Scottish Parliament Region: North East Scotland

Case 200602887: Grampian NHS Board

Summary of Investigation

Category
Health: Hospital

Overview
The complainant (Mrs C) raised a number of concerns about the treatment her late son, Mr A, received at Aberdeen Royal Infirmary for a heart condition. In particular Mrs C complained that, although doctors first realised there was a problem with Mr A's heart in December 2004, no active cardiac treatment was commenced until May 2006.

Specific complaint and conclusion
The complaint which has been investigated is that, between December 2004 and May 2006, Mr A received inadequate treatment from staff in relation to his heart problems (*upheld*).

Redress and recommendation
The Ombudsman recommends that the Board apologise to Mrs C for the failure to perform a left sided catheterisation of Mr A's heart in February 2005.

The Board have accepted the recommendation and will act on it accordingly.

Main Investigation Report

Introduction

1. On 15 December 2006 the Ombudsman received a complaint from Mrs C about the treatment which her late son, Mr A, received at Aberdeen Royal Infirmary (the Hospital) for a heart condition. In particular Mrs C complained that, although doctors first realised there was a problem with Mr A's heart in December 2004, no active cardiac treatment was commenced until May 2006. Mrs C complained to Grampian NHS Board (the Board) and met with the Clinical Director but remained dissatisfied with the responses and subsequently complained to the Ombudsman.

2. The complaint from Mrs C which I have investigated is that, between December 2004 and May 2006, Mr A received inadequate treatment from staff in relation to his heart problems.

Investigation

3. In writing this report I have had access to Mr A's clinical records and the complaints correspondence from the Board. I obtained advice from one of the Ombudsman's professional medical advisers (the Adviser), who is a cardiac surgeon, regarding the clinical aspects of the complaint. I made a written enquiry of the Board and met with Mrs C.

4. I have not included in this report every detail investigated but I am satisfied that no matter of significance has been overlooked. An explanation of the abbreviations used in this report is contained in Annex 1. A glossary of the medical terms used in this report is contained in Annex 2. Mrs C and the Board were given an opportunity to comment on a draft of this report.

Complaint: Between December 2004 and May 2006, Mr A received inadequate treatment from staff in relation to his heart problems

5. Mrs C complained to the Board on 13 July 2006. She said that her son was born with the heart defect, pulmonary stenosis. He had a yearly check at the Hospital. Mrs C gave a history that, in the summer of 2004, Mr A became breathless, was given inhalers and was told he probably had asthma. He was also given antibiotics for a chest infection. In February 2005 Mr A was referred to the Cardiology Department (Cardiology) for an angiogram and was told there were no concerns and to return in a year. Mrs C said that at that time Mr A received a right sided heart catheterisation and that he took a severe allergic

reaction to the drug which was used and the family felt his health deteriorated steadily after the incident. Mr A's breathing problems continued and he attended his GP on numerous occasions with swollen legs; weeping leg wounds; he could not lie down flat; and he was only able to sleep in a chair. Mrs C continued that Mr A was referred to the chest clinic in September 2005 and was told the problem was not his lungs but his heart. An x-ray had shown he had an enlarged heart and he was told Cardiology would be in touch. He also received a further chest clinic appointment for approximately three months time.

6. Mrs C said Mr A attended the chest clinic on 6 January 2006 and was told that Cardiology had agreed there was a heart problem and that they would be in touch. However, within a month Mr A was admitted to the Hospital with pneumonia. Mrs C told me that on day five of the admission, a Consultant Cardiologist (Consultant 1) saw Mr A and he said Mr A could be discharged, as there was an out-patient appointment planned for two weeks time and nothing drastic would happen in a couple of weeks. Mrs C said the staff ignored Mr A's swollen and weeping legs. Mrs C continued that Mr A was readmitted to the Hospital three to four weeks later (infectious diseases) for leg infections and was taken up to Cardiology. Mrs C told me that, following a scan, Consultant 1 said he could not believe how much Mr A's heart had deteriorated over the last year and that he would have to be reassessed and another angiogram would be arranged soon. Mr A was discharged but was again readmitted in a couple of weeks with fluid on his lungs.

7. Mrs C continued that an appointment card arrived for the angiogram on 2 May 2006. Mr A was admitted on 1 May 2006 and his fluids were restricted and water tablets and other medications were started. Several x-rays and ECGs showed nothing and Mrs C requested a meeting with Consultant 1. Mrs C said he told her there was damage to the left side of Mr A's heart with the cause being unknown but that surgery was not required and drugs would ease the situation. Mrs C noted Mr A's weight steadily dropped over the next four weeks and he had fluid on his lung. He lost 28 kilograms in weight and two litres of fluid was drained from his right lung. Mr A was again discharged with advice that his weight was not to exceed four kilograms of his discharge weight. Mr A was readmitted to the Hospital on 24 June 2006. He was subsequently discharged and told again that surgery was not an option but medication was the correct action. Mrs C told me that a blood sample was taken and a doctor telephoned Mr A at home to say he had to be readmitted because his renal

function was giving cause for concern. Mr A continued to deteriorate and sadly, he died on 7 July 2006. In her complaint to the Ombudsman, Mrs C complained about the length of time between the first diagnosis of heart failure and subsequent treatment. She believed that the first signs were evident at the end of 2004, when a scan recommended catheterisation of both sides of Mr A's heart but one was carried out on the right side only (see paragraph 12) and then, in early 2006, a scan revealed serious damage to the left side of the heart but that treatment was not commenced until May 2006. Mrs C also had concerns that metolazone was prescribed for Mr A when this had the potential to cause renal failure. Mrs C believed that this could have been the reason for Mr A's final deterioration in hospital and that it caused his kidneys to fail.

8. The Board's Chief Executive (the Chief Executive) responded to the complaint on 7 September 2006. He gave details of Mr A's medical history and advised Mr A had a progressive impairment of his left ventricular function over a period of 18 months, which was under investigation by Consultant 1's team. It was not thought to be related to his longstanding congenital heart disease and would not have necessitated alternative management. In addition, Mr A had empyema, which was triggered by acute kidney failure. He indicated that the cardiac team were aware of Mr A's other conditions and were providing appropriate treatment, as shown by the post mortem report. It was accepted there was a delay between cardiology appointments but this would not have affected the final outcome. The Chief Executive explained that Mr A's discharges from the Hospital were appropriate as Mr A showed a willingness to be at home and he knew to contact the cardiology team if concerned. An explanation was also given for Mr A's weight loss. Mr A was also reviewed by a physiotherapist and advice was given about taking his diuretic medication. Thoracic surgeons found Mr A's condition difficult to manage and felt medication rather than surgery was appropriate. Mr A was discharged home but Consultant 1 saw him daily when his Warfarin was checked. Mr A's nutrition levels were checked in hospital and a dietician called to review him. Mr A's renal function was normal on 28 June 2006 but was impaired on 3 July 2006.

9. The Adviser said that Mr A was a 41-year-old man who died of heart failure on 7 July 2006. He was known to have congenital heart disease and a complex medical history which included morbid obesity, chronic obstructive airway disease in the lungs and cellulites of the legs. The Adviser commented that Mr A was born with a relatively common heart defect. This involved a narrowing of the outlet on one side of his heart between the two main pumping

chambers of the heart (the left and right ventricles). In Mr A's case the narrowing was not severe and the hole in the heart was small. The Adviser felt that the cardiac doctors acted appropriately by deciding that corrective surgery was not required and that he should be followed up at the out-patient clinic for life. The Adviser explained that the right side of the heart takes blood from the veins and pumps it into the lungs where it picks up oxygen. The left side of the heart takes the blood from the lungs and pumps it out to the vital organs of the body. These organs extract the oxygen from the blood, after which it returns to the heart in the veins. The Adviser commented that Mr A's congenital heart defects would have placed a strain on the right side of his heart. The Adviser noted that, up until the months before Mr A's death, nearly all the heart tests and treatment were aimed at the right hand side of his heart. In 2006 it was noted on a scan that that there was severe damage to the left side of the heart. This left heart problem would have explained why Mr A had become so ill. The Adviser continued that the post mortem revealed severe damage to both the left and right side of the heart. The Adviser felt that the right sided damage could be partially attributed to Mr A's congenital problems of a narrowed outlet to the right side of his heart and the hole in the heart, together with further damage to the right side of the heart secondary to his lung condition, but that no cause for the left side heart damage could be ascertained either by visual inspection of the heart or by laboratory analysis of the heart tissue after death.

10. The Adviser felt the issue was whether left heart failure should have been considered by the doctors looking after Mr A before the left heart damage caused irreversible changes. In the Adviser's opinion, none of Mr A's known pre-existing conditions of congenital heart disease, obesity or lung disease would cause left heart failure. They would have been expected to cause right heart failure. Many of the symptoms and signs of right heart failure and left heart failure are similar: fatigue, breathlessness and fluid retention leading to ankle swelling, for example. The Adviser said there was evidence from the case notes that the doctors who looked after Mr A were investigating and managing his right heart problems appropriately. Furthermore, a scan in December 2004, performed to assess Mr A's right heart side, showed generally normal size and function of the left heart as an incidental finding. When the scan was repeated in March 2006, it showed severe damage to the left side of the heart. That finding was unexpected because up until that time the medical team were assuming, reasonably in the Adviser's opinion, that all of Mr A's signs and symptoms were secondary to right heart failure that was secondary to his congenital heart disease, lung disease and severe obesity.

11. The Adviser continued that even when Mr A's left side of the heart was examined at post mortem, no cause for the left heart failure could be ascertained. The Adviser noted that the post mortem report ruled out the two major possible reasons for his left heart disease, namely coronary artery disease (which would not be unexpected if it had been present, on account of Mr A's age, sex and obesity, but his coronary arteries were clear of any obstruction) or cardiomyopathy (which was excluded on microscopic examination of the heart tissue).

12. The Adviser had a concern about one aspect of Mr A's medical management in that, during early 2005, Mr A was scheduled to have a special investigation of his heart, namely a cardiac catheter. The Adviser explained that this is a test where dye is injected into the heart and observed by x-ray and the pressures in the various chambers of the heart are measured. The Adviser found a letter in Mr A's notes from a consultant cardiologist (Consultant 2), dated 2 February 2005, to Mr A which said that arrangements were being made for Mr A to be admitted for right and left heart catheterisation. The Adviser found that only a right heart catheter was carried out but no reason as to why a left side heart catheter was not performed. (Note: In response to my enquiry the Board were unable to explain why the left heart study was not completed. It was suspected the left heart study was omitted because the significant pathology was thought to be limited to the right heart and also because there was a recent ECG study which seemed to show a normal left heart). The Adviser said that we now know that a left heart catheter at that time would not have shown any disease in Mr A's coronary arteries (as they were normal a year later at post mortem) but it may have shown early signs of his left heart problem. The Adviser said that the Board response to the enquiry was unacceptable as they had not provided a reason. The investigation was booked; it was not performed; and subsequently Mr A died with a condition that may have shown up on that investigation. The Adviser commented that, in the absence of any identifiable cause, it was difficult to see how this would have been treated even if it had been detected. The Adviser could not find any major failings in the care that Mr A received from the cardiac doctors other than the failure to perform a left heart catheterisation in 2005 at the time of the right heart catheterisation. However, the Adviser felt that the omission was unlikely to have significantly altered the sad outcome.

13. The Adviser also commented that metolazone is a very powerful diuretic and is used in cases of severe heart failure. In this case it was reasonable to prescribe this medication although it was known that there were potential serious side effects. The Adviser did not think that metolazone was the main cause of Mr A's renal problems although it may have exacerbated pre-existing renal problems secondary to his other major conditions. In conclusion, the Adviser said it would not be known why Mr A died. He had severe lung and heart disease which had an effect on the rest of his body and his other organ systems. The heart disease involved both sides of the heart although only the right side damage could be explained by the congenital lesions that he was known to have. There was a failure by staff to perform an investigation that had been arranged, which may have led to a delayed diagnosis of his left heart failure.

Conclusion

14. Mrs C has complained that there was a delay by doctors in treating Mr A's heart problems, as they had been identified at the end of 2004 yet it took until May 2006 to commence active treatment. She was also concerned that there had been a plan in early 2005 to carry out catheterisation of both sides of Mr A's heart but for some reason this only occurred in early 2006, where it was found that Mr A's left side of his heart was severely damaged. The advice which I have received is that Mr A had a complex medical history which included congenital heart disease and that staff were appropriately concentrating on the right side of his heart. Up until the final few months before Mr A's death, nearly all the treatment was aimed at the right side of the heart. However, a scan in early 2006 revealed severe damage to the left side of the heart. The post mortem revealed severe damage to both the left and right side of the heart and I am told the damage to the right side could be attributed to Mr A's congenital problems. However, no cause could be established for the left sided damage either by visual inspection or laboratory analysis of the heart tissue.

15. I accept the Adviser's comments that the doctors who treated Mr A investigated and managed Mr A's right side heart problems appropriately and that a scan in December 2004 which had been performed to assess the right side incidentally showed that the left side was functioning normally. However, a repeat scan in March 2006 identified severe damage on the left side of the heart. The Adviser felt that the staff's management of Mr A's heart problems was appropriate but questioned why a left sided catheterisation was not carried out as planned in February 2005 although he was conscious that, if it had been

completed then, it would not have shown any disease in the coronary arteries, as they were normal when examined at the post mortem. The Adviser did say that a left side catheterisation at that time may have shown early signs of heart problems but this would be difficult to quantify with certainty as no cause could be found for the left heart failure. He has indicated that the omission was unlikely to have significantly altered the sad outcome which may be of some comfort to Mrs C. Nevertheless, having considered the circumstances carefully, given that the Adviser has identified a failing in care and taking into account the Board have been unable to provide an explanation for this failing, I have decided, on balance, to uphold the complaint, given that a left side catheterisation should have been performed in February 2005 as planned.

Recommendation

16. The Ombudsman recommends that the Board apologise to Mrs C for the failure to perform a left sided catheterisation of Mr A's heart in February 2005.

17. The Board have accepted the recommendation and will act on it accordingly. The Ombudsman asks that the Board notify her when the recommendation has been implemented.

Annex 1

Explanation of abbreviations used

Mrs C	The complainant
Mr A	Mrs C's son
The Hospital	Aberdeen Royal Infirmary
The Board	Grampian NHS Board
The Adviser	The Ombudsman's professional medical adviser
Consultant 1	The consultant cardiologist who was responsible for Mr A's treatment
ECG	Electrocardiogram
The Chief Executive	The Board's Chief Executive
Consultant 2	Consultant cardiologist who wrote to Mr A on 2 February 2005

Annex 2

Glossary of terms

Angiogram	An x-ray of blood vessels, where dye is used to highlight areas
Cardiomyopathy	A disease of the heart muscle
Cellulites	Skin infection
Chronic Obstructive Airways Disease	Progressive lung disease
Electrocardiogram	Test to determine the level of electrical activity generated by the heart muscle
Empyema	Lung abscess
Pulmonary stenosis	A narrowing between the right ventricle and the lung artery
Warfarin	Medication to prevent blood clotting