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 201305802: Lanarkshire NHS Board

Summary of Investigation

Category

Health: Hospitals; clinical treatment; diagnosis

Overview

The complainant (Mrs C) raised concerns about delays by NHS Lanarkshire (the Board) in diagnosing her father (Mr A)'s bowel cancer. Mr A was seen by a respiratory consultant (the Consultant) at an out-patient clinic at Monklands Hospital (the Hospital) on 24 July 2013 following a referral from his GP. Mr A had been suffering from breathlessness for a number of months and had been treated for a lower respiratory tract infection. The Consultant's diagnosis was that Mr A was suffering from mild asthma brought on by the lower respiratory tract infection and blood was taken for routine tests.

Tests of the blood taken by the Consultant showed that Mr A had a low level of haemoglobin (a protein found in red blood cells which carries oxygen around the body). The laboratory noted that there were features of iron deficiency and that blood loss should be excluded as a possible cause. The laboratory did not highlight the low haemoglobin level by telephone and the Consultant did not identify or act upon this abnormality when reviewing Mr A's results.

Due to his continuing symptoms, Mr A had further blood tests carried out by his GP on 9 September 2013 and was admitted to the Hospital the following day where he required a blood transfusion. He was subsequently diagnosed with colon (bowel/large intestine) cancer and liver metastases (the spread of cancer).

Specific complaints and conclusions

The complaints which have been investigated are that the Board failed to:

(a) take appropriate action when Mr A's blood result showed an abnormally low haemoglobin level (*upheld*); and

(b) ensure that Mr A received timely follow up treatment when the abnormally low haemoglobin level was discovered (*upheld*).

Redress and recommendations

The Ombudsman recommends that the Board:	*Completion date*
(i) confirm the outcome of their review of this incident and advise what steps have been taken to prevent recurrence in future;	16 January 2015
(ii) review their governance arrangements for identifying systems errors like this in future;	30 January 2015
(iii) apologise for the failure to implement the Telephoning of Results Protocol;	16 January 2015
(iv) apologise for the delay in Mr A's diagnosis;	16 January 2015
(v) confirm that this matter will be, or has been, discussed at the Consultant's annual appraisal;	16 January 2015
(vi) conduct a Board level review of the tracking of test results in both paper and electronic formats; and the role of individuals who order tests and report their results; and	19 February 2015
(vii) make the outcome of any recommendations arising from the Board level review available to us, Mr A and his family.	26 February 2015

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

Main Investigation Report

Introduction

1. The complainant (Mrs C) has raised concerns about the delays by NHS Lanarkshire (the Board) in diagnosing her father (Mr A)'s colon (bowel/large intestine) cancer. Mr A was seen by a respiratory consultant (the Consultant) at an out-patient clinic on 24 July 2013 following a referral from his GP. Mr A had been suffering from breathlessness since January/February 2013 and had received treatment for a lower respiratory tract infection. His symptoms included a cough and breathlessness, mainly when he exerted himself. The Consultant's impression was that Mr A was suffering from mild asthma brought on by the lower respiratory tract infection. He took blood for routine tests and wrote to Mr A's GP detailing a plan for treatment. A follow-up appointment was arranged for 27 January 2014.

2. The results of Mr A's blood tests were formally reported on 25 July 2013 and the report showed that he had an abnormally low level of haemoglobin (a protein found in red blood cells which carries oxygen around the body). The laboratory noted that there were features of iron deficiency and that blood loss was to be excluded as a cause for this. It was also recommended that his levels of ferritin (a protein that stores iron) were checked and replacement therapy be commenced. The laboratory did not contact the Consultant by telephone to highlight the abnormally low haemoglobin level. This was not identified or acted upon by the Consultant when reviewing a paper copy of Mr A's reported results which he initialled on an unknown date. No further action was taken by the Consultant in relation to Mr A.

3. Further blood tests were carried out by Mr A's GP and he was admitted to Monklands Hospital (the Hospital) on 10 September 2013 where he required a blood transfusion. Further tests found that Mr A had a five centimetre mass in the colon and multiple abnormal areas in the liver with some suspected to be metastatic disease (the spread of cancer). Mr A was subsequently diagnosed with colon cancer with liver metastases.

4. Mrs C wrote to the Consultant on 12 September 2013 to offer the opportunity to investigate why Mr A's blood result was not acted upon in July 2013. She advised that Mr A was awaiting an endoscopy and had received a blood transfusion following admission to hospital two days earlier.

5. The Consultant responded on 26 September 2013 and apologised for the error. He stated that the blood tests were routine and that he had not chased the results as he did not expect them to be abnormal. He went on to advise that he was happy that Mr A was well and had come to no harm as a result of the error.

6. Mrs C made a formal written complaint to the Board dated 7 December 2013 which they received on 19 December 2013. The letter was acknowledged by the Board on 20 December 2013 and a consent form issued to Mr A to authorise Mrs C to deal with the complaint on his behalf. The Board acknowledged receipt of Mr A's signed consent on 3 January 2014 and commenced their investigation thereafter.

7. In their response to Mrs C's formal complaint on 6 February 2014, the Board advised that the Consultant did not expect the blood result to be abnormal and so had not personally chased the results of the tests. They also informed Mrs C that blood work could often take two to four weeks to return and that review of non-urgent test results would be dependent on the Consultant's availability to assess them. The Board acknowledged that there had been a failure to identify or action Mr A's low haemoglobin level and apologised for this. They proposed that the result was likely to have been missed by the Consultant in mid to late August 2013 with Mr A being admitted to the Hospital on 10 September 2013 for further investigations. The Board confirmed that the delay of three to four weeks had not affected Mr A's treatment plan. In addition, they apologised if the Consultant's response of 26 September 2013 had appeared insensitive, explaining that there was no formal diagnosis of bowel cancer at that time and that the Consultant was unaware of Mr A's condition.

8. The complaints from Mrs C which I have investigated are that the Board failed to:

(a) take appropriate action when Mr A's blood result showed an abnormally low haemoglobin level; and

(b) ensure that Mr A received timely follow up treatment when the abnormally low haemoglobin level was discovered.

Investigation

9. Investigation of the complaint involved reviewing the information received from Mrs C, the Board's medical records for Mr A and the relevant policies/procedures. My complaints reviewer also made further enquiries with

the Board and obtained independent advice from a medical adviser who is a consultant physician.

10. 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 failed to take appropriate action when Mr A's blood result showed an abnormally low haemoglobin level

11. Mr A was seen by the Consultant on 24 July 2013 when he was suffering from breathlessness, mainly on exertion in addition to a cough. The Consultant took blood for routine testing.

12. The laboratory at the Hospital received the blood specimen on 24 July 2013 and formally reported the results on 25 July 2013. Mr A's haemoglobin level was substantially below the normal range and should have been reported in line with the Board's Telephoning of Results Protocol. The Board confirmed on 20 May 2014 that although a note was made to notify the Consultant by telephone, the laboratory staff did not follow the protocol and no call was made to the Consultant's office. Instead a paper report of the results, including the haemoglobin level, was sent to the Consultant on or around 25 July 2013.

Advice Received

13. The Adviser said that Board's Telephoning of Results Protocol states that abnormal results which have been confirmed, validated and deemed to be sufficiently abnormal will be telephoned to the referring source. The Adviser considered that Mr A's blood test result was sufficiently abnormal for the protocol to have applied.

14. The Adviser said that the Board's alert limit (the level below which the protocol should be applied) for haemoglobin was given as seven grams per litre whereas Mr A's result was just 6.4 grams per litre. The normal range is noted to be 13.5 to 18.0 grams per litre.

(a) Conclusion

15. The advice that I have received is that the Board's Telephoning of Results Protocol should have applied in this case. No reference was made to this protocol in the final response to Mrs C's complaints and it was necessary for my

complaints reviewer to make further enquiries with the Board during the investigation to determine whether it had been followed.

16. The Board confirmed on 20 May 2014 that the protocol had not been followed and that this incident was being reviewed to prevent a recurrence of such an error in future.

17. Had the protocol been correctly applied, Mr A's abnormal haemoglobin result would have been drawn to the Consultant's attention immediately after it was reported on 25 July 2013. I am also concerned that this failure was not picked up by the Board during their investigation of Mrs C's complaint. I would expect a failing of this significance to have been identified.

18. Implementation of this protocol could have avoided the subsequent errors which arose in this case, resulting in Mr A receiving treatment for his symptoms at an earlier stage and receiving an earlier diagnosis of his condition. In light of this failing, I uphold this complaint.

(a) Recommendations

19. I recommend that the Board:	*Completion date*
(i) confirm the outcome of their review of this incident and advise what steps have been taken to prevent recurrence in future;	16 January 2015
(ii) review their governance arrangements for identifying systems errors like this in future; and	30 January 2015
(iii) apologise to Mrs C and Mr A for the failure to implement the Telephoning of Results Protocol.	16 January 2015

(b) The Board failed to ensure that Mr A received timely follow up treatment when the abnormally low haemoglobin level was discovered

20. The Board were asked to provide details of the process for checking blood test results. They advised that all results within Respiratory Medicine are handled in a similar way by four consultants but that this is a well-established practise rather than a formal written policy.

21. The Hospital still operates a paper based system for the review and sign-off of all blood test results. They advise that it is planned to move to a fully electronic process (Order-Comms) although there are a number of logistical issues that require to be resolved first.

22. At present, the result is returned from the laboratory on a paper slip. The consultant's secretary requests the case notes and when these have been received, both the result and the case notes are placed on the consultant's desk for action.

23. The Board advised my complaints reviewer that this is not the process followed for urgent tests where pathology results and telephone calls to the secretary are passed to the consultant without case notes for urgent attention.

24. The Board advised that there is also electronic access using a system known as Labs-TrakCare which allows registered users to look up results for specific patients. The Board do not consider this to be user friendly and informed my complaints reviewer that it is not possible to send results to the requesting clinician for review using this system.

25. The Board also stated that it would not be feasible for consultants to review large volumes of routine clinic blood tests results on Labs-TrakCare as well as reviewing and signing off paper copies at a later date.

26. In relation to the availability of the results on the Labs-TrakCare system, the Board advised that results for Mr A were released at 17:16 on 24 July 2013 and was available to view on Labs-TrakCare at 17:21. Results of blood film tests (blood smeared on a slide and stained to examine cells) were added at 09:12 on 25 July 2013 and were immediately accessible through Labs-TrakCare. A paper copy was printed at 09:30 on 25 July 2013 and sent to the Consultant's office through the internal mail system. The Board have been unable to confirm when the paper result was received by the Consultant.

27. The Board have no record of the electronic result being accessed prior to Mr A's admission to the Hospital on 10 September 2013.

28. Following an internal review of this complaint in February 2014, the Board identified a number of areas for action. The General Manager at the Hospital was to follow up the attitude displayed by the Consultant, who would also be asked to ensure that this case was included for discussion at his annual appraisal. The senior site team at the Hospital were to address the apparent lack of a system to follow-up non-urgent test results.

Advice received

29. My complaints reviewer asked the Adviser whether the two to four week timeframe that the Board referred to in their response to this complaint was reasonable. The Adviser said that laboratories that perform blood tests usually generate a paper copy immediately when the blood sample is analysed. Thereafter, it is placed in an envelope and addressed to the relevant clinician or GP before posting. He stated that this is not a process that should take two to four weeks.

30. The Adviser said that as well as the paper copy, the blood test results would have been available after they were uploaded to the Hospital's electronic system. He noted that many blood tests are taken for patients who are in hospital and that these are reviewed for action on a daily basis through such electronic systems. The Adviser did not consider that the process should be significantly slower for patients like Mr A who are attending out-patient clinics.

31. The Adviser believed that a delay of a week would be reasonable to allow for clinicians being able to review paper based blood test results but that any longer than this, such as the two to four weeks described by the Board, would be unreasonable.

32. In relation to the Consultant's explanation that he did not expect an abnormality and so did not chase up the results of Mr A's blood tests, the Adviser did not consider this to be a reasonable approach. He advised that all blood results or other investigations have the potential to be abnormal and need to be reviewed.

33. The Adviser said that blood test results should be readily available and promptly reviewed by the requesting clinician. He then said that results should not be left 'lost' in the system as occurred in this case. The Adviser noted that a follow up appointment had been arranged for 27 January 2014. He advised that had this follow up been scheduled for a short time later, such as two weeks, it would have been reasonable for the Consultant not to review the result of Mr A's blood tests in advance of the appointment. In the circumstances, the Adviser considered that waiting until the next clinic appointment in January 2014 would have been an unacceptable length of time for an abnormal result to be noted and acted on.

34. The Adviser made reference to the General Medical Council (GMC) guidance 'Good Medical Practice' which states:

> 'You must provide a good standard of practice and care. If you assess, diagnose or treat patients, you must: promptly provide or arrange suitable advice, investigations or treatment where necessary.'

35. The Adviser did not consider that the Board provided this level of care to Mr A and said that his care in this regard fell well below the standard he could reasonably expect.

36. The Adviser did not find the Board's process for tracking results of this type to be robust and advised that without this reassurance, there is no certainty that such an error will not occur again. The Adviser also noted that the Consultant had advised that his ability to check results such as Mr A's is dependent on his availability. In the Adviser's view, this describes an ad-hoc rather than systematic approach to this type of work. The Adviser said that consultants need specific time in their jobs dedicated to checking results and that this was too important a matter to be dependent on availability.

37. The Adviser said that there was no clinical reason why Mr A's haemoglobin result would not require immediate action and noted that the Consultant had initialled the result in the space between the numerical result and the text comment about the result being abnormal. As such, the Adviser considered it difficult to see how Mr A's result would not have been noticed, unless the inspection was very superficial.

38. The Adviser said that this is a common blood test and a common abnormality. He explained that the actions needed for a low haemoglobin level are taught at undergraduate level. The Adviser would have expected a clinician reviewing this result to notice the abnormality; organise further blood tests and investigations; and communicate this information to Mr A as soon as they were aware of the result. The Adviser noted that the Consultant had apologised for this lack of action in his letter to Mrs C and stated that the result was most likely missed by him.

39. The Adviser referred to the GMC guidance 'Good Medical Practice' which states:

> 'You must be open and honest with patients if things go wrong. If a patient under you are has suffered harm or distress, you should:

a) put matters right (if that is possible);
b) offer an apology;
c) explain fully and promptly what has happened and the likely short-term and long-term effects.'

40. The Adviser noted that whilst the letter from the Consultant dated 26 September 2014 had clearly apologised for the error it had not detailed what would be done to put matters right, for example steps to ensure the error did not recur and had also not addressed the likely effects of the error. The Adviser went on to say that both the Consultant and the Board should have made more reference to the eventual diagnosis and the adverse effect of the delay in this diagnosis for Mr A and his family.

41. The Adviser was asked by my complaints reviewer to comment on whether the symptoms that the Consultant noted at the clinic were likely to have been connected to the subsequent cancer diagnosis. The Adviser said that the symptoms of breathlessness that Mr A suffered were, in retrospect, likely to have been related to his very low haemoglobin level which is also called Iron Deficiency Anaemia (IDA). Haemoglobin is present in red blood cells and helps to carry oxygen to the tissues in the body and low levels cause breathlessness and fatigue. The Adviser noted that Mr A had been referred to the Consultant by his GP with symptoms of breathlessness since February 2013.

42. The Adviser was asked whether Mr A's low haemoglobin level along with his other symptoms should have pointed the Consultant towards a diagnosis other than mild asthma. The Adviser said that there is no direct link between asthma and a low haemoglobin level such as Mr A's. The Adviser considered that the result should have alerted his clinicians to consider alternative diagnosis and advised that the commonest cause of a low haemoglobin level of this type is blood loss from the stomach or bowel. He explained that the most serious cause of this type of blood loss is cancer of the colon or stomach.

43. The Adviser went on to say that Mr A's clinicians should have acted on the low haemoglobin result and considered an alternative diagnosis as soon as they received it. He said that there was a high probability that this abnormal result had a serious cause and that one cause for an abnormal result such as this is the colon cancer that Mr A was subsequently diagnosed with.

44. The Scottish Intercollegiate Guidelines Network (SIGN) develop evidence based clinical practice guidelines for the National Health Service in Scotland. The Adviser reviewed the SIGN guidelines for Colorectal (Bowel) Cancer which states that unexplained IDA increases the probability of a diagnosis of colorectal cancer and that all patients with unexplained IDA should be referred for endoscopic investigation of upper and lower gastrointestinal tracts.

45. In addition, the Adviser said that the SIGN guidelines state that unexplained IDA, such as the low haemoglobin level discovered in Mr A, is a high risk feature of lower gastrointestinal tract (colon/bowel) cancer. The guideline makes a specific recommendation that this should prompt referral for specialist investigation.

46. The Adviser said that this is what Mr A's GP did when the abnormal result of 9 September 2013 was identified, resulting in Mr A's referral to hospital the following day. He advised that the Consultant should have taken similar action and there is no reasonable explanation of why this did not occur. The Adviser expects that a reasonable clinician would have noted the result within a week of the clinic date; communicated the result to the patient and their GP; organised further tests; and referred Mr A to other specialists. The Consultant did not carry out these actions and the Adviser considered that overall, the standard of Mr A's care fell below a level he could reasonably expect.

47. The Adviser said that Mr A had symptoms of breathlessness and that a low haemoglobin level is one of the commonest causes of this. While in retrospect, the Adviser considered it was relatively easy to see that Mr A's symptoms of breathlessness were due to low haemoglobin caused by his cancer. The Adviser said that given the level of disease at the time of diagnosis it is unlikely that this would have been altered by diagnosis one to two months earlier.

48. Nonetheless, even if the chance of curative treatment would not have been significantly improved by an earlier diagnosis, the Adviser considered that this would have given Mr A more time knowing he was ill and earlier treatment to reduce his breathlessness which would have improved his quality of life. He also advised that an earlier diagnosis would have allowed Mr A and his family longer to adjust and plan any issues accordingly.

49. Overall, the Adviser considered that the main faults identified in this case relate to systems errors of results availability and the highlighting of abnormal results to clinicians. He advised that the responsibility for this lies at Board level and that this case should not be seen solely as an error by an individual.

(b) Conclusion

50. The Board stated in their response to Mrs C's complaint that it can take two to four weeks for blood work to return with a result. The advice I have received is that this timeframe is unreasonable and a week should provide sufficient time for blood results to be assessed.

51. The evidence that has been provided by the Board for this case shows that the result was available to view on the Labs-TrakCare system on 24 July 2013 before being formally reported the following day. To advise Mrs C in the response to her complaint that it could take two to four weeks to return with a result was misleading as the results were obviously available at an earlier stage. The longer timeframe in this case related to the availability of the Consultant to review the test results and this should have been clearly explained to Mrs C.

52. The advice received has also indicated that the Consultant's failure to identify the abnormality in Mr A's blood result was unreasonable and that the care he provided fell below the standard that Mr A could reasonably expect to receive in terms of the GMC and SIGN guidance. I note the Board have accepted this and offered apologies for the Consultant's actions, or lack thereof. Their own review identified the need for the Consultant to discuss these events at his annual appraisal.

53. Despite the failings on the part of the Consultant, the advice I have received has been clear that the issues arising from this incident are not solely related to the error of an individual clinician and are indicative of system errors in the process for reporting abnormal results of routine tests. The process described by the Board is not considered to be sufficiently robust and I am particularly concerned by the Adviser's comments on the importance of consultants having adequate time within their schedules to review test results as this has clearly been an issue for the Consultant. This is a matter that requires further attention and review by the Board.

54. Mr A should have received timely follow up action after the abnormal result was detected on 24 July 2013. In the event, a combination of errors and inadequate systems resulted in a failure to provide Mr A with the treatment he immediately required or a timely diagnosis of his cancer. The Board's failure to address the low haemoglobin level was only identified in September 2013 because of further tests ordered by his GP. In view of these findings, I uphold the complaint.

(b) Recommendations

55. I recommend that the Board:	*Completion date*
(i) apologise for the delay in Mr A's diagnosis;	16 January 2015
(ii) confirm that this matter will be, or has been, discussed at the Consultant's annual appraisal;	16 January 2015
(iii) conduct a Board level review of the tracking of test results in both paper and electronic formats, and the role of individuals who order tests and report their results; and	19 February 2015
(iv) make the outcome of any recommendations arising from the review available to us, Mr A and his family.	26 February 2015

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

Annex 1

Explanation of abbreviations used

Mrs C	the complainant
the Board	Lanarkshire NHS Board
Mr A	the aggrieved
the Consultant	a respiratory medicine consultant
the Hospital	Monklands Hospital
GP	General Practitioner
GMC	General Medical Council
IDA	Iron Deficiency Anaemia
SIGN	Scottish Intercollegiate Guidelines Network

Annex 2

Glossary of terms

colon or colorectal cancer	bowel cancer
endoscopy	a medical procedure where a tube-like instrument is put into the body to look inside
ferritin	a protein that stores iron
General Medical Council (GMC)	the body which registers doctors, allowing them to practice in the United Kingdom. Promotes and upholds standards for the medical profession
haemoglobin	a protein found in red blood cells which carries oxygen around the body
Iron Deficiency Anaemia (IDA)	a condition where a lack of iron in the body leads to a reduction in the number of red blood cells
Labs-TrakCare	electronic system allowing doctors to view test results
lower respiratory tract infection	infections which affect the airways and lungs
metastatic disease metastases	cancer that spreads to other parts of the body
Order-Comms	electronic system allowing doctors to request tests, make referrals and review test results
Respiratory out-patients clinic	an out-patient clinic for patients with diseases of the respiratory system including the lungs

Annex 3

List of legislation and policies considered

General Medical Council, Guidance for Doctors, *Good Medical Practice*

NHS Lanarkshire Telephoning of Results Protocol

SIGN Guidelines for Colorectal (Bowel) Cancer