West Coast District Health Board

Physician, Dr B

A Report by the

Health and Disability Commissioner

(Case 10HDC01344)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. This case illustrates the difficulties of rural practice and the critical importance of adequate staff orientation to the provision of appropriate clinical care.

2. On the afternoon of 11 September 2010, Mr A was admitted to Grey Base Hospital and provisionally diagnosed with a cerebral abscess. Neither the Emergency Department (ED) doctor, Dr C, nor the newly employed locum physician, Dr B, consulted with neurosurgical services at the nearest large public hospital (Hospital 2). Dr B advised that he was unaware that it was possible to fly patients to the main centre after dark.

3. Mr A was referred to the neurosurgeons the following morning. While awaiting air retrieval, his condition deteriorated and, on arrival at Hospital 2, after an MRI scan, it was found that Mr A had a ruptured cerebral abscess.

Findings

4. A cerebral abscess is a neurosurgical emergency requiring urgent consultation with a specialist neurosurgeon. It is unclear whether earlier consultation or transfer on the night of admission could have prevented Mr A's abscess from rupturing, given the risks of transfer. However, Mr A was denied the opportunity to have specialist neurosurgical advice and consideration of transfer.

5. By failing to ensure that its on-call physician was informed of Grey Base Hospital patient transfer processes, West Coast District Health Board (West Coast DHB) did not provide Mr A with services of an acceptable standard and breached Right 4(1)[1] of the Code of Health and Disability Services Consumers' Rights (the Code). West Coast DHB also breached Right 4(2)[2] of the Code for the poor standard of clinical documentation on Mr A's hospital record.

6. The Commissioner was critical of the care provided by Dr B and Dr C.

Complaint and investigation

7. On 29 May 2012 the Commissioner commenced an investigation into the following issues:

- *Whether Dr B provided an appropriate standard of care to Mr A in September 2010.*

[1] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[2] Right 4(2) states: "Every consumer has the right to have services provided that comply with legal, professional, ethical, and other relevant standards."

- *Whether West Coast District Health Board provided an appropriate standard of care to Mr A in September 2010.*

8. The parties directly involved in the investigation were:

Mr A	Consumer
Mrs A	Complainant (consumer's wife)
Dr B	Physician
West Coast District Health Board	Provider organisation

9. Information was reviewed from:

West Coast District Health Board
Dr B
Dr C (ED medical officer)
Dr D (infectious diseases specialist)
Air Retrieval Service
An ED advisor

Also mentioned in this report

Dr E	Neurosurgeon

10. Independent expert advice was obtained from physician Dr Denise Aitken (see **Appendix A**).

Information gathered during investigation

Background

11. On 1 September 2010, Mr A, an otherwise fit and well 54-year-old, started feeling unwell. On 7 September, he saw his general practitioner at a medical centre, and was diagnosed with a flu syndrome including back/neck spasm and a chest infection, for which antibiotics were prescribed.

12. On Friday 10 September, Mr A was admitted to the acute medical ward at the medical centre[3] as his symptoms had not improved. Mr A had an ongoing spiking fever, pains in his head and hips, dizziness, nausea, a stiff neck and mild dehydration.

13. Overnight, he was observed to be hallucinating. On the morning ward round of Saturday 11 September, a GP noted that Mr A's memory and cognition had deteriorated. The GP felt that Mr A's presentation was consistent with a viral syndrome, "?Encephalitis,[4] Confusion NOS [not otherwise specified]", and

[3] The medical centre includes a GP practice and an acute medical ward staffed by nurses and a rostered GP from the practice. Acute specialist care is provided from Grey Base Hospital.
[4] Acute inflammation of the brain, most often due to infection.

telephoned the on-call physician at Grey Base Hospital, Dr B, in order to refer Mr A to Grey Base Hospital for further investigation.

14. Dr B is unable to recall this phone call, but he commented that "in general, we accept patients for assessment whenever a GP requests this and/or expresses concern about a patient's acute state".

15. The referral letter from the GP, addressed to Dr B, states: "REASON FOR REFERRAL: Fluctuating temperature and headache, now with increasing confusion. For review and further investigation. Thank you for seeing [Mr A], 54 yr old man as discussed …"

Admission to Grey Base Hospital, Saturday 11 September 2010 — ED assessment

16. It is routine for patients referred acutely to specialists at Grey Base Hospital to be seen in ED, where immediate assessment, investigations and initial treatment are undertaken by ED staff. Dr C, the ED doctor who saw Mr A, advised that this is because the ED officer is often the most experienced resident medical officer (RMO)[5] at Grey Base Hospital, investigations are undertaken more quickly from ED, unstable patients are less likely to be missed, and urgent treatments can be initiated. Patients are then transferred to the ward and admitted by a house officer, who takes over ongoing management in consultation with the responsible consultant.

17. Mr A arrived at the Emergency Department by ambulance at 1.06pm and was assessed by Dr C at 2pm. Mr A's blood pressure was mildly elevated but Dr C found the remainder of his physical examination to be essentially normal. Blood tests showed an elevated white cell count, suggestive of infection or inflammation. Dr C arranged a head CT scan and, on the advice of the radiologist, a contrast CT scan was performed. The scan was reported as showing:

> "a wide differential for the radiological appearances including infection, infarction and neoplasm. Infection seems more likely clinically. The relative lack of enhancement and mass effect raises the possibility of low-grade infections such as fungus or TB. Encephalitis is also in the differential ... MRI may well give further information."

18. Mr A's wife, Mrs A, stated that following the CT scan, Dr C advised her that "he had identified something which could be a brain abscess, tumour or bleed but was most likely an abscess. He then told me that my husband would more than likely need to go to [a hospital in a main centre] for an MRI on Monday", as Greymouth does not have an MRI service.

19. The CT scan did not show any midline shift of the brain that could indicate raised intracranial pressure. Dr C performed a lumbar puncture and documented a provisional diagnosis of a cerebral abscess. He consulted by telephone with an infectious diseases specialist, Dr D, at Hospital 2. Mr A was then commenced on

[5] An RMO includes house officers, senior house officers and registrars.

intravenous antibiotics as recommended by Dr D. Dr D is unable to recall details of the phone conversation.

20. At 6pm, Dr C telephoned Dr B to transfer Mr A's care to him. Dr B recalled that they "discussed [Mr A] and his diagnostics and therapeutic interventions so far", and Dr B accepted Mr A for admission to the Critical Care Unit (CCU).

21. There is no record of any involvement by Dr B in Mr A's ED care prior to the 6pm handover. Dr B advised that he was not involved in the CT scan referral or in deciding which antibiotic to use.

Consideration of referral to neurosurgical service

22. Dr C advised HDC that he cannot recall any suggestion, during any of his discussions with Dr B, Dr D, or the radiologist who advised him of the CT result, that he make an urgent neurosurgery referral. Dr C advised that "[w]hen tertiary level care is required the patient is transferred to [Hospital 2] which is 240km [away]. This can either be done by aircraft (fixed wing or helicopter) or road. Any transfer over these distances and terrain has significant risk and more so overnight. I cannot recall whether there was any issue with the weather conditions that night which would have affected a transfer. Certainly that would not have prevented obtaining advice from a Neurosurgeon and had that been suggested I would have done that."

23. Dr B recalls that he and Dr C did consider seeking a neurosurgical opinion during their handover conversation at 6pm, but states that they agreed that there was no ability to transfer Mr A that night.

24. Although not documented on Mr A's clinical record, Dr B said that he also discussed with the CCU nurses and the duty nurse manager whether overnight transfer was possible, and was told that it was not. West Coast DHB advised that the duty nurse manager rostered on 11 September does not recall any discussion with medical staff regarding possible transfer.

25. Dr B stated that his plan was to admit Mr A to the Critical Care Unit overnight, assess his progress, and the next morning discuss with the Hospital 2 neurosurgeons whether an MRI would be appropriate to distinguish between infarction, tumour or infection, as had been suggested by the radiologist. Dr B said that the CT result was "ambivalent" and noted that Mr A's cerebrospinal fluid picture[6] was consistent with a partially treated meningeal infection. Dr B noted that the CT scan report did not explicitly imply a cerebral abscess, and stated that "the report mentions potential infection in a wider sense, amongst a further range of possibilities". He advised that when he viewed the scan, he did not find the image specific enough to call it a definitive cerebral abscess. Dr B told HDC that he therefore decided to manage Mr A as a "further to be specified" infection with appropriate antibiotics, as recommended by the infectious diseases specialist, and to obtain a neurosurgical opinion the next day.

[6] Mr A's cerebrospinal fluid white cell count was 181, red cell count 2 (normal count is <5 for both) and no organisms were seen.

Admission to CCU for overnight observation

26. Mr A was admitted to the Grey Base Hospital CCU by the house officer for general medicine. Dr B told HDC that he saw Mr A on CCU at around 8pm on 11 September, as part of his "informal" weekend round, the purpose of which is "merely to be informed by the house officer and the nurses of current problems". At the time he saw Mr A, the house officer was clerking him in. Dr B concluded:

> "[Mr A's] condition had not changed from his admission (to ED) and was in fact quite similar to what was described in the [medical centre] notes the days before, apart from the increased confusion. His observations were stable, apart from an increase in his blood pressure and we adjusted the medication accordingly. With the medical RMO I once more discussed the topic of a potential cerebral abscess, but concluded that we could not get [Mr A] to [Hospital 2] that night because of the impossibility of the transfer. Given the stable situation and the fact that he was on appropriate antibiotics, I concluded that we had no other option than monitor him closely overnight."

27. Mrs A told HDC that, whilst her husband was in ED, he was becoming more confused, had trouble recognising her, and was lapsing in and out of consciousness.

28. Dr B did not document his review of Mr A at 8pm. The house officer's written instructions state: "Close monitoring, please call if signs of sepsis ↓BP, ↑HR or if increasing confusion/↓GCS[7]."

29. Dr B had a telephone conversation with the RMO at the handover at approximately 10.30pm, and did not receive any further phone calls about Mr A that night.

30. The neurological observation chart shows that Mr A had a GCS of 13 between 7pm and 11.30pm on 11 September, and this improved to a GCS of 14 and remained stable overnight from 1am to 11am on 12 September. The overnight nursing notes record that Mr A was disoriented, mildly restless, febrile, and had urinary incontinence. In the morning he was noted to be hypertensive[8] (BP 200/98mmHg) and his pupils were slow to react to light.

31. The morning nursing note states that Mr A had been reviewed overnight by the night shift RMO, and the plan from the review was "to contact Physician for review" and to keep nil by mouth in the meantime. However, there is no documentation by the RMO of this review.

32. The 9.30am nursing note records that Mr A was reviewed by the house officer for general medicine regarding his high blood pressure and confusion, and the plan was to continue with intravenous fluids. Again, the house officer's review was not

[7] Glasgow Coma Scale (GCS) is an objective means of recording a person's conscious state and has value in predicting ultimate outcome. Motor, verbal and eye responses are independently assessed and scored (lowest score of 1 reflects no response). The sum of these gives an overall GCS score out of 15.
[8] Hypertension is defined as elevated blood pressure >140/90mmHg.

documented. However, Mr A was seen shortly afterwards on the consultant morning ward round.

Consultant review — 12 September 2010

33. Dr B reviewed Mr A as his first priority on his 12 September ward round. The clinical record by the house officer for general medicine of that assessment states that Mr A was confused, confabulating,[9] pain free, febrile (temperature 38.2°C), and hypertensive (BP 188/102mmHg), and records a diagnostic impression of "likely cerebral abscess". Dr B said that Mr A's neurological condition was "unchanged with confusion, a stable GCS of 14 and no other neurological changes", but his blood pressure was an ongoing concern.

Referral to neurosurgeon

34. Dr B telephoned neurosurgeon Dr E at Hospital 2, and Dr E viewed the CT scan electronically. Dr B said that Dr E concluded that this was potentially a cerebral abscess and that an urgent MRI was indicated. Dr B advised CCU staff that Mr A had been accepted by Hospital 2's neurosurgery and directed them to organise Mr A's immediate air retrieval.

Air retrieval referral

35. At 10.20am on 12 September, the Air Retrieval Service Coordinator received a telephone request from a duty nurse manager at Grey Base Hospital, for Mr A's retrieval. The call sheet generated by ARS (Air Retrieval Service) from the telephone call documents that Mr A had CT evidence of a presumed cerebral abscess, stable observations, and a near normal GCS of 14 (out of 15). The ARS internal urgency category assigned was "P2" — retrieval to be done within six hours. However, there were no other patient retrievals that morning and the flight team had assembled at the airport by 11.30am.

36. At 10.35am, as per standard procedure, the duty nurse manager then faxed a "Request for Patient Transport" form to St John Ambulance Control Room. The "Mission classification" was ticked off as an "Inter-hospital transfer (pre-planned or booked)".[10] The form also has an "Urgency" section where the options of "Emergency (instant)", "Urgent (within 30 minutes), and "Non-urgent" are to be ticked as appropriate; however, this section was left blank. The duty nurse manager was unable to recollect why she categorised Mr A's transfer as "pre-planned or booked", but stated that it may have been because she knew the telephone referral had already been made to the ARS Coordinator.

37. Dr B advised that, as a doctor, he was not involved in coordinating the air retrieval, which was handled by the CCU nurses and duty manager. He stated that he was not called about the transfer and expected that from the time of request, the first available slot for retrieval would be used for Mr A's evacuation, as all cases to be flown out

[9] Unconsciously fabricating imaginary experiences as compensation for loss in memory.
[10] The form gives other options of "Casevac (within 24 hours of accident)" or "Medivac (medical emergency)".

from Greymouth are emergencies — otherwise transfer would occur by road ambulance (three hours' duration).

Air ambulance transfer to Hospital 2

38. It took longer than expected for the air retrieval team to pick up Mr A. Although the retrieval team was assembled at the airport at 11.30am, flight take-off time from the main centre was delayed until 12.50pm because the aircraft had an electronic failure. The 40-minute flight time to Greymouth that day also took longer than normal because of adverse weather conditions. It was 1.40pm by the time the retrieval team first made contact with Mr A.

39. The Grey Base Hospital nursing note at 12pm states that Mr A was "becoming shaky and not able to respond", his blood pressure was raised at 216/115mmHg, and he was febrile.

40. The observation chart shows that his GCS fell from 14 to 13 at 12pm. At 12.30pm his blood pressure reached a peak of 239/176mmHg. Antihypertensive medication was then given and his blood pressure dropped significantly.

41. At 1pm, the anaesthetist arrived to intubate Mr A for air transport. The anaesthetist noted: "Pt ↓consciousness since this morning [secondary] to brain abscess moving spontaneously/opening eyes/not obeying commands." Mr A's blood pressure post-intubation was 100/60mmHg.

42. At 1.40pm, the retrieval team arrived and documented that since the call for transfer had been made, there had been a deterioration in Mr A's GCS to 12 (from 14) and that the decision had been made by the Grey Hospital doctors to intubate Mr A for his own safety. The ARS clinical leader commented that this seemed an appropriate decision and made the subsequent management more straightforward for the transfer team.

43. In contrast, Dr B informed HDC that he was present when Mr A was intubated pre-flight, and that the intubation was not performed because of a change in Mr A's condition, but was "a purely elective procedure" performed "because the flight team found it unsafe to transport a confused patient with intracerebral pathology". Dr B stated that the Hospital 2 team's description of clinical deterioration over the West Coast DHB admission was "really not an accurate reflection of the clinical observations". He said that Mr A's condition was unchanged, with a GCS between 13–14 and his blood pressure remaining high throughout his admission.

44. Mr A was flown to the main centre at 3.10pm and arrived at the hospital at 5pm.

Abscess rupture

45. On arrival, Mr A was diagnosed with a ruptured cerebral abscess, which was confirmed by an emergency MRI. Mrs A stated that two neurosurgeons spoke to her about the rupture. Mrs A raised the possibility that the abscess may have ruptured that morning at Grey Base Hospital.

46. Dr B advised that it was not possible to identify when the abscess ruptured: "The rupture may well have happened during the flight, even if we had been able to transfer him on 11 September, as that is always a risk. This is the reason a patient like Mr A is intubated pre-flight."

47. Dr B further stated: "With the benefit of hindsight, and knowing the diagnosis it might have been better if [Dr C] or myself had discussed [Mr A] with the [Hospital 2] neurosurgeons on the afternoon of his admission. This despite the ambiguous CT scans." However, Dr B stated that in his view, even if neurosurgical consultation had occurred, it would regretfully not have had an impact on Mr A's outcome, as he could not have been flown out of Greymouth any sooner than he was.

Subsequent events

48. Mr A had surgery to drain the abscess. He then required intravenous antibiotics for three months. He required further neurosurgery on 28 September for a blocked abscess drain, and also in October for placement of a ventriculoperitoneal shunt to treat dilated ventricles. He was transferred for brain injury rehabilitation on 20 October 2010, and has persisting cognitive deficits.

Orientation provided to Dr B about inter-hospital transfer practices

49. At the time of Mr A's admission, it was Dr B was a recently employed locum physician in Greymouth. He told HDC that he had received "no introduction whatsoever" to the DHB and understood that patients could not be flown out of Greymouth at night, and that evacuation by helicopter was not possible because of the altitude of the mountains. He said he was unaware of any other possible means of transferring Mr A overnight at that time, but a few weeks later he heard that, in exceptional cases, patients have been transferred by road ambulance at night to a nearby airport and then flown to the main centre. Dr B stated: "Had I had more information about the difficulties with evening and overnight transfer I might have considered contacting the neurosurgeons and if they had believed it safe to do, flown out [Mr A] from [this] airport."

50. West Coast DHB confirmed that it does have the ability to transfer acute patients from Grey Base Hospital after dark from the airport, a 30-minute trip by road ambulance from Greymouth. The Air Retrieval Service records show that there was heavy rain and snow above 1700 metres with 70km/hr winds on 11 September 2010. The Clinical Leader of the retrieval service, commented that this may have made an air retrieval difficult, but he could not say for certain that it would have been impossible.

51. West Coast DHB advised that all hospital based Senior Medical Officers (SMOs) are given an orientation booklet and advised to complete the "Self Guided Tour for Hospital Based Senior Medical Officers" orientation package on the intranet within the first four weeks of their employment. While titled a "Self Guided Tour", the DHB advised that it is usual practice for the SMO Roster & Locum Co-ordinator to personally take new SMOs on a guided tour of the hospital, and the Co-ordinator recalls doing this in Dr B's case, although it was not documented in the records that West Coast DHB provided to HDC. There is no orientation or information provided

for specific clinical situations in the self-guided tour. Nor is there mention of inter-hospital patient transfer policy or procedures. However, the DHB advised that as part of the SMO Roster & Locum Co-ordinator's personal tour, "it would be expected that transferring of acutely unwell patients to tertiary hospitals would be discussed as this is a fairly common occurrence".

Actions taken

52. Dr B advised that this is the first complaint he has had during his long career, and he has taken it very seriously. He advised HDC that, following Mrs A's complaint, he undertook a six-week study course focussing on neurology and neurosurgery, culminating in an on-line examination, which he passed with 86%. He advised HDC that no significant gaps in his knowledge were identified during his study, but it was a good "refresher" for him professionally as a physician.

53. Dr B advised that he now ensures that he documents all patient reviews, even "non-formal" patient updates, as well as telephone discussions with other clinicians, even where these are conducted off-site.

54. Dr B stated that he alerted the West Coast DHB of the importance of giving locums a good introduction to the DHB, as he had received no introduction. He noted that lack of knowledge about the transfer options to the main centre at night may have affected his decision-making in Mr A's case. In response to my provisional opinion, Dr B advised that he did not have a guided tour of the hospital, nor was he aware that there was an online introduction to the DHB. He also advised that he was not informed about the methods of transferring acutely unwell patients.

55. Dr B further advised that he has used Mr A's case in peer review, discussing it with several peers, including one who has worked as a locum physician at Grey Base Hospital over the past 10 years, and that he concluded that he would not have handled Mr A's case any differently.

56. West Coast DHB advised that at the time of Mr A's admission in September 2010, Hospital 2 and West Coast DHB had separate radiology imaging systems, although there was a network connection that allowed CT images to be transferred quickly if requested. Significant improvements have since been made, and the two DHBs now share a single radiology system, ensuring that images and reports are readily available for real time viewing across all sites, improving patient safety.

Opinion: Adverse comment — Dr B

Key issue: timeliness of neurosurgical referral

57. My expert, Dr Denise Aitken, advised that a cerebral abscess is a neurosurgical emergency that requires urgent consultation with a consultant neurosurgeon. Dr Aitken commented that optimal care would have seen a neurosurgeon consulted at the time of Mr A's admission, and his transfer to Hospital 2 expedited at the earliest

opportunity. As it happened, Mr A's referral and transfer did not occur until the day following admission, by which time his cerebral abscess had ruptured.

58. Dr Aitken identified that the failure to consult urgently with regional neurosurgical services in the main centre on 11 September 2010 was a significant omission in the care of Mr A, and that it would be viewed by peers with moderate disapproval.

59. Appropriateness of care must be assessed according to the particular circumstances of each case. Dr B submits that, on admitting Mr A, he recognised that cerebral abscess was a differential diagnosis, and that neurosurgical referral was required, but he delayed calling the neurosurgeons until the next morning because he believed it was impossible to transfer Mr A that night, and given Mr A's stable condition.

60. I accept that Dr B was unaware that patients at Grey Base Hospital could be flown out from a nearby airport to the main centre at night. It appears that this was due to a number of factors. He had very little experience working in Greymouth, and states that he had been given no orientation about inter-hospital transfer processes, but was aware that planes could not take off from Greymouth after dark. On the evening of 11 September, he made an effort to confirm with other hospital staff whether transfer was possible that night, but understood from these discussions that it was not. Dr B's understanding was incorrect. Dr C advised that transfer is possible at night. West Coast DHB advised that the duty nurse manager cannot recall discussing a possible transfer that night.

61. Dr Aitken advised that the Hospital 2 neurosurgeons should have been consulted on 11 September, regardless of transport issues, because this "would have given the opportunity for neurosurgical input into care whilst [Mr A] remained at Grey [Base] Hospital". I agree that such consultation would accord with good practice and thus should have occurred.

62. Dr B has clearly explained his clinical rationale for the decisions he made in treating Mr A on the evening of 11 September, which took into account Mr A's stable neurological status, his test results and ambiguous CT scan report, and specialist infectious diseases advice. It appears to me that his management plan was a result of calculated clinical judgement as an experienced consultant physician, and he did not feel he needed to consult a neurosurgeon about Mr A's medical management in CCU overnight. Dr Aitken has confirmed that Mr A's treatment in CCU was appropriate. Nevertheless, I consider that earlier consultation with the neurosurgical service should have occurred, and may have been useful in forewarning the Hospital 2 team of Mr A's admission the following day. Dr B recalls that he did consider seeking a neurosurgical opinion but decided not to because of the inability to transfer Mr A overnight. This decision was suboptimal. Mr A was denied the opportunity to have specialist neurosurgical advice and consideration of transfer.

63. The following morning, Dr B reviewed Mr A as a priority and immediately referred him by telephone to the Hospital 2 neurosurgical team. The unfortunate delay in retrieval because of aircraft failure was beyond Dr B's control.

64. While I do not consider that a finding that Dr B breached the Code is warranted in the circumstances outlined above, I consider that Dr B should reflect on the deficiencies in the care he provided to Mr A.

Opinion: Breach — West Coast District Health Board

Provision of care by adequately oriented clinical staff

65. This case illustrates the critical importance of adequate staff orientation in ensuring the provision of appropriate clinical care. As stated, it is accepted that patients with suspected cerebral abscess, such as Mr A, require urgent consultation with a consultant neurosurgeon. At the time of Mr A's admission, it may have been possible to transfer him as an emergency to the Hospital 2 neurosurgical service. This was West Coast DHB's usual mode of inter-hospital air retrieval after dark. However, this option was not explored on 11 September because the sole on-call physician, Dr B, was not aware of Grey Base Hospital's air retrieval processes. Consequently, Mr A was denied the opportunity of urgent transfer to the neurosurgical service.

66. Dr B was a newly employed locum physician at West Coast DHB. Being rostered to work after-hours as the sole on-call physician, it was foreseeable that he would encounter clinical situations where emergency tertiary care would be required. Dr B states that he received no orientation from West Coast DHB about their air retrieval policy and procedures, and West Coast DHB has not been able to provide me with any evidence that shows this did, in fact, occur. West Coast DHB frequently employs locum medical staff, and has confirmed that transferring acutely unwell patients to tertiary hospital is "a fairly common occurrence". Yet West Coast DHB provides no information about inter-hospital transfer in its "Self Guided Tour" orientation for locum consultants. West Coast DHB states that it is "usual practice" to also provide a personal tour of the hospital, and that the SMO Roster & Locum Co-ordinator recalls that this occurred with Dr B, but the DHB has not provided any documentation to confirm this. Neither has it been able to demonstrate that information on inter-hospital transfer is a standard requirement of any such "personal" tour by the SMO Roster & Locum Co-ordinator.

67. In my opinion, the West Coast DHB orientation system is inadequate. It is important to ensure that new locum doctors are informed of practice processes they are likely to be unfamiliar with, specific to that rural area. This should occur before they are expected to work in an emergency or after-hours setting. All West Coast DHB policies should be readily accessible and comprehensive. The West Coast DHB "Air Transfer of Patients Procedure" (November 2007) policy document provided to HDC outlines the process for transfer by air ambulance, but does not mention night-time transfers or the option of transfer via the airport nearby.

68. If Dr B had been fully aware of Grey Base Hospital's air retrieval policy, he may have considered contacting the neurosurgeons at the time of Mr A's admission and flown Mr A out from the other airport that night, had they recommended doing so. Alternatively, Dr B may have known how to go about scheduling retrieval for earlier

the next morning. I accept that there were significant risks in travelling the lengthier route after dark in adverse weather conditions, and that those risks may have precluded transfer on 11 September. However, these factors should have been considered by Dr B and the neurosurgical service.

69. I find that West Coast DHB must be held responsible for failing to ensure that Dr B was informed about Grey Base Hospital patient transfer processes. In my opinion, West Coast DHB failed to provide Mr A with services with reasonable care and thereby breached Right 4(1) of the Code. This lack of information was very influential in Mr A being denied the opportunity to have specialist neurosurgical advice and consideration of transfer.

Documentation of clinical record

70. I am also critical of the standard of Mr A's Grey Base Hospital clinical record. It is essential to a patient's seamless continuity of care that all clinical reviews and decisions are fully documented. The omission to do so creates potential risk, particularly in the hospital setting where multiple staff are involved in a patient's care.

71. There are numerous instances of poor documentation on Mr A's Grey Base Hospital record: Dr C's ED notes lack any detail of his telephone consultation with the infectious diseases physician; the two house officer reviews, overnight and in the early morning of 12 September, were not documented by those doctors; and the "Request for patient transfer" form was incompletely filled in by nursing staff.

72. Dr Aitken advised that the failures to document represented a moderate departure from expected professional standards.

73. Dr Aitken also noted that fuller documentation of the consultations with external specialists and of consultant reviews would have been desirable, although was of "a standard currently widely practiced".

74. Overall, I find the pattern of suboptimal clinical documentation by multiple staff members means that West Coast DHB failed to ensure its staff met expected professional standards of documentation and thereby breached Right 4(2) of the Code.

Further comment

75. It is important to note that my findings in relation to the Code do not imply any causal relationship between Mr A's clinical management at Grey Base Hospital and the rupture of his cerebral abscess. It is understandable that Mr and Mrs A are interested to know whether rupture could have been prevented if Mr A had been transferred earlier. However, it remains unclear exactly when, following the 11 September CT scan, his abscess ruptured, and there would have been risks of rupture associated with any earlier air retrieval. My opinion considers only the care that was provided to Mr A, and does not consider whether earlier neurosurgical referral or air retrieval would have changed his outcome.

Opinion: Adverse comment — Dr C

76. My expert advisor, general physician Denise Aitken, advised that in the case of a cerebral abscess, which is a neurological emergency, neurosurgical services should have been consulted on 11 September, regardless of transport issues, "either while [Mr A] was in the Emergency Department between 1310 and 1800 and under the direct care of [Dr C], or subsequently when transferred to medical services". However, I also obtained expert advice from an Emergency Medicine specialist who considered that the care provided to Mr A by Dr C was of an appropriate standard.

77. Dr B recalls that he and Dr C did consider seeking a neurosurgical opinion during their handover at 6pm, but states that they agreed not to as there was no ability to transfer Mr A that night. Dr C advised that he cannot recall any suggestion that he make a neurosurgical referral during any of the discussions he had with Dr B, Dr D or the radiologist.

78. While I acknowledge that Dr Aitken is not a peer of Dr C, I remain concerned that Dr C did not recognise the urgent need to consult with neurological services in the face of his differential diagnosis of a cerebral abscess. Mr A was denied the opportunity at that stage to have specialist neurosurgical advice and consideration of transfer. I consider that Dr C should reflect on this deficiency in the care he provided to Mr A.

Recommendations

79. I recommend that West Coast DHB:

- review its orientation process and content for locum practitioners in light of this opinion and report back to HDC by **19 September 2013** on changes made;
- review the documentation of its air transfer procedures to Hospital 2 with regard to patient transfers at night and report back to HDC by **19 September 2013** on changes made; and
- undertake initiatives to improve the standard of clinical documentation by staff and report back to HDC by **19 September 2013** with evidence of these.

Follow-up actions

80. - A copy of this report with details identifying the parties removed, except West Coast DHB, Grey Base Hospital, and the expert who advised on this case, will be sent to the Medical Council of New Zealand (MCNZ), DHB Shared Services and HQSC. The MCNZ will be advised of Dr B's name.

- A copy of this report with details identifying the parties removed, except West Coast DHB, Grey Base Hospital, and the expert who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A — Independent clinical advice to the Commissioner

The following expert advice was obtained from general physician Dr Denise Aitken:

"Dictated: 03 September 2012
Typed: 03 September 2012

Complaint: [Mr A]
Your Ref: 10/01344

I have reviewed the notes that you have provided to me. The notes provided currently do not include the pre-hospital notes. In making my assessment I have considered only the information provided to me on this occasion which I assume was also available to the doctors who reviewed [Mr A] in hospital on the 11th and 12th of September 2010 at Grey Hospital. That is, the transfer letter and the records performed at Grey Hospital.

It appears from the clinical notes that pre-hospital notes may have been available to the treating staff at Grey Hospital, but for the purposes of this assessment, I have assumed that the assessment was based on the clinical review of the patient and the transfer letter.

I have visited Grey Hospital and am aware of its geographic isolation and the associated transport difficulties.

[Mr A] was a previously well 54 year old who had a two week illness. This illness was characterised by fever, headaches, sore neck and vomiting. His wife describes deterioration in his condition the day of transfer from [the medical centre] to Grey Hospital.

At Grey Hospital his initial triage was '4' and Glasgow coma score (GCS) was 15 at 1310. He was seen and assessed by [Dr C] who documented the fever, headache and neck pain. He noted the raised peripheral blood white cell count, and an abnormal CT scan of the brain. A lumbar puncture was performed. He reached a provisional diagnosis of cerebral abscess which he documented on the ED admission form. Subsequently [Mr A's] GCS at 1715 is recorded at 13. Discharge from the Emergency Department is recorded at 1800. There is a brief note in the ED notes of a discussion with [Dr D], Infectious Disease Specialist, at [Hospital 2]. There is no documentation of discussion with [Dr B] or neurosurgical services or documentation of consideration of referral.

[Mr A] was transferred to the CCU. [Dr B] in his most recent report has described this as a nursing observation unit. There he received appropriate treatment with intravenous fluids, antibiotics, attention to his blood pressure. The registered medical officer (RMO) documents a plan of care including instruction to call for medical assistance if there is a change in the patient's condition which s/he defines. The initial blood pressure in the CCU/ICU is recorded as 172/100. I am

unable to identify further recordings other than the neurological observation chart. However, references are made to the observation chart which is not provided to me. Neurological observations are made hourly. There is a note made by nursing staff that [Mr A] is reviewed by both the 'night and day shift RMO' It is not clear whether this is in addition to the admission clerking, but the context suggests to me that an additional review did occur. There is no written record of this review from the RMO but a change in care plan results in [Mr A] being made nil by mouth.

In the text of the nursing notes, the overnight nursing staff document blood pressure 135–180/75–90.

[Dr B] reports that he rounded at 2000 on the evening of the 11th. This is an appropriate level of care given that [Mr A] was a seriously ill patient. The RMO was documenting admission at that time. There is no documentation of that round. [Dr B] reports subsequently in the letter provided this year (17.07.12), that he concluded at that time that [Mr A's] condition was not different from that recorded in the [medical centre] notes, except for increased confusion and an increased blood pressure.

Discussions are reported in his letter of July 2012, between [Dr B] and [Dr C], and [Dr B] and the RMO, regarding transport difficulties. These were also raised with the Duty Manager. However these discussions are not documented in the clinical notes at the time.

The responsibility for oversight for patient care between 1310 and 1800 when [Mr A] was transferred to medical services is not completely clear to me. I am unsure whether [Dr C] was acting on behalf of medical services, or acting independently as the rural hospital medical specialist or trainee. It seems that he was acting on behalf of medical services and thus clinical responsibility for decision making would sit with [Dr B].

I note that both the discharge letter from Grey Hospital (12.09.10), completed by [the house office for general medicine], reports [by the] (Quality Assurance and Risk manager West Coast District Health Board) (15.06.11), the neurosurgical record at [Hospital 2] (6.01.11), and the ICU [Hospital 2] admission record (12.09.10), all report deterioration over the course of the day of the 12th September 2010. [An RN] reports in the Grey hospital clinical notes at 1200, (12.09.10) 'becoming shaky and not able to respond with BP ↑ to 216/115'. The anaesthetist note signed by [the] (anaesthetic locum), reports 'Pt (patient) ↓ consciousness since this am'. The neurologic observation chart also records a fall in GCS at 12.00 midday from 14 to 13. I am aware that inaccuracies can be reported in subsequent documentation by simple copying of this information; however this deterioration is supported by the documentation. [Dr B] reports an alternate opinion regarding deterioration in his report (17.07.12), which documents that [Mr A's] condition was unchanged at the time of transfer to [Hospital 2]. This clinical opinion was not documented at the time. It would have

been helpful had it been, as his level of experience in assessment would have been the most reliable assessment of patient condition.

I believe that [Mr A's] clinical condition and CT imaging should have been discussed on the 11th September 2010 with regional neurosurgical services. This would have given the opportunity for neurosurgical input into care whilst [Mr A] remained at Grey Hospital and an assessment of the urgency of transfer. This is the single issue I have identified as deficient in his care. I understand that the ability to view images remotely was in place at that time. I do not believe that transport issues should have precluded accessing this advice, either whilst [Mr A] was in the Emergency Department between 1310 and 1800 and under the direct care of [Dr C], or subsequently when transferred to medical services. This omission would be viewed by a provider's peers with moderate disapproval. In my view it was a deficient standard of care. I do not know whether the outcome of neurosurgical phone consultation would have changed the ultimate outcome for [Mr A].

Other issues I have identified in this review include the clinical records.

- I note the absence of overnight recordings, but there is a reference on the neurologic observation and the nursing notes to these being present. I assume that the blood pressure was monitored and recorded overnight.
- I note that the documentation of the external consultation by [Dr C] with [Dr D] is very brief and it would be appropriate for the content of such a consultation to be documented in more detail.
- I note that [Dr B] did not document his review on the evening of the 11th or immediately prior to transfer on the 12th.
- I note that the nursing notes state that two RMOs reviewed [Mr A] overnight between the 11th and 12th September 2010. There is no documentation of this review in his notes. This is an important deficiency of documentation.

In regard to process of care, there needs to be very clear lines of responsibility regarding the decision making when clinicians are acting under the supervision of other clinicians. I am not sure if there was clarity regarding clinical responsibility for oversight for medical patient admitted though the ED at Grey Hospital by Medical officers in 2010.

In summary; the major omission in care provided by the medical service at Grey Hospital in the care of [Mr A] was the failure to consult urgently with regional neurosurgical services.

An appropriate standard of care was provided in the critical care unit which is in essence a high dependency nursing observation unit.

Timing of [Mr A's] transfer to [Hospital 2] should have been at the earliest possible opportunity, preferably on the afternoon of the 11th. Logistical factors may have impacted on this.

The standard of documentation is acceptable with the exception of the failure to document overnight review by RMO. Fuller documentation of consultation with external specialists and consultant review is desirable but of a standard currently widely practiced.

I think the failure to document is a moderate departure from the standard of documentation.

I think from the in-hospital portion of this man's care path the most important oversight was failure to consult neurosurgery earlier than occurred. This is of course not documented because it did not occur. A failure of care rather than documentation.

Yours sincerely

Denise Aitken
CONSULTANT PHYSICIAN"