

**A Decision by the
Health and Disability Commissioner
(Case 21HDC02403)**

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Introduction

1. This report discusses the care provided to Mr A by cardiothoracic surgeon Dr B and a public hospital.
2. Mr A was diagnosed with lung cancer in the left lower lobe of his lung. Dr B performed surgery to remove the tumour, but subsequently it was discovered that the left upper lobe had been removed in error, instead of the left lower lobe. Consequently, Mr A required further surgery to remove the left lower lobe of his lung.
3. The following issues were identified for investigation:
 - *Whether Dr B provided Mr A with an appropriate standard of care in September 2020, whether Dr B effectively communicated the outcome of the surgery performed on 11 September 2020, and whether Dr B provided appropriate information and obtained Mr A’s informed consent for the surgery performed on 19 September 2020.*
 - *Whether Health New Zealand|Te Whatu Ora provided Mr A with an appropriate standard of care in September 2020, whether Health New Zealand|Te Whatu Ora effectively communicated the outcome of the surgery performed on 11 September 2020, and whether Health New Zealand|Te Whatu Ora provided appropriate information and obtained Mr A’s informed consent for the surgery performed on 19 September 2020.*

4. The parties directly involved in the investigation were:

Mr A	Consumer
Dr B	Provider/cardi thoracic surgeon
Health NZ	Provider

5. The following people are also referred to in the report:

Dr C	Provider/respiratory and general physician
Dr D	Provider/house officer
CNS E	Provider/charge nurse specialist
Dr F	Provider/cardi thoracic surgeon
Dr G	Provider/senior cardi thoracic surgeon
RN I	Registered nurse

6. Further information was received from:

Mrs A	Consumer's wife
Ms H	Consumer's daughter
Accident Compensation Corporation (ACC)	

7. Independent advice was obtained from a cardi thoracic surgeon, Dr Richard Bunton (Appendix A).

Background

Diagnosis

8. Mr A (aged in his sixties at the time of events) has a family history of cancer. Mr A arranged routine screening for his own lung health.
9. On 27 July 2020, Mr A underwent a CT¹ scan of the chest and abdomen at a public hospital (Hospital 1), which showed a 2.5cm lesion² in the left lower lobe of his lung.
10. On 18 August 2020, a PET³ scan concluded that the lesion was consistent with a primary pulmonary neoplasm.⁴ On 20 August 2020, a CT-guided biopsy confirmed a diagnosis of adenocarcinoma, a type of lung cancer that forms in the bronchial glands.
11. Following the diagnosis of lung cancer stage 1A3,⁵ respiratory and general physician Dr C at Hospital 1 advised Mr A's general practitioner (GP) that 'the easiest thing is just to proceed to surgery'.

¹ Computed tomography.

² A small irregular growth.

³ Positron emission tomography (an imaging test).

⁴ Tumours that originate in the lungs.

⁵ The stage when the tumour is between 2cm and 3cm.

12. On 21 August 2020, Hospital 1 discharged Mr A into the care of his GP for further management.
13. Mr A was referred to Dr B at another public hospital (Hospital 2) and was under Dr B's care from 10 September 2020 to 29 September 2020.

Dr B

14. Currently Dr B is employed as a senior cardiothoracic surgeon at Hospital 2. Dr B told HDC that he has many years' experience in cardiothoracic surgery. Dr B said that he has performed almost 300 video-assisted thoracoscopic surgery (VATS) lobectomies. Dr B said that conversion to an open thoracotomy is required in 2.5% of VATS lobectomies that he performs.

First surgery — 11 September 2020

15. On 10 September 2020, Mr A signed a consent form to undergo a VATS lobectomy⁶ and lymph node sampling.
16. On 11 September 2020, Dr B performed the VATS lobectomy. The operative findings, as documented in the operation note, were that both the upper and lower lobes appeared emphysematous,⁷ and an enlarged lymph node was taken for biopsy. The operation note states:

'[U]sing video assisted technique the inferior pulmonary ligament⁸ was divided and the lower lobe vein was dissected and divided ... The resected⁹ lower lobe lung was removed ...'

17. Following the surgery, the part of the lung that was removed was sent to the Hospital 2 medical laboratory for processing.

Events following first surgery

18. Initially, Mr A made a good recovery following the surgery. Dr B said that nothing out of the ordinary was suspected until five days following the surgery, when Mr A became feverish.

16 September 2020

19. On 16 September 2020 (five days following the surgery) a chest X-ray showed the abnormal presence of air and fluid¹⁰ on the left of Mr A's chest. Because of this, a CT scan of the chest was performed on the same day.

⁶ A minimally invasive procedure to remove a lobe of the lung.

⁷ Resembling emphysema, a condition where the air sacs (alveoli) in the lungs are damaged.

⁸ The lower rounded edge of the lung.

⁹ The part that was cut off.

¹⁰ Hydropneumothorax.

17 September 2020

20. On 17 September 2020, Dr B was informed by the pathologist that no tumour had been found on the part of the lung that had been removed.

21. While awaiting the results of the CT scan of the chest, Mr A was reviewed by Dr D, who was working as a house officer. Dr D documented in the clinical records:

‘[Patient] asked about conversation he had with [Dr B] and [Dr F] if the tumour was resected given histology showing no tumour (Report not yet on system). Explained we are checking a few things and will update.’

22. Mr A was also reviewed by thoracic charge nurse specialist (CNS) E, who noted that Mr A was feeling well, but that he was awaiting Dr B’s plan regarding the CT results.

23. The results of the CT scan were reported later on 17 September 2020, and it was discovered that the left upper lobe of the lung had been removed instead of the left lower lobe, and that there was a loss of blood supply to the remaining part of the left lung. The radiology report states:

‘On further review the left upper lobe have been removed instead of the left lower lobe. The venous return¹¹ of the remaining left lower lobe has been clipped/transacted surgically. This accounts for the significant opacification¹² within the left lower lobe which is thought to represent severe venous congestions/infarction.¹³ Discussed with surgical team.’

24. Later in the afternoon, CNS E returned to review Mr A and documented in the clinical records:

‘Returned in the afternoon to catch up on [Dr B’s] plan. I have seen on the notes that he is due for completion pneumonectomy¹⁴ tomorrow. Allowed [Mr A] to verbalise his feelings and reassured. He is upset that he needs another surgery but understands [Dr B’s] explanation. [Mr A] informs that [Dr B] phoned him today and explained the reason for surgery. His daughter was with him and also rang his wife to update. I will continue to support and follow up.’

25. CNS E told HDC that on 17 September 2020, she was aware of the upcoming second surgery, but not the reason why. She stated that she had doubts about Mr A’s understanding of the reason for the second surgery and escalated this to the Associate Charge Nurse, RN I (discussed further below). CNS E told HDC:

‘I asked the patient his understanding of his second surgery. I recall patient replying “I will have the second surgery due to a torsion, loss of blood supply in the lobe [and] that a pneumonectomy is the only option.” He added, “some of the cancer had not

¹¹ The rate of blood flow from the veins to the heart.

¹² Clouding.

¹³ Death of tissue resulting from failure of blood supply.

¹⁴ A surgical procedure to remove one lung.

been removed". Patient informs me that this [is] what [Dr B] had explained to him. This seemed like an unusual plan as pneumonectomy is a major procedure and the patient did appear to take it "matter of fact". I have discussed my doubts with our Associate Charge Nurse RN I and escalated further to our Nurse Unit Manager.'

Surgical error

26. Dr B said that it is his standard approach to perform a VATS lobectomy for lung cancer resection. Dr B said that it can be challenging at times to perform this procedure because of the confined space, the use of long instruments, and the loss of tactile sensation. Dr B stated that the disadvantages of a VATS lobectomy are limited access and not being able to feel and touch the tumour, and the advantages are less postoperative pain and earlier recovery. Dr B also said that surgery on the left side is more difficult than surgery on the right because there is less space due to the location of the heart.
27. Health NZ said that because of the reduction in the size of the incision, minimally invasive surgery provides significant benefits to a patient, but it also offers challenges. This is because the exposure to the surgical field is compromised, making some of the technical aspects of the surgery more challenging and increasing the chance of unwanted events, such as vascular injury, incorrect identification of anatomy, etc. There is also a reduction in the ability of the surgeon to feel by hand, and there are limited views whereby structures must be constantly manipulated into the viewing angle of the camera. Also, having to operate with a camera that sees only in two dimensions is disadvantageous compared to the human eye, which sees depth and therefore in three dimensions.
28. Dr B explained that there are two approaches to a VATS lobectomy, being an anterior approach (from the front), which is his preferred approach, or a posterior approach (from the back). Dr B explained that with the anterior approach, the surgeon and the assistant surgeon stand in front of the patient, who is lying on his/her side. There is one video monitor in front of the operating team and another at the back for the second assistant surgeon and the rest of the operating team. Dr B said that generally there are tens of individuals watching the screen and the procedure.
29. Health NZ said that the main purpose of the video monitors in the operating room for minimally invasive surgeries is to enable the surgeon and the surgical assistant to perform the operation. Health NZ said that the video monitors can also assist the support staff, such as the nursing staff and anaesthesia staff, to recognise how far the surgery has progressed. Health NZ said that it would not be appropriate for the support staff to be 'monitoring the video screen during surgery' to enable an overview of the technical aspects of the surgery as it is not part of their role.
30. Dr B said that a standard procedure in a lobectomy is to inflate and deflate the entire lung once or twice to ensure that the correct airway/bronchus¹⁵ is being divided. Dr B stated that in Mr A's case, this was done two or three times during the creation or completion of

¹⁵ The airway that leads from the windpipe to the lung.

the fissure¹⁶/partition between the two lobes. Dr B said that the orientation of the lung is guided by the fissure/partition between the upper and the lower lobes, and that this was marked with ink at the start of the procedure.

31. Dr B said that after a division of the left inferior pulmonary ligament and the left inferior pulmonary vein, the left lung becomes 'very free and mobile'. He believes that rotation/torsion of the lung occurred when the lung was being inflated and deflated, which went unnoticed.

32. Dr B said that in Mr A's case, the left lung was visible on the video monitor in front of the operating team. The orientation of the lobes on the video monitor was as follows:

- The left upper lobe was on the left side of the dividing fissure/partition; and
- The left lower lobe was on the right side of the dividing fissure/partition.

33. Dr B stated:

'I believe that the lung rotated in this instance on itself 180 [degrees] — unbeknown to anyone of us during the procedure. The result of this is that the upper lobe positioned itself on the TV screen on the right side and the lower lobe positions itself on the left side on the screen, as seen by the surgeon. The upper lobe, being on the right side of the screen (and the right side of the fissure) would be deemed to be the left lower lobe (this is what would have occurred in this case). I had planned for a left lower lobectomy and proceeded to remove the lobe that was visible to my right. I removed this lobe thinking that this was the lower lobe. This was the error that was made, as it was not known at the time that the lung had rotated 180 degrees ...

This was an inadvertent error. The rare event of torsion of the lung was not recognised by me or anyone else at the time. I removed the lower part of the rotated left lung — which in fact was the upper lobe; removing the wrong lobe, indeed a very rare phenomenon.'

34. Dr B disagrees with the independent advisor's advice that the error occurred because of disorientation or an error of judgement on his part. Dr B said that he was fully aware that the planned procedure was a lower lobectomy, and he proceeded to remove the lobe that was visible on the right side of the fissure (which was the left lower lobe). Dr B said that neither he nor anyone else involved in the surgery was aware that torsion had occurred, and that the lung had rotated.

35. Dr B said that he assessed the orientation of the lung at every stage of the procedure through the video monitor, and it is unfortunate that he did not recognise the torsion that occurred after the lung was inflated and deflated.

¹⁶ The fissures divide the lung into lobes.

36. The clinical summary states that because of a 'loss of orientation' during the first surgery, the left upper lobe was removed as it was mistakenly identified as the left lower lobe. Dr B documented his explanation for the error in the clinical records:

'This gentleman underwent a lobectomy a week ago during which time he was meant to be having lower lobectomy for adenocarcinoma. Obviously I lost orientation due to torsion of the lower lobe during the VATS lobectomy and having had divided the inferior pulmonary ligament and vein. Mistakenly I performed right upper lobectomy thinking it was the lower lobe as the lung had twisted on itself 180 degrees.'

37. Dr B said that it would have been impossible to recognise the rotation through large incisions, let alone through a VATS.

38. Dr B told HDC:

'It was hard to imagine how an upper lobe lung could be mistaken for a lower lobe which I believed I had taken out, having had done all standard checks. I saw [Mr A] in person, explained the situation and the conundrum. I informed him that a re-exploration was required with an open thoracotomy¹⁷ this time and that I would relay all the findings to him. I apologised to [Mr A] for exposing him to a second operation.'

39. In response to the provisional opinion, Mr A said that Dr B did not mention a conundrum about no cancer being found, or a need to re-explore. He said:

'There was no mention of a "conundrum" about no cancer being found, and no mention of a "re-exploration" or "relay of all the findings". Instead, he told me that "the blood supply to the rest of the left lung was compromised", and it (the remainder of the lung) needed to be removed in a second operation. So, my impression from this was that the lower lobe (and tumour) had been excised as planned, but somehow the healthy upper lobe now had a compromised blood supply and now had to be removed.'

40. Both Health NZ and Dr B accept that the removal of the incorrect lobe of the lung at the time of Mr A's original operation 'should not have happened'.

41. Health NZ said that Dr B has 'accepted full and sole responsibility for the error in removing the incorrect lobe of [Mr A's] lung' and that Dr B has unreservedly apologised to Mr A and his wife in person.

Consent form for second surgery

42. On 17 September 2020, Mr A signed a consent form for a 'left thoracotomy and completion pneumonectomy'. Cardiothoracic surgeon Dr F, who was working as a registrar, went through the consent process with Mr A. The consent form states:

¹⁷ An incision is made in the chest wall between the ribs.

'I have been able to discuss this with [Dr F], Registrar, [cardiothoracic surgeon]. He/she has explained the reasons and expected risks to me of the procedure relating to my clinical history and condition, and I agree to this treatment/procedure. I have had adequate opportunity to ask questions and these have been answered to my satisfaction. I understand that during this procedure images or pictures may be captured if relevant to my care. These images will be incorporated into my clinical record. I understand that I am welcome to ask for more information if I wish.'

43. The consent form contains no detail as to what was discussed with Mr A in relation to the reasons for the second surgery.

Second surgery — 19 September 2020

44. On 19 September 2020, Dr B performed a completion pneumonectomy with removal of the left lower lobe.
45. Dr B said that the findings of the second surgery were a twisted left lower lobe with its divided inferior vein and ligament infarcted (the tissue was dead), and the tumour was palpable on removal of the lower lobe. Dr B recorded in the operation note:

'After thorough examination and noting the distorted anatomy a lower lobectomy/ completion pneumonectomy was undertaken ... The message was relayed to [Mrs A] and it was explained that left upper lobectomy was mistakenly undertaken a week ago.'

46. On 24 September 2020, Mr A was discharged home. The plan was for him to be reviewed by his GP within a week because of postoperative pain, to be reviewed at the cardiothoracic clinic with a chest X-ray within four weeks, and to have a follow-up appointment with Dr C within six weeks.
47. Mr A told HDC that since the surgery, he has not been able to return to many of his daily activities because of significant pain when using his left hand. On 24 January 2024, Mr A also told HDC that the cancer has returned and is now in the right lower lobe of his (only remaining) lung.

Information provided prior to second surgery

48. Mr A raised concerns about the information provided to him prior to the second surgery being performed. He said that Dr B did not inform him of the error (that the left upper lobe had been removed by mistake instead of the left lower lobe) until after the second surgery had been completed.
49. Mr A said that prior to the second surgery, Dr B informed him only that the second surgery was required because the blood supply to the remaining part of his left lung had been compromised. Mr A said that he consented to the further surgery after a 'brief' discussion with Dr B in which Dr B informed him that 'there was no other course of action available, and that the left lung had to be removed'. In response to the provisional opinion, Mr A said that because he was being told this by his surgeon, he took it as fact. He said: '[W]hile

the statement [about] the blood supply to the remainder of the lung was technically true, it was seriously misleading.’

50. Mr A stated:

‘I gave consent for the operation believing that the first operation had successfully removed the lower lobe and tumour, but that some effect of that operation had compromised the blood supply to the remaining healthy upper lobe, therefore requiring its removal in the second operation. It was only after the completion of the pneumonectomy that [Dr B] explained to my wife about the mistake in the first operation, and that the second operation — while removing the lower lobe and tumour — was necessary because the blood supply to the lobe left in my body had been cut down in the first operation, and the lower lobe was dying as a result of that.

...

At no time before the second operation was I told that an error had been made during the first operation. At that point I believed I was consenting to removal of the lung with the upper lobe in place, still under the impression that the first operation had removed the lower lobe and the cancer. After the operation I was moved to the recovery room. My wife came to visit while I was recovering, and it was her that told me the actual reason why the second operation had been necessary, and that Dr B had told her by phone call when he advised her that the operation went well and that I had been moved to recovery.’

51. Mr A said that his daughter, Ms H, visited him while he was in the recovery room following the second surgery, and Dr B also came to visit him and informed him that ‘the second operation was to correct the error he made in the first one’.

52. Mr A’s recollection of the events is supported by both his wife and daughter.

53. Mr A’s wife, Mrs A, stated:

‘[Dr B] phoned me to tell me that the second surgery had gone well, and that [Mr A] was recovering well. He then said that he had made a mistake in the first operation, taking the wrong part of the lung out, and that he was very sorry. I was in shock after that, but rang my younger daughter [Ms H] to tell her to meet me at the hospital, and I went there to see [Mr A] while he was in the recovery room. I asked [Mr A] if he knew what had happened with the first surgery, and when he said no, I told him what [Dr B] told me. [Mr A] was extremely shocked at that.’

54. Mr A’s daughter, Ms H, stated:

‘I was visiting my father at [Hospital 2] September 17th when he was informed that he would need a second surgery. [Dr B] told us that there was a complication with the blood supply and that he would need a second operation. I first learned that the complication was a surgical error and that the incorrect lobe had been removed in a phone call from my mother when dad was in the second surgery on September 19th.

We were allowed two visitors in the [Intensive Care Unit] when dad came out of surgery. There, [Dr B] spoke with me and both of my parents and fully explained that during the first surgery, after resection of the blood supply to the correct lower left lobe, there was an inversion of the lobes not noticed by the surgical team observing through the [periscope] images. The upper left lobe was misidentified as the lower left and accidentally removed.'

55. It is documented in the clinical records that Mr A was informed of the error on 17 September 2020. The clinical summary states:

'[D]ue to loss of orientation during surgery, the left upper lobe was mistakenly identified as the left lower lobe, the left upper lobe was removed. Retrospectively 17/9/20 this error was identified and explained to [Mr A], his wife and daughter by [Dr B]. Received support from thoracic CNS, ACC for treatment injury completed.'

56. On 18 September 2020, after Mr A had signed the consent form for the second surgery, he had a discussion with Associate Charge Nurse RN I, who documented a concern that Mr A did not fully understand the reasons why the second surgery was required. RN I documented in the clinical records:

'Received hand over that [patient] had upper lobe removed instead of lower lobe in the previous surgery and so he is proceeding to have pneumonectomy. Surgical consent was taken already but patient's surgery got on hold due to acute cases and thoracic CNS raised a concern that she thinks this patient has no clear information why this second surgery — she felt from his talk during her rounds. Also [Dr G]¹⁸ rang ward coordinator and enquired how much this patient knows about what happened in the previous surgery. I went and [asked] patient and felt the same — he has no clear understanding. He mentioned that he is going back to remove rest of the tumour. I wanted to make sure patient is fully informed before next surgery so I raised this concern with NUM¹⁹ and [Dr G] who was covering for service director on that day. [Dr G] told us he knew the situation and awaiting patient's surgeon to come out of [operating theatre] to have a discussion and offer patient full information or even change surgeon if wishes.'

57. RN I made a statement to HDC in May 2024, which is supported by this clinical note. She told HDC that she was informed during the morning handover that Mr A needed an urgent continuation to pneumonectomy since he had undergone a left upper lobectomy rather than the scheduled lower lobectomy. RN I noted that CNS E had highlighted that Mr A did not have a clear understanding of the reason for the second operation so brought this to her attention. She said she raised her concern with Dr G and the Nurse Unit Manager. RN I stated:

'According to [Dr G], acting Service Clinical Director, he was aware of the circumstances and was waiting for [Mr A's] surgeon [Dr B], to come out of the

¹⁸ Senior cardiothoracic surgeon.

¹⁹ Nurse Unit Manager.

operating room so that he could give the patient all the facts. Due to theatre capacity, the patient's procedure was postponed to September 19, 2020. The surgeon, [Dr B], did not arrive to re-discuss with the patient until after I had left the ward on 18th September.'

58. There is nothing in the clinical records to indicate that Dr B had any further discussions with Mr A about the reasons for the second surgery, and there is no record as to what exactly was discussed with Mr A in relation to the error, prior to the second surgery being performed.

59. Dr B said that on 18 September 2019 (the day before the second surgery), he informed Mr A that the remainder of the lung had lost its blood supply as a result of the torsion/rotation, as shown by the CT scan, and he also informed Mr A that the tumour was not found in the specimen of the lung that had been removed. Dr B stated:

'I advised [Mr A] that I will let him know all the findings of the second operation when I finished it. I did openly disclose the details of the error and its consequences to [Mr A] and his family as soon as I finished the second operation on 19 September 2020. It was only at this stage that I could confirm that the wrong lobe was removed. The remaining lung was found to be in a "rotated position inside the chest". The position explains how the error had occurred (due to torsion). I advised this to [Mr A] at this stage and I apologised.'

60. Health NZ said that Dr B was 'suspicious, but not sure' that one of the reasons for the need for the second surgery was that the incorrect lobe had been removed, leaving the remaining and 'correct' lobe with compromised circulation and the lung cancer still within it. Health NZ stated:

'On reflection, [Dr B] accepts that in order for [Mr A] to have provided fully informed consent for his second operation he should have been given an explanation that removal of the incorrect lobe was in fact one possible explanation for the absence of cancer within the resected lobe and the compromised circulation evident on the CT scan. [Dr B] apologises for that omission. It should be pointed out that [Dr B] admitted the technical error to [Mrs A] after the second operation and in person to [Mr A] after he had recovered from the anaesthetic.'

61. Health NZ said that Dr B acknowledges that the ultimate cause for the second operation was not discussed with Mr A although the removal of the incorrect lobe of the lung was considered/suspected at that time. Health NZ said that ultimately, this was confirmed only during the second surgery.

62. At 3.30pm on 19 September 2020, following the second surgery, Dr B documented in the clinical records:

'Post completion pneumonectomy. [Discussed with] [Mr and Mrs A] and their daughter re mishap — [left] upper lobe was removed following division of pulmonary ligament and [inferior] vein. Discussed the lung possibly rotated as a consequence [left

upper] lobe was removed thinking that this was the lower lobe. I will fill in an ACC form.'

63. On 21 September 2020, two days following the second surgery, Mr A was reviewed by Dr B and Dr F. It is documented in the clinical records:

'Feels much more positive today. Had meeting with [Dr B] this morning. He would like to know specifically what happened to make sure doesn't happen again to anyone else. He is grateful for [Dr B] coming and explaining this to him ... Explained situation again — revisited.'

Incident report

64. Health NZ said that following the events, an adverse incident was logged in Hospital 2's incident reporting system. Health NZ said that the incident was graded as a Severity Assessment Code (SAC) 3²⁰ and, in alignment with the national adverse event guidance that was current at the time of the events, a clinical review was undertaken, and the review was presented at the Hospital 2 Adverse Event Committee meeting.
65. On 25 September 2020, an incident report was completed by senior cardiothoracic surgeon Dr G. Dr G stated:

'Clearly an error was made at the original operation on 11 September 2020. In my opinion it is likely that after division of the inferior pulmonary vein the lung became much more mobile. With manipulation during the VATS lobectomy rotation of the lung occurred and this allowed the upper lobe to present low in the chest so that it was confused with the lower lobe. This type of rotation occasionally occurs during lung transplant as well leading to twisting the hilum.²¹ The main way to prevent an error occurring is to continually reassess the orientation of the lung at every stage of the procedure. My understanding is that this error has been completely explained to both [Mr and Mrs A] ...'

Further information

Ms H

66. Mr A's daughter provided HDC with further information about the effect that these events have had on Mr A. She told HDC:

'My father has had a difficult and painful recovery over the past [three] and a half years, unable to return to work. Beyond this pain and lost income, my father has not been able to do the activities of life that bring him joy, such as [physical activities]. Now [he] has cancer in the lower right lobe of his lung. Because of having no left lung, his cancer is inoperable. The consequences of this accident are severe for my father and our family.'

²⁰ Moderate harm causing short-term loss of function and/or requiring moderate additional intervention.

²¹ Connects the lungs to their supporting structures and is the space where vessels enter and exit the lungs.

Dr B

67. Dr B told HDC:

'I acknowledge that I inadvertently removed [Mr A's] left upper lobe instead of his lower lobe. This was an accidental and unrecognised error at the time of the first surgery, resulting in the need for a completion pneumonectomy on 19 September 2020. I very much wish this had not been the case and have no hesitation in taking this opportunity to apologise to [Mr A] again. I also acknowledge that [Mr A] has undergone a lot of difficulties because of this ... [O]nce again I acknowledge that an error was made on my part, as a very rare event and I once again apologise for the significant distress and added difficulties that this has caused [Mr A].'

68. Dr B said that he is very sorry that the error occurred, that Mr A required the second surgery, and that Mr A developed post thoracotomy pain syndrome.²² Dr B also said that he is sorry for all the upset, distress, and inconvenience caused to Mr A and his family. Dr B stated:

'I can reassure [Mr A] that a VATS lobectomy was undertaken with only his best interests in mind to allow less pain and early recovery. It is unfortunate that this was not the result in his case.'

Responses to provisional opinion

69. Dr B, Health NZ, and Mr A and his family were given an opportunity to comment on the relevant sections of the provisional opinion.

70. Dr B acknowledged the proposed findings and agreed to comply with the proposed recommendations.

71. Health NZ's submissions have been addressed by a revision of one part of the provisional opinion.

72. Mr A stated:

'[After reviewing the information gathered during the investigation] I was shocked by several points offering information unknown to me until I read them; in particular that there were staff members concerned about my being fully informed of the reasons for the second operation.'

73. Mr A expressed his concern about Dr B's descriptions of the events of the first surgery in relation to how it was possible for the error to occur. Other comments from Mr A have been incorporated into the report where appropriate.

74. Mr A explained that his quality of life is now massively reduced, he has powerful long-term neuropathic pain, and many activities that he used to enjoy are no longer possible.

²² Pain that recurs or persists along a thoracotomy incision at least two months following the surgical procedure.

75. Ms H said it was shocking how little information was shared with her father about this incident that is only being revealed to him now. She is concerned that he was not informed that the medical accident had occurred, nor was he informed that he had a right to request a different surgeon before consenting to the second surgery.
76. Ms H highlighted how difficult it has been for her father to obtain support for his ongoing care needs following this incident, and to seek review of the incident through Health NZ.

Opinion: Dr B — breach

77. First, I acknowledge the distress that these events have caused Mr A. The error not only resulted in further surgery for the tumour to be removed and significant ongoing pain, but it left Mr A with only one lung. It is evident that these events have had a profound impact on the quality of Mr A's life and have resulted in major harm for both Mr A and his family.
78. To determine whether Mr A was provided services with reasonable care and skill, in accordance with the Code of Health and Disability Services Consumers' Rights (the Code), I have considered the independent advice of a cardiothoracic surgeon, Dr Richard Bunton.
79. I have undertaken a thorough assessment of the information gathered in light of Mr A's concerns. I have found Dr B in breach of Right 4(1), Right 6(2), and Right 7(1) of the Code. The reasons for my decision are set out below.

Standard of surgery

80. Dr Bunton advised that at the first surgery, it was appropriate for Mr A to undergo minimally invasive surgery (a VATS lobectomy) instead of 'open' surgery (a thoracotomy). Dr Bunton said that up until this point, the care provided to Mr A was of an acceptable standard.
81. Dr Bunton advised that there is no question about Dr B's competence to perform resections under thoracoscopic conditions. However, Dr Bunton is concerned that Dr B made a judgement error when he removed the wrong lobe of the lung.
82. Dr Bunton advised:

'It is a little difficult to understand why "alarm bells" did not ring when after dividing the inferior pulmonary vein (to the lower lobe), which [Dr B] clearly did, he went on to divide the upper lobe. This vein is situated in the antero-superior position of the hilum and clearly not related to the lower lobe. [Dr B] was clearly disorientated at the time of surgery. Thoracoscopic surgery is done within a confined space with the use of various telescopes and optics. However there is no resigning from the fact that the result was due to a major error in judgement and removal of the wrong lobe in such a patient would be considered to be a severe departure from accepted practice.'

83. As indicated above, Dr B believes the error to have occurred as a result of the lung rotating 180 degrees. He said that neither he nor anyone else involved in the surgery was aware that torsion had occurred, and that the lung had rotated. Dr B stated that he assessed the

orientation of the lung at every stage of the procedure through the video monitor, and it is unfortunate that he did not recognise the torsion that occurred after the lung was inflated and deflated. He does not agree that this occurred as a result of a disorientation or an error of judgement on his part.

84. Notwithstanding Dr B's submissions, I accept Dr Bunton's advice that removal of the wrong lobe in Mr A's situation was a severe departure from accepted practice. While removal of the incorrect lobe is a rare complication of a VATS lobectomy, I am nevertheless critical that Dr B did not identify that he was removing the left upper lobe instead of the left lower lobe of the lung, including with reference to the available anatomic markers, namely the inferior pulmonary vein. I also note that Dr B has accepted that this should not have happened, regardless of how it occurred.
85. I therefore conclude that Dr B did not provide services to Mr A with reasonable care and skill, in breach of Right 4(1) of the Code.
86. Once the error was identified, Dr B took the appropriate actions, and corrective surgery was carried out promptly.
87. I note further that Dr B said that he now marks the lobe that is to be resected with ink so that it will be recognised in the event of torsion or rotation. This is appropriate.

Provision of information and informed consent

88. According to Right 6(2) of the Code, before making a choice or giving consent, every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, needs to make an informed choice or give informed consent.
89. Right 7(1) of the Code states that services may be provided to a consumer only if that consumer makes an informed choice and gives informed consent, except where any enactment, or the common law, or any other provision of the Code provides otherwise.
90. On 17 September 2020, Mr A signed a consent form to undergo the second surgery (a left thoracotomy and completion pneumonectomy). Dr F went through the consent process with Mr A. The consent form states that the reasons for the second surgery were explained to Mr A, but it contains no details of what was discussed with Mr A in relation to why the second surgery was required.
91. Mr A said that he first learned that the wrong lobe had been removed after the second surgery had been completed. He stated that prior to the second surgery, Dr B informed him only that the second surgery was required because the blood supply to the remaining part of his left lung had been compromised, and there was no mention that the wrong lobe had been removed. Mr A's recollection of the events is supported by statements from Mr A's wife and daughter.
92. There are inconsistencies in the clinical records as to when Mr A was first informed of the error (that the left upper lobe had been removed by mistake instead of the left lower lobe). It is noted in the clinical summary that Mr A was informed of the error on 17

September 2020, but on 18 September 2020 the Associate Charge Nurse documented concerns that Mr A had 'no clear understanding' as to what had occurred during the first surgery. On 19 September 2020, after the second surgery had been completed, Dr B documented that he had discussed the 'mishap' with Mr A.

93. Dr Bunton advised that it appears that Dr B was 'completely honest' with the family, and he informed them of the full details of what had happened.
94. While I accept that Dr B eventually informed Mr A of the error that occurred during the first surgery, I am critical that Mr A was not informed of this prior to the second surgery being performed.
95. Dr B said that it was only after the second surgery that he could confirm that the wrong lobe of the lung had been removed. I do not accept Dr B's submission. It is evident from the clinical records (the CT scan reported on 17 September 2020 and the Associate Charge Nurse's clinical notes dated 18 September 2020), as well as from RN I's statement that it was discussed at the morning handover of 18 September 2020, that staff were aware prior to the second surgery that the left upper lobe of the lung had been removed instead of the left lower lobe of the lung. I consider that knowledge of the error was information that a reasonable consumer in Mr A's circumstances would expect to receive, and needed to receive, to give informed consent.
96. Dr B accepts that in order for Mr A to have provided fully informed consent for his second surgery, Mr A should have been given an explanation that removal of the incorrect lobe was a possible explanation for the absence of cancer within the resected lobe and the compromised circulation evident on the CT scan. I am critical that this did not occur.
97. While the consent process was delegated to Dr F, ultimate responsibility to discuss the reasons for the surgery and obtain informed consent rests with Dr B as the consultant responsible for the surgery. This is in line with the Medical Council of New Zealand's statement 'Informed Consent', which states that '[t]he doctor undertaking the treatment is responsible for the overall informed consent process'.
98. Accordingly, I find that Dr B breached Right 6(2) of the Code. By not providing such information prior to the second surgery being performed, Dr B also breached Right 7(1) of the Code for failing to obtain Mr A's informed consent.
99. Dr B has apologised for this omission. I also note that Dr B informed Mrs A of the surgical error after Mr A's second surgery, and he informed Mr A of the surgical error in person after Mr A had recovered from the anaesthetic, following the second surgery.

Documentation — adverse comment

100. Dr Bunton described Dr B's operation notes as 'a little brief' and lacking in detail. Dr Bunton advised that while Dr B's documentation is 'barely adequate', it is still within the accepted standard of care.

101. I accept Dr Bunton's advice. The Medical Council of New Zealand's publication *Good Medical Practice* states that clear and accurate patient records must be kept that report relevant clinical information, options discussed, decisions made and the reasons for them, information given to patients, the proposed management plan, and any medication or other treatment prescribed.
102. As discussed earlier in my report, I am concerned about the lack of detail in Dr B's clinical documentation. Dr B did not document what he discussed, or what information was provided to Mr A, prior to the second surgery being performed.
103. I have recommended that Dr B undertake further education/training on documentation.

Opinion: Health NZ — no breach

104. As a healthcare provider, Health NZ is responsible for providing services in accordance with the Code.
105. The issues in this case relate to the decision-making and failures in judgement by an individual (Dr B).
106. There were multiple Health NZ staff members in the operating theatre who would have been able to visualise the lung on screen during surgery. Health NZ said that it would not be appropriate for the support staff to be 'monitoring the video screen during surgery' to enable an overview of the technical aspects of the surgery as it is not part of their role, and I acknowledge this. Dr B has explained the technical reasoning behind his understanding that he was removing the correct part of the lung. I acknowledge that nobody else during the surgery recognised that the lung had rotated, and I consider that ultimately the responsibility to ensure that the correct part of the lung was removed rested with Dr B.
107. Further, Health NZ staff members had concerns about Mr A's understanding of the reasons for his second surgery. These concerns were escalated prior to the surgery, with the understanding that Dr B would discuss the reasons for the second surgery further with Mr A. Dr B has accepted that Mr A should have been given an explanation that removal of the incorrect lobe was a possible explanation for the absence of cancer within the resected lobe and the compromised circulation evident on the CT scan. I therefore consider that the responsibility for discussing the reasons for the second surgery rested with Dr B.
108. In my view, there was no indication of any broader systems or organisational issues at Health NZ. Accordingly, I consider that Health NZ did not breach the Code.

Changes made since events

109. Dr B said that he continues to perform VATS lobectomies, but that in addition to the fissure, he now marks the lobe to be resected with ink, so that it is recognised in the event of torsion or rotation.

Recommendations

110. In the provisional opinion, I recommended that Dr B provide a formal written apology to Mr A for the deficiencies in the care he provided, as outlined in this report. The apology has now been shared with Mr A.
111. I recommend that Dr B:
- a) Undertake an audit of the VATS lobectomies he performed in the last six months to ensure that there are no events of a similar nature, as recommended by Dr Bunton. The summary of findings with corrective actions to be implemented is to be provided to HDC within six months of the date of this report.
 - b) Undertake further education/training on documentation. Evidence of this is to be provided to HDC within six months of the date of this report.
112. I recommend that Hospital 2 use an anonymised version of this case for wider education on VATS lobectomies. The case study presentation should detail the decisions taken, the results of these decisions, and the appropriate course that should have been taken to arrive at a more desirable outcome. Evidence confirming the content of the presentation (for example, the presentation material) and the attendance records is to be provided to HDC within six months of the date of this report.

Follow-up actions

113. A copy of this report with details identifying the parties removed, except the advisor on this case, will be sent to the Medical Council of New Zealand, and it will be advised of Dr B's name in covering correspondence.
114. A copy of this report with details identifying the parties removed, except the advisor on this case, will be sent to the Royal Australasian College of Surgeons, Te Tāhū Hauora|Health Quality & Safety Commission and ACC, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent clinical advice to Commissioner

The following advice was obtained from cardiothoracic surgeon Dr Richard Bunton, Head of the Department of Cardiothoracic Surgery at Dunedin Hospital:

'7 June 2023

Re: [Mr A]/[Dr B]

REF: C21HDC02403

I have been asked to provide expert advice to the Health & Disability Commissioner on the case of [Mr A]/[Dr B].

I have been provided with a photocopy of his medical records and these form the basis of my report.

CLINICAL SUMMARY

[Mr A] who, at the date of his operation was [in his sixties], first presented due to the result of a plain chest x-ray that he organised to be taken of himself. There is a past family history of cancer within his family and this was a pure screening manoeuvre.

A chest x-ray however showed that he had a nodule in the left lower lobe of his lung and CT scanning fully elucidated the fact that it was a 25mm nodule indeed in the left lower lobe. He underwent PET scanning on the 18th August 2020 and this showed the lesion to be avid and there was some mild avidity in a 4mm 2R node. He then went forward to have a percutaneous biopsy of the nodule and it returned adenocarcinoma.

As such he was staged as having Stage 1 carcinoma of the lung.

On the 11th September 2020 he was taken to the operating room and underwent, via a thoracoscopic approach, a left lower lobectomy. There was also biopsy of AP window lymph nodes which were proven to be negative.

His postoperative course was characterised by an increase in consolidation of his remaining left lung. He underwent a postoperative CT scan on the 16th September. Interpretation of the CT scan suggested that in actual fact the left upper lobe had been removed, not the left lower lobe. At the same time a verbal report was received from the Pathology Department indicating they could find no tumour within the resected specimen.

It became clear that the left upper lobe had been in error removed as opposed to the left lower lobe where the cancer resided.

The increasing consolidation in the remaining left lung was due to occlusion, surgical division at the time of the previous operation, of the left lower lobe pulmonary vein which resulted in quite marked venous congestion of that lobe.

On the 19th September he was returned to the operating room and this time via an open procedure a completion pneumonectomy was performed removing the left lower lobe. The finding was that the left lower lobe was oedematous and consolidated as one might expect from venous congestion.

Prior to surgery it was noted that [Dr B] had met with the patient and gave full disclosure as to the nature of the error that had been made in the previous operation.

Formal histology of the resected specimen confirmed that there was indeed an adenocarcinoma of the lung.

Postoperatively [Mr A] has now made a good recovery I understand.

In summary therefore [Mr A] is a man who was preoperatively diagnosed with a carcinoma of the left lower lobe of his lung who came forward to have anatomic resection of his left lower lobe. In error the left upper lobe was removed and he had to be returned eight days later to the operating theatre to have the remaining lower lobe removed and thus underwent what would be called a completion pneumonectomy.

I have been asked to comment on a number of issues.

1. Given [Mr A's] diagnosis and preoperative imaging, please comment on whether video assisted surgery was appropriate. Please advise if alternative surgical management could or should have been offered in this circumstance.

[Mr A] presented with what was most likely an early lung cancer that was Stage 1 — a small tumour of 25mm in diameter. The patient was very adequately “worked up for surgery” in terms of both his radiology, imaging and preoperative diagnosis via a percutaneous biopsy. His lung function was entirely normal and as such it was appropriate that he come forward for surgery.

[Dr B] decided on a thoracoscopic approach to the patient. This was entirely appropriate and is a well-recognised way of dealing with lung cancer, particularly Stage 1.

The other option would have been to do a formal open procedure via a left sided thoracotomy. This is a more invasive procedure with a longer postoperative recovery and a longer return to work. The advantage of an open procedure is that one can feel the lung substance itself and identify the actual tumour. Had an open procedure been performed it is very unlikely that the incorrect lobe would have been removed. However thoracoscopy is an appropriate procedure in this particular situation.

I have no knowledge as to whether the two options were offered to [Mr A] but even so I think it is quite appropriate and certainly acceptable to proceed with a thoracoscopic procedure. I consider that [Mr A's] care up until this point in time has been within an accepted standard of care and accepted practice.

2. The adequacy of [Mr A's] initial surgery. Please advise whether further steps could have been taken to ensure the correct orientation of the lung.

[Mr A's] initial surgery was removal of the wrong lobe of the lung. This clearly is a major error in judgement on the part of [Dr B] leading to an incorrect procedure and ultimately causing the patient to lose the whole lung due to the need for further surgery.

The reasons why [Dr B] became disorientated and removed the wrong lobe really can only be answered by [Dr B] himself. It certainly is difficult to understand from a purely objective point of view how this could occur but clearly it did. Much has been made of torsion of the lung during the procedure. Lung torsion however is more a phenomenon that occurs when the lungs become reinflated and the chest closed. A very mobile lobe can then certainly tort and cause venous obstruction and further issues postoperatively.

It is a little difficult to understand why "alarm bells" did not ring when after dividing the inferior pulmonary vein (to the Lower lobe), which he clearly did, he went on to divide the upper lobe. This vein is situated in the antero-superior position of the hilum and clearly not related to the lower lobe.

[Dr B] was clearly disorientated at the time of surgery. Thoracoscopic surgery is done within a confined space with the use of various telescopes and optics. However there is no resigning from the fact that the result was due to a major error in judgement and removal of the wrong lobe in such a patient would be considered to be a severe departure from accepted practice.

As intimated previously it is hard to imagine how this could occur in the hands of an experienced surgeon. In giving an opinion in such a case as this it is very difficult to put yourself in the shoes of the operating surgeon at the time and so therefore cannot be adamant as to why or why not he may have become disorientated.

This case is the only case I could find in the literature where a wrong lobe had been removed. It is important to reflect however that such cases may not be reported in the literature. I looked at two large series of thoracoscopic anatomic resections (Major Intraoperative Complications during Video Assisted Thoracoscopic and Anatomical Lung Resections: An intention to treat analysis — Decaluwe et al, European Journal of Cardiothoracic Surgery 48 (2015) 588–599 AND Risk Factors for Major Adverse Events in Video Assisted Thoracic Surgery Lobectomy for Lung Cancer, Yang et al, Internal Journal Medicine of Science 2014; 11 (9) 863–869). These two papers looked at 3076 patients and 1806 patients respectively. No case of wrong lobe lobectomy was reported.

In a paper by Shindo et al, Left Main bronchus transection incorrectly during video assisted Thoracoscopic lobectomy: A case report, Surgical Case reports 6–291(2020), they report on a case of inadvertent bronchial division during video assisted

lobectomy and have reviewed the literature and found a further four cases. All cases were converted to an open procedure and the bronchus repaired.

I briefly reviewed two papers on torsion of the lung following lobectomy. One by Child et al BJR case report 2017:3(1):20160010 published July 1, 2016 and the other a paper from the NCBI National Library of Medicine — National Institute of Health by Soharta et al published January 2023. These papers looked at lung torsion following surgery and reviewed various mechanisms. As intimated previously in this report lung torsion following surgery is an issue when the lungs reinflate. With the lung completely deflated with a double lumen tube as would have been the case during the thoroscopic procedure it is difficult to completely understand as to how this caused such a disorientation. The deflated lung can certainly flop around. In the absence of any other explanation there certainly must have been some movement or distortion of the anatomy to cause [Dr B] to become disorientated.

During an open procedure the orientation of the lung and the subsequent surgery would not have had the issue of disorientation.

The surgery itself appears to have been performed competently, as was the second operation, and so therefore I do not think there is any question of [Dr B's] competence in terms of performing resections under thoroscopic conditions.

3. Please comment on the adequacy of care provided by [Dr B] with regard to identification of the site area and correct surgery provided.

When in the postoperative period it became clear that [Mr A's] remaining lung was becoming quite consolidated this was appropriately investigated by further imaging including a CT scan. It was at the CT scan that it was recognised that the wrong lobe had been removed and the congestion in the remaining lobe was due to previous division of the inferior pulmonary vein. At the same stage a verbal report from Pathology indicated there was no tumour in the resected lung. It became clear to those looking after [Mr A] that a wrong lobe had been removed at the time of surgery. This error was clearly identified and the corrective surgery was expeditiously carried out by [Dr B].

I think the standard of postoperative care certainly is within the accepted standard of practice. I do not think there has been any departure from the standard of care in this case.

4. Comment on the quality of [Dr B's] documentation.

Both [Dr B's] operation notes are a little brief and perhaps lacking in detail. However in performing what was considered to be a standard lobectomy whilst the documentation was barely adequate it would still be within the accepted standard of care, particularly when it was thought by the operating surgeon there were no particular complications or abnormal issues to report on.

5. Please comment on the appropriateness of the communication provided to [Mr A] regarding the outcome of the first surgery.

In the information that has been provided to me it is noted by [Dr B] that he met with [Mr A] and the family after the first operation and gave full disclosure as to the sequence of events. It appears he was completely honest with the family and gave them the full details of what had happened.

I have no further documentation on [Dr B's] interaction with the patient after discharge from hospital.

From what has been provided to me I would accept that [Dr B's] communication would certainly be within the accepted standard of care and standard for practice.

6. Is there any suggested recommendations relating to the care provided for our office's consideration?

I think that there is no question of [Dr B's] overall competence in this case. There is however an issue with regards to his decision making in this case. I think it would be prudent for [Dr B's] practice to be audited to ensure this is a truly one off situation and there will be no recurrent events of a similar nature. [Dr B] has fully indicated to us that he has a 2.5% conversion rate in his thoracoscopic practice. This means that 2.5% of patients who start off as a thoracoscopic procedure would be converted to an open procedure for whatever reason. This is with acceptable standards.

The audit of [Dr B's] work should not be arduous in that the Unit will have no doubt an ongoing audit programme which I think should be perused by a senior colleague.

7. Please comment on any other matters you consider that warrant comment or amount to a departure of an accepted practice.

Apart from the issues highlighted above with regards to judgement I have no other matters that I believe warrant a comment with regards to a standard from accepted practice.

I trust this report has been helpful.'

ADVISOR'S DETAILS

Yours sincerely

Richard W Bunton MB, ChB, FRACS, FRCSEd (C/Th)
Head of Department of Cardiothoracic Surgery'