SPSO Scottish Public Services Ombudsman

The Scottish Public Services Ombudsman Act 2002

Investigation Report

UNDER SECTION 15(1)(a)

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Scottish Parliament Region: North East Scotland

Case ref: 201406646, Grampian NHS Board
Sector: Health
Subject: Hospitals: clinical treatment; diagnosis

Summary
Mr A, who was suffering from lung cancer, had an operation at Aberdeen Royal Infirmary to remove his lung. During the operation, Mr A suffered from hypoxia (a deprivation of oxygen). He was transferred to intensive care but did not regain consciousness and died one week later. Mr A's daughter (Miss C) complained about the care and treatment provided to her father.

In investigating, I took independent medical advice from a consultant anaesthetist, as well as considering the board's own investigation of the complaint.

Miss C complained that the consultant anaesthetist failed to provide a reasonable level of care to Mr A prior to and during his surgery. The adviser said that surgery should not have proceeded when it became apparent there was a problem with monitoring carbon dioxide levels in Mr A's blood, and that it was concerning that the consultant anaesthetist had needed advice on methods to maintain blood oxygen levels and treat hypoxia. The adviser also noted that the board's own investigation had acknowledged shortcomings in the communication between the surgeon and the consultant anaesthetist during surgery, and that the consultant anaesthetist had not been assertive enough in their decision-making. I considered that the performance of the consultant anaesthetist fell below the reasonable level of care from a specialist doctor who has achieved consultant grade.

Miss C also complained that her father's suitability for surgery was not appropriately assessed. The adviser said that the tests used for Mr A were generally acknowledged to have limitations and other tests should have been considered which may have prompted more investigation ahead of surgery. The board said that their investigations found no problems with Mr A's pre-operative assessment. I found this to be inaccurate and I was critical of the board for failing to identify that the assessment could have been more robust and to act upon this accordingly. I also found that the failings in the

pre-operative assessment meant that neither Mr A nor his family were able to have an informed discussion about the risks of surgery.

The board acknowledged that there were significant failures in their post-operative communication with the family. It was obvious to staff how unwell Mr A was after his operation, but despite this, it was not until around 36 hours later that someone from the surgical team properly discussed matters with the family. This was the most distressing part of this case. All other issues relate to technical problems, and the difficulties of high risk surgery, but this issue relates to the basics of human kindness and interaction with a family in distress. This contributed significantly to a breakdown in trust between Mr A's family and some medical staff. Although the board recognised that the communication was inadequate, I was not convinced that they have taken sufficient action to ensure this does not happen again.

I upheld all of Miss C's complaints and made several recommendations.

Redress and recommendations

The Ombudsman recommends that the Board:	*Completion date*
(i) provide evidence of the actions taken by the consultant anaesthetist to improve their non-technical skills and their subsequent appraisals;	4 May 2016
(ii) provide evidence that the consultant anaesthetist has continued to practice without significant subsequent complaints or concerns being raised;	4 May 2016
(iii) provide evidence that the consultant anaesthetist has revalidated with the General Medical Council, if this has been achieved as part of the five year cycle since this operation;	4 May 2016
(iv) review its pre-operative assessment procedure for lung cancer surgery, to ensure that cardiopulmonary exercise tests and echocardiograms are included for appropriate patients;	18 May 2016
(v) review their lung cancer pre-operative assessment procedures to ensure FEV1 and the Diffusing capacity of the lung for Carbon Monoxide DLCO are calculated prior to surgery in order that post-	18 May 2016

	operative lung function is taken into account;	
(vi)	review their consent procedure for lung cancer surgery to ensure that it informs the patient what level of risk the operation will incur for them;	18 May 2016
(vii)	review their procedures to include a requirement for a member of the surgical or anaesthetic team to speak to either the patient or their family at the first available opportunity following an adverse incident that requires admission to Intensive Care Unit;	18 May 2016
(viii)	review the findings of the Anaesthetic Department Morbidity and Mortality meeting to identify if, and why medical staff declined to support the consultant anaesthetist in his meeting with the family; and	18 May 2016
(ix)	remind staff that notes are taken of any meetings with family or patients following adverse events.	18 May 2016

Who we are

The Scottish Public Services Ombudsman (SPSO) investigates complaints about organisations providing public services in Scotland. We are the final stage for handling complaints about the National Health Service, councils, housing associations, prisons, the Scottish Government and its agencies and departments, the Scottish Parliamentary Corporate Body, water and sewerage providers, colleges and universities and most Scottish public authorities. We normally consider complaints only after they have been through the complaints procedure of the organisation concerned. Our service is independent, impartial and free. We aim not only to provide justice for the individual, but also to share the learning from our work in order to improve the delivery of public services in Scotland.

The role of the SPSO is set out in the Scottish Public Services Ombudsman Act 2002, and this report is published in terms of section 15(1) of the Act. The Act says that, generally, reports of investigations should not name or identify individuals, so in the report the complainant is referred to as Miss C. The terms used to describe other people in the report are explained as they arise and in Annex 1.

Introduction

1. Miss C complained to the Ombudsman about the care and treatment provided to her late father (Mr A). Mr A, who was suffering from lung cancer, underwent an operation to remove a lung on 18 July 2011 at Aberdeen Royal Infirmary (the Hospital). Mr A suffered from hypoxia (deprivation of oxygen to the body, or a region of the body) during the operation and, he was transferred to the Intensive Care Unit (ICU) but he did not regain consciousness and died on 25 July 2011. The complaints from Miss C I have investigated are that:

(a) the Board's anaesthetist (Doctor 2) failed to provide a reasonable level of care to Mr A prior to and during his surgery (*upheld*);

(b) the Board failed to carry out an appropriate assessment of Mr A's suitability for surgery (*upheld*);

(c) the Board's anaesthetist (Doctor 2) failed to communicate to a reasonable standard with Mr A and his family *(upheld)*; and

(d) the Board failed to communicate appropriately with the family post-operatively *(upheld)*.

Investigation

2. In order to investigate Miss C's complaint, my complaints reviewer has reviewed all the available documentation and applicable policies. They also took independent medical advice from a consultant anaesthetist (the Adviser). In this case, we have decided to issue a public report on Miss C's complaint because of the failings identified in that advice.

3. I have not included in this report every detail investigated but I am satisfied that no matter of significance has been overlooked. Miss C and the Board were given an opportunity to comment on a draft of this report.

Key Events

4. Mr A was diagnosed with non-small cell cancer of the right lung in June 2011. Following scans of the tumour and discussions with medical staff, Mr A was admitted to the Hospital on 15 July 2011. He was seen on the ward by a consultant surgeon (Doctor 1) who was to perform the operation. The extent of the operation was discussed and Mr A's consent was obtained.

5. Mr A and his family also met with a consultant anaesthetist (Doctor 2). Mr A was then able to leave the ward on pass for the weekend, to return on Monday 17 July 2011.

6. Miss C said that on 18 July 2011, she asked to see Mr A prior to the operation, but was told that this was not possible by the charge nurse of the ward. Miss C was told that Mr A was about to receive his pre-operation medication and that consequently the staff did not wish him to become distressed. Miss C explained that she did not live locally and that she had travelled a considerable distance and would not get a chance to speak to Mr A in person again for some time. Miss C was then allowed to see Mr A who had not had a pre-med. She described him as bright and cheerful, reading a newspaper.

7. Mr A was taken to the Anaesthetic Room to be prepared for anaesthesia at 13:30, anaesthesia was achieved at 14:05 and Mr A was brought into the operating theatre at 14:30. Following a pause to allow members of the surgical team to raise any issues of concern, Mr A was draped and prepared for surgery, with the procedure commencing at 14:54.

8. Miss C called the Hospital at 15:00 and was told Mr A had been taken for surgery, but the ward could not give an exact time. She then called the intensive care unit (ICU) at 18:15 and 18:20. Miss C then went up to the ward, as she realised that a busy unit might find it difficult to answer the telephone. Miss C said she was told by a nurse that Mr A may have had an issue coming round from the anaesthetic. Miss C was taken to the ICU at 18:40.

9. Miss C and other members of the family continued to wait in the reception area for the ICU. At 20:00 Miss C saw a bed with a man who looked like Mr A in it and shortly after that, she recalled seeing Doctor 2 in the corridor, looking distressed. Doctor 2 did not speak to the family in the reception area. Miss C then spoke to a member of nursing staff, but neither they nor the staff nurse were able to give her specific information about the procedure, other than that Doctor 1 had instructed Mr A to be kept sedated overnight.

10. On 19 July 2011 Miss C telephoned the ICU who told her Mr A had opened his eyes and moved both hands. On arrival at the Hospital Miss C was told the ward round had not been completed and they would be updated after this. At 13:10 Miss C's brother approached reception again at ICU and was told the family could see Mr A.

11. Whilst at Mr A's bedside Doctor 1 passed through the ward with an ICU consultant (Doctor 3). Doctor 1 informed the family that from a surgical

perspective the procedure had been a success, although there had been problems with Mr A's recovery. Doctor 1 left to perform surgery on another patient and Doctor 3 took Miss C and her brother to a side room, as it was apparent they had not been informed about the surgery or its outcome.

12. Doctor 3 explained to the family that Mr A had experienced hypoxia (deprivation of oxygen to all or part of the body). Doctor 3 was unable to provide further details and explained they believed Mr A had been hypoxic for at least fifteen minutes during the procedure. Doctor 3 also explained there was a possibility Mr A would not recover or regain consciousness. Neither Doctor 1 or Doctor 2 were available at that time to speak to the family. Doctor 3 apologised for any failure to communicate with the family.

13. On 20 July 2011 Doctor 2 met with the family. Although an ICU nurse was also present, they were unable to stay for the duration of the meeting. Miss C's recollection was that Doctor 2 had explained about the right lung deflation required for the procedure, and stated he had had concerns from the start about Mr A's oxygen status. Miss C recalls clearly that Doctor 2 told her things should have been done differently from the start. Doctor 2 noted Doctor 1 had been obliged to perform cardiac massage on Mr A whilst a second consultant anaesthetist (Doctor 4) had been called in to assist, as Doctor 2 said he was unsure what to do when Mr A became bradycardic (his heart rate slowed to fewer than 60 beats per minute) for a thirty minute period. When Doctor 4 arrived, Doctor 1 had left the theatre.

14. At this point, Miss C felt it would be inappropriate to continue the meeting without medical witnesses present. Doctor 1 and Doctor 3 joined the meeting and Miss C explained the family's concerns. Doctor 1 discussed the positioning of Mr A during surgery, given his hiatus hernia (the stomach squeezing into the chest through a hole in the diaphragm) and apologised for not speaking to the family on the day of the procedure. Miss C felt that Doctor 1 was seeking to portray Mr A as a sickly old man, whereas he was in fact relatively fit and active. Doctor 1 informed the family that he had forgotten to include in his operation notes that he had performed cardiac massage on Mr A and that he would now update them in retrospect.

15. Miss C's recollection is that Doctor 4 also joined the meeting at this point. She said that it was suggested Doctor 2 might require translation services and that he might need to re-skill. Miss C said the family noted Doctor 2's distress

and asked if he could be considered fit to perform further surgery given his emotional state.

16. On 24 July 2011 Miss C asked to see Mr A's theatre notes and Doctor 3 showed them to her. She noted work on Mr A had not commenced until around 14:00. Mr A's condition had continued to worsen in the evening of 24 July 2011 and Doctor 3 began to discuss end of life care for Mr A with the family. Miss C recalls being unhappy that the discussions being had with the family involving a number of different consultants were not being recorded, given the seriousness of the issues under discussion.

17. On 25 July 2011 Miss C arrived at the ICU at 07:00. A number of other family members were in attendance. They were left alone with Mr A, although the monitors he was attached to were constantly alarming, which was distressing for the family. Mr A passed away at 08:02. Shortly afterwards Miss C recalled being approached by Doctor 1, although she felt unable to speak to him at that time. Instead Doctor 1 spoke to her brother, telling him that if he were presented with a similar situation again, he would not change any of the actions he had taken.

18. The family were told that as Mr A had never recovered from the anaesthetic he had received, the case would be put to the Procurator Fiscal. They were told they could be interviewed by the Police either that day, or at a later date, and agreed to be interviewed that day.

Datix Report on Events leading to the death of Mr A

19. The Board completed a Datix Report of Events (Report 1) on 22 September 2011. It set out a detailed timeline of events from 15 July 2011 to 25 July 2011.

20. Report 1 noted that at 15:00 the End Tidal CO_2, ($ETCO_2$) (the maximal concentration of Carbon Dioxide (CO_2) at the end of a breath, reflecting ventilation and perfusion) trace disappeared. The Double Lumen tube (DLT, a tube used to allow selective deflation of one side of the lung) was checked and found to be in the correct position, and with minimal movement the trace reappeared. Its presence was, however, intermittent for the next sixty minutes. Doctor 1 asked Doctor 2 if there was a problem, and Doctor 2 stated there was not. On checking other aspects of ventilation appeared acceptable, so surgery proceeded.

21. At around this time, Mr A's oxygen saturation levels (the amount of oxygen in his bloodstream) drifted down towards 88 percent, and Doctor 1 summoned assistance. Doctor 4 then attended and noted that the right lung had collapsed and the left was ventilating well. Doctor 4 noted some bile on the pillow and a small leak around the tube. This was pushed further into the trachea (windpipe), decreasing the leak. The bile was considered to be from Mr A's hiatus hernia and Doctor 2 was reassured about this. An SpO2 (oxygenation of the blood at the peripheries of Mr A's body) of around 90 percent was felt to be acceptable for Mr A, given his co-existing medical problems and strategies were discussed if oxygenation became an issue.

22. Surgery continued at 15:15 and two episodes of bradycardia were noted at 15:30 and again at 15:45. Following the first episode, atropine (medicine to treat a slow heart rate) was administered and the heart beat returned. Over the next fifteen minutes, both heart rate and blood pressure drifted down again with a poor response to ephedrine (a stimulant used to treat slow heart rate) and metaraminol (medicine used to counteract side effects of anaesthetic by treating low blood pressure). Mr A's oxygen saturation and hypotension was brought to Doctor 1's attention by a surgical practitioner present. At this point the pulmonary veins (large blood vessels carrying blood from the lungs to the heart) were being operated on and pulling on the pulmonary veins was queried as a cause for the drop in Mr A's heart rate, but there was no recovery when the veins were released. Mr A's heart rate and blood pressure dropped rapidly along with his SpO2. The Anaesthetic Registrar assisting Doctor 2 was unable to explain to Doctor 1 why Mr A was hypotensive and bradycardic. Blood pressure and heart rate continued to drop for the next five minutes and Doctor 2 asked if Mr A's heart was being compressed. Doctor 1 replied it was not, as surgery had stopped. Despite further doses of ephedrine and metaraminol, followed by adrenaline and isoprenaline, Mr A's heart rate dropped to twenty eight beats per minute, and his blood pressure was extremely low with an undetectable oxygenation level. Doctor 4 was called back into the operating theatre.

23. Doctor 4 returned to the operating theatre at 15:50 and the situation was summarised to him noting that Mr A was clinically cyanosed (his skin had begun to turn blue, due to inadequate oxygen levels in his blood) and there was a recurrent leak from the DLT, with a dilated superior vena cava (a large vein carrying deoxygenated blood into the heart). Doctor 1 ascertained that there

was no compression of the heart by a build-up of fluids and arterial blood gases were taken at 15:53. Doctor 1 then performed internal cardiac massage, although this was only recorded in the operation notes in retrospect.

24. At 16:00 Doctor 4 performed a fibre-optic assessment of the endotracheal tube (use of a small instrument to provide an image of the interior of the windpipe) and Doctor 2 gave Mr A more adrenaline. The DLT was found to have displaced and could not be pushed back into the left main bronchus (air pipe diverging from the windpipe). It was replaced with a single lumen tube and the position of the single tube confirmed with a further fibre-optic examination. There were problems with the oxygenation of Mr A and Doctor 1 left the theatre to allow the anaesthetic team time to work. Once Mr A's breathing and heart rate had been stabilised, attempts were made to re-isolate and collapse his right lung, but these were unsuccessful.

25. At 16:10 Isoprenaline and adrenaline were stopped. Mr A's SpO2 was between ninety three and ninety six percent, his blood pressure and heart rate also remained high. The operation resumed at 16:30 with a constant CO_2 trace. Doctor 4 left the theatre, advising that admission to ICU be discussed post-operatively. Doctor 4 also mentioned the case to Doctor 3.

26. At 17:15 Mr A's SpO2 was poor and the set tidal volume (Vt, the volume of air displaced by breathing in and out) was noted to not be being delivered. The Anaesthetic Registrar assisting Doctor 2 took over ventilation by hand and increased the SpO2 to 92 percent from 81 percent. No leak was found in the machine. Mr A was placed on a ventilator whilst ICU were asked if they would accept Mr A, Doctor 2 remained with Mr A. At 17:25 Mr A's SpO2 had fallen to 75 percent and manual ventilation was resumed, restoring the SpO2 to 93 percent. Doctor 4 returned to assist at 17:30 and suggested there may be a tracheal or bronchial injury due to repeated instrumentation.

27. The operation was completed and the tumour removed for examination. Mr A's oxygen levels drifted down from a reading in 80s to 70s on manual ventilation. His blood pressure was also dropping, requiring a large amount of metaraminol (medication used to counteract complications from anaesthesia). Mr A was switched back to manual ventilation via the anaesthetic machine and his SpO2 returned to eighty eight percent.

28. At 19:00 Mr A's SpO2 was at 96 percent. Doctor 1 performed a bronchoscopy (insertion of an instrument to enable the airway to be viewed), but no internal injury was detected. No defect in the staple line used to close the lung where it had been operated on was noted. Mr A was transferred to ICU at 19:15 and was recorded as formally admitted at 19:45. It was noted problems with Mr A's oxygen intake had diminished when he was returned to the supine position (lying face up) and the plan was to leave Mr A ventilated and sedated for review in the morning following a period of stability. Doctor 3 was present at admission and remained in the ICU until late that evening.

29. On 19 July 2011 sedation was discontinued at 08:30, but Mr A remained unresponsive. Doctor 3 informed the family of events to date and his concerns about Mr A's prognosis, which was a hypoxic brain injury. It was made clear that the situation was very uncertain. It was noted the family were upset by both Mr A's condition and the conduct of medical and nursing staff. It became apparent no-one from the surgical team had been in contact with the family and that Miss C in particular had not been provided with any update, despite asking staff for one.

30. Doctor 4 volunteered to speak to the family following their request for clarity on events in theatre. Doctor 4 said they had explained to the family what had happened to the best of his ability. Doctor 4 met with Doctor 2 on the evening of 19 July 2011, updated Doctor2 and told Doctor 2 they should speak to the family. Doctor 4 suggested Doctor 2 write an account of events in the theatre and consider informing the Medical Defence Union as well as speaking to either the Clinical Director or Chairman of the Department, before speaking to the family.

31. On the evening of 19 July 2011 Doctor 3 also requested the Acting Clinical Director meet with the family to assure them the case was being investigated.

32. Report 1 notes that Doctor 4 understood that whilst Doctor 2 discussed the case with two cardio-thoracic colleagues, Doctor 2 spoke to the family alone, without other staff present as the ICU nurse who accompanied Doctor 2 left soon after the start of the meeting. Report 1 noted that Doctor 2's statement differed from Miss C's detailed account of the meeting, and that Doctor 2 did not concede the DLT had been misplaced from the start of the operation. Miss C and her brother left the room during the meeting and Doctor 3 and Doctor 1 were asked to join them. Report 1 notes the family were very distressed by

Doctor 2's statements to them that things could have been done better and that from the start of the operation the intermittent CO_2 trace suggested that the DLT was in the wrong place.

33. Doctor 1 explained he believed the DLT had not been incorrectly placed. They were also unable to stop surgery as Mr A's difficulties had only become apparent after the large veins carrying blood to the lung had been tied with ligatures to shut them off. At that point the operation had reached a point where it would not have been in Mr A's best interests to halt proceedings.

34. Report 1 noted that Doctor 3 and Doctor 4 spoke with the family again on 20 July 2011 as Doctor 1 and Doctor 4 disagreed that there had been a problem with the DLT from the beginning of the operation. At this meeting, however, the Board recorded that the family had 'seized upon Doctor 2's message that there had been a problem with the tube [DLT]'. The family also raised other concerns about Mr A's pre-operative management by Doctor 2. They described him as 'like a rabbit caught in the headlights'. They felt his explanations were unclear and unconvincing.

35. Later on 20 July 2011, the Acting Clinical Director met with Doctor 1, Doctor 2 and the Anaesthetic Registrar who had assisted Doctor 2. The meeting concluded that the DLT was correctly positioned, but there had been an intermittent capnograph trace caused by reduced blood flow from the lungs. This could have been caused by cardiac failure or compression / kinking of the blood vessels taking oxygenated blood away from the lungs during the surgery.

36. The Acting Clinical Director met Miss C's brother on 21 July 2011. Their aim was to explain the hypotensive, hypoxic episode suffered by Mr A. He also apologised for the delay in communication with the family. Miss C's brother was assured that all the evidence pointed towards the DLT having been in the correct position at the start of the surgery. Miss C's brother stated the family felt Doctor 1's remarks to them had been inappropriate and insensitive, particularly with regard to Mr A's condition.

37. Discussions with the family regarding Mr A's prognosis took place on 23 and 24 July 2011. On 24 July 2011, the Acting Clinical Director met with Miss C and her brother again. He attempted to explain that major complications can occur during lung surgery and did not necessarily indicate inadequacies on the part of the surgical team. Report 1 notes the Acting Clinical Director did not

feel the meeting had concluded successfully and that the family remained angry.

38. At the time Report 1 was drawn up, some records were with the Procurator Fiscal and could not be reviewed. Blood gas printouts were requested, but it transpired these could not be produced more than forty eight hours after the procedure. This was not known to theatre staff at the time. Report 1 considered the following issues:

- intermittent Co2 trace, linked to a failure to check arterial blood gases;
- failure to monitor central venous pressure (CVP, the pressure of the blood near the heart, reflecting its ability to pump blood around the body) from the time of central venous catheter (cathether inserted through a vein into the chest to monitor CVP) insertion; it was not checked until dilated SVC was noted by Doctor 1 during the operation;
- hypotensive / bradycardia / hypoxemia;
- communication issues with the family; and
- lack of detailed gas results due to staff being unaware of time limits on data retrieval.

39. Report 1 did not reach conclusive findings on the cause of Mr A's complications. It was felt likely his hypoxic brain injury was due to an intra-operative bradycardic and hypoxaemic episode. The investigation had considered a number of causes at the suggestions of the medical staff involved but did not consider it could identify the exact cause in advance of the post-mortem. Report 1 noted there had been inadequate communication between the surgical team and the family. This had contributed to the family's lack of confidence in the care Mr A had received. It was evident Doctor 1 and Doctor 2 were not a cohesive team, Report 1 described Doctor 2 as being 'in awe' of Doctor 1.

40. Report 1 recommended non-technical training for Doctor 2, to improve his assertiveness and communication skills. All anaesthetists were reminded that arterial blood gases should be checked if there was a concern about CO_2 readings, that CVCs should have pressure monitoring, and that anaesthetic machine reports needed to be printed off within 48 hours of an event taking place.

Anaesthetic Morbidity and Mortality Meeting

41. An anaesthetic morbidity and mortality meeting was held on 23 November 2011. It summarised Mr A's presentation. It noted he was managed with a DLT, and that CO_2 trace was intermittent after surgery commenced. Shortly after this Mr A suffered a cardiovascular and ventilatory collapse. The DLT was displaced into the trachea during resuscitation and the right lung was probably damaged during attempts to re-establish lung isolation. The lungs could not be isolated and surgery was completed with two lung ventilation. An air leak developed at this point and remained present post-operatively when the patient was transferred to ICU. No member of the theatre team spoke to the family on the night of the surgery. The following day the family met Doctor 1, Doctor 2 and Doctor 3, although not at the same time.

42. The discussion was unable to reach a conclusion on the cause of the intermittent CO_2 trace and the subsequent cardio-respiratory collapse. It was almost certain the DLT was in the correct position at the start of surgery. A number of possible causes for the intermittent CO_2 were suggested, but none were felt to be more plausible than the other. It was noted that arterial blood gas analysis was not undertaken at this time. When it was checked, it reflected the state of the patient at that moment in time and was not useful in analysing the preceding abnormal CO_2 trace.

43. Mr A's dilated vena cava (vein carrying deoxygenated blood into the heart) and the high CVP were unexpected and could not be adequately explained. The underlying ischaemic heart disease found at post-mortem may have been a factor. It was noted that the central venous pressure (CVP) improved with two lung ventilation and adoption of the supine position for Mr A, so his lateral position (lying on his side) on the operating table was considered likely to be a factor.

44. The meeting then considered the non-technical aspects of the case. When the CO_2 trace was abnormal, the anaesthesia team concluded it was measurement error and informed Doctor 1 the situation was satisfactory. The meeting considered a greater exchange of information at this time would have been helpful.

45. The CVC was not connected until the dilated superior vena cava was noticed by Doctor 1. This was because Doctor 2 and the anaesthetic team were concentrating on the airway/CO_2 issues, and had not had an opportunity

to connect it. The meeting considered it would have been appropriate for more assistance to have been provided by others within the theatre team, which would have provided information regarding the high CVP at an earlier stage.

46. The meeting decided it was uncertain whether the intermittent CO_2 trace should have alerted Doctor 2 to the collapse in cardiac and respiratory function that followed.

47. Communication was discussed at length in the meeting. It noted Doctor 1 had found it difficult to discuss patient management with Mr A and his family.

Report for the Board

48. A report (Report 2) was compiled for the Board by an independent consultant surgeon. The report was delivered on 23 January 2012. It reviewed the medical records for forty patients who had undergone thoracic procedures by Doctor 1 from 2 June 2011 to 24 October 2011, an average of two cases per week. Report 2 noted four out of seventeen lobectomies for lung cancer had resulted in deaths, but there were not significant common factors between the cases.

49. Report 2 noted that the post mortem results had not been available, but were with the Procurator Fiscal's office. Report 2 summarised the problems encountered during the surgery. The cause of death was considered likely to be related to the displacement of the DLT, which meant that the patient was not being adequately ventilated, although other causes were possible and without the final post mortem results, it was difficult to be certain.

50. Report 2 concluded that with dilation of the vena cava, accompanied by poor cardiac function, the only potential surgical cause which could be addressed was a possible build-up of fluid around the heart, preventing it from pumping properly. Doctor 1 had taken the appropriate surgical steps to address this. Report 2 considered Doctor 1 had displayed a high level of skill in completing the lobectomy without the lung being deflated. This was the most appropriate action to take, given the uncertainty over Mr A's survival post-surgery.

51. Report 2 did not consider the anaesthesia team's performance in detail, as its focus was primarily on the surgical performance of Doctor 1. It is not clear

why a similar level of investigation was not carried out into the actions and performance of Doctor 2.

Report to the Procurator Fiscal

52. A report to the procurator fiscal, (Report 3) was delivered on 17 November 2013 and set out the methodology used to create it, noting the author had not met either medical staff or the family. For the avoidance of doubt, whilst we are able to look at complaints about the Procurator Fiscal service, we are not considering a complaint about the Procurator Fiscal service in this instance and no conclusions, therefore, will be reached about the findings of Report 3.

53. Report 3 examined Mr A's pre-operative care and noted that Mr A was not recorded as having visited Doctor 1 in Aberdeen prior to his admission. Report 3 noted that there were no significant discrepancies it could find between the Datix report of the incident and the Hospital record scrutinised.

54. In this respect, I consider Report 3 to be inaccurate. The Datix records states that Doctor 1 met with the family on the morning of 19 July 2011, however, there is no manuscript entry within the notes to support this. I consider this a significant omission, given the subsequent complaints about communication with the family. Additionally, the operation note as completed contemporaneously did not include the cardiac massage performed by Doctor 1. This was added retrospectively, after Doctor 1 had met with the family.

55. Report 3 went on to consider the actions of Doctor 1 in theatre and summarised the major incidents during the surgery, as well as the times these occurred and the actions of the various medical staff involved. It also reviewed the post-operative care provided to Mr A, up to and including the decision to switch to end of life care.

56. Report 3 also considered the post-mortem report, noting its finding of severe coronary atheroma (fatty deposits in the arteries around the heart) and the conclusion that in the left lateral position a large and heavy cancer had moved forward compressing a number of major blood vessels between the heart and lungs, with significant effects on blood pressure and blood supply. Report 3 commented the tumour was ten centimetres in diameter, making it a

large tumour and difficult to dissect due to the limited scope for manipulating the lung with a tumour of this size.

57. Report 3 did comment that it was unclear whether there was any consideration of exercise testing. It noted that this should have been considered under British Thoracic Society Guidelines on the Radical Management of Patients with lung cancer.

58. Report 3 also noted that cardiopulmonary exercise might have unmasked changes suggestive of coronary artery disease, prompting further cardiological investigations. Report 3 also felt the evidence was the DLT was accurately place after induction of anaesthesia, although it subsequently became dislodged during the surgery. It considered the loss of the $ETCO_2$ trace and the drift downwards in oxygen saturations. It also looked at the issues around Mr A's hiatus hernia and possible bile aspiration.

59. Report 3 also commented on the communication with the family after the operation. It noted that this could have been better and that this had contributed to the family's distress.

60. Overall, Report 3 concluded that the care provided was reasonable, albeit that there was room for improvement in the clinical and organisational care, as outlined in the Datix report, but the standard was not less than satisfactory.

Miss C's letter to the Procurator Fiscal

61. Miss C wrote to the Procurator Fiscal on 8 March 2014. She stated she considered Report 3 to have numerous issues. These were sufficiently serious to contradict the conclusions reached in the report. Miss C suggested that it would be appropriate for the Procurator Fiscal to consider holding a fatal accident inquiry.

62. Miss C listed a number of concerns about inaccuracies regarding the length of time Mr A was oxygenated properly during the surgery as well as discrepancies between remarks made to the family in the immediate aftermath and those contained in Report 3.

63. Miss C suggested crucial information in the form of Positron Emission Tomography (PET) scan (a scan using a special type of camera and a tracer, which identifies cancer cells) carried out on Mr A was missing, which would

have helped to inform Report 3's conclusions. Miss C suggested Report 3's conclusions were in part based on Doctor 1's supposition and operation notes which he admitted to altering after the event. Miss C suggested that negligence on the part of Doctor 1 and Doctor 2 had led to the hypoxia which had killed her father.

64. Although no response from the Procurator Fiscal's office is contained within Mr A's notes, it is clear Miss C's request was not acquiesced to.

Miss C's letter to the Board of 7 July 2014

65. Miss C wrote to the Board informing them that she considered that questions remained unanswered in the case. She included a detailed timeline of the family's experience. She asked the Board to respond to these concerns in light of her account of Mr A's treatment.

66. The Board acknowledged the complaint on 10 July 2014. They wrote again to Miss C on 5 August 2014, informing her that they would not be able to respond within twenty working days.

The Board's Formal Response, 24 February 2015

67. The Board noted that following conversations with Miss C, an investigating team had been formed of a cardiothoracic surgeon and the anaesthetists involved. Doctor 1 had retired, but he had provided a written statement to the Board. The Board noted it was not unusual when surgical complications occurred, for absolute clarity on the circumstances to be impossible to establish.

68. The Board said that Mr A was the second of two cases for the surgical team that day. The first case had been uncomplicated and Mr A had been taken at the perfectly normal start time of 14:00. The Board said Doctor 1 regretted mentioning 12:00 as the cut off time for surgery, which had confused the situation. The Board noted that a surgical pause had taken place before commencing and no concerns had been raised by any member of the team.

69. The Board apologised for the inaccurate information provided about Mr A's pre-operation medication and for the fact that the family were initially prevented from visiting him at this time.

70. The Board also responded to questions about the performance of Doctor 2, specifically why surgery was not stopped when Mr A's CO_2 trace disappeared. They noted that the trace had reappeared, although it was intermittent for the next hour. Help had been called for and adjustments made with improvements in Mr A's oxygen saturation. The Board said that with hindsight Doctor 1 would have been asked to stop surgery to ascertain the cause of the intermittent CO_2 and to alter Mr A's position. The Board acknowledged communication between Doctor 1 and Doctor 2 had been poor and said Doctor 2 had undergone non-technical skills and assertiveness training in order to improve this performance.

71. The Board said that Doctor 1 was the appropriately qualified surgeon for this case, noting he had twenty five years experience. Although he had left the theatre at one stage, this was at the suggestion of Doctor 4 and the surgical site was safe and secure. The Board also said their view was that it was highly unlikely that the weight of the tumour could have obstructed blood flow to the extent that it caused hypoxia.

72. The Board said Doctor 1 deeply regretted his failure to communicate with the family as well as the failure of the wider surgical team to do so. He unreservedly apologised for this, and expressed his regrets at the outcome for Mr A. Doctor 1 did not feel there was any evidence of negligence, and noted all previous investigations supported this opinion.

73. The Board said their investigation acknowledged the communication issues between Doctor 1 and Doctor 2. The conclusion had been that this was due to Doctor 2's relationship with Doctor 1 being excessively deferential. This had resulted in poor communication within the theatre and subsequently with the family. The Board accepted that both parties should have met with the family that night and provided an explanation of the events in theatre as best they could. The Board said both parties deeply regretted this.

74. The Board said they understood that the family wished for absolute clarity on the events that had taken place in theatre. It remained, however, unclear what had happened. Following the discussions by medical staff the Board suggested that there were two possible scenarios. The first was that there were issues with the DLT, which caused hypoxia and cardiovascular failure, although ventilation and perfusion issues remained once a single lumen tube had been

put in place. Alternatively the failure to place the patient in a supine position on their back meant their airway was not stabilised.

75. The Board expressed their deep sadness and regret, but said there was no deliberate negligence. On reflection all parties would change some of their actions, but at the time they had acted with the best of intentions to correct, evaluate and stabilise the situation. Unfortunately the situation could not be recovered.

76. The Board also provided Doctor 3's responses to some specific questions Miss C had asked about remarks they had made. They noted that the events took place some three years previously and that Doctor 3 was attempting to recall them, but did not have a memory of all the remarks Miss C had referred to. The Board said Doctor 3 accepted with hindsight some of these remarks may have given the wrong impression to the family which Doctor 3 regretted, however, they were attempting to provide reassurance to the family at a very difficult time. Doctor 3 noted they were in an unfortunate position as the first medical staff to speak to the family should have been the surgical team, but as was acknowledged, this was not the case.

(a) Doctor 2 failed to provide a reasonable level of care to Mr A prior to and during his surgery

Concerns raised by Miss C

77. Miss C said her concerns were based on the conversation the family had had with Doctor 2 in the aftermath of the surgery. She said they had told the family they would have done things differently. She noted that the learning they had taken from the event was that the patient should be put in the supine position in order to be oxygenated. Miss C's concern was that this was basic airway maintenance. For Doctor 2 to regard this as appropriate learning caused her to question his ability. Miss C also noted Doctor 2 had told the family that the surgery should have been conducted differently from the start. Miss C felt this clearly contradicted the statement that following the surgical pause, all members of the team were happy to continue.

78. Miss C said the Board had failed to adequately explain why the surgery had proceeded and the sequence of events within the operating theatre as described in the investigations left her with significant unanswered questions. Miss C said she believed Mr A was not properly oxygenated for the majority of

the period he was undergoing surgery. Miss C felt this was highly significant, but had been minimised in the reports into Mr A's death.

79. Miss C also expressed concern over the apparent inability of Doctor 2 and the anaesthetic team to measure blood gases and breathing whilst Mr A was undergoing such major surgery. Miss C felt that this had contributed to Mr A's death, as his oxygen saturation had fallen to around 70 percent for an extended period. Miss C suggested that this alone could have caused cardiac arrest.

The Board's response

80. The Board offered no additional information in their response to this office. Their position remains as expressed in their previous correspondence. The Board have acknowledged that communication between Doctor 1 and Doctor 2 was poor during the surgical procedure. The Board said that Doctor 2 did not feel able to assert himself.

81. The Board's view is that non-technical failings were identified in Doctor 2's performance. It was appropriate, therefore, for these to be addressed with training in assertiveness and communication skills. This had been done through Doctor 2's appraisal process over the three months following the completion of Report 1. Doctor 2 had continued to practice without further complaint.

Medical advice

82. The Adviser said that the level of care provided to Mr A should have been better. They said the CVP monitoring should have been attached from the beginning of the operation. The Adviser said the failure to do this was unacceptable when major surgery was being performed, since the CVP reflected the amount of blood returning to the heart and the ability of the heart pump blood into the arterial system.

83. The Adviser said that surgery should not have proceeded until the issue with intermittent CO_2 monitoring had been addressed. He said that the Association of Anaesthetists of Great Britain and Ireland guidelines were clear that CO_2 monitoring should be standard during induction and maintenance of anaesthesia. The Adviser said that Mr A should have been placed in the supine position until the problem was resolved.

84. The Adviser also noted that the anaesthetic charts for Mr A suggested CO_2 monitoring was absent from 15:00 until around 16:30. The Adviser said this was a very long time to have proceeded without the presence of a standard piece of monitored information. Arterial blood gas measurements were not performed until 15:55, which again the Adviser said was also very unusual.

85. The Adviser said it was acknowledged that Doctor 2 had not been assertive enough in his decision making. The Adviser said it was concerning that Doctor 2 had needed advice on methods to maintain oxygenation and treat hypoxia during single lung ventilation.

(a) Decision

86. Miss C's complaint refers to the level of care Mr A received prior to and during his operation from Doctor 2. The Board's own investigations have acknowledged shortcomings in the communication between Doctor 1 and Doctor 2 during the surgery. I note that Miss C's second complaint refers to Mr A's assessment for surgery and I have accordingly restricted my comments on that aspect of this complaint to avoid repetition.

87. The advice I have received states that there were grounds for concern about more than the non-technical issues identified by the Board. The advice states clearly that surgery should not have been allowed to proceed until a satisfactory and secure level of monitoring was in place. The Board's complaint response of 21 November 2014 makes a statement in the first person, which appears to have been made by Doctor 2, although it is not clearly attributed to them. This appears to refer to him stating that:

> 'With hindsight asking the surgeon to stop to ascertain the reason for the intermittent CO_2 and revert [Mr A] from lateral to supine position would be what I would have done differently'

88. It is clear, therefore that Doctor 2 recognises they should have acted differently during the surgery. The explanation for this failure to act at the time has been ascribed to communication issues. The Board concluded that Doctor 2 felt unable to intervene, which led to serious communication issues within the surgical team. Whilst this may relate to specific issues between different members of staff and clinical teams, and responsibility never lies solely on one side in a situation such as this, I do still consider that the performance of Doctor 2 fell below the reasonable level of care from a specialist doctor who has achieved consultant grade.

89. The advice I have received identifies further failings of a technical nature, suggesting that Doctor 2 should have had the skills to identify methods for maintaining oxygenation, or treating hypoxia during one lung ventilation. The Adviser acknowledges Doctor 2 had requested help during the operation when he found himself in difficulties. Asking for help is not an admission of poor care by Doctor 2, but could in fact be an example of good and appropriate care, as this is such a complex procedure that often two anaesthetists are needed, even when both are performing to a reasonable level.

90. This does not appear to have been addressed by the Board, but I am conscious that due to the investigations carried out by the Board and the Procurator Fiscal, a substantial period of time has passed, during which Doctor 2's performance will have been subject to assessment, appraisal and possibly revalidation. Although Doctor 2 was provided with closer support for the three months following the completion of Report 1, I consider it would have been appropriate, in light of the seriousness of the incident, for his performance to have been monitored for longer and for the Board to have provided evidence of specific details of his performance, rather than a general statement that it was found to be satisfactory.

91. I uphold this complaint. Although I have noted the Board's own investigations and the actions taken, I make the following recommendations, to ensure that Doctor 2's subsequent performance has been appropriately assessed in light of the failings identified in the advice and to ensure the wider learning points identified in the Board's investigation have been followed through.

92. It is also important the significant impact of these events has had on the family is acknowledged. Miss C and her family lost their father and although a number of investigations were subsequently carried out, their focus on the surgical aspect over the anaesthesia has resulted in the family having to pursue the matter for a protracted period of time in order to receive answers to all their outstanding questions. This has added to the family's distress.

93. I would expect that provided Doctor 2 has undertaken their annual appraisal, all the necessary information should be available from that process, and this should not require any specific additional investigation.

(a) Recommendations

94. I recommend that the Board:	*Completion date*
(i) provide evidence of the actions taken by Doctor 2 to improve their non-technical skills and their subsequent appraisals;	4 May 2016
(ii) provide evidence that Doctor 2 has continued to practice without significant subsequent complaints or concerns being raised; and	4 May 2016
(iii) provide evidence that Doctor 2 has revalidated with the General Medical Council, if this has been achieved as part of the five year cycle since this operation.	4 May 2016

(b) The Board failed to carry out an appropriate assessment of Mr A's suitability for surgery

95. Miss C said that she was not sure that Mr A was in fact suitable for the surgery that was performed on him. She believed that his pre-operative assessment was inadequate and that the investigations performed on him were insufficiently rigorous.

96. Miss C was particularly concerned by the emphasis placed on Mr A's cardiac disease following his death, noting that Doctor 1 had asked the family directly about Mr A's cardiac history, which she felt was an attempt to attribute his death to a pre-existing condition, rather than accepting that the conduct of the operation had contributed to the fatal outcome. Miss C felt strongly that questions about Mr A's cardiac history should have been asked prior to the operation taking place.

97. Miss C noted that Mr A did not have a history of cardiac problems, and that the medical history provided by Mr A and his family should have been supported by a full pre-operative assessment of his cardio-pulmonary function.

The Board's Response

98. The Board did not provide additional comment in response to my office's investigation. They said they believed the existing responses and investigations that had been carried out had all summarised the pre-operative care provided to Mr A, without finding any errors or admissions in his assessment. Mr A had completed a stair climbing exercise test without incident and was considered physically fit enough to undergo surgery.

Medical Advice

99. The Adviser said the pre-operative assessment was adequately recorded, but it was not clear whether exercise testing other than the stair climbing test was considered as part of this pre operative assessment but decided against, or not considered at all. The Adviser said that suggested tests included measurement of pre-operative heart and lung function as well as estimation of post-operative lung function measuring of gas exchange and exercise testing. The Adviser also noted that they would have considered an Echocardiogram would be carried out for a patient undergoing a major high risk surgery and he suggested that this by itself might have identified abnormalities within Mr A's cardiac function.

100. The Adviser noted that whilst stair climbing tests were performed by Mr A, these were generally acknowledged to have limitations, due to difficulties in standardising this type of test. The Adviser's view was that there should have been a greater consideration given to other investigations such as a cardiopulmonary exercise test, echocardiogram, or a lung ventilation / perfusion (VQ) scan to measure air and blood flow in Mr A's lungs.

101. The Adviser said they felt these tests were indicated for Mr A. Had the predicted the effect of surgery on lung function parameters been calculated, it would have been possible to calculate the risk of surgery in more detail and to discuss the implications of undergoing the operation with Mr A and his family in a more informed way.

102. In these calculations the Adviser said the predicted post-operative values of Forced Expiration Value (FEV1) or Diffusing capacity of the lung for carbon monoxide (DLCO) could be used to calculate the lung's likely performance following surgery. The predicted post-operative values of FEV1 or DLCO as a percentage of the predicted normal lung function were particularly valuable. The Adviser said Mr A's predicted DLCO was less than 49 percent of the predicted normal value, which in his view should have prompted further tests pre-operation. The Adviser's view was that more robust pre-operative assessment systems needed to be put in place for assessing fitness for surgery in more detail in high risk cases.

(b) Decision

103. I note that both the medical advice I have received and Report 3 commented on Mr A's pre-operative assessment. Both noted that given the estimated predicted post-operative lung function an assessment of exercise capacity would be an expected standard of patient care. It was also noted that although Mr A had been subjected to a stair climbing test, the use of cardiopulmonary exercise to establish the VO_2 max and monitoring with an Echocardiogram would have been appropriate for the high risk surgery Mr A was due to undergo. This would possibly have unmasked coronary changes suggestive of arterial disease, which would have prompted further investigation, and informed the consent process for surgery in more detail.

104. The Board's response was that none of their previous investigations or reports found any areas for concern in Mr A's pre-operative assessment which – on the basis of the advice I have received - was inaccurate. I am critical of the Board for failing to identify and act on the finding in Report 3 that Mr A's pre-operative assessment could have been more robust. I note that the Adviser, reached a similar conclusion, namely that Mr A was not adequately assessed for surgery. Had he been more thoroughly assessed, the cardiac problems which likely contributed significantly to his surgical complications may well have been identified.

105. It is important to be clear that even had these issues been identified at the time, it is not possible to determine at this juncture whether Mr A would have been considered suitable for surgery. He was suffering from cancer of the lung, with surgery proposed as a curative procedure. A decision not to operate would clearly have had significant implications, but this does not mean that surgery should proceed without adequate investigation of the level of risk this would entail. Nor is it possible to determine whether the outcome would have been different. I also note that the focus of some of the investigations carried out by the Board was primarily on the surgery and the events in theatre.

106. In view of the conclusions reached in Report 2 and the advice received, I consider the evidence shows Mr A's suitability for surgery was not adequately assessed. This was unreasonable as it represents a failure of care for Mr A by the Board. Had Mr A received a fuller assessment, it is possible his potential cardiac problems would have been identified, and the process of consent would have been more fully informed about the level of risks involved. In finding this I

acknowledge that it is not possible to determine whether his surgery would have proceeded, or whether the complications he suffered would have been avoided.

107. I uphold this complaint and make the following recommendations.

(b) Recommendations

108. I recommend that the Board:	*Completion date*
(i) review its pre-operative assessment procedure for lung cancer surgery, to ensure that cardiopulmonary exercise tests and Echocardiograms are included for appropriate patients;	18 May 2016
(ii) review their lung cancer pre-operative assessment procedures to ensure FEV1 and DLCO are calculated prior to surgery in order that post-operative lung function is taken into account; and	18 May 2016
(iii) review their consent procedure for lung cancer surgery to ensure that it informs the patient what level of risk the operation will incur for them.	18 May 2016

(c) Doctor 2 failed to communicate to a reasonable standard with Mr A and his family; and (d) The Board failed to communicate appropriately with the family post-operatively

Combination of complaints

109. I have taken the decision to combine these two complaints, as I consider they are closely linked and considering them separately would lead to repetition.

110. The family believe that Doctor 2 was incapable of communicating adequately with Mr A prior to the operation, or with the family either prior to or post-surgery. Miss C has suggested Doctor 2 was difficult to understand and unclear about the procedures to be undertaken. Miss C has stated the family lacked confidence in Doctor 2 from the outset.

111. Miss C said neither Doctor 1 or Doctor 2 made any attempt to speak to the family in detail following the surgery. Instead the family were spoken to very briefly by Doctor 1 and then by Doctor 3 on the afternoon of 19 July 2011, when it became apparent they had not had any explanation of Mr A's condition or prognosis. Miss C recalled being told by Doctor 3 that neither Doctor 1 or Doctor 2 were available to speak to the family about the case, despite the

severity of Mr A's condition and the fact that Doctor 3 was only able to provide limited information about Mr A's prognosis. Miss C said Doctor 3 had apologised for the lack of information given to the family and the unavailability of the surgical team. Doctor 3 also stated that Mr A's condition had been known to all the medical staff involved on 18 July 2011 immediately following the operation.

112. Miss C said that when she did meet with Doctor 2 on 20 July 2011, they had apologised for not stopping the surgery and stated that things should have been done differently. Miss C added that she was so disturbed by Doctor 2's remarks, she left the meeting to get a medical witness. Doctor 1, Doctor 3 and Doctor 4 joined the meeting. Miss C's recollection is that it was suggested Doctor 2's English was poor and that an interpreter might be required in future.

The Board's Response

113. The Board's investigation into communication issues between Doctor 2 and the family, as well as any inter-team issues was contained within Report 1, their initial Significant Event Analysis, which was carried out in the immediate aftermath of Mr A's surgery, before the family had made their formal complaint, but after it was clear from their contact with medical staff that they were dissatisfied with the care and treatment Mr A had received.

114. The Board concluded in Report 1 that communication between Doctor 1, Doctor 2 and the family had been poor. There should have been an effort made on the evening of the surgery to meet the family and explain as far as possible what had occurred, even if it was unclear at the time what had caused the event.

115. The Board's view was that this had undermined the family's confidence in the care Mr A had received. Additionally the family had concluded that Doctor 1 and Doctor 2 were not a cohesive team. This had been influenced by the debrief session being instigated by Doctor 4 rather than the team directly responsible for the surgery.

116. Report 1 recommended that all consultants be reminded by letter of the need to speak to patients' families as soon as possible after an event with appropriate support as required.

117. Internally, an anaesthesia governance meeting was also held on 29 November 2011. This suggested that Doctor 2 had found it difficult to discuss management with Mr A and his family prior to surgery. Following surgery, the interactions with the family were inadequate and uncoordinated. I note from the record of this meeting that medical colleagues were unwilling to accompany Doctor 2 to any meeting with the family, since it was likely to be difficult. Doctor 2 was instead accompanied by a member of nursing staff, who was unable to be present for the whole of his initial meeting with the family. As a result, a key part of the conversation between the family and Doctor 2 is disputed and there is the impression of disagreement between medical staff over key aspects of the surgery and anaesthetic process.

118. The anaesthesia governance meeting concluded that there was a need to ensure there was a team debrief at the end of surgery. It also identified a need for departmental planning and training regarding the management of family members and staff in the event of unforeseen complications, as well as proper support being provided to doctors when something had gone wrong, to ensure that there was co-ordinated, structured communication with the patient and their next of kin.

119. Report 1 concluded that a letter to all consultants and anaesthetists about the need for timeous staff debrief and of the need to speak to patients or their families as soon as possible was sufficient. In this case, however, it appears that staff actively declined to support a colleague, adding to the distress suffered by Miss C and her family (and potentially Doctor 2). In my view the Board should have a clear procedure in place for staff to follow, setting out what support they can expect or should provide in the event of incidents such as that suffered by Mr A.

120. The advice I have received states there is no evidence the pre-operative communication with the family was inadequate. The notes and other documentation are legible and comprehensible. However, the advice notes a disagreement between the family and medical staff about Doctor 2's ability to communicate clearly. I do not consider it is possible to conclude from the available evidence and the advice received that Doctor 2 was unable to communicate properly with the family due to an unreasonably poor standard of spoken or written English.

121. As noted previously, however, the Board's pre-operative assessment of Mr A was inadequate. Consequently neither Mr A nor Miss C were able to have an informed discussion about the risks of surgery. I consider that this aspect of the Board's communication with Mr A and his family about the level of operative risk was unreasonable.

122. Post- operatively the Board have acknowledged that there were significant failures in the communication with the family. No member of the surgical team provided any explanation to the family at any length for approximately thirty six hours after Mr A's operation. The Board has accepted that this was unreasonable and that this contributed significantly to the distress of the family and a breakdown in trust between Mr A's family and some medical staff. This is an unreasonable level of care. Mr A went into the operation with a very good chance of survival. By the end of his operation he needed an unplanned admission to ICU, and his chances of survival were low. This is such a change in his health that it was obvious to the staff how unwell he was, but despite this, none of them discussed this with his family. This is the most distressing part of this case. All other issues relate to technical problems, and the difficulties of high risk surgery, but this issue relates to the basics of human kindness and interaction with a family in distress, and I am very critical that this did not occur immediately after Mr A's surgery, at the time of his admission to ICU.

123. I consider that it should have been obvious to the surgical team that failure to discuss the case with Miss C and other family members would be distressing. It is also apparent that Doctor 2 found the situation extremely difficult, but again a clinician of his grade should have been prepared to speak to the family, in view of the serious peri-operative complications experienced by Mr A.

124. The picture in ICU following Mr A's transfer is one of confusion over who should have been communicating with the family. Doctor 3 did attempt to explain the situation to the family, but was hampered by the fact that he was not directly involved in the operation. Staff were unwilling to accompany Doctor 2 to speak with the family when he did meet with the family and in the event, he did so with a member of nursing staff, who was unable to remain in the meeting. Other members of medical staff, including Doctor 1 were in fact available, as evidenced by their short notice attendance at the meeting when Miss C requested medical witnesses.

125. The Board, following Report 1 sent a letter to all consultants reminding them of the need to speak to patients or their families as soon as possible after an adverse event. I am concerned that this will not address the situation that arose for Miss C, whereby Doctor 2 spoke unsupported to the family, due to an apparent reluctance amongst colleagues to provide support. Additionally, I am concerned that there are only limited records for the conversations that were had with the family. As a result Miss C's recollection of what was said to her is at odds with the recollections of medical staff and it is not possible to determine what was said in these meetings with any certainty.

(c) Decision

126. As set out in paragraphs 115 to 121 Doctor 2's communication after the operation fell below the standard the family could have expected. Although the Board have acknowledged the post-operative communication was inadequate, they have not clearly shown how they have addressed the post-operative issues. I uphold the complaint

(d) Decision

127. Post-operatively, as set out in my findings in paragraphs 115 to 121 communication with the family was inadequate. The Board have acknowledged this but I am not persuaded that they have taken sufficient action to ensure that a similar situation could not reoccur. I uphold the complaint.

(d) Recommendations

128. I recommend that the Board:	*Completion date*
(i) review their procedures to include a requirement for a member of the surgical or anaesthetic team to speak to either the patient or their family at the first available opportunity following an adverse incident that requires admission to ICU;	18 May 2016
(ii) review the findings of the Anaesthetic Department Morbidity and Mortality meeting to identify if, and why medical staff declined to support Doctor 2 in his meeting with the family; and	18 May 2016
(iii) remind staff that notes are taken of any meetings with family or patients following adverse events.	18 May 2016

129. We will follow-up on these recommendations. The Board are asked to inform us of the steps that have been taken to implement these

recommendations by the date specified. We will expect evidence (including supporting documentation) that appropriate action has been taken before we can confirm that the recommendations have been implemented.

Annex 1

Explanation of abbreviations used

Miss C	the complainant
Mr A	Miss C's father, who underwent the surgery complained about
the Hospital	Aberdeen Royal Infirmary
ICU	Intensive Care Unit
the Adviser	
Doctor 1	the surgeon who operated on Mr A
Doctor 2	the consultant anaesthetist who formed part of the surgical team for Mr A
Doctor 3	the ICU consultant who provided care for Mr A following his transfer from theatre
Doctor 4	the consultant anaesthetist who was asked to assist Doctor 2 during the surgery
Report 1	Datix report compiled by the Board following Mr A's death
CVP	central venous pressure
CVC	central venous catheter
Report 2	Report compiled for the Board by an independent Consultant surgeon,

	which reviewed a cross-section of Doctor 1's cases, including Mr A
Report 3	Report to the Procurator Fiscal reviewing Mr A's care and treatment

Annex 2

Glossary of terms

adrenaline	medication used to treat cardiac arrest
aspiration	sucking a foreign object or fluid into the lung
atropine	medication used to treat a slow heart rate
bradycardia	slow heart rate, of sixty beats per minute or less
bronchoscopy	insertion of an instrument allowing the examination of the patient's airways for injury
bile	fluid produced by the liver to aid digestion, can be regurgitated
bronchus	a major air passage of the lung diverging from the windpipe
capnograph	monitoring of the concentration of CO_2 in the respiratory gases
cardiac massage	manual squeezing of the heart during surgery
central venous catheter	catheter placed into a large vein
central venous pressure	measure of blood pressure in close proximity to the heart
coronary atheroma	fatty deposits on the arteries within the heart
cyanosis	bluish discoloration of the skin due to poor circulation or inadequate oxygenation of the blood

datix	incident reporting software used by the Board
diffusing capacity of the lungs for carbon monoxide (DLCO)	a test that measures the amount of oxygen transferred to the blood in the lungs
double lumen tube (DLT)	a tube inserted into the lungs via the windpipe to achieve selective ventilation of a single lung during surgery
ephedrine	stimulant used to treat low blood pressure caused by anaesthesia
End Tidal Carbon Dioxide $ETCO_2$	the amount of CO_2 expelled by the lungs, this is monitored during anaesthesia, allowing the early detection of adverse respiratory events
forced expiratory volume (FEV1)	how much air an individual can exhale in a forced breath
hiatus hernia	protrusion of the stomach through the diaphragm into the thorax (upper chest)
hypotension	low blood pressure
hypoxia	deprivation of oxygen to the body, or part of the body
hypoxic brain injury	brain injury caused by oxygen deprivation
isoprenaline	medication used to treat bradycardia
lobectomy	surgical removal of a lung
metaraminol	medicine used in treatment of low blood pressure due to anaesthesia
oxygen saturation	oxygen levels within the blood

Positron emission tomography scan	scan used to produce a detailed image of the body
pre-med	medication provided prior to an operation at the request of the surgical team
pulmonary veins	large blood vessels connecting the lungs to the heart
SPO_2	peripheral capillary oxygen saturation, measured through a clip attached to a patient's finger
trachea	windpipe
vena cava	large vein carrying blood into the heart
tidal volume (Vt)	the volume of air displaced from the lung between inhalation and exhalation