Dr B

A Public Hospital

A Report by the

Health and Disability Commissioner

(Case 01HDC03147)

Parties involved

Mrs A Consumer/Complainant
Dr B Consultant Neurosurgeon

Complaint

On 14 August 2000 the Commissioner received a complaint from Mrs A about Dr B. The complaint was summarised as follows:

- *On 4 July 1999 Dr B inappropriately decided that Mrs A did not need an MRI scan.*
- *On 16 July 1999 Dr B inappropriately ceased the antibiotic medication that Mrs A was receiving.*
- *Mrs A was not prescribed with adequate pain relief between her discharge on 18 June 1999 and the diagnosis of her physical condition on 5 August 1999.*
- *Dr B treated her as though the pain Mrs A was experiencing was the result of a psychiatric, not medical, condition even though:*
  - *Mrs A was in severe pain;*
  - *successive x-ray reports showed that Mrs A's physical condition was deteriorating;*
  - *a letter dated 6 July 1999 from the ENT team gave the diagnosis of "? relapse deep neck and space infection";*
  - *Mrs A visited the Emergency Department at the Public Hospital eight times between her discharge on 18 June 1999 and her readmission on 5 August 1999;*
  - *the psychiatric liaison team's report could not make any definite conclusion regarding her psychiatric condition and made comments about her complaints of physical pain;*
  - *the psychiatric registrar advised that Mrs A's primary condition was medical and that she should go to the Emergency Department at the Public Hospital for adequate pain relief. The psychiatric registrar also advised Mrs A to ask the Emergency Department to investigate further, which she did.*
- *Dr B did not discuss with Mrs A the possibility that the pain she was experiencing originated from a psychiatric, rather than a medical, condition.*

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Due to a misunderstanding with Mrs A an investigation was not commenced until 29 May 2001.

Information reviewed

During the course of my investigation I carefully considered information from Dr B, the Public Hospital, Mrs A, the Urgent Doctors and Accident Centre, the Accident Compensation Corporation, and Mrs A's general practitioners. I also received independent expert advice from Dr Venkataraman Balakrishnan, consultant neurosurgeon.

Information gathered during investigation

Mrs A was taken to the Emergency Department at the Public Hospital by ambulance on 2 June 1999. Her presenting symptoms were recorded as severe neck pain, difficulties with swallowing, drooling, and reduction in strength of her left upper arm. Mrs A had an urgent MRI scan which confirmed a retropharyngeal abscess, which was drained in the Department of Otolaryngology Head and Neck Surgery (DOHNS).

Following the draining of the abscess Mrs A continued to have pain and weakness in her left shoulder and arm, and on 11 June Dr B performed a hemilaminectomy of her C4 vertebra and drained the anterior extradural space.

Mrs A was discharged on 18 June with follow-up to be provided by DOHNS and Dr B. She was prescribed fusidic acid and flucloxacillin for four weeks. A referral was also made to the community health nursing service to "assess how she is coping at home" and to remove her sutures.

On 1 July the DOHNS registrar wrote to Mrs A's general practitioner and said that she was on the way to recovery and was eating and swallowing satisfactorily. The registrar also noted that her neck and tracheostomy wounds were healing well.

Chronology

4 July 1999
Mrs A presented to the Emergency Department with vomiting and increasing pain in the base of her neck. On examination she was noted to be pale and miserable. Her temperature was recorded as 36.3°C, pulse 88 beats per minute, and blood pressure 146/93. The laboratory reported that her c-reactive protein (CRP) was 198 milligrams per litre, white blood count (WBC) 3.80, erythrocyte sedimentation rate (ESR) 113 millimetres per hour

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

and haemoglobin (Hb) 112 grams per litre. The assessing doctor also recorded that Mrs A did not have pain over her cervical spine or tracheostomy site and had "possible recurrence of epidural abscess". He referred Mrs A to the surgical registrar.

The surgical registrar also assessed Mrs A and noted that she reported pain at the back of her neck over the last three days, radiating up and down and into both shoulders. Mrs A had also experienced generalised tiredness and had been nauseous with some vomiting and a flu-like illness for the previous five days. The registrar recorded a discussion with Dr B which concluded that there was no strong evidence of a recurrent abscess or collection of fluid and that an urgent MRI was not required, although a scan would be necessary at some stage. Dr B advised that Mrs A should be discharged with pain relief and reviewed at the neurosurgery clinic on 6 July.

At the presentation on 4 July Mrs A was also assessed by the DOHNS registrar. In a letter dated 6 July to Mrs A's general practitioner, the registrar stated that his diagnosis was "? relapse deep neck space infection" but that there did not appear to be any significant collection of fluid for him to drain. He stated that he had suggested a lateral soft tissue C spine film and review by the neurosurgical registrar.

An x-ray was taken of Mrs A's cervical spine and reported as indicating that "there is a loss of the normal cervical lordosis and there is general pre-cervical soft tissue swelling. Destructive changes are evident in the body of C4 and appearances are consistent with osteomyelitis. Soft tissue swelling persists in the pre-cervical region."

6 July
Mrs A had an outpatient consultation with the neurosurgical registrar. The registrar wrote to her general practitioner stating:

> "She [Mrs A] complains she is feeling nauseous most of the time and has got some cough which has been going on for the last five days and she brings up greeny sputum occasionally. She does not have any headache, neck pain or any difficulty in swallowing. Neither has she got any pain in her abdomen.
>
> On examination there is nothing abnormal of note except for weakness in the left arm which is improving. I have discussed the findings with Mr B and her nausea and weakness appears to be related to antibiotic side effects. In view of this we have decided to get a blood test done for which I have made the arrangements and [Mr B] will get back to her after knowing the result of her blood test to decide if she needs to continue both the antibiotics for a total period of six weeks or we can stop one of them."

Blood tests requested on 7 July reported that Mrs A's CRP was 159, WBC 3.20 and ESR 122.

12-16 July
On 12 July Mrs A presented to the Emergency Department and reported weakness, nausea and that she was not eating. Mrs A also reported that she had increasing neck pain going down into her left arm, and that she had vomited twice that night. On examination she was noted as having a dry mouth and feeling miserable. Mrs A's temperature was recorded as 36.6°, pulse 106, blood pressure 149/84 and oxygen saturation 100%. Her neck was noted to be non-tender, although she had some weakness in her left upper arm.

Mrs A was then assessed by the surgical registrar who recorded that there was no swelling in her neck and the tracheostomy site was not inflamed. The registrar noted that Mrs A's WBC was 4.80, CRP 93, sodium 136, potassium 2.8, urea 2.1 millimoles per litre and creatinine 51 micromoles per litre. The laboratory also reported that Mrs A's ESR was 113. The registrar's impression was that Mrs A had neck or shoulder pain, no new neurological deficit, was hypokalemic (lack of potassium in the bloodstream) and was not coping at home. Mrs A was admitted to hospital.

On 13 July the house surgeon recorded that Mrs A was neurologically stable and "?depressed mood ?viral illness". On the same day the occupational therapist recorded that Mrs A was not coping in the community, particularly with her activity levels. She discussed with the house surgeon a psychiatric referral and a referral to the community rehabilitation team. It was recorded on Dr B's ward round, also on 13 July, that Mrs A was to be referred to the psychiatric liaison team. Mrs A was assessed by the psychiatric liaison nurse on 13, 14 and 15 July.

Throughout this admission Mrs A vomited regularly, although she was noted as being afebrile. She also had ongoing problems with pain, which required analgesia.

On 14 July a referral was made to the Occupational Therapy Department to assist Mrs A to cope better and increase her activity. A referral was made on 16 July to the Physiotherapy Department to assist with weakness in her left arm. On 16 July, Dr B discontinued Mrs A's antibiotics and she was discharged home.

19 July
Mrs A presented to the Emergency Department on 19 July and reported that she had increasing pain and stiffness in her neck, radiating down both arms, but no weakness or sensory disturbance. Her temperature was recorded as 36.4°, pulse 103, and blood pressure 171/86. The laboratory reported that her CRP was 22, WBC 9.20 and ESR 71. Mrs A also reported having intermittent hot flushes. On examination it was recorded that she was apyrexial (without fever), not flushed and had full power in her upper limbs and no sensory changes. Mrs A was prescribed intravenous analgesia.

Mrs A was assessed that day by Dr B, who recommended continued pain relief. He wrote to Mrs A's general practitioner, stating:

> "All her infection indicators are returning to normal and I do not think we need to

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

> worry about an ongoing deep-seated infection. I do however think there is a major problem in terms of maintaining this lady in the community and the Psychiatric Liaison Team is becoming actively involved."

Dr B made an appointment to assess Mrs A in three months' time.

20 July
Mrs A presented to the Emergency Department and reported that the pain in her neck and shoulders was not responding to pain relief, although she was feeling much better since her antibiotic medication had been stopped. The assessing doctor recorded that she was tender over the back of her neck but had good range of movement. He also recorded that Mrs A had no neurological deficit and prescribed intramuscular pethidine and intravenous morphine. Mrs A stayed overnight and was reported to be much more comfortable in the morning.

Mrs A also had an appointment with her general practitioner for ongoing pain in her neck. Her general practitioner recorded on examination that Mrs A had tenderness in her neck and, although she had limited range of movement, her passive range of movement was much improved. She had no neurological symptoms.

22 July
Mrs A again presented to the Emergency Department on 22 July at 20.18 hours. It was recorded that she reported pain, but she left before an assessment was performed.

Mrs A presented to the Urgent Doctors and Accident Centre at 21.24 hours with bouts of pain down her left side and occasionally in her left arm. On examination it was recorded that she did not have a temperature but had a tender neck, with very little movement or use of the muscle on her left side. She was diagnosed with post-operative acute pain in her cervical spine and prescribed 10 milligrams of morphine and Maxolon.

23 July
Mrs A had an appointment with her general practitioner, who recorded that she was very distressed, rocking, easily upset and was crying. The general practitioner recorded that her primary impression was that Mrs A had post-operative physical pain although she was also concerned about her distress.

On 23 July Mrs A was also assessed by a psychiatric registrar. The psychiatric registrar concluded that Mrs A's pain was caused by an underlying medical condition and referred her back to the Emergency Department for a further re-evaluation of her pain. In her referral letter, the psychiatric registrar stated:

> "She has been frequently attending A&E and after hours doctors clinics where each time she gets morphine or pethidine injections. She also has a past history of depression currently in remission. I feel (and my consultant as well) that her primary problem is a pain disorder due to a general medical condition and her pain is not adequately treated. She is now referred for further medical re-evaluation."

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

The psychiatric registrar recorded in her notes that the general medical condition was "? osteomyelitis".

Mrs A then presented to the Emergency Department. Her temperature was recorded as 37°, pulse 96 and blood pressure 148/81. The assessing doctor recorded that she reported increasing pain and stiffness in her neck, with more pain radiating down her left arm but no weakness or sensory disturbance. She was also noted to be apyrexial and not flushed. Mrs A was reviewed by a surgical registrar. The surgical registrar recorded that Mrs A reported her pain was "like daggers" with movement of her left shoulder and arm, but she had no new weakness. The registrar noted that Mrs A's platelets were 601, Hb 107, CRP 55 and WBC 8.80. The laboratory also reported that Mrs A's ESR was 74. The registrar recorded her impression as "ongoing pain ? residual infection". The registrar then discussed Mrs A's presentation with the on-call consultant neurosurgeon. It was agreed that it was not appropriate to admit Mrs A but that a referral would be made to the pain team, and the psychiatric liaison team was to continue follow-up. It was also planned that Dr B would assess Mrs A the following week.

24 July
Mrs A was contacted by Mental Health Services at home at the request of the Emergency Department. It was recorded that Mrs A had slept for five hours in the last day and was "restful".

25 July
On 25 July Mrs A presented to the Emergency Department with neck pain and was assessed by the on-call surgical registrar. Mrs A's temperature was recorded as 36.4° and her blood pressure 158/88. It was noted that her CRP (55) and WBC (11.40) were slightly elevated, but no other abnormalities were detected. The registrar discussed this presentation with the on-call consultant neurosurgeon.

In her response to the internal review subsequently conducted by the Public Hospital, the on-call consultant neurosurgeon stated that when she was consulted by the registrar on 25 July there was no clinical indication of systemic infection at that time, and no new or worsening neurological deficit. When the matter was discussed the on-call consultant neurosurgeon was not aware of the results of the full blood count and CRP, and an x-ray result was not available. The on-call consultant neurosurgeon reviewed the medical notes the following morning and it became clear there was a strong possibility that the infection had recurred, in view of the worsening infection markers and the x-ray, which indicated developing discitis and osteomyelitis at the previous operative site. An appointment was made for Mrs A to be reviewed in the Neurosurgical Clinic by Dr B that day.

The surgical registrar who consulted with on-call consultant neurosurgeon wrote a note to Dr B in which she stated:

> "[Mrs A] (an epidural abscess 2/6/99) was seen by me Friday night in A&E with pain in neck/shoulders and arms. She has been presenting to ED and after-hours

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

> doctors on a nearly daily basis with pain and receiving morphine/pethidine. She is also being followed up by liaison psychiatry services. I have discussed her with [a consultant neurosurgeon] who suggests you may be able to review her during the week."

28 July
The occupational therapist assessed Mrs A in the community, and recorded that she was focussed on her pain and reluctant to get involved in daily activities.

29 July
The psychiatric liaison team recorded that Mrs A's pain and discomfort was "2-3/10" and that she had pain-free spells occasionally.

30 July
Mrs A presented to her general practitioner with symptoms of a stiff neck and was advised to continue with her analgesic (tramadol) and a hot water bottle. Mrs A was also prescribed additional pain relief (Paradex and an increase in her Voltaren) and started on diazepam.

Mrs A was also assessed by the registrar from DOHNS, who wrote to her general practitioner on 3 August as follows:

> "She was seen by [DOHNS registrar] in early July at the request of the A and E. There was a question of whether she had a relapse of the deep space infection but we did not think that was what was happening. However, I believe that she had a lateral soft tissue x-ray of the neck which showed that there is possibly some osteomyelitis there and she was on a long term course of antibiotics. She has finished these now and she does feel that she has improved. She still gets occasional pain in the back of her neck and down her left shoulder. However, blood tests are apparently normal and the wound is healing nicely.
>
> I imagine she is being followed up by the neurosurgeons and if this has not been organised then it needs to be done.
>
> I have discharged her from our care and suggested that she contact the neurosurgical outpatients to make sure she has an appointment.
>
> We would be more than happy to see her again if there are any problems."

31 July
Mrs A presented to the Urgent Doctors and Accident Centre. On examination it was recorded that she was very tense, pacing the room in pain and was tender in her cervical area with very little movement. Mrs A also had a slight weakness in her left arm but her reflexes were normal with no sensory deficits. Her temperature was recorded as 36°, blood pressure 130/86 and pulse 90. Mrs A was diagnosed with post-operative acute pain and prescribed 10 milligrams of morphine and maxolon.

1 August
Mrs A presented to the Emergency Department. Her temperature was recorded as 36.9°, pulse 112, and blood pressure 154/80. The laboratory reported her CRP as 141 and WBC as 7.60. Mrs A was reviewed by the surgical registrar, who requested a cervical spine x-ray. The surgical registrar recorded that the x-ray demonstrated some degree of kyphosis, erosional collapse of C3 and erosion of C4 vertebrae. An appointment was made for an MRI scan after consultation with Dr B.

3 August
Mental Health Services assessed Mrs A and recorded that it was difficult to evaluate her mood because of her chronic pain. It was also noted that a MRI was being urgently arranged for her.

5 August
Mrs A had an MRI scan and was admitted to the Public Hospital. The on-call consultant neurosurgeon, who admitted and treated Mrs A, described her clinical condition as a "stage 1 C2-C5 anterior epidural abscess with C3-C5 osteomyelitis and discitis with kyphosis secondary to collapse of C4 and to an extent C3". The on-call consultant neurosurgeon concluded that Mrs A had an epidural abscess with osteomyelitis in her cervical spine.

Mrs A was immediately admitted and underwent urgent surgery during which the epidural abscess was drained and a discectomy and bone graft was performed. During the operation, the on-call consultant neurosurgeon found "extensive necrosis and piecemeal disintegration of the C4 vertebral body as well as a substantial portion of the lower half of the C3 body. The C3/4 and C4/5 intervertebral discs were partly liquefied with pus. The vertebral end plate of C5 was eroded. There was a small amount of pus in the retropharyngeal space as well as in the epidural space posteriorly although the majority in the epidural space was granulation tissue."

6 September
Mrs A was transferred to another Public Hospital for assessment and rehabilitation.

15 October
Mrs A was discharged from the second Public Hospital.

Other information

Assessment of Mrs A's physical condition
In a letter to the Public Hospital dated 2 June 2000, in response to the internal review of Mrs A's complaint, Dr B said that when she presented to the Emergency Department on 4 July 1999 Mrs A was apparently on antibiotic medication (flucloxacillin and fucidin) and requesting pain relief. Her temperature was normal, apart from mild weakness in her left upper arm, which appeared to have improved since her previous surgery. There was no deterioration in any of her neurological functions. Dr B noted from the laboratory results of 4 July that her white cell count was 3.8 and that her CRP was high at 198 but was coming

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

down, which indicated that the infection was no worse. Dr B said that Mrs A's ESR was raised but that this by itself did not immediately indicate that things were getting worse.

Dr B further said that from the x-ray taken on 4 July it appeared Mrs A was on adequate osteomyelitis treatment and that no further steps needed to be taken. Dr B said that he discussed the possibility of an MRI with the radiologists but they advised that the findings would probably be inconclusive in the light of other evidence.

The Public Hospital stated, in a letter dated 12 June 2000 to Mrs A, that the internal review had found that Dr B's decision not to undertake an MRI scan on 4 July limited the clinical assessment of her developing infection and associated complications. In a letter dated 26 July 2000 to Mrs A, the Public Hospital stated that Dr B, as attending consultant, assumed responsibility for that decision.

Presentations to the Emergency Department
I also note the comments of an orthopaedic surgeon and Clinical Leader, in his clinical review of Mrs A's complaint, that a diagnosis of osteomyelitis should have been made earlier and that "it is disturbing to see that this patient presented to the Emergency Department repeatedly on a number of occasions complaining of neck pain and left arm weakness and was assessed by the surgical registrar without a [correct] diagnosis being made".

Antibiotic medication
In an undated and unsigned response, Dr B said that he stopped Mrs A's antibiotic medication on 16 July (during her admission to the Public Hospital) because it was causing significant side affects (vomiting), it had been prescribed long enough to deal with the infection, and there was no clear-cut indication of ongoing serious infection. Dr B also said that about a week later he realised that there was some indication of ongoing deep-seated infection and arranged an urgent MRI, which took place on 5 August. Mrs A was then admitted to The Public Hospital.

The Public Hospital advised me that Dr B accepted in retrospect that the withdrawal of the high dose antibiotics contributed to a worsening of Mrs A's condition.

Pain relief
The Public Hospital advised me that Mrs A received appropriate pain relief and monitoring as an inpatient of the Public Hospital from 12-16 July and at her presentations to the Emergency Department.

Psychological factors – internal review
The Public Hospital advised me that Dr B's clinical management of Mrs A was not predetermined by a belief that her pain was psychological, although he did take into account the opinion that her condition, of which pain was a symptom, was made by worse by psychological stressors. The Public Hospital acknowledged that clinical care and treatment regimes were influenced by psychiatric assessments and perspectives of Mrs A that were

made in both inpatient and outpatient settings. The Public Hospital also noted that successive x-rays were not unequivocal in indicating an ongoing infection; Mrs A's diagnosis was complex and her frequent presentations to the Emergency Department did not justify admission to hospital under the Neurosurgery Department. In addition, the psychiatric liaison team report emphasised Mrs A's pain and her continuing difficulties with coping.

In his response to the Public Hospital, Dr B stated that his working diagnosis was unresolved pain from neurological damage due to a previous deep-seated infection of the spine. Dr B advised me that "it is unfortunate that emotional and other factors clouded the [clinical] picture and made it difficult to get a clear view of exactly what was going on" and earlier advised the Public Hospital that he and his team were "distracted by the possibility that other factors to do with stress and coping might be making the pain worse". The Public Hospital concluded in its internal review that the referral to the psychiatric liaison team dated 13 July 1999 was made "while underlying serious infection and associated post operative complications of the cervical spine remained, and confused the interpretation of ongoing pain and neurological immobility, delaying treatment and rehabilitation".

Communication
The Public Hospital acknowledged with the benefit of hindsight that Dr B's direct communication with Mrs A could have been improved, specifically with regard to the many doubts and uncertainties surrounding her problem. The Public Hospital stated that Dr B believed that he had discussed with Mrs A the possibility that the pain she was experiencing originated from a psychiatric rather than a medical condition, although this was not documented.

The Public Hospital concluded as a result of its internal review that there was less than optimal communication between specialist teams involved in Mrs A's care.

Independent advice to Commissioner

The following expert advice was obtained from Dr Venkataraman Balakrishnan, an independent consultant neurosurgeon:

> "Thank you for your request of 25 November 2002 for Medical and Professional advice. It took some weeks to go through all three volumes of documents and I apologise for the delay in complying with your request on time.
>
> I studied all documents provided with this file, as carefully as possible, to come up with the following conclusion.

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

1. In my opinion [Dr B] appears to have provided reasonable care and skill by admitting the patient to the ward, consulting ENT surgical team to assess the patient. He acted appropriately to do the operation in time to drain the spinal abscess through cervical laminectomy on 11 June 1999 (also mentioned this was done on the 10th June 1999).

2. When the patient [re-presented] with increasing symptoms, on 4 July 1999, [Dr B] did consider a 'routine' MRI scan at some stage but not an 'urgent' scan as the clinical findings did not warrant such an investigation. In my view as the patient re-presented with increasing symptoms, it was appropriate to arrange some form of radiological investigation such as a CT scan, MRI scan or even x-ray spine. This should have excluded re-accumulation of pus either in the retropharyngeal space or spinal canal, as the original spinal abscess was anterior to the spinal cord.

3. Retropharyngeal, spinal abscesses require prolonged course of antibiotics or change of antibiotics, even up to 6 months to prevent spread of infection to adjacent bones or the organisms becoming resistant to the antibiotics. However, [although] the infection markers (12 July '99, CRP was 93 mg/L and ESR 113mm/hr) were high suggesting uncontrolled infection, the antibiotics were ceased prematurely. In my view it was an inappropriate action to cease the medication, especially in the case of a spinal abscess due to Staph. aureus.

4. I note with this patient's past medical history, [Dr B] considered psychiatric and psychological factors in his diagnosis. It is not inappropriate in this situation as her clinical condition, presentation are merged with one another with her past history. I feel this factor should have been considered when all other conditions had been entirely excluded and the patient was cured of her existing illness.

5. The epidural spinal abscess usually causes very severe pain and the majority of these patients require narcotics for pain relief and early clearance of infection. In my view, although the patient did receive adequate pain relief, she continued to suffer with pain, as the infection was not controlled.

6. In early July 1999, the patient was seen in the A&E department with increasing symptoms. At this point further investigations might have declared a further spread of infection, to act appropriately before the development of disc infection and osteomyelitis of vertebrae.

General comment:
A spinal abscess is 'very difficult' to diagnose and treat. Unfortunately this patient's pre-existing condition (as explained in one of her GP's letters) might have clouded with her presentation with an organic lesion in the spinal canal, which has caused further delay in diagnosis and management.

> In my opinion, the communication between the providers involved was adequate under these difficult circumstances and I have no negative comments on the adequacy of the steps taken by the [Public Hospital] since this patient's complaint. On the positive side, I must congratulate the medical/nursing staff that all written notes are clear, legible and well documented.
>
> I believe the above comments are helpful to proceed with the investigation of this complaint."

The following additional expert advice was obtained from Dr Balakrishnan:

> "Thank you for your letter of 7 February, requesting me to clarify one more issue with regard to the x-ray report dated 4 July 1999.
>
> I reviewed my document, in that I mentioned that the patient 'attended the A&E department with symptoms of increasing pain without any obvious worsening of neurological function'. This finding was also mentioned in the 'undated' letter, paragraph 1. However, the CRP was elevated suggesting that there is an active infection, although the patient was on appropriate antibiotics.
>
> The 'undated' report also mentioned that further investigation was considered but 'the MRI was not indicated as there was no deterioration in the neurological function'.
>
> However, the x-ray cervical spine, dated 4 July 1999, showed changes due to spread of infection to the bones, persistent soft tissue swelling in the cervical region.
>
> In my view, having noted that there is spread of infection to the vertebrae, elevated infection markers were adequate reasons to arrange further radiological investigation (not necessarily a MRI scan) at least a CT scan (bone windows), as soon as practical, to delineate the extent of bone infection. This might have highlighted the seriousness of the infection although the patient did not show any deterioration in neurological function."

Response to provisional opinion

Dr B

In response to my provisional opinion Dr B advised that his decisions not to request further examinations on the basis of the x-ray of 4 July 1999 and to stop Mrs A's antibiotic medication had some mitigating features.

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

Dr B said that Mrs A's clinical picture was confusing and that he did not order an urgent radiological examination because he was advised by the radiologists that this, in particular an MRI, was unlikely to be helpful in clarifying whether Mrs A had an infection. He said that this advice was consistent with his understanding of the capability of the technology at that time.

Dr B also stated that he stopped Mrs A's intense antibiotic medication because she was having side effects and that some of the objective markers of infection, particularly the CRP, were improving. Furthermore, Mrs A informed him that after the antibiotic medication was stopped she felt much better. Dr B acknowledged that, because there was no objective evidence that Mrs A's condition was seriously worsening, he was "overly influenced" in his decision by her intolerance of the heavy antibiotic medication. He said that sometimes these drugs do have a very significant physiological effect on some patients. Dr B also stated that he had always been an advocate of long and unrelenting antibiotic treatment at high doses for spinal infections unless there was clear evidence that they had been eradicated and that, in light of this case, he has recently co-authored a paper on this topic.

Dr B expressed a willingness to apologise to Mrs A and said that he was deeply regretful that his decisions placed her at more risk than was necessary, but that he was attempting to save her from invasive and unnecessary procedures in what he considered was the absence of clear evidence that further investigations and interventions were warranted. Dr B also acknowledged that he did not properly communicate with Mrs A about her condition, which could have caused her more distress than was necessary.

The Public Hospital
The Public Hospital advised that it accepted the findings in my provisional decision but noted that there were significant mitigating circumstances in relation to Dr B's actions.

Code of Health and Disability Services Consumers' Rights

The following Rights in the Code of Health and Disability Services Consumers' Rights are applicable to this complaint:

RIGHT 4
Right to Services of an Appropriate Standard

1) Every consumer has the right to have services provided with reasonable care and skill.

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

RIGHT 6
Right to be Fully Informed

1) Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including –

(a) an explanation of his or her condition; …

Opinion: Breach

Investigation
In my opinion Dr B breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code) by failing to properly investigate Mrs A's physical condition and by inappropriately ceasing her antibiotic medication.

I accept the advice of my independent expert that Dr B should have requested at least a CT scan as soon as practicable after the x-ray of 4 July. The x-ray indicated that, despite being on antibiotics, Mrs A had an infection that had spread to her vertebrae. This required assessment to determine, if possible, the extent of the infection, particularly because it was potentially serious. I accept that Dr B was uncertain whether the x-ray (and successive x-rays) indicated that Mrs A's infection was caused by ongoing problems, rather than previous pathology or her treatment with antibiotics. However, even if this uncertainty was justified, it was reasonable in the circumstances for Dr B to attempt to clarify matters further. I also note that Dr B did not request a further appropriate examination (at least a CT scan) between 4 July to 1 August, even though on 4 July he considered that an MRI was required at some stage. During this period Mrs A presented to the Emergency Department frequently with severe pain. She was also admitted to the Public Hospital under Dr B's care for several days and assessed by him as an outpatient.

I also accept my expert advice that, although Mrs A did not show any deterioration in neurological function, further investigation was warranted. I also acknowledge that Mrs A's CRP was reducing from 4 July, but I note that on 12 July it was reported as 93 and her ESR was 113, which my expert considered high.

Antibiotic medication
I accept the advice of my expert that Dr B's decision to cease Mrs A's antibiotic medication on 16 July was premature because the infection markers on 12 July were high, suggesting that Mrs A had an uncontrolled infection in her spine. This would normally require a prolonged course of antibiotics or changes in antibiotics to prevent spread of the infection to adjacent bones and to prevent the organisms becoming resistant to the medication.

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

In reaching my decision I have taken into account the comment of my expert that spinal abscesses are very difficult to diagnose and treat. I also accept the responses of Dr B and the Public Hospital that there are mitigating features in this case, in particular the complex circumstances surrounding Mrs A's treatment, and that several providers from different disciplines were involved over a relatively short period.

Furthermore, although I remain of the opinion that Dr B breached the Code, I am satisfied that he has reviewed his practice in the light of the circumstances of this case, and he has co-authored a paper advocating the continuation of antibiotics at high doses for spinal infections unless there is a clear indication that the infection has been eradicated.

Opinion: No breach

Communication
In my opinion, in the particular circumstances he faced, Dr B did not fail to give Mrs A sufficient information about her condition, and therefore did not breach Right 6(1) of the Code.

The Public Hospital acknowledged with the benefit of hindsight that Dr B's direct communication with Mrs A could have been improved, including his assessment that the pain she was experiencing originated from a psychiatric rather than a medical condition. Dr B acknowledged this in his response to my provisional opinion.

It appears that Mrs A was not properly informed about the importance of psychological matters in her diagnosis and treatment. However, it is clear that in the circumstances of this case the lack of information that Dr B provided reflected his uncertainty about the persisting causes of her condition. Furthermore, I appreciate that Dr B may not have wished to offend Mrs A in view of her already stressful situation.

Vicarious liability

Employers are vicariously liable under section 72(2) of the Health and Disability Commissioner Act 1994 for ensuring that employees comply with the Code of Health and Disability Services Consumers' Rights. However, under section 72(5) employing authorities have a defence if they have taken such steps as were reasonably practicable to prevent their employee from breaching the Code.

Although in my opinion Dr B breached Right 4(1) of the Code, I am satisfied that his employer, the Public Hospital, is not vicariously liable for his breach of the Code. As discussed below, the Public Hospital acknowledged that there was inadequate communication among health providers involved in Mrs A's care. However, Dr B's decision not to further investigate the causes of Mrs A's symptoms did not arise from a lack of

communication within the hospital, and could not have been prevented by the Public Hospital.

Other comments

Psychological factors
Dr B did not consider that Mrs A's pain was wholly psychological in origin and was unsure to what extent the expression of her pain and distress could be attributed to an organic cause or to psychological or social factors. This issue was also raised by other members of the treatment team and on this basis Dr B referred Mrs A for psychiatric assessment, although he continued to assess her physical symptoms. Dr B was genuinely concerned about Mrs A's distress, which he attempted to address through psychological and social assessments and support.

However, my expert advised that in his view Dr B should only have considered psychiatric or psychological factors once all other conditions had been entirely excluded and resolved. In this respect I note:

- The Public Hospital concluded in its review that the referral was made on 13 July to the psychiatric liaison team "while underlying serious infection and associated post operative complications of the cervical spine remained, confused the interpretation of ongoing pain and neurological immobility, delaying treatment and rehabilitation".

- Dr B acknowledged in his response to this investigation that "it is unfortunate that emotional and other factors clouded the [clinical] picture and made it difficult to get a clear view of exactly what was going on", and in response to the Public Hospital he noted that he and his team were "distracted by the possibility that other factors to do with stress and coping might be making the pain worse".

- In his letter dated 19 July 1999 to Mrs A's general practitioner, Dr B stated that there was a "major" problem in maintaining Mrs A in the community and the psychiatric liaison team was becoming actively involved.

I accept that psychological and social factors can be very important in diagnosis and treatment, but it appears that in this case Dr B gave them too much weight at an early stage instead of excluding a physical explanation for Mrs A's pain and other symptoms.

Diagnosis
I note the comment of the orthopaedic surgeon and Clinical Leader, Musculoskeletal Clinical Practice Group, in his clinical review of Mrs A's complaint, that a diagnosis of

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

osteomyelitis should have been made earlier in light of Mrs A's multiple presentations to the Emergency Department with neck pain and left arm weakness.

It is unclear what specific information Dr B received about these presentations, particularly those after Mrs A's discharge from the Public Hospital on 16 July. However, the Public Hospital advised that the surgical registrar attends the Emergency Department on behalf of the Neurosurgical Service and discusses the case with the on-duty neurosurgical consultant.

Furthermore, I accept the advice of my expert that epidural spinal abscesses usually cause very severe pain. Dr B knew that Mrs A had presented to the Emergency Department with pain on 4 and 12 July and she was then admitted to hospital under his care until 16 July. During her admission Mrs A continued to complain of pain. Mrs A also presented to the Emergency Department on 19 July, reporting an increase in pain and stiffness in her neck. I consider it likely that she informed Dr B of these symptoms at his consultation with her on that date. In addition, I note that the surgical registrar wrote to Dr B on 26 July informing him of Mrs A's recent presentations to the Emergency Department and the on-call consultant neurosurgeon stated that an appointment was made so that Dr B could review Mrs A at the neurosurgical clinic on 26 July.

It is disappointing that, in light of her ongoing pain and other symptoms, Mrs A's abscess was not detected earlier than early August, even if psychological factors were believed to be contributory. I note in particular the following matters:

- The Public Hospital's internal review found that Dr B's decision on 4 July not to undertake an MRI scan limited the clinical assessment of the developing infection and associated complications.

- The Emergency Department doctor who assessed Mrs A on 4 July recorded "possible recurrence of epidural abscess".

- The psychiatric registrar on 23 July assessed Mrs A's primary problem as pain disorder due to a general medical condition and recorded in her notes "? osteomyelitis" and referred her back to the Emergency Department.

- The surgical registrar who assessed Mrs A on 24 July, after her presentation to the Emergency Department on 23 July, recorded her impression of Mrs A's condition as "ongoing pain ? residual infection".

As a result of her delayed diagnosis Mrs A suffered considerable distress and significant physical deterioration from 4 July to 5 August. She ultimately required surgical intervention to drain her abscess and needed further time off work.

Pain relief

It is clear that Mrs A sometimes required additional analgesia to relieve her pain, particularly after her discharge from the Public Hospital on 16 July. This was administered

on an ad hoc basis by the Emergency Department, her general practitioner, and the Urgent Doctors and Accident Centre. I accept my expert advice that Mrs A continued to suffer pain because her infection was not treated.

Infection
Mrs A was treated by the DOHNS until 30 July, shortly before her abscess was detected. A registrar from DOHNS on 4 July queried whether Mrs A might have a relapse of her infection. However, another DOHNS registrar, who assessed Mrs A on 30 July, stated in a letter dated 3 August to Mrs A's general practitioner that she did not think that Mrs A had been developing an infection and she discharged Mrs A from the care provided by DOHNS. This is disappointing in light of the evidence that Mrs A's infection was recurring.

Communication
I note that the Public Hospital's internal review concluded that there was less than optimal communication between specialist teams involved in Mrs A's care. I am particularly concerned that the communication between the DOHNS and the Neurosurgical Service about Mrs A's care was suboptimal. I note the DOHNS registrar's comment in her letter of 3 August that "I *imagine* she is being followed up by the neurosurgeons and if this has not been organised then it needs to be done" (emphasis added).

The Public Hospital informed me that it has taken steps since Mrs A's complaint to review the effectiveness of multidisciplinary communication within its services. In particular, it has reviewed the process of referrals to the psychiatric liaison team in cases of unresolved physical illness. It has also begun an initiative to establish a lead consultant role in clinically complex situations involving more than one discipline. The lead consultant will be responsible for coordinating the care of patients. The Public Hospital has also apologised to Mrs A. I commend the Public Hospital for these actions.

Recommendation

I recommend that Dr B apologise in writing to Mrs A. This apology is to be sent to the Commissioner and will be forwarded to Mrs A.

Actions

- A copy of my report will be sent to the Medical Council of New Zealand.
- A copy of my report, with identifying features removed, will be sent to the Royal Australasian College of Surgeons, and placed on the Health and Disability Commissioner's website, www.hdc.org.nz, for educational purposes.

Names have been removed to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.