Scottish Parliament Region: Mid Scotland and Fife

Case 200602374: Forth Valley NHS Board

Summary of Investigation

Category

Health: Hospital

Overview

The complainant (Miss C) raised a number of concerns about the care and treatment her mother (Mrs A) received in Stirling Royal Infirmary (the Hospital) between her admission on 7 May 2006 and her death on 28 May 2006.

Specific complaint and conclusion

The complaint which has been investigated is that Mrs A's care and treatment while a patient in the Hospital in May 2006 was inadequate (*upheld*).

Redress and recommendations

The Ombudsman recommends that Forth Valley NHS Board (the Board):

(i) apologise to Miss C for the failures identified in this report;

(ii) remind all their doctors of the importance of appropriate recording of working and differential diagnosis; and

(iii) ensure that two of the consultant surgeons (identified in this report as Consultant 1 and Consultant 2) reflect on these events at their next annual review.

The Board have accepted the recommendations and will act on them accordingly.

Main Investigation Report

Introduction

1. The aggrieved (Mrs A) was admitted to Stirling Royal Infirmary (the Hospital) in the early hours of Sunday 7 May 2006. She had been suffering from abdominal pain and other symptoms for at least two days. She continued to suffer these symptoms in the Hospital despite treatment with antibiotics. On Tuesday 9 May 2006 a laparoscopy found that Mrs A had a perforated appendix, and this was immediately removed and the cavity was cleaned and treated with antibiotics. However, despite ongoing treatment in the Intensive Treatment Unit (ITU), Mrs A's condition deteriorated and on 28 May 2006 she died as a result of multiple organ failure caused by sepsis which had resulted from the perforated appendix.

2. The complaint from Miss C which I have investigated is that Mrs A's care and treatment while a patient in the Hospital in May 2006 was inadequate.

Investigation

3. This investigation has involved obtaining and study of the relevant medical notes from the Hospital. I have also sought and received advice on clinical issues from clinical advisers, including a GP adviser (Adviser 1) and a surgical adviser (Adviser 2).

4. 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 Forth Valley NHS Board (the Board) were given an opportunity to comment on a draft of this report.

Complaint: Mrs A's care and treatment while a patient in the Hospital in May 2006 was inadequate

5. On Saturday 6 May 2006 Mrs A became unwell. She telephoned NHS 24 who recorded her as having severe abdominal pain and being shivery 'very similar to symptoms experienced when she had a UTI'. Arrangements were made for Mrs A to see a doctor (Doctor 1) from the out-of-hours service.

6. Mrs A was taken by car to see Doctor 1. The NHS 24 note about the contact with Doctor 1 states that Mrs A was feeling 'awful' and that she said that pains were similar to those of a previous UTI. The notes also record that she was happy to try antibiotics and to see her own GP.

7. There was a further telephone call to NHS 24 at 02:54 on 7 May 2006. This is described on the call sheet as 'second contact'. The note of the call by NHS 24 records that abdominal pain was worsening, that Mrs A was shivery and was vomiting and unable to pass urine. The outcome of the call was that NHS 24 arranged for another doctor (Doctor 2) to visit Mrs A at home.

8. Doctor 2 arranged for Mrs A to be admitted to the Hospital. The symptoms recorded by Doctor 2 are the same as those noted by NHS 24. Doctor 2 noted that the reason for the referral to hospital was worsening abdominal pain, and he suggested that Mrs A might have appendicitis or diverticulititis.

9. An ambulance was called at 04:26, and Mrs A was admitted to the Hospital at 04:51 on 07 May 2006.

10. At around 06:00 a senior house officer examined her. He took a medical history; recorded his observations, including recording that Mrs A's abdomen was tender with rebound on the lower abdomen. The senior house officer ordered blood and urine sample tests. He noted that acute appendicitis with perforation or diverticular disease with perforation were possible diagnoses.

11. At 09:00 a consultant surgeon (Consultant 1) reviewed Mrs A. He did not record any possible diagnosis. He requested an ultra sound scan for that afternoon, which was carried out.

12. At 18:00 a specialist registrar reviewed Mrs A. He recorded that she had a slight temperature and that her abdomen was still tender. He also recorded 'Treat as UTI (urinary tract infection) for the moment'.

13. On the morning of Monday 8 May 2006 Consultant 1 and another consultant surgeon (Consultant 2) reviewed Mrs A. They recorded that she still had abdominal pain and that her lower abdomen was tender. The note of this review does not record any possible diagnosis. A CT scan of Mrs A's abdomen was ordered for that afternoon and was carried out.

14. A third consultant surgeon (Consultant 3) reviewed Mrs A on the morning of Tuesday 9 May 2006. She was still in pain and her lower abdomen was still tender. Consultant 3 arranged for a laparoscopy to be carried out.

15. At 17:15 on 9 May 2006 the laparoscopy was carried out by Consultant 3. He found that Mrs A had a perforated appendix which had caused serious infection in her pelvis. Consultant 3 proceeded to remove the appendix by a keyhole operation known as laparoscopic appendectomy. When he had removed the appendix he cleaned out the peritoneal cavity with a saline solution which was infused with antibiotics. After the operation Mrs A was admitted to the ITU.

16. Mrs A showed ongoing signs of infection, and is recorded as deteriorating on 10 May 2006 despite ongoing treatment with antibiotics. On 11 May 2006 Mrs A had ongoing septic shock, and because of this a laparotomy was carried out. This found no particular focus for the infection.

17. Mrs A continued to be treated in the ITU. However, the toxic shock persisted and, after some improvement, she eventually developed multiple organ failure. Mrs A died at 05:02 on 28 May 2006.

18. Miss C has raised two particular concerns about the treatment Mrs A received in the Hospital. Firstly, that her appendicitis should have been diagnosed sooner. Secondly, that laparoscopic surgery was inappropriate because Mrs A's appendix was perforated resulting in significant infection.

19. Adviser 2 has told me that appendicitis is a very challenging condition to diagnose, particularly where the possible diagnoses include diverticular disease or urinary problems. However, an ultra sound would eliminate many of the possible conditions, and, if pain persists, a diagnostic laparoscopy would be usual.

20. From his examination of the clinical records, Adviser 2 believes that the initial assessment by the senior house officer was satisfactory. However, because the ultra sound scan eliminated many possible causes of confusion, and because Mrs A's pain persisted, Adviser 2 has said:

> 'Unless there was good evidence to suggest an alternative diagnosis (I can find none) then an early laparoscopy probably would have prevented the slide into multiple organ failure and death. I would have expected a decision to operate on the evening of 7 May or on the morning of 8 May … I do think there was unnecessary delay between the evening of 7 May and the morning of 9 May which could have changed the outcome for Mrs A.'

21. When the complaint from Miss C was being considered by the Board, Consultant 3 was asked for his view of what had happened. He said that from her admission to the Hospital:

> '… there were clear indicators of abdominal mischief with sepsis. Clearly there has been a case of delayed diagnosis and in retrospect an early intervention was desirable which may have made a difference to her outcome.'

22. Adviser 2 has also commented on the operation used to remove Mrs A's appendix. He said:

> 'Once the diagnosis had been made it is entirely acceptable to remove the appendix laparoscopically … The operation note clearly states that the abdomen was lavaged/washed out and that intra-perineal antibiotics were instilled in the hope of reducing further infection. The effectiveness of the wash out can be extrapolated from the findings of the laparotomy two days later when no residual pockets of infection or pus were found. I do not think that the laparoscopic approach to the appendectomy contributed to the subsequent complications.'

Conclusion

23. Having carefully read the clinical notes and considered the advice I have received I have concluded that the operation to remove Mrs A's appendix was carried out in an acceptable way and that appropriate steps were taken to try to minimise the risk of further infection.

24. It is clear from reading the clinical notes that Mrs A had persistent pain and tenderness in her abdomen on her admission to the Hospital on 7 May 2006 and that this persisted through the following days. It is also clear that appendicitis was seen as a possible cause of the symptoms from before her admission to the Hospital. I have quoted the advice I have received from Adviser 2 and I accept this advice. I conclude that a laparoscopy should have been carried out sooner and that the failure to do so reduced Mrs A's chances of survival.

25. I am not clear why this delay occurred. Neither Consultant 1 nor Consultant 2 has recorded their working diagnosis nor any other possible differential diagnosis. Their notes make no reference to the possible diagnoses recorded by the GP who arranged the admission, nor those of the senior house

officer or the specialist registrar who reviewed Mrs A in the Hospital. Failures of this sort impede continuity of care and can contribute to failures such as occurred here (I have noted that in this case Adviser 2 and Consultant 3 have suggested alternative working diagnoses from their readings of the clinical records).

26. For the reasons outlined in paragraphs 24 and 25, I uphold the complaint.

Recommendations

27. The Ombudsman recommends that the Board

(i) apologise to Miss C for the failures identified in this report;

(ii) remind all their doctors of the importance of appropriate recording of working and differential diagnosis;

(iii) ensure that Consultant 1 and Consultant 2 reflect on these events at their next annual review.

28. The Board have accepted the recommendations and will act on them accordingly. The Ombudsman asks that the Board notify her when the recommendations have been implemented.

Annex 1

Explanation of abbreviations used

Mrs A	The aggrieved
The Hospital	Stirling Royal Infirmary
ITU	Intensive Treatment Unit
Miss C	The complainant, daughter of Mrs A
Adviser 1	A GP adviser to the Ombudsman
Adviser 2	A surgeon adviser to the Ombudsman
The Board	Forth Valley NHS Board
Doctor 1	A doctor from an out-of-hours service
UTI	Urinary tract infection
Doctor 2	A doctor from an out-of-hours service
Consultant 1	A consultant surgeon in the Hospital
Consultant 2	A consultant surgeon in the Hospital
Consultant 3	A consultant surgeon in the Hospital

Annex 2

Glossary of terms

Appendectomy	Surgical removal of the appendix; it may be performed laparoscopically or as an open operation
Diverticulitis	Inflammation in parts of the colon
Laparoscopy	Examination of abdominal structures by means of an illuminated tube passed through a small incision in the wall of the abdomen
Laparotomy	A surgical procedure involving an incision through the abdominal wall to gain access into the abdominal cavity
Peritoneal cavity	A space between membranes in the abdomen
Sepsis	Broadly defined as the presence of various pus-forming and other pathogenic organisms, or their toxins, in the blood or tissues
Septic shock	Condition caused by decreased tissue perfusion and oxygen delivery as a result of infection and sepsis. It can cause multiple organ failure and death