**Scottish Parliament Region: Lothian and South of Scotland**

**Cases 201302080 & 201402758: Lothian NHS Board and Borders NHS Board**

**Summary of Investigation**

***Category***

Health: Hospital; Neurology; clinical treatment; diagnosis

***Overview***

The complainant (Mr C) complained on behalf of his wife, Mrs C. He said that although Mrs C had an operation to her spine in June 2012, it was not until February 2013 that it was discovered that the operation had been undertaken in the wrong place. Mr C said that, as a consequence, his wife suffered unnecessary pain and discomfort which impacted significantly upon her life, particularly as Mrs C was recovering from radiotherapy treatment in respect of breast cancer.

***Specific complaints and conclusions***

The complaint which has been investigated is that the care and treatment provided in connection with surgery on Mrs C's spine was unreasonable (*upheld*).

During the course of the investigation we identified a concern about a scan ordered from Borders NHS Board. We, therefore, also investigated the complaint that the care and treatment Borders NHS Board provided to Mrs C was unreasonable *(not upheld)*

***Redress and recommendations***

| The Ombudsman recommends that Lothian NHS Board: | *Completion date* |
|---|---|
| (i) ensure that the Consultant Neurosurgeon revisit her procedures for determining the level of surgery and consider doing two x-rays, one before incision and one with the wound open. Alternatively, do only one x-ray but with the wound open and the spinal elements clearly visible. | 22 September 2014 |

| The Ombudsman recommends that Borders NHS Board: | *Completion date* |
| --- | --- |
| (i) ensure that Hospital 2 review their procedures concerning the timely dispatch of radiology reports. | 22 September 2014 |

## Main Investigation Report

### Introduction

1. In November 2011, after being referred by her GP, Mrs C was seen at the Western General Hospital (Hospital 1) by a consultant neurosurgeon (the Consultant Neurosurgeon). The Consultant Neurosurgeon wrote to Mrs C's GP on 23 November 2011 referring to her long history of low back pain and saying that a Magnetic Resonance Imaging (MRI) scan that had been carried out showed 'a tight stenosis [abnormal narrowing] at L4/5' [lumbar vertebra number] and said that there was 'Grade 1 spondylolisthesis [forward displacement of a vertebra] at this level but the main problem is thickened flavum [ligaments of the spine] and degenerate facet joints [joints between vertebrae] at the back'.

2. In the circumstances, the Consultant Neurosurgeon advised that Mrs C should have an interspinous decompression (a surgical procedure to put an implant between vertebrae) with Coflex spacer (a spacer). After discussing this with her, Mrs C had agreed and her name had been added to the waiting list. In her letter, the Consultant Neurosurgeon referred to the fact that Mrs C was to start radiotherapy for breast cancer in January 2012 and that once she had established when this would end, she would try to arrange for the operation to be carried out after that. In the meantime, the Consultant Neurosurgeon said that, in order to give Mrs C some relief, she had ordered facet joint injections with local anaesthetic and steroid.

3. On 23 February 2012, Mrs C received the pain relief requested (see paragraph 1) and Mrs C's cancer treatment ended towards the end of May 2012.

4. On 22 June 2012, a Senior Registrar in Neurosurgery (the Senior Registrar) performed Mrs C's operation and she was discharged from Hospital 1 on 24 June 2012. A letter sent to the GP dated 16 July 2012 referred to surgery being uneventful and that Mrs C had made good post-operative recovery. She would be seen in clinic in due course. Mrs C attended the clinic on 20 November 2012 and saw the Consultant Neurosurgeon. It was recorded in the notes that Mrs C had felt well for a month after the operation but that in August 2012 she had begun to experience pain in her left leg. The Consultant Neurosurgeon, therefore, arranged for her to have an x-ray taken at Hospital 1 and requested (on 26 November 2012) an MRI scan to be taken at Borders

General Hospital (Hospital 2), as this was more convenient for Mrs C. The MRI scan was taken on 6 December 2012.

5. As Mrs C had not heard further, on 29 January 2013, she contacted Hospital 1 about her scan result. Hospital 2 were reminded and the MRI scan was sent to Hospital 1. It was viewed by the Consultant Neurosurgeon, who telephoned Mrs C on 7 February 2013 to tell her that there was still a tight stenosis at L4/5 and that she thought she could do a better decompression. Mrs C agreed to go ahead and was placed on a waiting list. Shortly after this, the Consultant Neurosurgeon reviewed the scans on the radiology system and saw that the spacer had been inserted at L3/4 and not L4/5. She immediately listed Mrs C's case for discussion at a Multi-Disciplinary Team meeting (MDT). The MDT met on 15 February 2013, when it was confirmed that the spacer had been inserted in an incorrect position.

6. The Consultant Neurosurgeon telephoned Mrs C on 21 February 2013 to apologise and to tell her that the operation had been carried out at L3/4 and not L4/5. Letters were sent confirming the situation to Mrs C's GP and the Senior Registrar (who had since moved to a hospital in England) on 26 February 2013. Mrs C's operation was redone on 25 March 2013. She now has spacers at L3/4 and L4/5.

7. The complainant (Mr C) complains on behalf of his wife, Mrs C. The complaint from Mr C that I have investigated is that the care and treatment provided in connection with surgery on Mrs C's spine was unreasonable.

**Investigation**

8. The investigation of this complaint involved obtaining and reading all the relevant documentation, including that between Mr C and Lothian NHS Board (the Board). My complaints reviewer has had sight of the Board's complaint correspondence and Mrs C's relevant clinical records. She has also seen statements prepared by the Consultant Neurosurgeon and the Senior Registrar completed during the Board's own internal investigation. Independent advice was obtained from a consultant neurosurgeon (the Adviser) and this was also taken into account.

9. While this report does not include every detail investigated, I am satisfied that no matter of significance has been overlooked. Mr C, the Board and Borders NHS Board were given an opportunity to comment on a draft of this

report. As the Board made significant comments on the draft report we, therefore, obtained further advice which supported the conclusions and recommendations made.

**Complaint: The care and treatment provided in connection with surgery on Mrs C's spine was unreasonable**

*The complaint*

10. Mr C raised a formal complaint with the Board on 8 July 2013. He rehearsed the chronology of events (see paragraphs 1 to 5) and posed a number of questions, including about the Senior Registrar who carried out the operation, the use of x-rays during the operation and the delay in establishing that the spacer had been inserted in an incorrect position. He complained that because of the error, Mrs C had endured extended periods of pain, inconvenience and worry, causing a significant reduction in her quality of life.

*The Board's response*

11. The Board replied on 1 August 2013 apologising for the error, distress and upset caused to Mrs C and they explained how the operation was completed: that an x-ray was taken immediately prior to Mrs C being taken to theatre and how the Senior Registrar had performed the interspinous decompression at L4/5 (as he thought) and inserted the spacer. However, at one point during the operation the Senior Registrar had recognised that the needle had been inserted too high and he, therefore, adjusted its position. The Board said that an error of judgement had been made, not an error of protocol or procedure. They said that if the Senior Registrar had not seen what he expected to see, it would have been expected that he would have asked for another x-ray. In Mrs C's case, the Senior Registrar did not pick up a problem and, accordingly, did not request another x-ray during the operation. The Board commented that this was the first time that the Consultant Neurosurgeon had come across this problem. She said that there were no 'hard and fast' rules for x-rays in lumbar spinal surgery but that it was her practice always, and in every case, to use them in the anaesthetic room before the operation and that she had a low threshold for x-raying in theatre if there was any doubt or if the patient was obese. The Board said that the Consultant Neurosurgeon had looked to try to prevent such a situation recurring: she had spoken to her trainees about her practice concerning x-rays in spinal surgery and asked that they follow it at all times and that if it was considered that the needle was in the wrong place, the needle should be removed, replaced and a new x-ray taken. She had also sought to take action concerning future learning for the Senior Registrar.

Nevertheless, the Consultant Neurosurgeon completely understood how angry and upset Mrs C was feeling.

*Independent advice received*

12. My complaints reviewer obtained independent advice about the circumstances surrounding Mr C's complaint. By way of background, the Adviser commented that surveys suggested that spinal surgery presented particular difficulties, especially in relation to the possibility of operating at inaccurate levels although accurate figures were difficult to obtain.[1] However, neither Scottish Intercollegiate Guidelines Network nor National Institute for Clinical Excellence Guidelines had any guidelines about the use of x-rays during spinal operations and, until reading this case, he would have thought that it was customary practice to perform an x-ray after the wound was open and the spinal elements were clearly visible. (I understand that there are two methods of obtaining radiological confirmation of the level. One involves the use of a formal x-ray machine and the other 'fluoroscopy' delivers a lower radiation dose.) The Adviser went on to say that, in his view, he felt that it was very risky not to obtain an x-ray when the wound was open and the anatomical elements were clearly visible. He said that lumbar spinal vertebrae looked sufficiently similar between the first and fourth levels to make it difficult to distinguish them.

13. My complaints reviewer asked why in Mrs C's case, it took eight months (from June 2012 to February 2013) before it was realised that her operation had been incorrectly carried out. The Adviser explained that until it became clear that Mrs C had not improved, there would have been no reason to investigate the level of her operation. In this connection, he said that there were no rules about when patients should be seen following this type of procedure. Follow-up could be done by telephone or it could be left to the patient to contact the hospital if things were not going well.

14. In Mrs C's case, her first routine appointment was five months after her operation, at which time she reported that things had gone well for a month but that after that she began to have pain in her left leg. The Adviser said that five months between follow-up and surgery was outside common practice if things were not progressing well. However, he went on to say that it was not clear why there was a gap before Mrs C was seen but said that this may well have

[1] Michel,W.G..et al, World Neurosurgery, 79:585-592, March 2013
Stahel PF et al, Arch Surgery 2010, 145:978-984

been outside the control of the Consultant Neurosurgeon, as it appeared to him that she was not aware of Mrs C's pain. Once the Consultant Neurosurgeon knew of the poor surgical result, tests were ordered quickly. An x-ray was done and on 26 November 2012 Hospital 2 were requested to complete an MRI scan.

15. The Adviser said that in his view, it would not have been common practice to have obtained a plain x-ray following the clinic appointment on 20 November 2012, nevertheless, it would have been possible to have realised the mistake by reviewing it. He said that it seemed reasonable to him to assume that if an x-ray was ordered, it should be looked at within a week. However, this did not happen. He also said that he would have expected the MRI scan to have been available to the Consultant Neurosurgeon within a week of the scan being done. Mrs C's scan was taken on 6 December 2012 but it was not until 29 January 2013, after being chased, that Hospital 2 sent the scan to Hospital 1. (Although, in commenting on a draft of this report, Borders NHS Board said that the results of Mrs C's scan were printed and issued to the Consultant Neurosurgeon with a compliments slip through their internal mail system on 19 December 2012.) The Adviser said that this delay was unacceptable. Thereafter, the Consultant Neurosurgeon did not review it until sometime in early February 2013 and then listed it for discussion at the MDT on 15 February 2013. Mrs C was informed of this on 21 February 2013, when the Consultant Neurosurgeon also apologised for the error that had been made. A second operation to remedy the problem was carried out on 25 March 2013.

16. In the meantime, Mr C had been concerned about the level of pain relief given to his wife prior to her operation and he said that she had made numerous calls to the Consultant Neurosurgeon's secretary about this. My complaints reviewer has had sight of notes of the calls made and of the Consultant Neurosurgeon's handwritten annotations on the messages left for her. It is unclear whether these replies were passed on. Mrs C received a steroid injection on 23 February 2012 and wanted more pain relief. Letters were sent to both Mrs C and her GP on 19 April 2012 advising that it was too soon to have another such injection before her radiotherapy and that these injections were only offered once or twice per year. I have confirmed this to be the case with the Adviser. He also added that after Mrs C's first operation, no one at Hospital 1 was aware that she was still in pain until her appointment in November 2012. He said that in the post-operative period, it would normally be the GP's responsibility (if they were aware of the situation) to ensure that pain relief was adequate.

*Conclusion*

17. Mr C complained that Mrs C's care and treatment in relation to the operation that was carried out in June 2012 was unreasonable. The Board have already admitted the error and in their letter of 1 August 2013 explained how it happened. However, I have been told by the Adviser that in his experience an x-ray/fluoroscopy would have been taken when the wound was open and, accordingly, it could have been determined then that a mistake had occurred. It was not. Mrs C's follow-up appointment then did not take place for five months, even though she was experiencing pain, but I agree with the Adviser, that if the Consultant Neurosurgeon had been aware of this from her or from her GP it would have been likely that an earlier appointment would have been made. While tests were ordered quickly, it seemed that the first (x-ray) was not looked at when it was available and there was a delay in the second (the MRI scan) reaching Hospital 1. None of this is acceptable and amounts to a failure in the service, care and treatment provided to Mrs C. I uphold the complaint.

18. During the course of my investigation into the Board, I identified the second issue that I investigated concerning Borders NHS Board. As I found no conclusive evidence that Borders NHS Board did not provide the scan results to the Board at the time they since told us they did, I do not uphold this complaint.

19. The Board have already made an apology to Mrs C so I do not require them to do so again. However, I recommend that the Consultant Neurosurgeon revisit her procedures for determining the level of surgery and consider doing two x-rays, one before incision and one with the wound open. Alternatively, do only one x-ray but with the wound open and the spinal elements clearly visible. Further, given the delay in the MRI scan reaching Hospital 1, I recommend that Hospital 2 review their procedures concerning the timely dispatch of radiology reports. Accordingly, a copy of this report will be sent to them.

*Recommendations*

20. I recommended that the Board:

| | *Completion date* |
|---|---|
| (i) ensure that the Consultant Neurosurgeon revisit her procedures for determining the level of surgery and consider doing two x-rays, one before incision and one with the wound open. Alternatively, do | 22 September 2014 |

only one x-ray but with the wound open and the spinal elements clearly visible.

| 21. I recommended that Borders NHS Board: | *Completion date* |
|---|---|
| (i) ensure that Hospital 2 review their procedures concerning the timely dispatch of radiology reports. | 22 September 2014 |

22. The Ombudsman asks that the Board and Borders NHS Board notify him when the recommendations have been implemented.

**Annex 1**

**Explanation of abbreviations used**

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|---|---|
| Mrs C | the complainant's wife |
| Hospital 1 | the Western General Hospital |
| the Consultant Neurosurgeon | the consultant responsible for Mrs C care |
| MRI scan | Magnetic Resonance Imaging scan |
| the Senior Registrar | a senior registrar in Neurosurgery |
| Hospital 2 | Borders general Hospital |
| MDT | Multi-Disciplinary Team |
| Mr C | the complainant |
| the Board | Lothian NHS Board |
| the Adviser | an independent consultant neurosurgeon |

**Annex 2**

## Glossary of terms

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|---|---|
| Facet joints | the joints between vertebrae |
| Flavum | ligaments of the spine |
| Fluoroscopy | a type of x-ray providing real-time images |
| Interspinous decompression | a surgical procedure to put an implant between vertebrae |
| L4/5, L3/4 | the lumbar vertebra number |
| Spondylolisthesis | forward displacement of a vertebra |
| Spacer | an implant inserted between vertebrae |
| Stenosis | abnormal narrowing |