

**Radiologist, Dr D**

**Urologist, Dr C**

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

**(Case 19HDC02197)**

## Contents

Executive summary .....	1
Complaint and investigation .....	2
Information gathered during investigation.....	3
Relevant guidelines .....	13
Opinion: Introduction.....	14
Opinion: Dr D — breach .....	15
Opinion: Dr C — breach.....	17
Opinion: Dr E — adverse comment.....	20
Opinion: Dr F — other comment.....	21
Opinion: Radiology service — other comment .....	22
Opinion: Other comment — perceptual errors in radiology .....	22
Recommendations.....	24
Follow-up actions .....	25
Appendix A: Independent radiology advice to Commissioner.....	26
Appendix B: Independent urology advice to Commissioner.....	38

## Executive summary

1. This report concerns the follow-up care provided by a urologist after a woman underwent surgery in 2016 to remove her right kidney due to a renal cell carcinoma (RCC). The report also concerns the radiology reporting of three radiological scans — a CT scan undertaken prior to the woman’s kidney surgery, and two X-rays undertaken after her kidney surgery. Approximately two years after her kidney surgery, the woman was diagnosed with advanced stage lung cancer, and, sadly, she died from her illness shortly afterwards.
2. The family complained that inadequate radiological reporting and inadequate postoperative follow-up resulted in delayed diagnosis of her lung cancer.
3. The report highlights the importance of robust processes for postoperative follow-up and surveillance after surgical removal of cancer, and of radiologists following current guidelines for written radiology reports, including providing possible diagnoses for any identified abnormality and making appropriate recommendations for follow-up.

## Findings

4. The Deputy Commissioner found that the urologist did not have adequate processes in place to ensure that appropriate follow-up review or surveillance imaging was arranged after the woman’s kidney surgery. On this basis, the Deputy Commissioner considered that the urologist failed to provide services with reasonable skill and care and, accordingly, breached Right 4(1) of the Code.
5. The Deputy Commissioner found that the radiologist failed to report on the findings of the CT scan adequately and failed to make appropriate recommendation for follow-up. The Deputy Commissioner considered that the radiologist did not provide services with reasonable care and skill, and therefore breached Right 4(1) of the Code.

## Recommendations

6. The Deputy Commissioner recommended that the urologist apologise in writing to the woman’s family, and provide an evaluative report on the effectiveness of the changes that were implemented as a result of this case, and advise of any further changes made or considered as a result of the evaluation.
7. The Deputy Commissioner recommended that the radiologist arrange for a clinical peer review of the standard of his radiology reporting.

## Complaint and investigation

8. The Health and Disability Commissioner (HDC) received a complaint from Mr A about the services provided to his wife, Mrs A, by Dr C (a urologist) and Dr D (a radiologist). The following issues were identified for investigation:

- *Whether Dr C provided Mrs A with an appropriate standard of care in 2016 and 2017.*
- *Whether Dr D provided Mrs A with an appropriate standard of care in May 2016.*

9. This report is the opinion of Deputy Commissioner Carolyn Cooper, and is made in accordance with the power delegated to her by the Commissioner.

10. The parties directly involved in the investigation were:

Mr A	Complainant/husband
Ms B	Complainant/daughter
Dr C	Provider/urologist
Radiology service	Provider/radiology service
Dr D	Provider/radiologist

11. Further information was received from:

Private hospital  
General practitioner (GP)  
General practice medical centre  
Accident Compensation Corporation (ACC)

12. Also mentioned in this report:

Dr E	Radiologist
Dr F	Radiologist
Mr G	CEO of private hospital
Dr H	ACC advisor

13. Independent expert advice was obtained from a urologist, Dr Jonathan Masters (Appendix A) and a radiologist, Dr Graeme Anderson (Appendix B).

---

## Information gathered during investigation

### Introduction

14. This report concerns the care provided to Mrs A by Dr C in 2016 and 2017, and by Dr D in May 2016. In particular, the report discusses concerns about a delayed diagnosis of lung cancer owing to inadequate radiological reporting and follow-up after a right radical nephrectomy<sup>1</sup> for removal of a renal cell carcinoma (RCC). Sadly, Mrs A died from her illness. I take this opportunity to extend my sincere condolences to her family.
15. Mr A's complaint also raised concerns about the care provided to Mrs A by her GP. The care provided by Mrs A's GP has been assessed, and the concerns raised by Mr A in this regard have been addressed in separate correspondence. The care provided by Mrs A's GP will therefore not be discussed in this report.

### Provider relationships

#### *Dr C and the private hospital*

16. The private hospital provides a facility where surgeons can apply to be credentialed, within a defined scope of practice, to provide a service to a patient. The private hospital told HDC that there is no employer/employee relationship between it and the specialists who use its facilities, but the onus is on the hospital to ensure that specialists are competent. The private hospital further advised:

“In general [the private hospital has] no interaction with a patient until they have been booked for surgery. [The private hospital] is not normally privy to the investigations nor the results that credentialed specialists order and receive into their suites prior to an admission for surgery. There are occasions where the surgeon might order a test and add a copy to go to the private hospital, this was not the case with [Mrs A's] results in either of her hospital admissions.”

17. Dr C told HDC that his relationship with the private hospital is “essentially a landlord/tenant situation whereby [he] lease[s] the facility staff [secretarial, nursing, and administrative] and any resources on a sessional basis”.

#### *The radiology service and Dr D*

18. At the time of events, Dr D was employed by the radiology service. At this time, the radiology service also employed radiologists Dr E and Dr F.

### Events leading up to complaint

19. On 21 April 2016, Mrs A (then aged in her sixties) had an MRI scan<sup>2</sup> as part of a preoperative work-up before planned hip replacement surgery. The MRI scan showed an incidental

<sup>1</sup> Surgical removal of the kidney, the fatty tissues surrounding the kidney, and a portion of the tube connecting the kidney to the bladder.

<sup>2</sup> Magnetic resonance imaging (MRI) is a non-invasive diagnostic technique that produces computerised images of internal body tissues.

finding of a tumour on Mrs A's right kidney, and Mrs A's GP therefore referred her to Dr C for further investigation and assessment.

20. On 28 April 2016, Mrs A presented to Dr C at the private hospital. Following review and examination of Mrs A, Dr C ordered a staging<sup>3</sup> CT scan<sup>4</sup> of Mrs A's chest and abdomen. In a letter to Mrs A's GP dated 28 April 2016, Dr C noted that it was likely that Mrs A's right kidney would need to be removed.
21. On 2 May 2016, Mrs A had the staging CT scan of her chest and abdomen at the radiology service. The CT scan was reported by radiologist Dr D. The CT scan report noted (original formatting):

**"Findings:**

**Primary Lesion**

6.2 cm mass is seen at the upper pole [of] the [right] kidney.

...

**Lymph Nodes**

No significant lymphadenopathy<sup>5</sup> is seen.

**Metastases<sup>6</sup>**

Liver: None seen

Lungs: None seen.

Left kidney: None seen.

**Other Findings:**

There is a focal area of consolidation<sup>7</sup> seen in the [apex] of the right upper lobe [of the lungs].

Rest of the lungs clear.

Changes are seen in the liver in keeping [with] diffuse fatty disease, it otherwise appears normal.

No other abnormality is seen in the abdomen and pelvis.

**COMMENT:**

6.3 cm mass in the upper pole [of] the right kidney, with no evidence of local spread or distant metastases seen.

Unusual dilated renal vein is noted."

---

<sup>3</sup> The purpose of a staging scan is to ascertain the size of a tumour and whether it has spread to other areas of the body, in order to determine the stage of a patient's cancer. Understanding the stage of the cancer helps to plan the best course of treatment.

<sup>4</sup> A computed tomography (CT) scan is a cross-sectional, three-dimensional image of an internal body part, chiefly used for diagnostic purposes.

<sup>5</sup> Abnormal enlargement of the lymph nodes.

<sup>6</sup> Metastasis is the spread of cancer cells from the initial or primary site of disease to another part of the body.

<sup>7</sup> Air sacs in the lungs are replaced by pus, blood, cells, or other substances. Pneumonia is the most common cause of consolidation.

22. The “area of consolidation” in the right lung was not mentioned in the “Comment” section of the CT scan report, and there was no recommendation for follow-up. The report was sent to Dr C and copied to Mrs A’s GP.
23. On 14 May 2016, Dr C saw Mrs A in his clinic and reviewed the CT scan report of 2 May 2016. A plan was made for surgery to remove Mrs A’s right kidney. There is no evidence in the clinical records that Dr C discussed with Mrs A the “area of consolidation” in the right upper lobe of her lungs that had been identified in the CT scan report. Dr C told HDC that he cannot recall whether he discussed this with Mrs A. He agreed that as there is no evidence of this in the clinical record, and Mrs A’s family said that this was not discussed with her, he likely did not discuss this with Mrs A. Dr C did not discuss the finding of the lung abnormality with Mrs A’s GP, and no further imaging was arranged to follow up on the findings of the 2 May 2016 CT scan.
24. On 20 May 2016, Mrs A underwent a right radical nephrectomy at the private hospital, performed by Dr C. The surgery appears to have gone well, with no noted complications.
25. On 20 May 2016, Dr C referred Mrs A for a postoperative chest X-ray. The purpose of this was to check for a pneumothorax,<sup>8</sup> because during surgery a small opening had been made in the pleura.<sup>9</sup> The request form for the X-ray noted: “Had [right] nephrectomy ... [right] Pleura opened & closed ... To check for pneumothorax.” That same day, Mrs A had a chest X-ray at the radiology service (first chest X-ray). The X-ray was reported by Dr E, who noted: “No pneumothorax is seen. Some atelectasis<sup>10</sup> is seen at the left lung base.” The report made no comment regarding the right upper lobe of the lungs. Mrs A recovered at the private hospital until her discharge home on 25 May 2016.
26. Dr C told HDC that he next saw Mrs A in his clinic on 23 July 2016 for her six-week postoperative review.<sup>11</sup> There is no record of this appointment in the clinical records provided to HDC. Dr C told HDC that at this appointment, Mrs A was noted to be “recovered and well”. Mr A’s complaint to HDC stated that following Mrs A’s surgery she was told that her cancer “had been fully contained by having her kidney removed”.
27. On 15 September 2016, Mrs A underwent surgery for a total hip replacement. The private hospital told HDC that no chest imaging was undertaken prior to Mrs A’s hip surgery, and that this is not indicated routinely for this type of surgery. The private hospital advised that the only imaging done during Mrs A’s admission for hip surgery was a postoperative hip X-ray.
28. Dr C next saw Mrs A on 2 February 2017 for her six-month follow-up review. In a clinic letter to Mrs A’s GP, Dr C noted that Mrs A was doing “remarkably well” and had become very active following her hip surgery. He commented that Mrs A’s blood tests were stable and

---

<sup>8</sup> A collapsed lung. A pneumothorax occurs when air leaks into the space between the lung and chest wall.

<sup>9</sup> A membrane that surrounds the lungs.

<sup>10</sup> Collapse of part or all of a lung, caused by the blockage of the air passages or by pressure on the lung.

<sup>11</sup> I note that this appointment occurred nine weeks postoperatively.

her liver function test had improved “a little bit”. Dr C also noted: “Nothing more needs to be done. I will see her back here in six months['] time and will organise a CT scan after that.”

29. Dr C told HDC that unfortunately he did not see Mrs A again, and therefore no further CT scan was arranged. The reasons for this are discussed in paragraphs 47–49 of this report.

30. Following a period of declining health, Mrs A was referred by her GP for an urgent chest X-ray. The X-ray request form noted:

“Clinical details: right-sided mid chest pain, made worse when taking a deep breath, feels pain through to back, also makes her cough, non-smoker.”

31. The chest X-ray was taken at the radiology service that same day (second chest X-ray) and reported by Dr F, who noted:

“Report

Comparison: Chest [X]-ray dated 20/05/2016

The heart size is at the upper end of normal.

There is minimal ... atelectasis [at the right lung base] but no further pulmonary<sup>12</sup> abnormality is seen.”

32. Mrs A underwent a whole body MRI at the radiology service. The findings of this MRI were suspicious of cancer, and a further CT scan was arranged. A CT scan of Mrs A’s chest, abdomen, and pelvis was taken at the radiology service. The findings of this scan, reported by Dr D, noted appearances consistent with a primary lung tumour at the right apex with metastases to the right lung. The report noted that the disease was at least stage T3 N1 M1,<sup>13</sup> meaning that Mrs A’s cancer was thought to be locally or regionally advanced lung cancer (T3), that there was cancer in the lymph nodes of the lung (N1), and the cancer had spread to other parts of the body (M1).

33. One week later, Mrs A presented to the public hospital with chest pain and significant breathlessness. She was admitted to hospital and diagnosed with adenocarcinoma<sup>14</sup> of the right lung. Sadly, Mrs A died of her illness two weeks later.

### **Comments from respiratory physician**

34. In the complaint to HDC, it was noted that following Mrs A’s diagnosis of lung cancer, the respiratory physician overseeing her care at the public hospital told Mrs A that “her cancer was ‘totally avoidable’ as it should have been identified in [Dr D’s] report”. The complaint

---

<sup>12</sup> Of or relating to the lungs.

<sup>13</sup> The TNM staging system is the most common way to describe the size of the area of cancer and whether it has spread. TNM stands for Tumour (the size of the cancer, staged from 1 to 4), Node (whether there is cancer in the lymph nodes, staged from 1 to 3), and Metastases (whether the cancer has spread to other parts of the body, staged from 0/X to 1). See <https://www.cancer.org.nz/cancer/types-of-cancer/lung-cancer/staging-lung-cancer/>.

<sup>14</sup> A malignant tumour.

further stated that the respiratory physician told Mrs A: “I’m so sorry[,] you [should not] be in this position, and you should not be dying.”

35. On 1 May 2019, Mr A wrote to Mr G, Chief Executive Officer of the private hospital, informing him of Mrs A’s death and requesting an investigation into the private hospital’s processes. In this letter, Mr A told Mr G:

“[The respiratory physician] oversaw [Mrs A’s] care [at the public hospital] and gave the news that [her] palliative diagnosis was absolutely avoidable. Her [CT] scan, taken before her [nephrectomy] at [the private hospital], had clearly shown secondary cancer in the lungs. [The respiratory physician] stated that she should not be dying and apologised for a ‘medical misadventure’. He urged us to contact you and ACC.”

36. Mr G forwarded Mr A’s letter to Dr D and Dr C for comment. Mr G also met with Mrs A’s family to discuss their concerns, and, at their request, contacted the respiratory physician at the public hospital to seek clarification on his comments.

37. On 30 August 2019, Mr G wrote to Mr A. In this letter, Mr G said:

“I have spoken with [the respiratory physician], seeking an understanding of his assessment of the circumstances and, specifically, sought clarification regarding his reference to ‘avoidable death.’ The outcome of this discussion affirms [the respiratory physician’s] view that an earlier follow-up of the incidental lung infection ([Dr D’s] 2016 radiological report), may have resulted in a more favourable outcome for [Mrs A].”

#### **Review of 2 May 2016 CT scan**

38. Dr D told HDC that Mrs A’s CT scan of 2 May 2016 was reviewed in an audit meeting in November 2019, and “[i]t was commented that in hindsight there was a nodularity around the area of consolidation, however, follow-up imaging may have picked this up”. Dr D noted that it is standard practice for the referring clinician to arrange follow-up.

39. The radiology service provided HDC with a copy of the redacted minutes of the November 2019 audit meeting. With regard to Mrs A’s CT scan of 2 May 2016, the minutes note:

“DETAILS: Presented ... for CT to stage Renal Cancer. Incidental [right upper lung] consolidation. Reported in body of text. No follow[-]up. Represented 2 years later with metastatic lung adenocarcinoma.

ERROR TYPE: Interpretation/Recommendation”

40. An explanatory key in the audit meeting minutes states:

“Error types:

...

Interpretation: Incorrect interpretation of finding

Recommendation: Suboptimal or incorrect recommendation according to best practice”

41. In a letter dated 15 May 2019 addressed to Mr G, Dr C stated:

“I went back and reviewed [Mrs A’s] CT scan [of 2 May 2016] again. There was a report from the radiologist to say that there was a focal area of consolidation in the upper lobe of the right lung. This was suggestive of infection and since she recovered well from her surgery I was going to organise a CT scan about a year after her surgery and unfortunately because the follow-up did not happen, no CT scan was done.”

42. In a response to HDC, Dr C commented:

“[I]f the radiologist consider[s] that there is anything abnormal in the [imaging], it should be highlighted in the report and the recommendations for what should be done also noted. If the radiologist is concerned that the imaging shows sinister lesions, then it should be mentioned and advice given as to what [X]-rays/scans should be done for follow-up.”

### **ACC report**

43. Following Mrs A’s cancer diagnosis at the public hospital, a treatment injury claim was lodged with ACC for “delay in diagnosis and treatment of adenocarcinoma of the lung”. ACC seeks to identify retrospectively whether an injury occurred during, or as a result of, treatment provided. As part of its assessment of Mrs A’s treatment injury claim, ACC sought external advice from a radiologist, Dr H, about the interpretation of the CT scan of 2 May 2016. A copy of this external advice was provided to HDC by ACC.

44. Dr H was asked to co-ordinate a blind review<sup>15</sup> of the 2 May 2016 CT scan. In his report, Dr H identified the mass on the right kidney as well as a “part solid, part non-solid mass in the apical segment of the right upper lobe”. Dr H’s report noted:

#### **“Conclusion**

The right renal mass required urgent assessment by a urologist as it is most likely a renal cell carcinoma.

The right upper lobe lesion is most likely a low grade lung cancer with an inflammatory lesion being much less likely. I would recommend respiratory referral for an assessment with view to short interval follow up versus bronchoscopy and washings from the apical segment right upper lobe or further invasive diagnostic sampling.”

45. Dr H also asked two radiology colleagues (a radiologist and a senior radiology registrar) to undertake a blind review of the 2 May 2016 CT imaging. Both the radiologist and the senior

---

<sup>15</sup> A blind review entails a radiologist reviewing the radiological images without seeing the radiology report or receiving any information about the patient’s subsequent diagnosis or treatment. This enables a “fresh eyes” review to replicate the conditions under which the reporting radiologist first reviewed the radiological images, although in this case Dr H was not given any other clinical information about Mrs A and therefore did not know the clinical indication for the CT scan (which would usually be known to the reporting radiologist).

radiology registrar identified the mass on the right kidney and the lung lesion in the right upper lobe of the lungs, and both noted that the lung lesion was suspicious of a primary lung adenocarcinoma requiring referral to a respiratory specialist for further work-up and management.

46. To conclude, Dr H advised ACC:

“In my opinion, there are two major unrelated findings. A localised, but large, right renal cell carcinoma and a low grade primary lung adenocarcinoma. Each lesion requires referral to its own subspecialty clinical group for management. ... I would expect a reporting radiologist to mention specifically both of these findings and that they required independent management.”

### **Postoperative follow-up review and imaging after nephrectomy for renal cancer**

#### *Follow-up appointment*

47. As noted in paragraph 29 of this report, Dr C intended to see Mrs A for a one-year postoperative follow-up appointment in July 2017<sup>16</sup> (six months after her last appointment on 2 February 2017), but unfortunately, this did not occur. Dr C told HDC that the process at the time of events was that at the end of an appointment, the patient would be asked to attend reception to make the next appointment. Dr C said that this was the process that was followed on 28 April 2016 when Mrs A made her follow-up appointment for 14 May 2016, and again on 23 July 2016 when Mrs A made her follow-up appointment for 2 February 2017. Unfortunately, it appears that no further follow-up appointment was made after Mrs A’s appointment on 2 February 2017. The reason for this is unclear.

#### *Follow-up imaging*

48. Dr C told HDC that following the renal surgery on 20 May 2016, Mrs A’s renal tumour was graded as stage T1b.<sup>17</sup> Dr C said that this is the lowest grade, and it was therefore a low-risk tumour with an extremely low risk of local recurrence. Dr C advised that he is not aware of any Australasian guideline for the follow-up of renal tumours, but he referred to a *BJU International*<sup>18</sup> article that discusses international guidelines from the American Urological Association (AUA) and the European Association of Urology (EAU) recommending that follow-up chest imaging (X-ray or CT) be arranged at one year after nephrectomy for renal cell carcinoma.<sup>19</sup> The article contains a table titled “Comparison of international guidelines for low-risk/T1 disease”, a copy of which is contained in Appendix C of this report.

<sup>16</sup> I note this would have been 14 months post-surgery.

<sup>17</sup> A renal cancer of stage T1b means that the tumour is between 4 and 7cm across, and is completely inside the kidney (see:

[https://www.cancerresearchuk.org/about-cancer/kidney-cancer/stages-types-grades/tnm#:~:text=T1%20is%20divided%20into%20T1a,is%20completely%20inside%20the%20kidney\).](https://www.cancerresearchuk.org/about-cancer/kidney-cancer/stages-types-grades/tnm#:~:text=T1%20is%20divided%20into%20T1a,is%20completely%20inside%20the%20kidney).)

Dr C told HDC that Mrs A’s renal tumour was shown on histopathology to measure a maximum diameter of 67mm, and the resection margin was 5mm clear at all levels.

<sup>18</sup> A urology journal.

<sup>19</sup> The rationale for this is that the lungs are the most common site of metastases of renal cell carcinoma.

49. Dr C told HDC that he intended for Mrs A to have a follow-up CT scan one year after her nephrectomy. He advised that at the time of events, follow-up imaging was booked when patients attended follow-up appointments, and they would be given the radiology request forms to take to the radiology service when they attended for their scans. Dr C said that as Mrs A's one-year follow-up appointment did not occur, unfortunately the one-year follow-up CT scan was also not arranged.

### **Further information**

*Mr A*

50. In the letter to Mr G dated 1 May 2019, Mr A said:

"In the year since [Mrs A's] passing, we as a family have struggled desperately with the grief of life without her. The light in our lives has gone out. Knowing that she suffered so terribly and died when she should not have, is painful beyond imagination. There are no words to relay our sadness."

*Dr C*

51. Dr C told HDC: "I would like to sincerely apologise to [the family] for the loss of their mother and wife. I am truly sorry for her missed appointment with myself."

52. Dr C also stated:

"Looking back with hindsight, I think it would have been quite appropriate for me to have organised a [CT] scan when [Mrs A] came back at six months follow-up, or even at the six-week follow-up appointment to arrange at least a repeat CT of the chest in view of the consolidation.

Because her chest [X-ray] post-operatively did not show any flare up of that consolidation and she felt so well, I had no concerns to CT scan earlier."

*Dr D*

53. Dr D told HDC: "I would like to pass on my condolences to [Mr A] and his family."

### **Changes made since events**

54. Dr C told HDC that since these events, changes have been made to the way follow-up appointments and imaging are arranged. Dr C advised:

"1. Patients are asked to attend the reception desk and make an appointment before they leave the Suite. This is emphasised to them in the consultation room.

2. The Administration Manager also checks that further follow-ups are made at the time of billing.

3. If [X-ray] or imaging is to be done, (eg at six months or one year), instead of booking the patient to come to the Suite, we now write the radiology request form in advance and give this to the patients to make their appointment with Radiology first. This means imaging is done prior to their follow up appointments in Suite.

4. The receptionist will also book the dates and check details of when [X-rays] are done. If the [X-rays] are not done she will change the appointment for follow-up after imaging has been completed.

For those patients going to [the public hospital] for [X-rays] or imaging, the radiology booking is made on the day of consultation through the electronic booking system.

The patient is advised to let [the Suite] know when the [X-ray] or scan has been done at [the public hospital], 'as sometimes it can take a long time to get scans, [X-rays] at public hospital'.

In addition to this, reports come to me at [the public hospital] electronically, and if an appointment is missed or not attended, then I am notified by the Radiology/X-ray Department.

If at any time appointments are made at [the Suite] prior to imaging being completed, this is also picked up, as a week prior to appointment the receptionist does follow-up calls for appointments. If imaging has not been completed, then the appointment will be rescheduled.

For those having telephone consultations, radiology bookings are made at the same time. Also if imaging forms are completed by myself, we send the booking forms to the X-ray/Radiology Department ourselves indicating the time the patient is booked to see us again, so that [X-ray]/imaging is done prior to the appointment."

55. Dr C told HDC: "By having these measures in place, we hope that this will minimise/reduce the risk of missed appointments."

56. Dr C also told HDC that after the events, the following changes were also made:

"1. [M]ost of the cancer patients are discussed at our multi-disciplinary team meetings and advice is also taken from there.

2. I take difficult [X-rays] to be looked at at our [X-ray] meeting[s] which are held weekly.

3. I obtain second and third opinions from colleagues [in other centres] if required.

4. We advise patients following any appointments that if they have any difficulty getting an appointment with their GPs or if there are any problems that cannot be sorted out by the GP, then they are encouraged to directly phone the Suite and we will arrange for them to be seen."

### **Responses to provisional decision**

*Dr D*

57. Dr D was given the opportunity to respond to the provisional opinion. He provided Mrs A's family with a written apology for the failings identified, and for the impact that this had on

Mrs A's family. He advised that he has learned from his error and has changed his practice to avoid recurrence.

58. Dr D said that he has reflected on this case and acknowledges that he should have recommended further investigation and follow-up to the findings of Mrs A's 2 May 2016 CT scan. He advised that his current practice is to include in the "findings" section of a radiological report an objective description of any abnormalities, and in the "comments" section his subjective interpretation of the likelihood and/or differential diagnosis of an abnormality and any recommendations for further imaging or follow-up.
59. Dr D also acknowledged that specialists look to recommendations from radiologists, and advised that his current practice is to speak directly to the referring clinician regarding unexpected findings, and to make recommendations for further imaging and follow-up.

*Dr C*

60. Dr C was given the opportunity to respond to the provisional opinion and advised that he did not wish to comment.

*The radiology service*

61. The radiology service was given the opportunity to respond to the provisional opinion, and its comments have been incorporated into this report where appropriate.
62. The radiology service confirmed that Dr E would be reminded of the importance of reviewing all relevant previous imaging when reporting on radiological imaging, and to document this in his radiology reports, and that clinical peer review of Dr D's practice was being arranged.

*Mr A and Ms B*

63. Mr A and Ms B were given the opportunity to respond to the "information gathered" section of the provisional opinion. Ms B responded on behalf of her family, and conveyed their relief in knowing that the failings in Mrs A's care had been acknowledged and that protocols had been amended for the care of future patients.
64. Ms B emphasised that Mrs A was a kind, generous, hardworking woman who deserved to enjoy her retirement and treasure her grandchildren, and her death was an indescribable loss to her family.

## Relevant guidelines

65. HDC obtained copies of the RANZCR<sup>20</sup> Clinical Radiology Written Report Guidelines (the Guidelines) that applied at the time of events. These guidelines are intended to advise on how written reports on imaging studies are expected to be prepared for all radiological modality types performed in Australia and New Zealand.
66. Two versions of the Guidelines are relevant in this case. Version 5 of the Guidelines was current at the time of care in May 2016 (CT scan and first chest X-ray), and version 6 of the Guidelines was current at the time of Mrs A's second chest X-ray. Relevant sections are detailed below.

### Guidelines applicable in May 2016

67. Guideline 3, "Comparison with other studies", recommends:
- "A specific statement should be made about the existence and availability for review of previous imaging or reports relevant to the current examination.
- Details of the prior examinations (date, site) used for comparison should be provided in the report."
68. Guideline 6, "Findings", recommends:
- "Relevant imaging findings should be characterised as specifically as possible including description of:
- precise anatomical location using accepted modality-specific best practice;
  - size or extent;
  - shape, where relevant; and
  - other anatomical/pathological characteristics relevant to diagnosis or treatment."
69. Guideline 7, "Addressing the clinical question/differential diagnosis", recommends:
- "A specific diagnosis(es) for the observed imaging findings should be provided whenever possible. When a number of possibilities exist, these should be stated and their relative likelihood should be described."
70. Guideline 8, "Conclusion/opinion/impression", recommends:
- "The conclusion should provide a concise, clinically contextualised interpretation of the previously described imaging observations.
- If findings are normal or non-significant, this should be stated explicitly."

---

<sup>20</sup> Royal Australian and New Zealand College of Radiologists, the main body in Australia and New Zealand for setting, promoting, and continuously improving the standards of training and practice in diagnostic and interventional radiology.

71. Guideline 9, “Recommendations” (for further testing, treatment, referral, etc), recommends (original emphasis):

“If further imaging, investigations, referral or treatment is to be suggested, the report should describe:

- **how it is expected that this will contribute to the diagnosis and/or management of the patient’s current medical problem;**
- **the exact nature of the further investigation/referral/treatment** that is recommended; and
- **the suggested timing of this further investigation/referral/treatment** if relevant, especially if this is urgent.”

#### **Guidelines applicable at the time of second chest X-ray**

72. Guideline 2.2, “Comparison with prior studies”, recommends:

“A specific statement should be made about the existence and availability for review of previous imaging and/or reports relevant to the current examination.

Details of the prior examinations (date, practice location) used for comparison should be provided in the report.”

---

### **Opinion: Introduction**

73. This opinion primarily concerns the radiology care provided by Dr D in May 2016, and the urology care provided by Dr C in 2016 and 2017.
74. First, I acknowledge the distressing impact of these events on Mrs A and her family. Given the advanced stage of Mrs A’s lung cancer at the time of her diagnosis, the devastatingly short timeframe between her diagnosis and death, and the comments from the public hospital’s respiratory physician about her death being “avoidable”, it is understandable that her family sought an independent review from HDC.
75. I note that there is differing opinion about whether the consolidation at Mrs A’s right upper lung, identified on the 2 May 2016 CT, was indicative of infection, primary cancer, or metastatic cancer that had spread from her renal cell carcinoma. It is important to note that it is not my role to resolve this question or to determine whether, if follow-up investigation of the consolidation had been arranged, this may have resulted in a better outcome for Mrs A. My role is to assess the standard of care that Mrs A received, including whether there was adequate radiological reporting, adequate follow-up on the radiological findings, and adequate routine postoperative follow-up.

## Opinion: Dr D — breach

76. On 2 May 2016, Dr D reported on Mrs A’s CT scan of her chest and abdomen. The report noted a finding of a “focal area of consolidation” in the right upper lung, but this was not mentioned in the “Comment” section of the report, and there was no recommendation for follow-up.
77. I have carefully considered the standard of care to be expected in a case such as this. To aid in my assessment, I sought advice from an independent radiologist, Dr Graeme Anderson. Dr Anderson was asked to undertake a blind review of the CT scan of 2 May 2016, in which he identified a “[r]ight upper pole renal mass”, as well as:

“Chest: in the right upper lobe ... there is an ill-defined mass ... This composes areas of ground glass<sup>21</sup> and denser areas of consolidation with for the most part preservation of lung architecture. ... No other pulmonary nodules or pleural effusion<sup>22</sup>.”

78. Dr Anderson’s impression following the blind review included:

“2. Right upper lobe consolidative lesion could represent pneumonia in the appropriate clinical setting. If clinical features of infection are present (eg fever, white count, cough) it would benefit from a course of antibiotics and repeat imaging with a [chest X-ray] in 6 weeks (the lesion is visible on the CT scout<sup>23</sup> as reference).

If the patient had no symptoms of infection this could either represent atypical infection or a low grade [lung tumour] (mucinous/lepidic adenocarcinoma<sup>24</sup>) and respiratory physician referral and bronchoscopic evaluation<sup>25</sup> recommended.”

79. Following the blind review, Dr Anderson was asked to comment on the radiology reporting of the 2 May 2016 CT scan. Dr Anderson advised that areas of consolidation are most commonly bacterial pneumonia, but these are almost always associated with symptoms of cough, fever, and signs of an elevated white cell count. He noted that there was no mention of such symptoms on the request form for the 2 May 2016 CT. Dr Anderson further advised:

“It is routine to follow up areas of consolidation (in symptomatic and asymptomatic patients) found on Chest [X]-rays in 4 to 6 weeks after appropriate treatment (eg antibiotics) to confirm they resolve.

---

<sup>21</sup> “Ground glass” opacity is a radiology term used to indicate an area of hazy increased lung opacity through which vessels and bronchial structures may still be seen. It is less opaque than consolidation, in which such structures are obscured.

<sup>22</sup> Pleural effusion is a build-up of excess fluid between the layers of the pleura outside the lungs.

<sup>23</sup> Scout views are digital radiographs obtained to aid planning of the subsequent CT examination, and may provide additional information not demonstrated on the axial images.

<sup>24</sup> Mucinous and lepidic adenocarcinomas are variants of diffuse lung adenocarcinoma.

<sup>25</sup> Investigation into the bronchi (the large tubes that connect to the windpipe and carry air to the lungs) using a bronchoscope (a flexible tubular instrument for inspecting or passing instruments into the bronchi), eg, to obtain tissue for biopsy.

This both assesses the efficacy of treatment and also identifies the non-resolving processes such as diffuse adenocarcinomas or atypical infections that will require more intensive investigation.

Recommendations for incidental areas of consolidation on CT are not as standardised but there are some for smaller sub solid and ground glass areas of consolidation ... that recommend follow up CT in 3 months for such lesions (realizing that approximately 40 percent will resolve by this time).

When the recipient of the report is a specialist, studies have shown that only half will read the body of the report and just read the conclusion.

This is why mentioning the significant incidental finding of consolidation is important in the conclusion rather than just the body.

Also, a consultant Urologist on reading the report is unlikely to understand the potential implications of 'an area of consolidation' and whether the abnormality needs any follow up or treatment.

It is the Radiologist's role to guide them."

80. In terms of the quality of the radiology reporting of the 2 May 2016 CT scan, Dr Anderson advised:

"I find the report to be substandard in several ways.

1. It does not mention the lung abnormality in the conclusion.
2. It does not attribute any significance as to what the area of consolidation might be.
3. It does not recommend any follow-up, be it a [chest X-ray] in 4–6 weeks or a CT in 3 months (or after removal of the renal tumour).

The report departs significantly from the standard of practice, in that it goes against the principles that are outlined in current guidelines (BTS and Fleischner) on the subject and also the RANZCR reporting guidelines."

81. Dr Anderson considered that the report followed standard protocols for reporting and staging of the renal tumour. However, he advised that the lack of description, conclusion, or recommendations for the large area of abnormality in the right lung constituted a moderate departure from the accepted standard of care.

82. I accept Dr Anderson's advice, and am concerned that Dr D's report of the 2 May 2016 CT scan did not comply with the recommendations in the RANZCR guidelines as follows:

- There was no diagnosis(es) given for the observed consolidation in the right upper lung (Guideline 7).

- The conclusion of the report did not provide a clinically contextualised interpretation of the observed consolidation in the right upper lung (Guideline 8).
  - There was no recommendation for follow-up of the observed consolidation in the right upper lung (Guideline 9).
83. Further to this, I note that in their blind reviews of the 2 May 2016 CT scan, Dr Anderson, Dr H, and Dr H's two radiology colleagues all identified the lung abnormality as being suspicious for an adenocarcinoma, and recommended referral to a respiratory specialist for follow-up. I also note that the minutes of the radiology service's audit meeting of November 2019 indicate that a review of the 2 May 2016 CT report had identified that the report contained an incorrect interpretation of the findings of the CT scan as well as a suboptimal or incorrect recommendation.
84. After careful consideration of the above, I am critical that Dr D did not mention the lung abnormality in the conclusion/comment section of his report, did not give any interpretation of what the abnormality was likely to be, and did not make any recommendation for follow-up. Consequently, Dr D failed to bring the lung abnormality to the attention of Dr C, and I consider that this represented a missed opportunity for earlier diagnosis and treatment of Mrs A's lung cancer. I agree with Dr Anderson's advice that it was the role of Dr D, as the radiologist, to guide Dr C as to the potential implications of the "area of consolidation" and whether the abnormality needed any follow-up or treatment.
85. In my view, in failing to report on the findings of the consolidation in the right lung adequately and make appropriate recommendation for follow-up, Dr D did not provide services to Mrs A with reasonable care and skill, and therefore breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).<sup>26</sup>

---

## Opinion: Dr C — breach

### Inadequate routine follow-up

86. On 2 February 2017, Dr C saw Mrs A for a routine six-month postoperative follow-up review. He intended to see Mrs A again six months later, at which time he also intended to arrange a routine one-year post-nephrectomy CT scan. Unfortunately, neither of these occurred.
87. To assist in my assessment of the care provided by Dr C, I sought advice from an independent urologist, Dr Jonathan Masters. Dr Masters agreed with Dr C that Mrs A's renal cancer was a grade T1b and was therefore a low-risk cancer. Dr Masters advised that he was not aware of any protocols or guidelines specific to New Zealand to follow up patients post-nephrectomy for renal cancer, and that urology departments in New Zealand typically refer

---

<sup>26</sup> Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."

to EAU, AUA or BAUS<sup>27</sup> guidelines. I note that this aligns with Dr C's statements in paragraph 48 above.

88. Dr Masters advised that there is significant variation around when, and with what modality of imaging, patients who have been treated for renal cell cancer should be followed up. He stated that this makes it difficult to navigate from a clinical perspective. However, Dr Masters advised that the vast majority of follow-up guidelines recommend a CT scan at six months or one year postoperatively. He noted that following the six-month follow-up appointment on 2 February 2017, Dr C clearly intended for a follow-up CT scan to be arranged at the next follow-up appointment in six months' time (ie, one year postoperatively). On this basis, Dr Masters considers that Dr C's follow-up care up until and including the 2 February 2017 appointment was reasonable and appropriate. I accept this advice.
89. Notwithstanding this, Dr Masters commented that it would have been prudent for Dr C to have arranged a CT scan at Mrs A's follow-up appointment on 2 February 2017, rather than wait until the next follow-up appointment. Dr Masters explained that there are two reasons for this: 1) to ensure that the CT scan was available for the next follow-up appointment, and 2) the six-month postoperative follow-up appointment on 2 February 2017 actually occurred eight months after Mrs A's nephrectomy. Dr Masters acknowledged that following these events Dr C made changes to his practice so that where a follow-up scan is due for the next appointment, it is arranged at the current appointment.
90. I accept Dr Masters' advice, and consider that while Dr C's care may have been improved by arranging a CT scan at the 2 February 2017 appointment, it was not unreasonable to wait to do so until the next follow-up appointment six months later.
91. However, as outlined above, unfortunately the next appointment did not occur. Dr Masters advised:

"Whilst I think most of the care that has been provided by [Dr C] has been of an entirely appropriate standard I would be critical that the patient had no follow up CT scan and would have appeared simply to fall off the radar which is not appropriate for a patient with renal cancer. [Mrs A] needed to be followed up or discharged formally with a written letter to patient and the GP."

92. Dr Masters also noted:

"Given that [Mrs A] was due a CT scan (clearly indicated in [Dr C's] letter following the appointment in February 2017) and she was being followed up for a cancer, there needed to be some acknowledgement of her failure to attend [the one-year follow-up appointment] and an explanation that follow-up was required. This should have been a letter to the GP or the patient (or to both). If this had happened, it is likely that the CT would have been performed and the lesion in the lung would have been found earlier."

---

<sup>27</sup> British Association of Urological Surgeons.

... I would regard this as a moderate departure from the standard of care within New Zealand.”

93. I accept Dr Masters’ advice, and am critical that Dr C did not have adequate processes in place to ensure that Mrs A made and attended her one-year follow-up appointment or was appropriately followed up when she did not present as expected. I am also critical that Dr C did not have adequate processes in place to ensure that timely follow-up imaging was arranged in accordance with relevant guidelines (either at six months or one year postoperatively). As a consequence, Mrs A did not receive timely follow-up imaging, and an opportunity to diagnose and treat her lung cancer at an earlier time was missed.
94. On this basis, in my view Dr C failed to provide services to Mrs A with reasonable skill and care and, accordingly, breached Right 4(1) of the Code.

#### **No follow-up of 2 May 2016 CT — no breach**

95. Mrs A presented to Dr C on 28 April 2016 following an incidental finding of a renal tumour on an MRI scan. Dr C requested a staging CT scan, which was taken at the radiology service on 2 May 2016. As outlined above, the report noted findings of a mass on the right kidney, as well as an “area of consolidation” in the right upper lobe of the lung, but the latter was not mentioned in the conclusion/comment section of the report, and there was no recommendation for follow-up. Dr C does not appear to have discussed the finding of the lung abnormality with Mrs A, and did not arrange follow-up investigation for this.

#### *Discussion with Mrs A and her GP*

96. Dr Masters commented that the CT on 2 May 2016 was done as a staging CT for metastatic renal cancer and, while the focal consolidation in the lung is mentioned in the text of the report, the report also specifically excludes any evidence of local or distant metastases, and the consolidation in the lung is not mentioned in the conclusion of the report. Dr Masters advised that in this context, it was within the bounds of acceptable practice that Dr C did not discuss with Mrs A the specific incidental finding of the area of consolidation in the right upper lung.
97. Dr Masters also noted that the first chest X-ray taken on 20 May 2016 did not mention any consolidation in the right upper lobe of the lungs. He considers that it was therefore reasonable for Dr C to assume that the consolidation was coincidental and had resolved by 20 May 2016. Dr Masters also considers that as a copy of the CT scan had been sent to Mrs A’s GP and the consolidation in the lung had apparently resolved by 20 May 2016, it was not unreasonable that Dr C did not directly discuss the lung abnormality shown on the CT of 2 May 2016 with Mrs A’s GP.
98. I accept Dr Masters’ advice. It is clear that the implications of the “area of the consolidation” found in Mrs A’s right lung were not specifically explained in the summary of the CT scan report. As the referring specialist, Dr C was reliant on the reporting radiologist to interpret the imaging, highlight any abnormalities, and recommend appropriate follow-up — an expectation that is supported by the advice of my expert radiologist, Dr Graeme Anderson.

This was not done, and I am therefore not critical that Dr C did not discuss the “consolidation” identified on the 2 May 2016 CT with Mrs A or her GP.

*Follow-up of 2 May 2016 CT*

99. I note that Dr C has stated that on reflection it may have been appropriate to arrange a repeat CT scan at Mrs A’s six-week or six-month follow-up appointments, in view of the consolidation shown on the 2 May 2016 CT. I agree that this may have been prudent, and note with regret that if this had been done, Mrs A’s lung cancer may have been detected earlier. However, for the reasons outlined in the previous paragraph, I am not critical that Dr C did not consider or arrange further referral or imaging to follow up on the “area of consolidation” identified in the 2 May 2016 CT scan report.
- 

### **Opinion: Dr E — adverse comment**

100. On 20 May 2016, Mrs A underwent a postoperative chest X-ray at the radiology service, the purpose of which was to check for a pneumothorax. This first chest X-ray was reported on by Dr E, who noted in the report: “No pneumothorax is seen. Some atelectasis is seen at the left lung base.” Dr E made no comment regarding the right upper lobe of the lungs.
101. I asked my radiology advisor, Dr Anderson, to undertake a blind review of the 20 May 2016 chest X-ray. Dr Anderson noted in his report that there was “[n]o pneumothorax but persistent right upper lobe density”. Dr Anderson noted that although this appeared slightly less conspicuous when compared to the 2 May 2016 CT scan, it had not resolved completely, and a six-week follow-up post the 2 May 2016 CT scan was still recommended.
102. Following the blind review, Dr Anderson was asked to comment on the quality of the radiology reporting of the 20 May 2016 chest X-ray. Dr Anderson advised that Dr E’s report is acceptable and answers the clinical question as to the absence of any pneumothorax. Dr Anderson also noted that atelectasis at the left lung base, as noted by Dr E in his report, is a common postoperative finding.
103. Dr Anderson stated that the abnormality at the right upper lung apex is barely visible on the 20 May 2016 chest X-ray, and the fact that Dr E did not identify this in his report is therefore not a deviation from the accepted standard of care.<sup>28</sup>
104. However, Dr Anderson noted that the report makes no reference to the recent CT of 2 May 2016. He advised that if Dr E had had the recent CT for comparison, his attention may have been drawn to the very subtle abnormality at the right upper lung. Dr Anderson also said that the abnormality is less obvious in the X-ray of 20 May 2016, and may therefore have been construed as improving. Dr Anderson advised that not reviewing previous imaging for a postoperative mobile chest X-ray is a minor departure from the accepted standard of care. He also noted that although RANZCR guidelines recommend to review previous imaging, in

---

<sup>28</sup> This type of error is called a “perceptual error”, and is discussed further at paragraphs 114–120 of this report.

order to exclude an acute abnormality that might require urgent treatment (ie, a pneumothorax), it is not always practical or timely to do so.

105. In its response to my provisional decision, the radiology service commented that most radiologists would not review a previous CT with a normal appearing X-ray, particularly in the context of the clinical details provided in the request for the 20 May 2016 X-ray. The radiology service also considered that Dr Anderson’s review of the 20 May 2016 X-ray, and his identification of the “barely visible” abnormality therein, was biased due to having reviewed the 2 May 2016 CT scan. The radiology service considered that this “barely visible” abnormality would have been extremely unlikely to have been perceived during a routine reporting session.
106. I accept Dr Anderson’s advice and, accordingly, consider that Dr E’s radiology care on 20 May 2016 was reasonable. However, I note that Dr E’s practice may have been improved by reviewing the recent CT for comparison, and I therefore intend to ask the radiology service to remind Dr E of the importance of reviewing previous imaging when reporting on radiological images, and to document in his radiology reports whether previous imaging has been reviewed, or to note that it is not available for comparison, as per the RANZCR guidelines. I also intend to recommend that Dr E conduct an audit of ten radiology reports to identify reports in which he has either 1) not reviewed previous imaging available, or 2) not documented whether previous imaging has been reviewed or that it is not available for comparison.

---

### Opinion: Dr F — other comment

107. Shortly before her cancer diagnosis, Mrs A underwent a chest X-ray at the radiology service as she had been experiencing right-sided chest pain that was worse on taking a deep breath, and made her cough. This second chest X-ray was reported by Dr F, who noted:

“Report

Comparison: Chest [X]-ray dated 20/05/2016

The heart size is at the upper end of normal.

There is minimal ... atelectasis [at the right lung base] but no further pulmonary abnormality is seen.”

108. I asked my radiology advisor, Dr Anderson, to undertake a blind review of the second chest X-ray. Dr Anderson noted in his report:

“Persistent right upper lobe density.

The differential [diagnosis] includes recurrent possibly atypical infection ... or a slow growing [tumour], specifically lepidic adenocarcinoma, although new chest pain may be indicative of an invasive tumour.

Respiratory opinion and repeat Chest CT is recommended.”

109. Following the blind review, Dr Anderson was asked to comment on the quality of the radiology reporting of the second chest X-ray. Dr Anderson advised that Dr F made a perceptual error as he did not identify the abnormality at the right upper lung apex.<sup>29</sup> Dr Anderson advised that as the abnormality is very subtle, he does not consider this to be a deviation from accepted practice.
110. However, Dr Anderson also identified that while Dr F noted comparison with the previous chest X-ray of 20 May 2016, it is not clear whether he reviewed the 2 May 2016 CT scan. Dr Anderson considered that if Dr F had reviewed the CT scan of 2 May 2016, his attention may have been drawn to the subtle abnormality at the right upper lung apex on the second chest X-ray. Dr Anderson concluded that not reviewing the previous CT scan is a minor departure from the accepted standard of care, especially as the first chest X-ray of 20 May 2016 was viewed.
111. I accept Dr Anderson's advice that it was reasonable that Dr F did not identify the "very subtle" abnormality in the second chest X-ray. I acknowledge Dr Anderson's advice that not reviewing the 2 May 2016 CT was a minor departure from accepted standards.
- 

### **Opinion: Radiology service — other comment**

112. As a healthcare provider, the radiology service is responsible for providing services in accordance with the Code.
113. I have considered whether the radiology service is directly responsible for any of the departures in radiological care identified in this report. After careful consideration, in my view the departures identified are independently attributable to the individual radiologists in question, and I have not made the care provided by the radiology service the focus of this investigation.
- 

### **Opinion: Other comment — perceptual errors in radiology**

114. Dr Anderson noted that Dr E did not identify the "barely visible" abnormality at the right upper lung on the 20 May 2016 X-ray, and that Dr F did not identify the "subtle" abnormality at the right upper lung on the second chest X-ray taken shortly before Mrs A's cancer diagnosis. Dr Anderson advised that as these were "perceptual errors", they were not departures from the accepted standard of care. A perceptual error is where a radiologist misses an apparent abnormality that would have been detected by most of his or her peers in similar circumstances.

---

<sup>29</sup> This type of perceptual error is discussed further at paragraphs 114–120 of this report.

115. The issue of perceptual errors has been discussed in previous opinions by this Office.<sup>30</sup> I note that the independent radiologist who provided advice in opinion 19HDC01606, Dr Andrew Kingzett Taylor, advised that it has been acknowledged by the radiology profession that perceptual error is a common part of radiology practice, and that the rate of such errors has been estimated at 3–5%. Dr Kingzett Taylor also advised that some error is inevitable, and the clinical significance of these errors varies widely.
116. As noted above, it is not my role to determine whether identification and follow-up of the lung abnormality at any stage would have changed Mrs A’s long-term prognosis. I am therefore unable to comment on whether the outcome for Mrs A would have been different if Dr E had identified the “barely visible” abnormality at the right upper lung on the 20 May 2016 X-ray. I note that it appears unlikely that the outcome would have been different if Dr F had identified the “subtle” abnormality at the right upper lung on the second chest X-ray, given that further investigation led to a diagnosis in the following weeks.
117. This Office has previously noted that although it is widely accepted that errors of perception occur in a small but persistent number of radiology interpretations, this is not determinative in assessing whether the standard of care has been met in a particular case.<sup>31</sup> Whether the standard of care has been met will be assessed on a range of factors, including the clinical history of the patient and how obvious the abnormality is.<sup>32</sup> As noted above, in this case I accept Dr Anderson’s advice that the abnormalities missed by Dr E and Dr F were “barely visible” and “very subtle”, and that not identifying these abnormalities is not a departure from the standard of care.
118. Notwithstanding this, for completeness, I reiterate the comment made by previous Health and Disability Deputy Commissioner Kevin Allan in opinion 19HDC01606:
- “While I recognise that [perceptual] errors may occur and that their impact may vary considerably, those errors create a risk to consumers. The radiology profession and the services they work with have a clear responsibility to do everything they reasonably can to prevent such errors.”
119. In light of the issues highlighted in opinion 19HDC01606, Mr Allan invited RANZCR to consider what actions could be taken to minimise the incidence of perceptual error in radiography reports. The response from RANZCR (dated 16 April 2021) was published on the HDC website with opinion 19HDC01606.<sup>33</sup> The matter was also brought to the attention of the Health Quality and Safety Commission.
120. Further to this, it was noted in opinion 19HDC02399 (published in March 2022) that the radiology service is instituting a programme that helps to manage a radiologist’s workload and is also used for image review and interpretation. The programme will incorporate a peer

---

<sup>30</sup> See opinions 15HDC00685, 17HDC00415, 19HDC01606, and 19HDC02399.

<sup>31</sup> See opinions 15HDC00685, 17HDC00415, and 19HDC02399.

<sup>32</sup> See opinion 19HDC02399.

<sup>33</sup> <https://www.hdc.org.nz/media/5751/ranzcr-response-to-health-and-disability-commissioner-2021.pdf>

review module, which will require a percentage of all reported studies to be reviewed by another radiologist for quality control purposes.

---

## Recommendations

121. I recommend that Dr D arrange for a clinical peer review of the standard of his radiology reporting, with reference to the Royal Australian and New Zealand College of Radiologists Clinical Radiology Written Report Guidelines, and report back to HDC within three months of the date of this report.
122. I recommend that Dr C:
- a) Provide a formal apology to Mrs A's family for the failings identified in this report. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Ms B.
  - b) Provide to HDC, within three months of the date of this report, an evaluative update report on the effectiveness of the changes that have been implemented as a result of this case, in relation to:
    - The way in which follow-up appointments are arranged and followed up on;
    - The way in which follow-up imaging is arranged and followed up on;
    - The review of cancer patients and difficult X-rays at multi-disciplinary team meetings and by colleagues for second or third opinions; and
    - The advice to patients to contact Dr C's private rooms directly if they are having difficulty getting an appointment with their GP or if there are any problems that cannot be addressed by their GP.
- The report should also advise whether any further changes have been considered/made as a result of the evaluation.
123. I recommend that the radiology service provide confirmation to HDC, within three weeks of the date of this report, that it has reminded Dr E of the importance of viewing all relevant previous imaging when reporting on radiological images, and to document in his radiology reports whether previous imaging has been reviewed or to note that it is not available for comparison, as per the RANZCR Clinical Radiology Written Report Guidelines.
124. I recommend that Dr E conduct an audit of ten radiology reports to identify reports in which he has either 1) not reviewed previous imaging available, or 2) not documented whether previous imaging has been reviewed or that it is not available for comparison. Dr E is to provide the results of this audit to HDC within two months of the date of this report.

## Follow-up actions

125. A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to the Medical Council of New Zealand, and it will be advised of the names of Dr D and Dr C.
126. A copy of this report with details identifying the parties removed, except the experts who advised on this case, will be sent to Te Aho o Te Kahu/the Cancer Control Agency, the Royal Australian and New Zealand College of Radiologists, and the Health Quality and Safety Commission, and placed on the Health and Disability Commissioner website, [www.hdc.org.nz](http://www.hdc.org.nz), for educational purposes.

## Appendix A: Independent radiology advice to Commissioner

The following expert advice was obtained from a radiologist, Dr Graeme Anderson:

**“HDC Case Review — Ref: C19HDC02197, 21/05/2022**

**CT Chest/Abdomen. Performed at [the radiology service] 02/05/16**

**Indication (From request form)**

Had [right] Hip/Thigh pain.

MRI -> lesion [right] Kidney. RCC.

**Technique: (From Images sent)**

Non contrast CT Abdomen. Contrast enhanced CT Chest, Abdomen and Pelvis (phases not provided but arterial typically 30 seconds and PV enhancement suggests at least 70 seconds post injection (possibly 90 seconds as per nephrographic phase as would be routine).

Multiplanar Reconstructions, soft tissue and lung windows provided.

**Report (Blind Read)**

Prior Imaging evaluation not part of this review, but should have been performed at the time of reporting the CT.

**Chest:**

In the right upper lobe, predominantly the medial aspect of the apical segment there is an ill-defined mass measuring 58 x 36 x 52 mm (TRV x AP x CC).

This composes areas of ground glass and denser areas of consolidation with for the most part preservation of lung architecture.

This has a long interface with the pleura overlying the T3 vertebral body but no evidence of pleural invasion or bone destruction.

No other pulmonary nodules or pleural effusion.

No enlarged thoracic lymph nodes (4R node 7 mm in short axis diameter) 7 mm low attenuation right lobe of thyroid nodule.

**Abdomen and Pelvis:**

67 x 59 x 65 mm (TRV x AP x CC) Right upper pole renal mass. Mixed hypervascular and hypovascular components.

Posteriorly bulges into the perinephric fat and abuts the upper margins of the right quadratus lumborum muscle and psoas without clear invasion. Closely related to the pleura in the costophrenic recess but no invasion.

Normal adrenals and left kidney although there are a few simple renal cortical cysts.

No invasion of the renal vein.

No size significant retroperitoneal lymph nodes (portocaval node measures 8 mm in short axis diameter).

Liver, spleen and pancreas are unremarkable.

No abnormality in the unprepared colon.

No abnormality in the pelvis (allowing for some metallic artefact from left total hip replacement).

Skeleton: (Note bone windows not provided, but soft tissue images re-windowed by reviewer).

No skeletal destructive lesion identified.

**Impression:**

1. 68 mm right upper pole renal cell carcinoma. Extension into perinephric fat but no invasion of adjacent structures especially psoas muscle or spine. No regional nodal or distant metastatic disease. T3 N0 M0. Stage III.
2. Right upper lobe consolidative lesion could represent pneumonia in the appropriate clinical setting. If clinical features of infection are present (eg fever, white count, cough) it would benefit from a course of antibiotics and repeat imaging with a CXR in 6 weeks (the lesion is visible on the CT scout as reference).

If the patient had no symptoms of infection this could either represent atypical infection or a low grade pulmonary neoplasm (mucinous/lepidic adenocarcinoma) and respiratory physician referral and bronchoscopic evaluation recommended.

3. Small right thyroid nodule most likely a non-neoplastic lesion but non urgent ultrasound evaluation recommended (after treatment of the renal tumour).

**Chest X-Ray (AP, Erect, Mobile).**

**Performed at [the radiology service] 20/5/2016.**

**Indication:**

(Request form partially legible.)

'Had Right Nephrectomy, [right] Pleura opened and ? closed ? To Check for pneumothorax'

**Findings:**

Comparison CT CAP 2/5/16

Allowing for the AP projection the heart appears enlarged.

Persistent ill defined opacity medial aspect [right upper lung]. Although this appears slightly less conspicuous when compared to the CT Scout it hasn't completely resolved.

No pulmonary oedema or pneumothorax.

**Impression:**

No pneumothorax but persistent right upper lobe density.

6 week follow up post CT Chest on 2/5/16 still recommended.

**Chest X-Ray (PA).**

**Performed at [the radiology service shortly before Mrs A's cancer diagnosis].**

**Indication:**

Right sided mid chest pain, made worse when taking a deep breath, feels pain through to the back, also makes her cough. Non smoker.

**Findings:**

Comparison: CXR 20/5/16 and CT CAP 2/5/16

Ill defined right paratracheal opacity and patchy apical consolidation has progressed minimally since the previous CXR in 2016.

Heart size is mildly enlarged CTR 145/266.

No pleural effusion or other pulmonary abnormality.

No boney destructive lesion.

**Impression:**

Persistent right upper lobe density.

The differential includes recurrent possibly atypical infection (eg ABPA) or a slow growing neoplasm, specifically lepidic adenocarcinoma, although new chest pain may be indicative of an invasive tumour.

Respiratory opinion and repeat Chest CT is recommended.



Dr Graeme Anderson Radiologist. BHB MBChB FRANZCR."

Dr Anderson provided further advice to the Commissioner:

“HDC Case Review — Ref: C19HDC02197, 30/05/2022

### **Overview**

I was asked by the Commissioner to provide an opinion on Case Number 19HDC02197.

I initially performed a blind review of the imaging (completed 22/05/22).

This report has been requested after details of the case have been provided, including copies of radiology reports and clinical information. (Received 24/05/22).

I have read and agree to follow the Commissioner’s Guidelines for Independent Advisors.

I have no conflicts of Interest around this case.

### **Qualifications:**

I am a Radiologist who has been qualified for over 20 years.

Degrees: BHB (Auckland) 1987  
MBChB (Auckland) 1990.  
FRANZCR 2000.

Post graduate training: Chest Imaging Brompton Hospital London 2007.  
ACR PET Course (Reston VG) 2009.

### **Positions:**

Radiologist Counties Manukau Health 1999 to present.

Co-Lead of MRI

Radiologist co-lead CMH/NDHB Lung Cancer MDM 2014 to present.

Network Training Director Northern Region Radiology Training Program (2018 to 2022)

Radiologist Ascot Radiology 2007 to present (Current Lead of PET CT)

Northern Region PET Variance Committee Chair 2013 to Dec 2019.

I have had a subspecialty interest in Thoracic Imaging for over 20 years and have publications and international presentations in the area.

### **Referral Instructions from the Commissioner:**

Provide a blind review for:

1. CT scan undertaken on [Mrs A] at [the radiology service] on 2 May 2016. Scan reported by [Dr D].
2. Chest Xray Performed at [the radiology service] on 20 May 2016. Reported by Dr E.
3. Chest Xray Performed at [the radiology service] [shortly before Mrs A’s cancer diagnosis]. Reported by [Dr F].

After the blind review was submitted I received a further request for advice:

**Expert advice requested**

Please review the enclosed documentation, in conjunction with the imaging and request forms previously provided, and advise whether you consider the care provided to [Mrs A] by [the radiology service] was reasonable in the circumstances, and why?

In particular, please comment on:

1. The quality of the radiology report dated 2 May 2016
2. The quality of the radiology report dated 20 May 2016
3. The quality of the radiology report dated [shortly before Mrs A's cancer diagnosis].

For each question, please advise:

1. What is the standard of care/accepted practice?
2. If there has been a departure from the standard of care or accepted practice, how significant a departure (mild, moderate, or severe) do you consider this to be?
3. How would it be viewed by your peers?
4. Recommendations for improvement that may help to prevent a similar occurrence in future.

**Documents provided:**

1. Letter of complaint dated 20 November 2019.
2. [The radiology service's] response dated 24 December 2019.
3. [Dr D's] email dated 7 August 2019.
4. Reports from CT scan dated 2 May 2016, Chest X-ray dated 20 May 2016 and Chest X-ray dated [shortly before Mrs A's cancer diagnosis].
5. Correspondence from [Dr C], Urological Surgeon, to [General Practitioner], covering the period 28 April 2016 to 2 February 2017.

**Background**

In April 2016 [Mrs A] underwent an MRI scan for investigation of back pain, which showed an incidental finding of a renal tumour.

[Mrs A] was referred to a urological surgeon who requested a staging CT scan that was taken at [the radiology service] on 2 May 2016.

The CT scan report noted findings of a mass in the upper pole of the right kidney as well as a focal area of consolidation in the apical segment of the right upper lobe of the lungs. The latter was not mentioned in the comments of the report and no recommendation for follow-up was made.

[Mrs A] underwent surgery to remove her right kidney on 20 May 2016.

Her urologist requested a post-operative chest X-ray that same day to check for a pneumothorax. The X-ray report was taken at [the radiology service] and noted no pneumothorax seen and some atelectasis at the left lung base. The report made no comment regarding the right upper lobe of the lungs.

No further imaging of [Mrs A's] chest was recommended.

[Mrs A's] urological surgeon intended to arrange a 12-month post-operative surveillance CT scan, but unfortunately this did not occur.

... [Mrs A] presented to her general practitioner (GP) with a three-week history of chest pain and cough and her GP arranged an urgent chest X-ray taken at [the radiology service] that same day. The X-ray report noted minimal right basal atelectasis but no further pulmonary abnormality.

[Mrs A's] health continued to deteriorate and following an MRI and CT she was diagnosed with a primary lung tumour with metastases to the right lung at least T3N1M1 disease. [Mrs A] sadly died [two weeks later].

#### **CT Report 02/05/2016**

The report follows a standard layout and includes relevant clinical information noting CLINICAL: Right hip/thigh pain. Imaging shows lesion right kidney

TECHNIQUE outlines 'Contrast enhanced scans through the chest abdomen and pelvis' and note the contrast given '100 mls Omnipaque 300 IV'

Before Findings the reporter notes he has compared with The MRI (Lumbar Spine?) performed on 21/04/2016)

FINDINGS section is laid out:

1. Primary Lesion
2. Lymph Nodes
3. Metastases
4. Other Findings

This follows the standard RANZCR format for reporting Oncological CT.

Description of the primary lesion is brief and covers the 'T' staging of a Renal Cell Carcinoma (1) noting 'Size 6.2 cm', intact capsule, and the absence of renal vein invasion.

No comment is made as to the irregularity of the capsule, the close relationship to the psoas and quadratus lumborum muscles (the patient had back pain) although the 'dilated vein' is noted.

The absence of regional lymph nodes and distant metastases in Liver, lungs and left kidney noted and correct.

No comment as to any skeletal metastases (one of the commonest sites of metastases in renal cell carcinoma).

In the Other Findings section:

‘There is a focal area of consolidation seen in the apical segment of the right upper lobe’

No other comment made here about the ‘area of consolidation’ its size, shape, the presence of architectural distortion, relationship to the pleura etc.

The presence of fatty liver but no other abnormality is noted.

COMMENT:

‘6.3 cm mass in the upper pole of the right kidney with no evidence of local spread or distant metastases. Unusual, dilated vein’

This is effectively correct although an experienced Radiologist might have:

1. Provided a presumptive histological diagnosis ‘Renal Cell Carcinoma’.
2. Raised the possibility of early signs of venous invasion, this would increase the risk of current or future metastases and might prompt more regular follow up realizing that the patient subsequently had a left nephrectomy where pathological confirmation or exclusion would have guided follow up also.
3. Most importantly the ‘Comment’ does not mention what the area of ‘consolidation’ in the right upper lobe might be.

Significant Incidental Findings on CT studies are a common finding and having processes to deal with them is important.

Areas of consolidation are most commonly bacterial pneumonia, but these almost always are associated with symptoms of cough, fever, and signs of an elevated white cell count.

No mention of such symptoms is provided on the request form.

In the absence of such symptoms areas of consolidation are atypical for bacterial pneumonia and other less common processes, organizing pneumonia (confusingly an autoimmune process) atypical infections (often aspergillus) and occasionally diffuse neoplasms especially diffuse adenocarcinoma variants (lepidic/mucinous adenocarcinoma).

Rarely endobronchial metastases from tumours such as melanoma and relevant to this case renal cell carcinoma can cause obstruction and secondary consolidation.

It is routine to follow up areas of consolidation (in symptomatic and asymptomatic patients) found on Chest x-rays in 4 to 6 weeks after appropriate treatment (eg antibiotics) to confirm they resolve.

This both assesses the efficacy of treatment and also identifies the non-resolving processes such as diffuse adenocarcinomas or atypical infections that will require more intensive investigation.

Recommendations for incidental areas of consolidation on CT are not as standardised but there are some for smaller sub solid and ground glass areas of consolidation (British Thoracic Society and Fleischner guidelines) that recommend follow up CT in 3 months for such lesions (realizing that approximately 40 percent will resolve by this time).

When the recipient of the report is a specialist, studies have shown that only half will read the body of the report and just read the conclusion.

This is why mentioning the significant incidental finding of consolidation is important in the conclusion rather than just the body.

Also, a consultant Urologist on reading the report is unlikely to understand the potential implications of ‘an area of consolidation’ and whether the abnormality needs any follow up or treatment.

It is the Radiologist’s role to guide them.

### **What is the Standard of Care?**

I find the report to be substandard in several ways.

1. It does not mention the lung abnormality in the conclusion.
2. It does not attribute any significance as to what the area of consolidation might be.
3. It does not recommend any follow up, be it a CXR in 4–6 weeks or a CT in 3 months (or after removal of the renal tumour).

The report departs significantly from the standard of practice, in that it goes against the principles that are outlined in current guidelines (BTS and Fleischner) on the subject and also the RANZCR reporting guidelines.

### **How would it be viewed by Peers?**

The RANZCR reporting guidelines used by most Radiologists practising in NZ (and Australia) state about abnormalities found on imaging:

**Relevant imaging findings** should be characterised as specifically as possible including description of:

- Precise anatomical location using accepted anatomical terminology and modality-specific best practice;
- Size or extent;
- Other anatomical imaging characteristics relevant to diagnosis or treatment.

Whilst this was present in the report to a significant extent for the renal tumour '6.2 cm, upper pole left kidney'

None of these components however are present for the large area of consolidation in the right upper lobe.

College guidelines also state with respect to conclusions:

*Where possible, state the most likely specific diagnosis or a limited number of the most likely alternatives with an indication of their relative likelihoods. Where imaging findings are non-specific or indeterminate this should also be stated, and consideration given to recommendation about how a more specific diagnosis might be reached.*

*The Conclusion should provide a concise, clinically relevant interpretation of the previously described imaging observations.*

*If findings are normal or likely non-significant, this should be stated explicitly.*

*With respect to recommendations for further investigations:*

*If a recommendation for further imaging, investigations referral and/or treatment is appropriate in the particular clinical context, it should be described precisely.*

In this case the conclusion did not provide an interpretation of the imaging observations or provide any guide as to further imaging let alone describe such recommendations precisely (eg time period).

### **What is the departure from the Standard of Care?**

Although the report follows standard protocols for reporting and the staging of the Renal tumour, the lack of description, conclusion or recommendations for the large area of abnormality in the right lung, merely denoted 'Consolidation', is a Moderate departure from the standard.

### **Recommendations for Improvement:**

It is recommended that significant incidental findings are not only described in the report but also described in the conclusion as per RANZCR guidelines.

If the incidental finding is not characterized by the examination performed the report should provide advice as to any further tests that should be performed to characterize the abnormality further and outline any follow up imaging or appropriate specialist referral.

**CXR Report 20/05/2016**

Follows standard protocols:

1. Clinical: Notes recent Nephrectomy, notes that the pleura has been opened and that the clinical question is 'Pneumothorax'.
2. Report notes the exam is 'AP mobile' and answers the clinical question as to the absence of any pneumothorax. (Atelectasis at the left lung base is also noted a common post op finding)

The report is acceptable and answers the clinical question.

The only deviation from accepted practice is that no reference to recent CT is made.

The 'abnormality' at the right lung apex is barely visible on this portable film.

However, if the Radiologist [Dr E] had the recent CT available for comparison (it is unclear whether it would have been) His attention may have been drawn to the very subtle finding.

However as in my own assessment (where I compared with the 'Scout' from the CT) the abnormality is less obvious and thus may have been construed as improving.

**What is the Standard of Care?**

It is convention and part of the RANZCR guidelines to compare with previous imaging (or to note that it is not available).

**How would it be viewed by Peers?**

Although it is within guidelines to review previous imaging in the interest of time to exclude an acute abnormality that might require urgent treatment (ie a pneumothorax) it is not always practical or timely to do so.

**What is the departure from the Standard of Care?**

Not reviewing previous imaging for a post op mobile CXR is a very minor departure from the Standard of Care.

Not identifying the abnormality on the CXR does not deviate from the standard of care as it is very subtle.

**[Second] CXR Report**

Follows standard protocols:

1. Clinical: Notes recent Chest pain on inspiration, radiating to the back. Non Smoker
2. Report compares with previous CXR (20/5/16). (But not the previous CT)
3. Notes normal cardiac size.
4. Notes right basal atelectasis but no other pulmonary abnormality.

No conclusion is made particularly as to what might be the cause of the patient's chest pain.

The slightly more conspicuous area of consolidation in the right upper lobe is not commented on.

The 'abnormality' at the right lung apex has progressed since the previous CXR but still quite subtle.

However, if the Radiologist [Dr F] had compared with the 2016 CT (again it is unclear whether it would have been) his attention may also have been drawn to the still subtle finding.

### **What is the Standard of Care?**

The standard of care has been followed.

There has been a perceptual error, but these are common on CXR reporting.

### **How would it be viewed by Peers?**

The perceptual error of the still very subtle abnormality would have been viewed as an acceptable albeit infrequent occurrence for an experienced radiologist.

### **What is the departure from the Standard of Care?**

Not reviewing the previous CT is a very minor departure from the Standard of Care, especially as the previous CXR was viewed.

Not identifying the abnormality on the CXR does not deviate from the standard of care as it remains subtle.

### **Conclusions:**

1. CT Report [Dr D] 2/5/16: Moderate departure from Standard of care due to not providing a possible diagnosis for the right upper lobe consolidation and not clearly outlining the need for follow up of this lesion.
2. CXR Report Dr E 20/5/16: Minor departure for not identifying whether previous imaging was viewed.
3. CXR Report [Dr F] [shortly before Mrs A's cancer diagnosis]: Minor departure for not comparing with previous CT.

### **Other Matters:**

1. [The radiology service's] response from [Dr D] is very brief and notes 'it is the responsibility of the referring clinician to arrange follow up'.

Whilst this is true, it is the responsibility of the Radiologist to conclude if follow up is needed, what such follow up should be and what interval would be appropriate.

Only then does it become the responsibility of the referring clinician.

2. In the copy of the complaint this is stated '[Mrs A's] oncologist ... said that her cancer was "totally avoidable".' (Note [the doctor] is a Respiratory Physician, not an Oncologist)

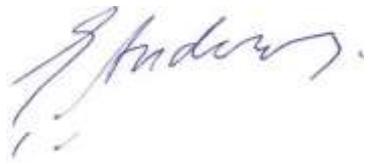
This statement is not correct.

The left upper lobe lesion is 6.5 cm in maximum diameter on the May 2016 scan.

This means that the lesion now presumed lung cancer is at least Stage IIB. (T3 Nx Mx)

The 5 year survival for lung cancers of this stage is only 33%.

It is unfortunate that such a statement may have been conveyed to the family.



Dr Graeme Anderson  
Radiologist.  
BHB MBChB, FRANZCR.  
30/05/22

**References:**

1. RANZCR Clinical Radiology Written Report Guidelines (published 2012).
2. BTS Guidelines for the Investigation and Management of Pulmonary Nodules **Thorax 2015.**"

## Appendix B: Independent urology advice to Commissioner

The following expert advice was obtained from Dr Jonathan Masters, urologist:

“Complaint: [Dr C]

Your Ref: C19HDC02197

My name is Jonathan Masters. My Medical Council Number is 26350. I am a Urologist and my specialist interests are in prostate and bladder cancer and urological cancers in general. I do not have any conflicts of interest in this case.

You have asked me to provide advice on the following:

The adequacy of communication with [Mrs A] relating to any abnormal findings in the imaging taken on 2 May 2016 and 20 May 2016;

The adequacy of communication with [Mrs A's] GP relating to any abnormal findings in the imaging taken on 2 May 2016 and 20 May 2016;

The expected management of the incidental finding of right upper lobe consolidation in the CT scan dated 2 May 2016;

The reasonableness of the care provided to [Mrs A] post-operatively by [Dr C];

Any other matters in this case that you consider warrant comment.

1) The adequacy of communication with [Mrs A] relating to any abnormal findings in the imaging taken on 2 May 2016 and 20 May 2016;

This CT was done as a staging CT to look for metastatic renal cancer. Whilst the focal consolidation is mentioned in the text of the report it is not mentioned in the summary which specifically excludes any evidence of local or distant metastases. On the chest xray of 20 May the area of apical consolidation in the right upper lobe is not mentioned at all. I think it is reasonable to assume this was coincidental and had resolved. I therefore feel that is within the bounds of acceptable practice that the specific finding of incidental right upper lobe apical consolidation was not specifically discussed with the patient particularly as it would appear that it had resolved by 20 May.

2) The adequacy of communication with [Mrs A's] GP relating to any abnormal findings in the imaging taken on 2 May 2016 and 20 May 2016;

I note that a copy of the CT report was sent to the GP and therefore this information was directly available for the GP. I do not have copies of the follow up letters from [Dr C] but it appears from the response to the HDC from [Dr C] that it was unlikely the right upper lobe apical consolidation was ever directly discussed with the patient or the GP. However given the chest xray apparently showed resolution of this area and the CT had been copied to the GP I think that it was not unreasonable that this was not directly

highlighted to the GP and therefore I would regard the communication with the GP around the CT of 2 May and the chest xray of 20 May to be of an acceptable standard.

3) The expected management of the incidental finding of right upper lobe consolidation in the CT scan dated 2 May 2016;

In a patient who is well this really requires no further management particularly given the apparent resolution on the CXR. However in a patient who is unwell this would need further investigation. It would appear that at the time of review post operatively at 6 weeks and 6 months [Mrs A] was well. However this lesion should have been followed up anyway in the expected routine follow up of the renal cancer which in this case should have included a CT at 6 months (EAU guidelines for intermediate risk (>5cm lesion) renal cancer).

4) The reasonableness of the care provided to [Mrs A] post-operatively by [Dr C]

Table 8.1: Proposed surveillance schedule following treatment for RCC, taking into account patient risk profile and treatment efficacy (based on expert opinion [LE: 4])

Risk profile	Surveillance				
	6 mo	1 y	2 y	3 y	> 3 y
Low	US	CT	US	CT	CT once every 2 years; Counsel about recurrence risk of ~10%
Intermediate/ High	CT	CT	CT	CT	CT once every 2 years

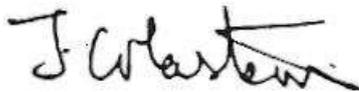
*CT = computed tomography of chest and abdomen, alternatively use magnetic resonance imaging for the abdomen; US = ultrasound of abdomen, kidneys and renal bed.*

4) The reasonableness of the care provided to [Mrs A] post-operatively by [Dr C];

I think [Dr C's] care was good quality care up to the operation and in the first 6 weeks. I believe that with an intermediate risk renal cancer that [Mrs A] should have been booked for a CT at 6 months post operation and this was not done. In addition [Mrs A] should have been followed for more than 6 months and if she failed to attend appointments then she should have been formally discharged to her GP or referred in to the hospital system. If this had happened and [Mrs A] had attended her appointments then any issues with regards the area of consolidation in her right upper pole would have come to light at 6 months and confirmed at 12 months. I would regard this as a substantial departure from the expected standard of care. I note [Dr C] has acknowledged this in his reply and taken these issues on board.

2) Any other matters in this case that you consider warrant comment.

This is a somewhat difficult case to comment on as it is not clear to me whether [Mrs A] had metastatic renal cancer or a separate cancer. In addition I have not been provided with any correspondence from [Dr C]. Whilst I think most of the care that has been provided by [Dr C] has been of an entirely appropriate standard I would be critical that the patient had no follow up CT scan and would have appeared simply to fall off the radar which is not appropriate for a patient with renal cancer. [Mrs A] needed to be followed up or discharged formally with a written letter to patient and the GP.



Jonathan Masters

23 November 2020"

Further advice provided by Dr Masters:

"Complaint: [Dr C]

Your Ref: C19HDC02197

My name is Jonathan Masters. My Medical Council Number is 26350. I am a Urologist and my specialist interests are in prostate and bladder cancer and urological cancers in general. I do not have any conflicts of interest in this case.

You have asked me to provide further advice on the following:

1. [Dr C's] statements that [Mrs A's] tumour was low risk, not intermediate risk.
2. [Dr C's] explanation that no ultrasound was done at six months postoperatively due to the tumour being classified as low risk (I note that that table referenced in your advice report dated 23 November 2020 indicates that an ultrasound should be undertaken at six months post-operatively for patients with low risk profiles).
3. If you agree that [Mrs A's] tumour would be considered low risk, please advise whether you consider [Dr C's] care at [Mrs A's] six-month postoperative follow-up consultation to have been reasonable and appropriate.
4. Please advise whether there are written protocols/guidelines in New Zealand for surveillance follow-up of renal tumours such as [Mrs A's] and, if so, what these are.
5. Any other matters in this case that you consider warrant comment.

For each question, please advise:

- a. What is the standard of care/accepted practice?
- b. If there has been a departure from the standard of care or accepted practice, how significant a departure (mild, moderate, or severe) do you consider this to be?
- c. How would it be viewed by your peers?
- d. Recommendations for improvement that may help to prevent a similar occurrence in future.

### Introduction

Before answering the questions outlined it is important to recognize that I do not know what type of cancer that was missed in the lungs in [Mrs A]. This is important because if it is a second cancer (ie not a metastases from her renal cell cancer) then the hope was that it would be picked up as an incidental finding as part of her renal cancer follow up. It is unlikely given that this was a Furhman Grade 1 T1b Renal cell cancer that it was a metastatic deposit from her renal cancer but, with the information provided to me, I cannot know.

#### 1. [Dr C's] statements that [Mrs A's] tumour was low risk, not intermediate risk.

I acknowledge that [Dr C] is correct that given this is a Furhman Grade 1 T1b Renal cell cancer it would have a Leibovich score of 1 and therefore would be a low risk cancer. (The histology was not available to me at the time of writing the first report).

#### 2. [Dr C's] explanation that no ultrasound was done at six months postoperatively due to the tumour being classified as low risk.

As [Dr C] has amply demonstrated with the documentation that he has supplied there is significant variation around when, and with what modality of imaging, patients who have been treated for Renal Cell Cancer should be followed up. As it happens the latest (2022) guidelines from the EAU now suggests that low risk patients (like [Mrs A]) should have a CT at 6 months so the guidelines have changed again. This makes it a very confused area which from a clinical perspective is difficult to navigate. I therefore accept that it was reasonable for [Dr C] not to organize an Ultrasound scan for 6 months given that he regarded this as a low risk cancer and this decision is within acceptable/standard practice for New Zealand.

#### 3. If you agree that [Mrs A's] tumour would be considered low risk, please advise whether you consider [Dr C's] care at [Mrs A's] six-month postoperative follow-up consultation to have been reasonable and appropriate

Looking through all the available guidelines, I believe that it would have been most appropriate for a CT scan to have been organized at the follow up appointment in February 2017. (The vast majority of follow up guidelines recommend a CT at 6 months or 1 year). This is for 2 reasons. First it would ensure that the scan is available for the next follow up visit. Second in this case the follow up appointment in February 2017

was not at 6 months (which would have been Dec 2016) but at 8 months. I note that [Dr C] has now changed his practice so that where a follow up scan is due for the next appointment it is arranged at the current appointment. Nevertheless, in his letter to the GP after the February 2017 appointment he does clearly acknowledge that a CT would be due at the next follow up and therefore, given this is a low risk cancer, I would regard this February 2017 appointment as being reasonable and appropriate.

4. Please advise whether there are written protocols/guidelines in New Zealand for surveillance follow-up of renal tumours such as [Mrs A's] and, if so, what these are.

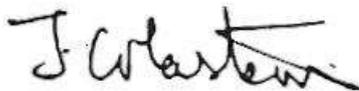
I am not aware of any protocols or guidelines specific to New Zealand. Generally urology departments will follow up patients post nephrectomy for renal cell cancer with reference to EAU, AUA, or BAUS guidelines.

5. Any other matters in this case that you consider warrant comment.

I remain concerned that in [Mrs A's] case, she simply disappeared from follow up. From [Dr C's] description of how his private rooms operate, I must assume that in February 2017, a follow up appointment was made for 6 months and then [Mrs A] failed to attend. However, given that [Mrs A] was due a CT scan (clearly indicated in [Dr C's] letter following the appointment in February 2017) and she was being followed up for a cancer, there needed to be some acknowledgement of her failure to attend and an explanation that follow up was required. This should have been a letter to the GP or the patient (or to both). If this had happened, it is likely that the CT would have been performed and the lesion in the lung would have been found earlier. This was highlighted in my original report, and I would regard this as a moderate departure from the standard of care within New Zealand.

Please can you pass on my condolences to [Mrs A's] family. I am sorry that this process has taken such a long time. I would like to thank [Dr C] for his provision of further information particularly the histology report and his letters which were not available to me at the time of the original report, and I have amended this report accordingly.

Yours truly,



Jonathan Masters

4<sup>th</sup> May 2022

Latest EAU guidelines for follow up of Renal Cell Cancers 2022 to highlight how guidelines change:

Table 8.1: Proposed follow-up schedule following treatment for localised RCC, taking into account patient risk of recurrence profile and treatment efficacy (based on expert opinion [LE: 4])

Risk profile (*)	Oncological follow-up after date of surgery								
	3 mo	6 mo	12 mo	18 mo	24 mo	30 mo	36 mo	> 3 yr (**) (***)	> 5 yr (**) (***)
Low risk of recurrence	-	CT	-	CT	-	CT	-	CT once every two yrs	-
For ccRCC:									
Leibovich Score 0–2									
For non-ccRCC:									
pT1a-T1b pNx-0 M0 and histological grade 1 or 2.									
Intermediate risk of recurrence	-	CT	CT	-	CT	-	CT	CT once yr	CT once every two yrs
For ccRCC:									
Leibovich Score 3–5									
For non-ccRCC:									
pT1b pNx-0 and/or histological grade 3 or 4.									
High risk of recurrence	CT	CT	CT	CT	CT	-	CT	CT once yr	CT once every two yrs
For ccRCC:									
Leibovich Score $\geq$ 6									
For non-ccRCC:									

pT2-pT4 with any  
histological grade

or

pT any, pN1 cM0  
with any  
histological grade

ccRCC = clear cell renal cell carcinoma; CT = computed tomography; mo = months;”