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: Central Scotland

Case ref: 201607746, Lanarkshire NHS Board
Sector: Health
Subject: Hospitals / Clinical treatment / Diagnosis/Complaints handling

Summary
Mrs C, who works for an advice and support agency, complained on behalf of Mrs B about the care and treatment provided to Mrs B's late father (Mr A) by Lanarkshire NHS Board at Hairmyres Hospital (the hospital). Mr A had diabetes and had been admitted to the hospital to have his leg amputated. Mrs C complained that his diabetes was not properly monitored or managed following the surgery. She said that this led to the development of diabetic ketoacidosis (DKA - a serious problem that can occur in people with diabetes if their body starts to run out of insulin). She also complained about the actions of nursing staff.

We took independent advice from three advisers: a consultant in acute medicine, a diabetes specialist nurse and a general nursing adviser. In relation to Mrs C's complaint that the Board did not provide reasonable treatment to Mr A, we found that there were a number of serious failings, which were that the board failed to:

(i) adequately monitor Mr A's blood glucose and respond to both hypo-glycaemia (low blood sugars) and hyper-glycaemia (this occurs when people with diabetes have too much sugar in their bloodstream);
(ii) manage Mr A's diabetes and insulin administration in line with the board's protocol;
(iii) recognise and respond in a timely manner to his deterioration; and
(iv) recognise the possibility of heart problems whilst he was in the medical High Dependency Unit (HDU).

The advice we received also highlighted a number of other failings:

(i) When Mr A was transferred to the medical HDU overnight, he was not seen until the following morning. This was an unreasonable delay given the severity of his illness and the complexities of managing DKA in a patient with known cardiac problems (aortic stenosis – tightening of one of the valves in the heart and impairment of the heart as a muscle). This would have made providing the large quantities of fluid as part of DKA management potentially difficult.

(ii) Mr A was transferred out of medical HDU despite signs that he was starting to deteriorate. There was then a delay in reviewing him when he was transferred back to the surgical ward. We found that Mr A should have subsequently been readmitted to medical HDU or to coronary care.
(iii) Mr A should have had a review of his antibiotics during his second deterioration, as he had already been on his antibiotic regime for three days and would have probably needed different antibiotics and review of any microbiology results.
(iv) There was a failure to measure/chart his respiratory rate when he was deteriorating.

In view of these failings, we upheld Mrs C's complaint that the board did not provide reasonable treatment to Mr A.

Mrs C also complained that the board did not provide reasonable nursing care to Mr A in the hospital. She said that nursing staff did not respond reasonably to alerts from another patient's visitors about Mr A's condition and that nursing staff did not reasonably record the actions they took in relation to this in Mr A's medical notes.

We found that the actions of a nurse when Mr A's condition deteriorated had been unacceptable and unreasonable. The nursing documentation in relation to this matter was also inadequate and we upheld this aspect of Mrs C's complaint.

Finally, Mrs C complained that the board did not respond reasonably to Mrs B when she complained to them about these issues. We upheld this aspect of the complaint, as the board failed to identify the serious failings referred to above. We considered that this was both unreasonable and that it called into question the adequacy of the board's complaints handling at the time.

Redress and Recommendations
The Ombudsman's recommendations are set out below:

What we are asking the Board to do for Mrs B:

Complaint number	What we found	What the organisation should do	Evidence SPSO needs to check that this has happened and the deadline
(a) and (b)	The Board did not provide Mr A with reasonable treatment. The nursing documentation in relation to the actions of the nurse when Mr A's condition deteriorated on 4 October 2016 was inadequate	Apologise to Mrs B for failing to provide Mr A with reasonable treatment and for the inadequate nursing documentation. The apology should meet the standards set out in the SPSO guidelines on apology available at https://www.spso.org.uk/leaflets-and-guidance	A copy or record of the apology. By: 25 May 2018

We are asking the Board to improve the way they do things:

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(a)	The Board failed to adequately monitor Mr A's blood glucose and respond to both hypo- and hyper-glycaemia	The Board should reflect on the findings in this report and ensure patients with erratic blood glucose have their capillary blood glucose checked and recorded regularly and at a frequency appropriate to their specific circumstances and condition	Evidence that relevant staff have been informed of this and that consideration has been given to any training requirements to support staff in carrying out these checks. By: 25 July 2018
(a)	The Board failed to manage Mr A's diabetes and insulin administration	Nursing and medical/surgical staff should be competent, appropriately skilled, and able to access guidance, support and training in relation to diabetes management in hospital, including recognising diabetic emergencies and advice on who they can contact if they have concerns, including at the weekend	Evidence that staff have the appropriate level of skill and access to guidance, support and training. By: 25 July 2018

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(a)	There was a delay in reviewing Mr A when he was transferred to the medical HDU	Admissions to the medical HDU should be seen on arrival by medical staff	Evidence this matter has been considered and a decision taken to act (or not), that includes reasons for the decision. By: 25 June 2018
(a)	Staff failed to recognise the possibility that Mr A had heart problems in medical HDU on 5 October 2016	Medical HDU should ensure that electrocardiograms are routinely and appropriately reviewed for patients who have deteriorated or been admitted overnight	Evidence that this matter has been considered and, where appropriate, action has been taken and any changes disseminated. By: 25 June 2018
(a)	Mr A was transferred out of the medical HDU on 6 October 2016, despite signs that he was starting to deteriorate	Patients who are deteriorating should not be discharged from the medical HDU without a clear plan	Evidence that this matter has been fed back to staff in a supportive way that encourages learning. By: 25 June 2018

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(a)	There was a delay in recognising and starting treatment for possible sepsis	Nursing and medical/surgical staff should be competent, appropriately skilled, and able to access guidance, support and training in relation to the consideration of sepsis and on reviewing antibiotics previously prescribed	Evidence that staff have the appropriate level of skill and access to guidance, support and training. By: 25 July 2018
(a)	There was a delay in reviewing Mr A when he was transferred back to the surgical ward in the late afternoon of 6 October 2016	Patients who have been transferred out of a HDU environment to a general ward should be reviewed on arrival in the ward or as close to that time as possible	Evidence that this matter has been considered and a decision taken to act (or not), that includes reasons for the decision. By: 25 June 2018
(a)	There was a failure to measure/chart Mr A's respiratory rate	Nursing and medical/surgical staff should be competent, appropriately skilled, and able to access guidance, support and training in relation to early warning scores with regard to the importance of respiratory rate	Evidence that staff have the appropriate level of skill and access to guidance, support and training. By: 25 July 2018

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(c)	The Board's investigation into Mrs B's complaint failed to identify a large number of the failings we have referred to in this report	The Board should reflect on the findings in this report and ensure that complaints are investigated appropriately	Evidence that relevant staff have been informed of this and that consideration has been given to any training requirements to support staff in investigating complaints. By: 25 July 2018

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 Mrs C. The terms used to describe other people in the report are explained as they arise and in Annex 1.

Introduction

1. Mrs C works for an advice and support agency. She complained to my office on behalf of Mrs B about the care and treatment provided to Mrs B's late father (Mr A) by Lanarkshire NHS Board (the Board) at Hairmyres Hospital (the Hospital). Mrs C's complaint related to the care and treatment Mr A received in the Hospital after he was admitted on 27 September 2016. Mr A had diabetes and Mrs C complained that this was not properly monitored or managed following his surgery, which led to the development of diabetic ketoacidosis (DKA, a serious problem that can occur in people with diabetes if their body starts to run out of insulin). She also complained about the actions of nursing staff.

2. Mrs C complained to my office because her client, Mrs B, was dissatisfied with the Board's response to the concerns she raised with them about Mr A's care and treatment and with the Board's handling of her complaint.

3. The complaints from Mrs C I have investigated are that the Board did not:

(a) provide reasonable treatment to Mr A during his admission to hospital between 27 September and 8 October 2016 (*upheld*);
(b) provide reasonable care to Mr A during his admission to hospital between 27 September and 8 October 2016 (*upheld*); and
(c) respond reasonably to Mrs B's complaints (*upheld*).

Investigation

4. I and my complaints reviewer considered the information provided by Mrs C and the Board. This included Mr A's medical and nursing records and the Board's complaint file. We also obtained independent advice from three advisers: a consultant in acute medicine (Adviser 1), a diabetes specialist nurse (Adviser 2) and a general nursing adviser (Adviser 3).

5. In this case, I have decided to issue a public report on Mrs C's complaint because of my concerns about the significant and serious failings identified in Mr A's care and treatment and because I consider it is in the wider public interest.

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

(a) The Board did not provide reasonable treatment to Mr A during his admission to hospital between 27 September and 8 October 2016

Concerns raised by Mrs C

7. Mr A was diabetic and underwent surgery in August 2016 on the arteries in his right leg. Although the surgery was initially successful, a little over a month later he continued to experience pain and it was decided that his leg would be amputated. Mr A was admitted to the Hospital for this on 27 September 2016 and the operation was carried out on 30 September 2016. Following the amputation he remained in hospital.

8. On 4 October 2016, Mrs B and her mother arrived to visit Mr A around 18:00. They found him in poor health and alerted staff. Relatives of another patient told Mrs B that they had been concerned about Mr A's condition about an hour previously and had alerted a nurse (Nurse 1) to this. They told Mrs B that Nurse 1 had remarked that, as Mr A was not her patient, she had not attended to him. Later that evening, once Mr A had stabilised, Mrs B raised her concerns with the staff nurse. The staff nurse said that she would have a word with Nurse 1.

9. Doctors advised Mrs B that Mr A had developed DKA. This causes harmful substances called ketones (compounds remaining when the body burns its own fat) to build up in the body, which can be life-threatening if not spotted and treated quickly. Mr A was transferred to the medical High Dependency Unit (HDU) and was diagnosed as having had a heart attack. He was transferred back to a surgical ward on 6 October 2016. Mr A's condition continued to deteriorate and he was transferred to Ward 4 on 7 October 2016. Mr A passed away on 8 October 2016.

10. On 19 October 2016, Mrs B wrote to the Board to complain about her father's care and treatment. She complained that Mr A's blood sugar levels were not properly monitored or managed following his surgery and that this led to the development of DKA, which resulted in him having a heart attack.

The Board's response

11. The Board issued a response to the complaint on 4 November 2016. They said that the consultant vascular surgeon (Consultant 1) who had managed her father's care had reviewed the case notes at some length to establish the exact train of events leading to Mr A's death. The Board said that Mr A had had his right leg amputated below the knee on 30 September 2016 and this had been reasonably straightforward.

12. The Board said that it seemed that the combination of all his underlying medical conditions, including his diabetes, breathing difficulties, likely heart disease with a narrowed heart valve and smoking had a combined effect with the dangers associated with having two operations in close succession. They said that this created what appeared to have been a chest infection that had probably led to the difficulties in controlling Mr A's diabetes, which then caused the DKA.

13. The Board also said that it was possible the heart attack occurred first and caused the DKA. Based on Consultant 1's review of the medial records, the Board considered that the actions taken to manage Mr A's care were appropriate with his immediate transfer to the HDU and aggressive management of the DKA. However, the strain of all this had taken its toll and caused further heart damage.

14. In their response to our enquiries, the Board told us that Mr A had a number of quite serious illnesses that were present before his admission to hospital. They stated that there was clear evidence of severe disease of the arteries of his legs and that it is known that such patients also have disease in the arteries in their heart.

15. The Board told us that Consultant 1 had discussed Mr A's case with a Consultant in Diabetes Medicine (Consultant 2) who explained that a heart attack can cause DKA. They stated that it was, therefore, possible that the heart attack occurred first and consequently caused the DKA.

16. The Board also told us that it was documented in Mr A's notes on 7 October 2016 that medical staff had spoken to Mr A's family. At that time, a doctor explained that Mr A was extremely frail with a number of serious on-going medical issues. They said that blood results that day also provided additional evidence in conjunction with Mr A's breathlessness, low oxygen saturations and findings in his chest on examination and that with these findings and the chest x-ray evidence, it would have been unreasonable not to diagnose a chest infection.

Medical advice

17. Adviser 1 told us that Mr A's diabetes had been managed reasonably well immediately after his operation on 30 September 2016 with a variable rate insulin infusion. This was stopped appropriately when he was eating normally. They commented that when the variable rate insulin was stopped, Mr A was converted to his usual insulin regime, which was reasonable. However, his blood sugars behaved quite erratically, which can be the case after an operation. This was recognised and the junior doctors reviewed the insulin prescription on 1 October 2016 (a Saturday) and asked the diabetes specialist nurse to review. (This review took place on 3 October 2016.) Adviser 1 said that it is good practice to involve the diabetes specialist nurse in in-patients with diabetes, particularly when controlling the blood sugars is proving difficult.

18. Adviser 1 went on to say that, the notes do not suggest that any medical staff reviewed Mr A on Sunday, 2 October 2016, which was unreasonable given how difficult controlling his blood sugars had been, particularly as his blood sugars were above 20mmol/L (the amount of glucose in the blood measured in millimoles per litre), when documented on 2 October 2016.

19. Adviser 1 commented that doctors should have reviewed Mr A on 2 October 2016 and adjusted his insulin dose accordingly. They should also have consulted with more senior medical staff, for example, the medical registrar or a specialist in diabetes (who would have been available on call over the weekend), if they had concerns.

20. Adviser 1 also said that Mr A's capillary blood glucose was only routinely measured twice daily except when he was hypoglycaemic (had low blood sugars) or recovering from hypoglycaemia. They said that there was no evidence to suggest that staff recognised the high blood glucose was serious or a sign of potential deterioration. They stated that she would have expected Mr A's capillary blood sugars to have been checked more frequently throughout the day to watch for a pattern in his blood glucose levels and significant high or low readings that Mr A may not have been aware of.

21. Adviser 1 also commented on the episode on 4 October 2016 when Mr A was noticed to be sweaty, confused and unwell (paragraph 8 refers). They said that this should have been recognised as a potential diabetic emergency and responded to immediately by checking his capillary blood glucose and National Early Warning Score (a set of patient observations to assist in the early detection

and treatment of serious cases and support staff in making clinical assessments). They stated that it was not a hypoglycaemic event, but from the description it could have been. They added that if Mr A had been left for a period of almost an hour with hypoglycaemia, he could have sustained brain damage or been more seriously unwell.

22. Adviser 1 also commented that the diabetes specialist nurse's review on 3 October 2016 suggested just watching Mr A's blood glucose and that this should settle down. However, they stated that this advice was given when Mr A's capillary blood glucose level was 25.8mmol/L, which seemed very high.

23. In view of the involvement of the diabetes specialist nurse in Mr A's care, we also asked Adviser 2 (a diabetes specialist nurse) for their comments on the matter. In their response, they said that there was no record of Mr A's blood glucose on the admission documentation. They stated that this would be required to provide an indication of Mr A's blood glucose control at that time and prompt a review of his insulin therapy if outside acceptable limits (these are 4 to 15 mmol/L). Adviser 2 said that although some blood glucose readings had been recorded, these were erratic and poorly timed. They added that they were also recorded on both the clinical observation chart and the adult diabetes chart, but the timings and readings did not always match in both charts making it difficult to obtain a pattern to the blood glucose recordings.

24. Adviser 2 said that Mr A had episodes of hypoglycaemia through the nights between 27 September 2016 and 1 October 2016, however, these were not correctly documented or treated in line with local policy. They stated that they would have expected to see blood glucose recordings every 15 minutes until they had reached more than 4 mmol/L: not hourly as recorded. They also stated that they would have expected to see appropriate initial treatment (in line with the local guidelines) of a rapidly absorbable glucose, not a cup of tea and a biscuit which is unsuitable for immediate management. They added that they would expect to have seen some evidence of appropriate consultation from the diabetes medical team or a diabetes specialist nurse.

25. Adviser 2 then went on to say that there was no clear indication of the cause of Mr A's hypoglycaemia. They said that there could have been a number of reasons for this including: when his insulin was administrated in relation to his food being available; the adequacy of the meal consumed including carbohydrate content; or if his insulin was not omitted/reduced when he was placed on nil-by-

mouth prior to surgery due to the duality and longevity of the insulin. They also said that it would appear that Mr A was given his evening dose of insulin at 22:00, after he had surgery on 30 September 2016. They stated that it was clearly past evening meal time and, if a substantial carbohydrate meal was not provided, this was why Mr A was hypoglycaemic throughout the night and early morning of 1 October 2016.

26. Adviser 2 said that it was evident that Mr A only received one dose of insulin prior to his lunch on 1 October 2016. They commented that this was only a third of his usual 24-hour prescription and this was likely to be part of the reason for the resulting hyperglycaemia (this occurs when people with diabetes have too much sugar in their bloodstream) the following day. They added that it also goes against recommendations to completely omit insulin due to hypoglycaemia. The hypoglycaemia should be treated and insulin given, albeit at a reduced dose, once the blood glucose level is above 4mmol/L.

27. Adviser 2 stated that the poor management of Mr A's diabetes both before and after his surgery was clearly to blame for much of his hypoglycaemia and also in part for the then resulting hyperglycaemia. They also said that this, along with Mr A returning to a normal food intake of three meals a day and evidence from the medical records that he was becoming clinically unwell with a persistently raised temperature from 1 October 2016, could quite conceivably have contributed to the resulting DKA. They commented that his blood glucose began to rise above 15 mmol/L on 2 October 2016. However, there was no evidence that a ketone test was undertaken by the nursing or medical staff in line with the protocol on the Board's adult diabetes chart. This was even after Mr A's blood glucose was above 20 mmol/L prior to 18:00 on 4 October 2016, by which time he was clearly unwell, nauseous, confused and shaking, all of which are signs of DKA.

28. Adviser 2 also said that it had not been reasonable for the diabetes specialist nurse to suggest watching Mr A's blood glucose after this was reviewed on 3 and 4 October 2016 and was found to be 25.8mmol/L-27.8mmol/L. They stated that with Mr A's history of recent surgery, raised temperature and extremely raised blood glucose compared to the previous five days, they would have expected the diabetes specialist nurse to have requested more frequent blood glucose monitoring, ketone testing and to have requested as required novorapid (a rapid-acting insulin) to be administered four-hourly, if his blood glucose was above 20 mmol/L. They added that she would also have expected

a daily review and on-going nursing support until Mr A was more stable. Adviser 2 also commented that it was evident that the directions provided to follow in the Board's adult diabetes chart in cases of hypoglycaemia or hyperglycaemia were not followed.

29. Adviser 2 said that Mr A had a number of hypoglycaemic episodes that were clearly due to poor insulin and hypoglycaemic management. They also stated that Mr A had not been treated effectively for hyperglycaemia in a timely manner.

30. In conclusion, Adviser 2 said that it was clear to them that the surgical team fell short in relation to expected diabetes blood glucose monitoring, effective insulin administration and general diabetes management. They stated that they considered that staff were not equipped to identify or prevent a diabetic emergency and that the Board should ensure that all members of the surgical team are competent in all aspects of the care and safety of a diabetic patient in hospital.

Mrs B's concern that the DKA caused the heart attack

31. Mrs C said in her complaint to us that the Board's response to Mrs B's complaint had stated that it was possible that the heart attack occurred first and consequently caused the DKA. Mrs C said that the family believed that the heart attack happened several hours after the DKA and that the Board were not being truthful in their response.

32. We asked Adviser 1 if she considered that the failings led to Mr A developing ketoacidosis. In their response, they said that it would appear from the case notes that Mr A was starting to deteriorate in the afternoon of 4 October 2016. Adviser 1 commented that the occupational therapist recorded at 14:30 that he was slightly confused and that they informed nursing staff of this. Adviser 1 said that confusion is often an early sign of sepsis (or deterioration in general), but this did not seem to have been acted upon until a junior doctor was asked to review him at 18:00 because of his high blood sugar and high respiratory rate.

33. At 18:00 Mr A had a set of observations performed, but staff did not measure his respiratory rate, which is a key sign of deterioration. It is also very important if there is a suspicion of DKA in the context of high blood sugars. Adviser 1 stated that not acting on the concerns of the occupational therapist about Mr A's increased confusion at 14:30; not acting on the blood glucose of 27.8mmol/L at 16:00; and not measuring or charting the respiratory rate when the observations

were performed at 18:00 were all unreasonable. They commented that by performing these actions, staff may have picked up Mr A's deterioration earlier and allowed more prompt recognition of sepsis as well as impending DKA. Appropriate management could then have been started earlier.

34. Adviser 1 then commented that during the evening of 4 October 2016, Mr A was started on a 'sliding scale' (giving insulin through a drip that allows it to be adjusted regularly) of insulin intravenously and his glycaemic control improved. He was converted back to his subcutaneous insulin on 7 October 2016 and they said that it would appear from the medical notes that this was not unreasonable given Mr A's glycaemic control was stable. However, they said that given the clinical picture of a further deterioration, it might have been more sensible to keep him on intravenous insulin, as it would have been predictable that his glycaemic control would be very erratic due to his general deterioration.

35. Adviser 1 was asked if they considered that Mr A's heart attack could have caused his DKA, as referred to by the Board in their response to Mrs B's complaint. Adviser 1 commented that DKA can put pressure on the heart (the heart does not like being acidotic) and can precipitate a heart attack.

36. Adviser 1 said that Mr A had two episodes of deterioration (4 October 2016 and 6 October 2016). It was difficult to establish whether he could have been having cardiac problems during the first episode which were unrecognised and undertreated, or whether being so significantly unwell during the first episode of deterioration and then becoming unwell a few days later, just meant that his heart sustained unrecoverable damage during his second deterioration around 6 October 2016. They added that operations and infection, as well as high blood glucose, can bring about heart attacks, as the blood is 'thicker' and more likely to form clots.

37. Adviser 1 commented that DKA can often lead to abnormalities in the electrocardiograph (ECG - a test that records the electrical activity of the heart), which need to be considered as part of the overall picture to work out if the changes are due to the acidosis or due to a heart attack. Mr A's ECG was abnormal on 4 October 2016 when he was transferred to medical HDU, but this was not commented on by the doctor who reviewed him the next day. They said that he might have been having a heart attack at this time (which did not become clinically apparent until his further deterioration on 6 to 7 October 2016), although

they considered it was more likely that the changes in the ECG were due to the acidosis and sepsis.

38. Adviser 1 said that they considered it unreasonable that the ECG was not commented on by medical staff. However, they added that there was no indication that the abnormal ECG was seen. The medical notes refer to, 'sinus tachycardia', but this might have been taken from the cardiac monitor and not the ECG. They said that there was nothing to suggest that a troponin (proteins in the blood that can show if a patient has had a heart attack) test, which would have given some indication as to whether Mr A's heart was compromised, was done during his first deterioration around 4 October 2016. They said that they considered that the failure to check the ECG and, if appropriate, consider a troponin test was unreasonable.

39. Adviser 1 commented that a heart attack has to be considered as a cause of acute deterioration in patients after an operation, particularly those with diabetes who may not get classical pain. They added that the fact that a troponin test was not carried out meant that they could not be certain how much Mr A's heart was damaged at that time. They considered that detection of his cardiac problems at that point might have prevented his deterioration over the next few days.

40. Adviser 1 said that Mr A's deterioration on 4 October 2016 might have put his heart under strain and this appears not to have been recognised at the time, which was unreasonable. During Mr A's later deterioration (6 to 7 October 2016), his ECG was abnormal and his cardiac troponin was very high. However, Adviser 1 stated that, in summary, it was not possible to say whether Mr A's heart attack caused his DKA or whether his deterioration due to DKA led to his heart attack.

Transfer from HDU

41. Adviser 1 commented that on 6 October 2016, Mr A's heart problems were recognised and treated appropriately with antiplatelet medicines (medicines used to prevent any clots in the heart arteries) and cardiology review. However, they also said that the more pressing problems of his acidosis, high lactate and general deterioration were not particularly well managed. They commented that by this stage, Mr A was so unwell that it would have been very difficult to successfully treat him. However, they also considered there was a delay in

recognising this second deterioration, which, on review of his HDU charts, was probably starting before he had even been discharged from the HDU.

42. Adviser 1 commented that Mr A had been discharged from HDU with a rising temperature, a rising pulse rate and very high blood glucose. They said that once again, his respiratory rate was not measured or documented. It had previously been high and they said that his respiratory rate might also have been high at that time, which would have made his observations score higher than the three that was documented. They commented that she considered it had been unreasonable that he had been transferred out of HDU late in the afternoon, when he seemed to be deteriorating and had a significantly high blood glucose. They stated that a surgical ward would not have been well-placed to manage this, particularly late in the day when medical staffing is starting to reduce.

43. Adviser 1 also said that it was unreasonable not to have measured Mr A's respiratory rate as part of his observations. They considered that this failure to recognise his deterioration on 6 October 2016, when he was still in medical HDU and to transfer him late in the afternoon to a surgical ward, was a significant failing. Transfers from HDU should be reviewed when they arrive on the ward, but Mr A did not appear to have been reviewed when he was transferred to the vascular ward from HDU. He was not seen until he was clearly deteriorating overnight through to 7 October 2016. There was then a further delay in recognising and starting treatment for possible sepsis.

44. Adviser 1 said that having carefully considered the matter, it was their view that Mr A should have been readmitted to medical HDU or to coronary care at that time. In addition, Adviser 1 said that Mr A should have had a review of his antibiotics on 7 October 2016 during his second deterioration, as he had already been on his antibiotic regime for three days and would have probably needed different antibiotics and a review of any microbiology results.

(a) Decision

45. The complaint I have considered is that the Board did not provide reasonable treatment to Mr A during his admission to hospital between 27 September and 8 October 2016.

46. The advice I have received is that there were a number of serious failings by the Board in relation to Mr A's treatment, which were that the Board failed to:

(i) adequately monitor his blood glucose and respond to both hypo- and hyper-glycaemia;
(ii) manage Mr A's diabetes and insulin administration in line with the Board's protocol;
(iii) recognise and respond in a timely manner to his deterioration on 4 October 2016; and
(iv) recognise the possibility of heart problems in medical HDU on 5 October 2016.

47. The advice also highlighted other failings.
(i) When Mr A was transferred to medical HDU overnight on 4 October 2016, he was not seen until 09:50 on 5 October 2016. This was an unreasonable delay given the severity of his illness and the complexities of managing DKA in a patient with known cardiac problems (aortic stenosis – tightening of one of the valves in the heart and impairment of the heart as a muscle). This would have made providing the large quantities of fluid as part of DKA management potentially difficult.
(ii) Mr A was transferred out of medical HDU on 6 October 2016, despite signs that he was starting to deteriorate. There was then a delay in reviewing him when he was transferred back to the surgical ward in the late afternoon of 6 October 2016. Adviser 1 considered that Mr A should have subsequently been readmitted to medical HDU or to coronary care.
(iii) Mr A should have had a review of his antibiotics on 7 October 2016 during his second deterioration, as he had already been on his antibiotic regime for three days and would have probably needed different antibiotics and review of any microbiology results.
(iv) There was a failure to measure/chart his respiratory rate when he was deteriorating.

48. I have considered the advice I received carefully. I accept the advice and that there were significant failings in the treatment Mr A received. I am deeply concerned at the failings identified. I am also extremely concerned that the Board's own investigation did not identify such serious omissions in care. In April 2017, since these events, a new two stage model Complaints Handling Procedure was introduced for all Health Boards in Scotland. The second stage being a thorough investigation. Given this, my expectation is that in future, failings such as these (and good practice) will be identified by the Board under this two stage process, leading to learning and change.

49. I appreciate that this will make very difficult reading for Mrs B who has already had to go through the challenges and trauma of the experience once.

50. I uphold this complaint. I have made a number of recommendations to address the significant failings and to ensure there is wider learning and improvement. I hope that this will provide some reassurance to Mrs B.

(b) The Board did not provide reasonable care to Mr A during his admission to hospital between 27 September and 8 October 2016

Concerns raised by Mrs C

51. Mrs C complained that nursing staff did not respond reasonably to alerts from another patient's visitors about Mr A's condition on 4 October 2016. She also raised concerns that nursing staff did not reasonably record the actions they took in relation to this in Mr A's medical notes.

52. In Mrs B's complaint to the Board, she said that she and her mother had gone to visit Mr A at 18:00 on 4 October 2016. Two people who had been visiting another patient told her that they had been concerned about his condition about an hour previously and had alerted a nurse. They told her that the nurse had remarked that he was not their patient and had not attended to him. They said that they had left him in excruciating pain, sweating, moaning and disillusioned.

53. Mrs B said that it was clear to her that Mr A was hyperglycaemic and that they alerted nurses. Later that evening, once Mr A had stabilised, Mrs B raised concerns with the staff nurse. The staff nurse said that she would have a word with the nurse.

The Board's response

54. In the Board's response to Mrs B, they said that, 'nursing staff were alerted by the relatives of a patient in [Mr A's] room and asked to see him as he looked unwell, but unfortunately, the nurse did not record the time of their review'. They stated that an acting Senior Charge Nurse had been asked to investigate this, but despite speaking to all staff known to be on shift at the time, they could not identify an individual member of staff. The Board said that the Senior Charge Nurse was sorry that Mr A did not appear to have received a reasonable level of consideration or care on this occasion. They said that she had added this to the ward daily safety brief discussions to ensure that all staff were aware of their responsibility of care.

55. In the Board's response to our enquiries, they told us that there was documentary evidence that Mr A was reviewed by a doctor at around 18:00 on 4 October 2016 in response to an alert from nursing staff and that he was given additional insulin at 18:10 in response to the deterioration in his condition following the medical review.

56. The Board also told us that the nursing documentation on 4 October 2016 does not provide the required level of detail expected in relation to the actions taken by the nursing staff on duty at that time. They said that they would apologise that this was the case. They added that the Senior Charge Nurse for the ward was working with staff to ensure accurate documentation was recorded to document care and to ensure that deterioration in any patient's condition was dealt with in an appropriate manner, ensuring both the patient and their family are kept informed of progress.

57. In their response to us, the Board said that as a direct action of the complaint, nursing staff in Ward 8 had undertaken a supervised improvement programme, but this detail had not been available at the time of the response to Mrs B. They added that ward daily brief discussions also ensure that all staff are aware of their responsibility of care. They had been unable to identify the nurse responsible at the time of their response, but they were not satisfied with this and had continued to pursue this. They told us that the nurse had been subsequently identified and that all appropriate actions were taken to support Nurse 1's learning.

Nursing advice

58. My complaints reviewer asked Adviser 3 if they considered whether the actions of Nurse 1 on 4 October 2016 were unreasonable. Adviser 3 said in their view the actions of Nurse 1 had been unacceptable and unreasonable. My complaints reviewer also asked Adviser 3 if they considered whether the action taken by the Board in response to this aspect of the complaint had been reasonable. Adviser 3 said that the Board appeared to have taken the complaint seriously and had made further attempts to find the nurse responsible. Adviser 3 stated that, in summary, they considered the actions taken by the Board to be reasonable (even though those by the nurse were not). They commented that they issued an apology and acknowledgement and that the Senior Charge Nurse had spoken to all staff at a safety brief.

59. Adviser 3 also commented that whilst the Board told us that they were initially unable to identify the nurse responsible, they continued to pursue this and subsequently identified the nurse. Being able to identify the staff member and find any evidence to substantiate this can be difficult as it would involve interviewing and asking every staff member to complete a statement or be interviewed as close to the time of the incident as possible. They said that if this is not done in a timely way, staff can be difficult to track as they may be temporary staff, students or staff who have moved away or to another ward or department.

60. Adviser 3 stated that the actions of the nurse had been unreasonable, but she considered that this was an example of a shortcoming in care by one member of staff rather than a systemic failing. She stated that she considered the Board's response to us on this aspect of Mrs C's complaint had been reasonable.

(b) Decision

61. The specific issues Mrs C has complained about in relation to this aspect of the complaint are that nursing staff did not respond reasonably to alerts from another patient's visitors about Mr A's condition, and that nursing staff did not reasonably record the actions they took on 4 October 2016 in Mr A's medical notes.

62. I appreciate it must have been extremely distressing for the family to have been told about the actions of Nurse 1 when Mr A's condition deteriorated on 4 October 2016. The advice I have received is that their actions had been unacceptable and unreasonable. The nursing documentation in relation to the matter was also inadequate. I have, therefore, upheld this aspect of Mrs C's complaint and have recommended that the Board issue a further apology to Mrs B in relation to this matter.

(c) The Board did not respond reasonably to Mrs B's complaints

Concerns raised by Mrs C

63. Mrs C complained that the Board:

(i) did not advise of any reasonable action having been taken to address nursing staff failures in the recording of the actions they took on 4 October 2016 in Mr A's medical notes;

(ii) unreasonably failed to determine the identity of the nurse about whom Mrs B complained;

(iii) unreasonably stated that Mr A's heart attack could have caused him to develop ketoacidosis; and

(iv) inaccurately stated that Mr A had developed a chest infection.

64. I have, therefore, focussed on these four issues in the consideration of this aspect of Mrs C's complaint. We have also considered whether the Board's overall response to Mrs B was reasonable.

(i) The Board did not advise of any reasonable action having been taken to address nursing staff failures in the recording of the actions they took on 4 October 2016 in Mr A's medical notes

65. I have set out above, the Board's response to our enquiries. They acknowledged that the nursing documentation on 4 October 2016 did not provide the required level of detail expected in relation to the actions taken by nursing staff on duty during the period identified by Mr A's family. I have recommended below that the Board apologise for this. The Board also stated that as a direct result of the complaint, the nursing staff in Ward 8 had undertaken a supervised improvement programme.

66. I consider that the Board should have acknowledged that the nursing documentation was inadequate when they investigated Mrs B's complaint about the actions of nursing staff and should have informed her of the action they would take in relation to this.

(ii) The Board unreasonably failed to determine the identity of the nurse about whom Mrs B complained

67. The Board have now identified the nurse about whom Mrs B complained. The advice I have received, and accept, is that being able to identify the staff member and find any evidence to substantiate this can be difficult. However, I consider that, ideally, the Board should have done this before they responded to Mrs B.

(iii) The Board unreasonably stated that Mr A's heart attack could have caused him to develop ketoacidosis

68. In the Board's letter to Mrs C dated 4 November 2016, they said that a heart attack itself can cause DKA. They stated that it was, therefore, possible that the heart attack occurred first and consequently caused the DKA. Adviser 1 said that Mr A's deterioration on 4 October 2016 with DKA may have put his heart under strain and this appears not to have been recognised at the time, which was unreasonable. However, they also commented that they agreed with the Board that a heart attack may have caused his further deterioration and DKA on

4 October 2016, not have come about as a result of it. They stated that both could be possible.

69. I accept this advice. I do not consider that it was unreasonable for the Board to state that it was possible that the heart attack occurred first and consequently caused the DKA.

(iv) The Board inaccurately stated that Mr A had developed a chest infection

70. The Board's response to Mrs B said that a combination of Mr A's underlying medical conditions created what would appear to have been a chest infection. Mrs C said that Mrs B had advised that her father showed no signs of a chest infection prior to or immediately after the operation. Mrs C said that the Board's response said that he had developed a serious chest infection, which caused the pulmonary oedema. When we discussed the complaint with Mrs C, she said that the Board's response inaccurately stated that Mr A had developed a chest infection.

71. Adviser 1 commented that infections are common complications post-operatively and that there may have been a delay of a few hours in recognising and responding to the chest infection. They commented that better control of Mr A's blood glucose levels might, in theory, have reduced his risk of a post-operative chest infection somewhat, but in every other regard the Board seem to have acted appropriately to prevent a chest infection. In view of this, I do not consider the Board were unreasonable in stating that Mr A had developed what appeared to have been a chest infection.

(c) Decision

72. The Board should have noted that the nursing documentation was inadequate when they investigated Mrs B's complaint about the actions of nursing staff and should have advised her of the action they would take in relation to this. Ideally, they should have determined the identity of the nurse about whom Mrs B complained before they responded to Mrs B. At the very least they should have told her they were continuing to try to identify the nurse.

73. What causes me greater concern is that the Board failed to identify the serious failings I have referred to in complaint (a) in their investigation. I consider that this was both unreasonable and calls into question the adequacy of the Boards complaints handling at the time.

74. I uphold Mrs C's complaint that the Board did not respond reasonably to Mrs B's complaints. I have made a recommendation in relation to this below.

75. I am pleased to note that the Board have accepted the recommendations and will act on them accordingly. The Board are asked to inform my office of the steps that have been taken to implement these recommendations by the date(s) specified. I expect evidence (including supporting documentation) that appropriate action has been taken before I can confirm that the recommendations have been implemented to my satisfaction.

Recommendations

Learning from complaints

The Ombudsman expects all organisations to learn from complaints and the findings from this report should be shared throughout the organisation. The learning should be shared with those responsible for the operational delivery of the service as well as the relevant internal and external decision-makers who make up the governance arrangements for the organisation, for example elected members, audit or quality assurance committee or clinical governance team.

What we are asking the Board to do for Mrs B:

Complaint number	What we found	What the organisation should do	Evidence SPSO needs to check that this has happened and the deadline
(a) and (b)	The Board did not provide Mr A with reasonable treatment. The nursing documentation in relation to the actions of the nurse when Mr A's condition deteriorated on 4 October 2016 was inadequate	Apologise to Mrs B for failing to provide Mr A with reasonable treatment and for the inadequate nursing documentation. The apology should meet the standards set out in the SPSO guidelines on apology available at https://www.spso.org.uk/leaflets-and-guidance	A copy or record of the apology. By: 25 May 2018

We are asking the Board to improve the way they do things:

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(a)	The Board failed to adequately monitor Mr A's blood glucose and respond to both hypo- and hyper-glycaemia	The Board should reflect on the findings in this report and ensure patients with erratic blood glucose have their capillary blood glucose checked and recorded regularly and at a frequency appropriate to their specific circumstances and condition	Evidence that relevant staff have been informed of this and that consideration has been given to any training requirements to support staff in carrying out these checks. By: 25 July 2018
(a)	The Board failed to manage Mr A's diabetes and insulin administration	Nursing and medical/surgical staff should be competent, appropriately skilled, and able to access guidance, support and training in relation to diabetes management in hospital, including recognising diabetic emergencies and advice on who they can contact if they have concerns, including at the weekend	Evidence that staff have the appropriate level of skill and access to guidance, support and training. By: 25 July 2018
(a)	There was a delay in reviewing Mr A when he	Admissions to the medical HDU should	Evidence this matter has been considered and a

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
	was transferred to the medical HDU	be seen on arrival by medical staff	decision taken to act (or not), that includes reasons for the decision. By: 25 June 2018
(a)	Staff failed to recognise the possibility that Mr A had heart problems in medical HDU on 5 October 2016	Medical High Dependency Unit should ensure that electrocardiograms are routinely and appropriately reviewed for patients who have deteriorated or been admitted overnight	Evidence that this matter has been considered and, where appropriate, action has been taken and any changes disseminated. By: 25 June 2018
(a)	Mr A was transferred out of the medical HDU on 6 October 2016, despite signs that he was starting to deteriorate	Patients who are deteriorating should not be discharged from the medical HDU without a clear plan	Evidence that this matter has been fed back to staff in a supportive way that encourages learning. By: 25 June 2018

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(a)	There was a delay in recognising and starting treatment for possible sepsis	Nursing and medical/surgical staff should be competent, appropriately skilled, and able to access guidance, support and training in relation to the consideration of sepsis and on reviewing antibiotics previously prescribed	Evidence that staff have the appropriate level of skill and access to guidance, support and training. By: 25 July 2018
(a)	There was a delay in reviewing Mr A when he was transferred back to the surgical ward in the late afternoon of 6 October 2016	Patients who have been transferred out of a HDU environment to a general ward should be reviewed on arrival in the ward or as close to that time as possible	Evidence that this matter has been considered and a decision taken to act (or not), that includes reasons for the decision. By: 25 June 2018
(a)	There was a failure to measure/chart Mr A's respiratory rate	Nursing and medical/surgical staff should be competent, appropriately skilled, and able to access guidance, support and training in relation to early warning scores with regard to the importance of respiratory rate	Evidence that staff have the appropriate level of skill and access to guidance, support and training. By: 25 July 2018

Complaint number	What we found	What should change	Evidence SPSO needs to check that this has happened and deadline
(c)	The Board's investigation into Mrs B's complaint failed to identify a large number of the failings we have referred to in this report	The Board should reflect on the findings in this report and ensure that complaints are investigated appropriately	Evidence that relevant staff have been informed of this and that consideration has been given to any training requirements to support staff in investigating complaints. By: 25 July 2018

Terms used in the report Annex 1

acidosis	a process causing increased acidity in the blood and other body tissues
Adviser 1	a consultant in acute medicine who provided advice on the treatment provided to Mr A
Adviser 2	a diabetes specialist nurse who provided nursing advice on the treatment provided to Mr A
Adviser 3	a general nursing adviser who provided nursing advice on the treatment provided to Mr A
antibiotics	drugs to treat bacterial infection
antiplatelet medicines	medicine used to prevent any clots in the heart arteries
aortic stenosis	a tightening of one of the valves in the heart and impairment of the heart as a muscle
Consultant 1	A consultant vascular surgeon who managed Mr A's care at Hairmyres Hospital
Consultant 2	A consultant in diabetes medicine
diabetes	where blood glucose, or blood sugar, levels are too high

diabetic ketoacidosis (DKA)	a serious problem that can occur in people with diabetes if their body starts to run out of insulin. This causes harmful substances called ketones to build up in the body, which can be life-threatening if not spotted and treated quickly
HDU	High Dependency Unit
hyperglycaemia	when people with diabetes have too much sugar in their bloodstream
hypoglycaemic	low blood sugars
intravenously	directly into a vein
ketones	compounds remaining when the body burns its own fat
mmol/L	millimoles per litre - the amount of glucose in the blood measured in millimoles per litre
Mr A	the late father of Mrs B and the subject of this complaint
Mrs B	the client of Mrs C and daughter of the late Mr A
Mrs C	the complainant
National Early Warning Score	a set of patient observations to assist in the early detection and treatment of serious cases and support staff in making clinical assessments
novorapid	a rapid-acting insulin

Nurse 1	the nurse who failed to attend Mr A
pulmonary oedema	a condition caused by excess fluid in the lungs. This fluid collects in the numerous air sacs in the lungs, making it difficult to breathe
respiratory rate	number of breaths recorded per minute
sepsis	blood infection
sinus tachycardia	a condition that causes an abnormally high resting heart rate
the Board	Lanarkshire NHS Board
the Hospital	Hairmyres Hospital
troponin	proteins in the blood that can show if a patient has had a heart attack

List of legislation and policies considered Annex 2

Lanarkshire NHS Board protocols on managing diabetes and diabetic ketoacidosis