Scottish Parliament Region: South of Scotland

Case 200903306: Borders NHS Board

Summary of Investigation

Category

Health: Hospital; Accident and Emergency, clinical treatment; diagnosis

Overview

The complainant (Ms C), who is an advice worker, raised a number of concerns on behalf of her client (Mrs A) about the treatment which she received for a swollen leg following her attendance at Borders General Hospital (the Hospital) on 11 December 2008 and 12 December 2008. Mrs A believed that she received an inadequate examination by a doctor (the Junior Doctor) on 11 December 2008 and that her care and treatment was not managed appropriately. Mrs A's leg continued to cause her problems and she returned to her general medical practice who referred her back to the Hospital on 18 December 2008 where an ultrasound scan revealed the presence of a deep vein thrombosis.

Specific complaints and conclusions

The complaints which have been investigated are that:

(a) the Junior Doctor failed to carry out an appropriate assessment and examination of Mrs A on 11 December 2008 (*upheld*); and

(b) the management of Mrs A on 11 December 2008 and 12 December 2008 was inadequate *(upheld)*.

Redress and recommendations

The Ombudsman recommends that the Board:	*Completion date*
(i) share this report with the Junior Doctor and ensure he has a documented discussion with his current clinical supervisor on the issue, which is filed in his training logbook;	27 August 2010
(ii) review the adequacy of the clinical supervision of junior doctors in the General Medical Unit; and	30 September 2010
(iii) apologise to the family of Mrs A for the failings which have been identified in this report.	27 August 2010

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

Main Investigation Report

Introduction

1. The complainant (Ms C), who is an advice worker, raised a number of concerns on behalf of her client (Mrs A) about the treatment which she received for a swollen leg following her attendance at Borders General Hospital (the Hospital) on 11 December 2008 and 12 December 2008. Mrs A believed that she received an inadequate examination by a doctor (the Junior Doctor) on 11 December 2008 and that her care and treatment was not managed appropriately. Mrs A's leg continued to cause her problems and she returned to her general medical practice (the Practice) who referred her back to the Hospital on 18 December 2008 where an ultrasound scan revealed the presence of a deep vein thrombosis (DVT). Ms C complained to Borders NHS Board (the Board) but remained dissatisfied with their response and subsequently complained to the Ombudsman.

2. The complaints from Ms C which I have investigated are that:

(a) the Junior Doctor failed to carry out an appropriate assessment and examination of Mrs A on 11 December 2008; and

(b) the management of Mrs A on 11 December 2008 and 12 December 2008 was inadequate.

Investigation

3. In writing this report I have had access to Mrs A's clinical records and the complaints correspondence with the Board. My complaints reviewer met with Ms C, Mrs A and the Junior Doctor. I have to report that Mrs A died during the course of my investigation and my condolences go to her family. My complaints reviewer obtained advice from a professional medical adviser (the Adviser) regarding the clinical aspects of the complaint.

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

(a) The Junior Doctor failed to carry out an appropriate assessment and examination of Mrs A on 11 December 2008; and (b) the management of Mrs A on 11 December 2008 and 12 December 2008 was inadequate

Clinical background

5. Mrs A had a past medical history of a hysterectomy for carcinoma of the cervix in 1996 which was complicated by DVT. She was treated with radiotherapy for local recurrence in 2004. On 24 November 2008 Mrs A attended the Practice because of lower abdominal pain and swelling of the left ankle, which she considered to date from jarring her left leg when she jumped over a wall. A D-dimer test for DVT was negative and the clinical impression was of soft tissue injury. Mrs A returned to the Practice on 1 December 2008 as the swelling had improved with rest but relapsed after her return to work. Antibiotics were prescribed for possible cellulitis. Mrs A presented at the Practice again on 11 December 2008 as the swelling had extended to the whole leg. She was referred to the Hospital where her past history of gynaecological cancer and DVT and swelling of the left leg was recorded. The clinical diagnosis of '?DVT' was recorded and a D-dimer test was carried out, which was reported as normal and indicated the need for further investigation of suspected DVT. In view of concern about a possible DVT, Mrs A was given an injection of an anticoagulant and a Doppler ultrasound scan was arranged for the following day. Mrs A attended the Hospital on 12 December 2008 and the Doppler ultrasound scan was reported as showing no evidence of DVT. Mrs A was discharged home.

6. Mrs A returned to the Hospital on 18 December 2008 with increasing swelling of the left leg which was also very tense. A repeat Doppler ultrasound scan showed an extensive clot in the left iliac and common femoral veins. Mrs A was given anticoagulation and her case was discussed with the vascular surgery team, who advised that thromblyosis (breaking up and dissolving the blood clot) was not indicated and she was discharged home. Mrs A continued to experience swelling and pain in the leg which could only be treated with elastic stockings and elevation of the leg when possible.

Complaint

7. In her complaint to the Board and during interview with my complaints reviewer, Mrs A said that the staff at the Hospital had failed to take into account her previous medical history of DVT and cancer. She felt that had they done so then the diagnosis of DVT would have been reached at an earlier stage and her problems would not have been so serious. Mrs A said she initially attended the

Practice as her ankle was swollen and that following a negative D-dimer test and a further appointment she was referred to the Hospital. By this time her left leg was very swollen and her toes were turning purple. She could not feel much pain in the leg as her veins had been affected by her previous treatment for cancer but the leg was very difficult to move due to its weight and size. Another D-dimer test was performed at the Hospital on 11 December 2008 and she had to wait in Ward 4 for the result. However, there was a delay in receiving the result and she was given a heparin injection, as staff felt that DVT was the likely diagnosis. Mrs A said that the Junior Doctor did not examine her properly as the examination only lasted a few minutes and he did not measure or look at her leg or listen to her chest. Mrs A was sitting on a chair at the time and her trousers would have had to be removed for an accurate measurement. Mrs A said she was told by the Junior Doctor that he was 99 percent sure she had suffered a DVT. She was then told to go home and arrangements were made for a Doppler ultrasound scan on 12 December 2008. Mrs A said the scan operator told her that her veins were clear, as was the result of the D-dimer test from the previous day. She was told to give the results to staff in Ward 4, which she did, and a nurse told her to go home and continue with antibiotics. She was also told to return should she become breathless or her condition worsen. Mrs A said she continued to be in great discomfort and a further Doppler ultrasound scan carried out on 18 December 2008 revealed the presence of a massive blood clot in her groin.

8. Mrs A queried how two D-dimer tests could be reported as negative and considered that this delayed her treatment by a month. She also wanted to know why the radiotherapist did not scan the whole leg and groin at the Doppler ultrasound scan on 12 December 2008 and why the blood clot was not visible at that time. She thought that a scan of the whole leg and groin would have been important, especially in view of her medical history of radiotherapy to the pelvic region and two previous instances of DVT. Mrs A said she continued to suffer discomfort with her leg and had to sleep in a recliner chair in the lounge for over nine months, as she was unable to lie in a bed. She had, however, obtained an electric bed, which improved matters greatly for her.

9. In response to the complaint, the Board said that Mrs A was referred to the Hospital on 11 December 2008 by the Practice for possible DVT or lymphatic obstruction in the pelvis. She was seen by the Junior Doctor, who took a full history and undertook a review. He found Mrs A's left leg to be swollen – 8 centimetres greater round the thigh, 5 centimetres greater round the calf. It

was noted that the left leg felt hot but was not tender. Mrs A's heart and chest examinations were normal. The Junior Doctor discussed his findings with a consultant and, in light of Mrs A's previous history and symptoms, it was decided to carry out a Doppler ultrasound scan for the possibility of a DVT. Mrs A was given an injection of heparin as treatment for a possible DVT until the scan could be taken the following day, in line with hospital protocol. Mrs A returned for the scan which showed no evidence of DVT. She had been advised of the results and discharged with advice to return if her symptoms worsened or persisted. Mrs A then presented at the Hospital on 18 December 2008 where the consultant on call noted that her leg was markedly swollen and tense and red throughout. A repeat Doppler ultrasound scan was carried out which confirmed the presence of DVT. Mrs A was admitted to the Hospital where the case was discussed with vascular surgeons, who agreed that thrombolysis was not an option. Mrs A was treated with heparin and warfarin and was well enough to be discharged on 20 December 2008. The Board felt that all of Mrs A's assessments and investigations had been carried out in a timely manner in accordance with local and national guidelines. They continued that the medical team on 11 December 2008 acted entirely appropriately and did not feel that any other opinions were necessary. The Board were satisfied that the staff had provided a high standard of care to Mrs A and that it was unfortunate that she had continued to have ongoing problems with her leg.

10. The Junior Doctor told my complaints reviewer that he was no longer employed by the Board and that he had only recently been informed about the complaint (February 2010). He did not recall the consultation with Mrs A due to the time lapse involved and had to rely on his record-keeping to help his understanding. The Junior Doctor explained that he had noted Mrs A's relevant medical history and that his normal practice would have been to assess both limbs and compare them for size, colour and for any evidence of infection. When informed by my complaints reviewer that Mrs A had said that he had not examined her leg or chest and that she was sitting on a chair, the Junior Doctor said that the only situations in which a patient would not be examined would be: if he was planning to investigate the presenting complaint fully and that an examination would not contribute any additional details; or a fellow professional, such as a GP, had already examined the patient and there had been no change in their physical condition; or that the surroundings for an examination were inappropriate, such as there being a lack of privacy. The Junior Doctor continued that even if any of these circumstances had been the case then it

would still have been unusual for him not to have examined a patient unless they had actively refused to be examined.

11. The Junior Doctor accepted that there was a lack of detail in his record-keeping but it was possible additional information could be added if the patient attended for an out-patient appointment or had been admitted to hospital. The Junior Doctor was aware of the Hospital protocol for patients with suspected DVT and that was why he arranged for Mrs A to have a treatment-level dose of heparin and to attend for the Doppler ultrasound scan the following day. Any further treatment would depend on the result of the Doppler ultrasound scan. The Junior Doctor said that he would have telephoned the consultant to tell her what he was doing and to check it was correct as the consultant has ultimate responsibility for the patient. However, he did not feel there was a need for a consultant review at that time.

Advice

12. The Adviser explained that DVT is an important diagnosis because of the risk of the potentially fatal complication of pulmonary embolism and the risk of long-term swelling of the leg which results from the valves in the veins being damaged when the clot is dissolved by the body's defence mechanisms. The Adviser said there are a number of risk factors which are recognised to increase the risk of DVT occurrence (such as dehydration or a previous history of DVT). The presence of these increases the prior probability of DVT being present in indeterminate clinical circumstances, and the need for further investigation. The Adviser continued that DVT can be difficult to diagnose because it can be present in the absence of any symptoms or signs and the signs are non-specific. Furthermore, the available tests can be misleading in that they may be negative when DVT is in fact present, and can be positive when in fact it is not present. The D-dimer blood test lacks specificity in that it can be positive in situations other than DVT, so it is used only as a screening test to inform the need for imaging investigations and not as a diagnostic test in its own right.

13. The Adviser said that, generally, a negative D-dimer result usefully discriminates against the presence of DVT. He continued that Doppler ultrasound scanning relies on the principle that blood flow is influenced by whether or not the vein is blocked. It is most reliable between the groin and the knee and more difficult for clots in the pelvis or lower leg. A probe is used to scan over the veins in the leg and changes in flow characteristics are observed

when the vein is gently compressed by the probe. The Adviser said he would expect that the groin area would be scanned.

14. The Adviser was satisfied that there was a record in the Hospital notes of Mrs A's important and relevant past medical history and that, clearly, DVT was considered to be the most likely diagnosis and investigated appropriately. The Adviser, however, questioned what the clinical team thought the diagnosis could be if it was not DVT. The recorded measurements of Mrs A's leg indicated a very substantial degree of swelling. There was no real evidence of cellulitis. Lymphatic obstruction was a possibility and that would have needed a CT scan to resolve. He said that another possible test to rule out DVT would have been a venogram x-ray. The lack of further action or documentation of clinical thinking following the negative Doppler ultrasound scan drew some criticism from the Adviser. He also noted that the duty consultant did not review Mrs A on 11 December 2008 although the case was discussed with her by telephone. The Adviser felt that Mrs A did not benefit from a proper senior clinical review and noted that the discharge following the Doppler ultrasound scan was made by a junior grade doctor. (Note: according to the Board protocol for 'Assessment for Potential DVT', the physician on call is responsible for providing the final diagnosis following a negative Doppler ultrasound result).

15. The Adviser said that the Junior Doctor's record-keeping of the consultation with Mrs A on 11 December 2008 was brief and lacking in detail and that there was no record of her vital signs. It was recorded that the examination took place with Mrs A sitting in a chair, which would have made accurate measurement of the leg circumference difficult. The Adviser noted that measurements of Mrs A's leg were recorded in the clinical history section of the records rather than the examination section. He wondered whether they had been copied in from the measurements stated in the Practice referral letter to the Hospital, rather than on physical examination by the Junior Doctor. The Adviser continued that it was fundamental that doctors should make their own independent assessments and that account should be taken of patient discomfort but the presence of that does not mean that a physical examination should not take place. The requirements of good medical practice in providing good clinical care include information that doctors must adequately assess the patient's conditions and, in his view, the Junior Doctor fell short of that duty on this occasion.

16. Although the Adviser reported some failings in the clinical assessment by the Junior Doctor, he said that the actions taken with regard to further investigations were appropriate and he was not sure that a better assessment would have influenced the outcome. However, he could not rule out the possibility that the diagnosis of DVT could have been made on 11 December 2008 or 12 December 2008 had there been more critical thinking in this difficult situation, perhaps including a venogram x-ray (although the Board had followed national practice this is not a routine test in this situation). Had that been the case, then the long-term outcome with regard to Mrs A's persistent leg symptoms might possibly have been better. The Adviser was not critical that Mrs A was not admitted to the Hospital on 11 December 2008, as this would only be indicated if urgent investigations were required which could not be carried out on an out-patient basis or if the patient could not manage at home. It would be usual practice for patients with DVT to be treated at home with anticoagulants.

17. In summary, the Adviser felt that Mrs A presented with features consistent with DVT but reasonable investigations were negative. He said it would be fair to say this was a difficult case and that the criticisms were that alternative diagnoses were not considered when the tests showed negative, there was no proper senior review and there was a poor standard of record-keeping. The Adviser could not exclude the possibility that better care would have led to a better outcome.

18. As Mrs A had reported that the Doppler ultrasound scan on 12 December 2008 did not cover her groin area, my complaints reviewer requested the original report and this was shown to the Adviser who also asked a colleague to review it. The result was that the groin and upper thigh vessels were imaged, which confirmed that the groin area had been appropriately scanned. In addition, it appeared that the Junior Doctor had copied the Practice's measurements of Mrs A's leg verbatim in the history section of the clinical notes and that he had not confirmed this by recording his own measurements. The Adviser thought that the consultant would not have been aware of this and that, had she known, she may have examined Mrs A personally. The Adviser reviewed the Board's policy on DVT and felt it was entirely reasonable and in line with accepted practice. The clinical team's actions were consistent with the policy but it does not indicate appropriate action when DVT appears to have been ruled out and so does not trigger the

necessary clinical thinking about 'what is it then', for which he criticised the team.

(a) Conclusion

19. Mrs A had complained that the examination which took place on 11 December 2008 was inadequate, in that she was not properly assessed, and that the Junior Doctor did not carry out a thorough examination. The Junior Doctor could not recall the consultation and has explained that his usual practice would be to examine the patient's legs and compare them for size, colour and for any evidence of infection. He also said that it would have been unusual for him not to have examined Mrs A. The Junior Doctor accepted that his notes on the consultation were lacking in detail but it was likely Mrs A was suffering from a DVT and that he provided appropriate treatment, pending the outcome of the Doppler ultrasound scan the following day.

20. The advice which I have received and accept is that the treatment which the Junior Doctor provided on 11 December 2008 was appropriate but there were concerns about the record-keeping, which was lacking in detail. However, I also take the view that for some reason the Junior Doctor did not examine Mrs A's leg personally and relied on the information provided by the Practice, which would have been completed some hours previous to the Hospital attendance. This may or may not have contained accurate information about the size or condition of Mrs A's leg. For example, Mrs A said that she noticed her toes had turned purple and there is no mention of this in the notes. The fact that the recorded information appears in the wrong section of the clinical records also gives some strength to this view. As a result, I believe that the Junior Doctor had not placed himself in a position to reach a full and accurate assessment of Mrs A's condition. Therefore, the consultant would not have been aware of the true extent of Mrs A's condition. In the circumstances I uphold this aspect of the complaint.

(a) Recommendation

21. I recommend that the Board:	*Completion date*
(i) share this report with the Junior Doctor and ensure he has a documented discussion with his current clinical supervisor on this issue, which is filed in his training logbook.	27 August 2010

(b) Conclusion

22. Mrs A had concerns about the way her attendance at the Hospital was managed on 11 December 2008 and 12 December 2008. In particular, she has concerns about the results of the D-dimer tests which showed negative for signs of DVT and that the Doppler ultrasound scan did not scan her groin and as a result the diagnosis of DVT may have been missed. The Adviser has explained that the results of D-dimer tests can be inconclusive in that they can show negative results when DVT is present and positive results when there is no evidence of DVT. The D-dimer test is used for screening purposes to inform the need for further investigations and not as a diagnostic test which would show evidence of DVT. I turn now to the appropriateness of the Doppler ultrasound scan. I am satisfied that the correct area was scanned on 12 December 2008 and that there was no evidence of DVT at that time.

23. I am, however, concerned about the lack of consultant review in this case. Mrs A attended the Hospital on two occasions and was not reviewed on either occasion by a consultant. I accept that the Junior Doctor did discuss Mrs A with the consultant on 11 December 2008 but there is doubt over the accuracy of the information which was passed over. The following day, Mrs A attended for the Doppler ultrasound scan and gave the result to a ward nurse. The nurse told Mrs A, after speaking to a doctor, that the result of the Doppler ultrasound scan was negative but that she should return if the condition worsened or she became breathless. According to the clinical records, Mrs A's Doppler ultrasound scan was reviewed by another junior grade doctor and there is no indication that the result was discussed with a consultant. I note the Adviser's concerns that, although the test results were reported as negative for DVT, why did the clinicians not engage in critical clinical thinking to establish what the cause of the swelling could be if it was not DVT. I feel that although the treatment which was provided was appropriate at the time, the decisions were being made by junior doctors and, as such, they would have benefited from consultant review, which may have resulted in a better outcome. As a result I uphold this complaint.

(b) Recommendations

24. I recommend that the Board:	*Completion date*
(i) review the adequacy of the clinical supervision of junior doctors in the General Medical Unit; and	30 September 2010

(ii)	apologise to the family of Mrs A for the failings which have been identified in this report.	27 August 2010

25. 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

Ms C	The complainant
Mrs A	The aggrieved
The Hospital	Borders General Hospital
The Junior Doctor	The junior doctor who saw Mrs A on 11 December 2008
The Practice	Mrs A's general medical practice
DVT	Deep vein thrombosis
The Board	Borders NHS Board
The Adviser	The Ombudsman's professional medical adviser

Annex 2

Glossary of terms

Anticoagulants	Medication to prevent blood clots
Carcinoma of the cervix	Cancer to the entrance of the womb
Cellulitis	Infection below the skin surface
D-dimer test	Blood test
Deep vein thrombosis (DVT)	Blood clot in a vein
Doppler ultrasound scan	Diagnostic imaging technique which views blood flow in the veins
Gynaecological cancer	Cancer of the female reproductive tract
Heparin	Medication to help prevent blood clots
Hysterectomy	Surgical removal of the uterus
Left iliac	A vein
Lymphatic obstruction	Obstruction of the vessels which drain fluid from the body tissue
Pulmonary embolism	Blockage of the pulmonary artery by a blood clot
Radiotherapy	Treatment of cancer by exposure to a radioactive substance
Thrombolysis	The process of breaking up or dissolving blood clots
Venogram	Radiograph of a vein which has been injected with dye which would show any obstructions

Warfarin	Anticoagulant medication