepatic biliary duct dilatation is shown. The pancreas contains calcifications in the head suggesting chronic pancreatitis.

There is a transition of caliber to the colon in the left upper quadrant but this is not thought to be due to an obstructing lesion. Distal colon diverticulosis.

The lungs demonstrate atelectasis and there are bilateral small pleural effusions. Previous CABG noted. Surgical clips are present in the bowel mesentery on the right and I suspect there has been a previous right hemicolectomy but details of prior surgery are not provided.

## Comment

Suspect perforation of the gallbladder with bile leak, biliary peritonitis and multiple free stones in the peritoneum. Would report findings urgently to surgical team.

I would be happy to provide further analysis on this case if required. I would need to have more information however, including how the imaging was reported at the time.

Yours sincerely

Dr David Milne Radiologist'

'12 September 2023

RE: [Mrs A] HDC# C21HDC00246

I have been asked previously by HDC to provide advice on this complaint regarding [Mrs A]. The previous request was a blind reading of ultrasound and CT examinations performed on [Mrs A] in [Month1] at Palmerston North Hospital while she was acutely unwell.

The critical element in the complaint is that [Mrs A] had in 2005 undergone surgery for a right colon cancer treated by right hemicolectomy and that at the time of this surgery, the gallbladder was removed as it contained gallstones. This information had not been included on any of the clinical requests for imaging related to the ultrasound or CT examinations of 26 [Month1] and 27 [Month1]. She subsequently underwent a further surgical procedure to remove a gallbladder suspected as contributing to gallstone pancreatitis based on findings from the acute imaging of [Month1], only to find that no gallbladder was present due to its prior surgical removal.

My reports for these investigations which I previously supplied to you were:

## Ultrasound abdomen 26 [Month1]

The liver is difficult to visualize and much of the imaging is intercostal. There is no focal liver lesion. No intra or extra hepatic biliary duct dilatation is shown. The gallbladder is difficult to visualize due to complex fluid and echogenic material in the gall bladder fossa. This echogenic material is not clearly within the gallbladder.

The pancreas is slightly echogenic but there is no focal abnormality and no pancreatic duct dilatation. The kidneys show occasional cortical cysts but no pelvicalyceal dilatation. Spleen normal. Mild fusiform dilation of the infra-renal abdominal aorta.

#### Comment:

Complex fluid in the gallbladder fossa but appearances not typical for acute cholecystitis. Suggest CT to define further.

## CT abdomen and pelvis 27 [Month1]

Post contrast examination through the abdomen and pelvis.

There is a moderate volume of free peritoneal fluid and inflammatory peritoneal and retroperitoneal stranding within the abdomen and pelvis. Fluid is seen in the gall bladder fossa, however the gallbladder is difficult to define and a small gallstone is present in the gallbladder fossa as well. Further focal calcifications are seen posteriorly in the upper pelvic peritoneum on both sides and in the right deep pelvis and these have a similar appearance to the gallstone in the gall bladder fossa.

No intra or extra hepatic biliary duct dilatation is shown. The pancreas contains calcifications in the head suggesting chronic pancreatitis.

There is a transition of caliber to the colon in the left upper quadrant but this is not thought to be due to an obstructing lesion. Distal colon diverticulosis.

The lungs demonstrate atelectasis and there are bilateral small pleural effusions. Previous CABG noted. Surgical clips are present in the bowel mesentery on the right and I suspect there has been a previous right hemicolectomy but details of prior surgery are not provided.

## Comment

Suspect perforation of the gallbladder with bile leak, biliary peritonitis and multiple free stones in the peritoneum. Would report findings urgently to surgical team.

## How the imaging was reported at the time

I have now been supplied the reports made at the time of the imaging and asked to comment further.

The ultrasound examination of 26 [Month1] was reported by [Dr D], Radiologist MidCentral DHB. His report is as follows:

Relevant History and Clinical Question: 79 year old with lipase 3000 and epigastric Pain. USS ?cholelithiasis

Findings.

There is at least one gallstone within the gallbladder measuring about 25 mm in diameter.

The gallbladder was not well distended. There is a thickened wall. There is some debris within the gallbladder and some fluid around the gallbladder. Appearances are of cholelithiasis and probable cholecystitis.

CBD is of normal calibre measuring 5 mm with no filling defects seen within the CBD.

Liver is of increased echogenicity consistent with fatty change. No focal liver lesions seen. No intrahepatic duct dilatation.

Pancreas appears normal with no focal lesions. No pancreatic thickening or peri Pancreatic fluid.

Aorta is of normal calibre. Spleen appears normal. There are cysts in the right kidney with the largest measuring 18 mm with a thin septation (Bosniak I — no follow-up required) but otherwise kidneys appear normal. The right kidney measures 9.4 cm and the left kidney 10.4 cm in length.

The CT examination of 27 [Month1] was reported by [Dr D], radiologist MidCentral DHB. His report is as follows:

79F gallstone pancreatitis with cholecystitis, awaiting lapchole. hypotensive and tachycardic with percussion tenderness lower abdomen ?does not correlate with clinical picture.

For urgent CT Abdo Pelvis as per [Mr C] to rule out other intraabdo pathology.

Contrast: Omnipaque 350 Quantity: 100

Findings:

A portal venous phase scan of the abdomen and pelvis was obtained.

The pancreas is enhancing apart from a small area in the neck of the pancreas (164).

Pancreas is not obviously swollen. There is several small calcifications within the pancreas suggesting a degree of chronic pancreatitis. There is also acute pancreatitis with peripancreatic fluid including fluid in the left anterior pararenal space extending to the level of the pelvis. There is a moderate amount of free fluid in the pelvis with small amount of free fluid elsewhere in the abdomen. There is a small right and small to moderate left pleural effusion.

The gallbladder is probably shrunken with at least one gallstones seen (95). CBD does not appear to be dilated. No intrahepatic duct dilatation.

Liver is of generally decreased attenuation consistent with fatty change but no focal liver lesions are seen. Spleen appears normal.

Both adrenals, both kidneys appear normal. There is an ectatic infrarenal aorta measuring about 28 mm in maximal transverse diameter. Bladder appears normal. There has been a previous hysterectomy.

#### Conclusion:

Appearances are consistent with acute on chronic pancreatitis with extensive peripancreatic fluid but only one small area of poor enhancement of the pancreas.

Free abdominal fluid and bilateral pleural effusions.

Cholelithiasis.

Fatty liver.

## **Expert advice required**

I have been asked to review the reporting of the imaging in light of the information that there was no gallbladder present at the time of the ultrasound examination of 26 [Month1] or the CT examination of the abdomen and pelvis of 27 [Month1].

## <u>Ultrasound examination of 26 [Month1]</u>

[Dr D] makes reference to a stone within the gallbladder measuring 25mm in diameter associated with fluid around the gallbladder, the gallbladder being noted to be non-distended. He considered a diagnosis of cholelithiasis and cholecystitis.

I was unable to define a gallbladder when I reviewed the imaging and concluded that the appearances were not typical of acute cholecystitis and recommended further imaging.

At the time, [Dr D] would almost certainly have been presented a worksheet completed by a sonographer who may or may not have relayed their opinions to [Dr D] verbally after they had completed the ultrasound examination. [Dr D] would have reported the findings based on the sonographer worksheet and the clinical information at the time. That information did not include the history of prior cholecystectomy. This information was also not available to the sonographer who performed the scan and most likely completed the worksheet.

The omission of the history regarding prior cholecystectomy is critical to the interpretation of the imaging as it dictates what is a binary decision point. The gallbladder is **not** present therefore the abnormality in the gallbladder fossa is not a

gallbladder and must be something else. The gallbladder **is** present and therefore the appearances are of a very abnormal gallbladder.

# CT Abdomen and Pelvis 27 [Month1]

[Dr D] considered the most likely diagnosis was acute on chronic pancreatitis with extensive peripancreatic fluid but no significant pancreatic necrosis. In the body of his report he commented:

The gallbladder is probably shrunken with at least one gallstones seen (95). CBD does not appear to be dilated. No intrahepatic duct dilatation.

In the report conclusion he noted the presence of cholelithiasis.

In my own reporting of the imaging, I noted that there was fluid in the gallbladder fossa but that the gallbladder was difficult to define. A calcification seen in the gallbladder fossa I believed to be a gallstone but I also identified other gallstone like structures in the posterior peritoneum mid to low abdomen and believed that there had been perforation of the gallbladder with bile leak and stones free in the peritoneum. This also was an incorrect diagnosis and highlights the importance of the clinical information regarding the prior surgical gallbladder removal.

During my initial review of the imaging, I asked 2 highly experienced body imaging Radiologist colleagues to opine on the CT examination of 27 [Month1] and neither of them diagnosed that the gallbladder was not present. One believed (as [Dr D]) that the gallbladder was present but shrunken around stones and the other that there had been a gallbladder perforation and that the posterior abdominal calcifications seen on the scan were free gallstones associated with biliary peritonitis (as I had concluded).

In retrospect and in the knowledge that the gallbladder had been previously removed I conclude that the diagnosis at the time of CT scanning was acute pancreatitis and that the calcifications I took to be gallstones posteriorly in the lower abdomen were large phleboliths in the ovarian veins of the retroperitoneum.

This highlights to me the criticality of the information regarding the prior gallbladder removal.

#### Conclusion

I do not consider the reporting of the ultrasound examination of 26 [Month1] or the CT examination of 27 [Month1] by [Dr D] to be a departure from an accepted standard of practice. My own diagnosis based on my interpretation of the CT examination was incorrect and my two expert colleagues at Te Toka Tumai also failed to consider that the gallbladder had been previously removed, one agreeing with my (incorrect) diagnosis of gallbladder perforation and the other agreeing with [Dr D's] (incorrect) diagnosis of contracted gallbladder containing stones.

The history of previous gallbladder removal is critical to the interpretation of this imaging and the lack of this history makes accurate interpretation not possible.

I would be happy to provide further advice on this case if required

Yours sincerely

Dr David Milne Radiologist'