

**General Practitioners, Dr B and Dr C**

**A Ski Company**

**A Medical Centre**

**A Report by the**

**Health and Disability Commissioner**

**(Case 02HDC17422)**



Health and Disability Commissioner  
*Te Toihau Hauora, Hauātanga*



## Parties involved

Mr A	Consumer
Dr B	Provider / General Practitioner
Dr C	Provider / General Practitioner
Dr D	Medical Director at the first medical centre
Dr E	General Manager at the second medical centre

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## Complaint

The Commissioner received a complaint from Mr A regarding the care he received from Dr B and Dr C following a skiing accident on 6 October 2002. The complaint was summarised as follows:

*Dr B did not provide Mr A with services of an appropriate standard following a skiing accident on 6 October 2002. In particular:*

- Dr B did not assess Mr A adequately, did not arrange an X-ray of his neck to rule out the possibility of a neck fracture and did not provide him with appropriate follow-up instructions. X-rays taken on 9 October 2002 revealed an unstable C5 fracture necessitating spinal traction and surgery.*

*On 9 October 2002 a medical centre did not provide Mr A with services of an appropriate standard. In particular, the doctor who examined Mr A:*

- did not immobilise Mr A's neck before referring him to hospital for further assessment and management, even though she knew from the X-ray that Mr A had a cervical fracture*
- did not arrange appropriate transportation of Mr A to hospital.*

*On 9 October 2002 the medical centre did not provide Mr A with all relevant information. In particular, the doctor who examined Mr A:*

- did not inform Mr A adequately as to the extent of his neck injury or advise him on appropriate transportation to hospital.*

The complaint was received on 22 November 2002 and an investigation was commenced on 4 February 2003.

## Information reviewed

- Information obtained from Mr A, Dr B, Dr D, Dr C and Dr E
  - Mr A's records from the medical centre at his place of work and the hospital
  - Independent professional advice from Dr Steve Searle, a general practitioner with emergency clinic experience
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## Information gathered during investigation

### *Accident and assessment at the ski field*

On Sunday 6 October 2002, at approximately 2.30pm while snowboarding on a ski-field, Mr A fell onto his upper back after performing a jump. He attempted to walk back to the car park but after a while felt that he could not walk further and asked the ski-lift attendants for assistance. Mr A was experiencing severe neck pain. Paramedics were called and arrived shortly afterwards. A neck brace was applied to his neck; he was placed on a backboard and taken to a nearby medical centre.<sup>1</sup>

The "Ski Patrol Accident Report Form" states that Mr A was seen by Dr B, the duty doctor, at 3.30pm. Dr B is a member of the Australasian College of Emergency Medicine and has passed a course in Advanced Trauma Life Support (ATLS). Dr B recorded that since his fall Mr A was complaining of a painful neck and pain in the thoracic (chest) region. He noted that there was no evidence of a head injury and that Mr A was fully alert and orientated. His Glasgow coma scale (GCS)<sup>2</sup> was 15. On examination Mr A was tender over the 6<sup>th</sup> cervical (neck) vertebra. There was no problem with passive flexion and extension of the neck and no loss of power or sensation in his arms. He was given a soft collar, prescribed Voltaren for pain and advised to see his general practitioner if necessary.

Mr A advised me that in addition to the prescription he was given some Voltaren and Panadol by Dr B, enough to get him home. He said that Dr B told him to "take it easy" and that in about three or four days he would come right. Dr B told him that because he had landed on his back it was unlikely he had broken anything; it was a severe sprain and he did not think an X-ray was needed.

Although Mr A accepted Dr B's assessment, his mother was unhappy that an X-ray of his neck had not been taken. Concerned, his mother telephoned another medical centre and another public hospital and was told that an X-ray could not be taken unless ordered by a doctor.

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<sup>1</sup> Located at the base of the Ski Area at an altitude of some 5,000 feet above sea level.

<sup>2</sup> A scoring system used to estimate a patient's level of consciousness after a head injury. Eye opening is numerically graded from 1-4, motor response from 1-6 and verbal response from 1-5. The higher the score (maximum of 15), the greater the level of consciousness. A score of 7 indicates a coma.

Dr B advised me that there are X-ray facilities at the first medical centre but only for evaluation of limb injuries. Because of the complexity in obtaining adequate spinal views with the equipment available, they are not performed at the Centre. Dr D, Medical Director of this medical centre, confirmed this. The use of X-rays only for evaluation of limb injuries is a self-imposed restriction and the Centre's protocol specifically prohibits doctors from performing X-rays of the spine and skull.<sup>3</sup> If there is a "reasonable chance" of a spinal fracture the policy of the medical centre is to transport the patient to hospital on a spine board with a stiff neck collar for further assessment. Because this medical centre is situated in an isolated area, the nearest facility that can provide such a service is the public hospital in the nearest town, approximately 50km away. Dr D advised me that a referral of every possible spinal injury to the hospital was neither practical nor desirable.

Dr B explained that helicopter evacuation is not undertaken lightly because of the risks involved in reaching the mountain, where adverse weather conditions are not uncommon. However, if a spinal fracture is suspected, every attempt is made to evacuate by a method least likely to aggravate the injury. If possible this is by helicopter, and land transport is used in other situations. In Mr A's case, spinal injury was not suspected.

#### *Return to hometown*

Mr A returned home and on the following day, Monday 7 October 2002, stayed in bed. On Tuesday, 8 October, he felt better and went "out and about" with a soft collar.

#### *Workplace medical centre*

Mr A advised me that because he was still sore and did not feel ready to return to work, at approximately 8am on Wednesday 9 October, he went to the medical centre at his work to obtain sick leave. At the centre Mr A was seen by the doctor on duty, who recorded that Mr A complained of pain and stiffness in his cervical spine. He examined Mr A and noted that he had reduced range of movement in all directions, tenderness at the level of the 5<sup>th</sup> cervical vertebra and some muscle spasm. No problems with power, reflexes or sensation in his arms and hands were evident. The work doctor referred Mr A to a radiology for an X-ray. He did not immobilise Mr A's neck.

#### *The radiology*

Immediately after the consultation with his work doctor on 9 October, Mr A went to the radiology to have an X-ray. After the X-ray was taken the radiographer informed Mr A that she "could see that there was an obvious fracture" and sent him to the adjacent medical centre to see a doctor. The ensuing radiology report stated:

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<sup>3</sup> Section 4.3 of the protocol states: "Body Parts to be X-rayed. While the radiologists license from the NRL [National Radiation Laboratory] does not specifically restrict x-ray use with regard to body part, it is our intention to manage this service on a conservative basis, and therefore we will self-impose a restriction to x-rays of extremities (upper and lower limbs including the shoulder and hip joints), and emergency chest films. In particular we will not x-ray the skull, spine or abdomen; these are the same restrictions that the National Radiation Laboratory has said they would impose if the license was to be issued in the name of the Clinic doctor rather than the radiologist."

“IMPRESSION: Fractured C5 vertebral body with approximately 30% compression and anterior wedging associated with approximately 4mm posterior subluxation [partial dislocation of the joint].”

#### *The medical centre*

At the medical centre Mr A was seen by Dr C, general practitioner. He gave Dr C the X-ray and an abbreviated handwritten report from the radiologist (as the full, typed copy of the report was not yet available).

Dr E, General Manager of the medical centre, advised me that it was not uncommon for the Centre to have patients referred to it by the adjoining radiology service if the original X-ray has been requested by the medical centre at Mr A's place of work or one of a number of local general practitioners and a fracture has been found. Mr A's workplace and a number of the local general practitioners had previously requested that this procedure be followed.

Dr C recalled that she looked at the X-ray with Mr A and pointed out that a fracture had been noted. He explained to her the circumstances of the accident and that an X-ray was not taken at that time because the doctor did not think it was necessary. Mr A informed her that he had experienced intermittent severe neck pain but did not have any significant pain at the time of the consultation and was not taking analgesia. He was not distressed. On examination, Mr A had no neurological signs or symptoms.

Dr C stated that as the cervical fracture was radiologically evident, and although the radiology report did not state that the fracture was unstable, she “felt it prudent” not to remove the soft cervical collar Mr A was wearing and undertake a more detailed examination of his neck. Instead, she contacted the orthopaedic registrar on call at the hospital and discussed the case with him, including the X-ray findings. Dr C said that the registrar, whose name she could not recall, informed her that Mr A needed prompt hospital assessment. Mr A was driven to hospital in a work car. His neck was not immobilised by Dr C prior to the transfer. Dr C advised me that the registrar did not suggest to her that the fracture might be unstable or advise her to transport Mr A by ambulance in a rigid collar. In response to Mr A's complaint that she did not apply a rigid collar and send him to hospital by ambulance, Dr C stated:

“... [T]he fact that [Mr A] had been walking around with this injury for three days, was not in any significant pain, had no neurological symptoms or signs and that the X-ray report did not state the fracture to be unstable, ... led [me] to believe that I was dealing with a stable fracture and that transport to hospital by ambulance in a rigid collar was not necessary. This opinion was reinforced by the discussion with the orthopaedic registrar who did not suggest to me that he required transport in an ambulance and rigid collar.”

#### *Admission to hospital*

The hospital notes record that Mr A presented at the Emergency Department on 9 October 2002 at 11.12am. Shortly after arrival he was assessed by a nurse and then an orthopaedic registrar. He was found to be “neurologically intact” with no observable abnormalities

noted. Suspecting an unstable neck fracture, the registrar admitted Mr A and immediately placed him on full bed rest and immobilized his neck with a hard collar.

A CT scan was performed at midday and revealed a “three column fracture of C5” with one fragment of the vertebra “displaced 3mm into the spinal canal” with no significant spinal cord compression. Mr A was admitted to a ward and at about 8pm that night went to the operating theatre for an application of halo (skull) traction. An X-ray of his neck was taken at 11pm. A “4mm posterior subluxation of C5 and C6” was noted.

On 10 October, at about 10.30am, Mr A was reviewed by an orthopaedic consultant, who agreed with Dr F, spinal and general orthopaedic consultant at the hospital, that Mr A required an MRI scan and possible surgical correction of the fracture. An MRI was ordered for later that day and surgery scheduled for the next day.

On 11 October Mr A underwent surgery – corpectomy (removal of the fractured vertebral fragments) and spinal fusion (grafting and plating) of the 5<sup>th</sup> and 6<sup>th</sup> vertebrae). The surgery was performed by Dr F. An X-ray taken on 14 October showed normal alignment. The following day, 15 October, Mr A was discharged with a prescription for analgesics (paracetamol, tramadol and diclofenac sodium) and instructions to use a hard collar for three months. A follow-up appointment was made for Mr A to see Dr F in six weeks’ time.

On 25 November 2002, as scheduled, Dr F reviewed Mr A and noted that he was happy with his progress, and had minimal neck pain and no neurological deficits. X-rays taken on the day showed continuing satisfactory positioning of the graft. On the basis of his findings Dr F instructed Mr A that the wearing of the hard collar at night could be replaced with a soft collar. He was to remain in a hard collar otherwise. Further review was scheduled for six weeks’ time.

On 13 January 2003 Dr F again reviewed Mr A and noted that he was “very happy” with his progress. Mr A had no arm or neck pain or any neurological deficit. He had a “near full” range of cervical spine motion. X-rays taken on the day showed unchanged alignment and “solid union” of the vertebrae. Mr A was advised to avoid contact or high-impact activities for a further two months. No further follow-up arrangements were made.

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## **Independent advice to Commissioner**

Dr Steve Searle, an independent general practitioner, provided the following expert advice:

### **“Report on complaint file 02/17422/EW”**

This report has been prepared by Dr S J Searle, under the usual conditions applying to expert reports prepared for the Health and Disability Commissioner. He has the following qualifications: MB.ChB, DipComEmMed, FRNZCGP. As well as the qualifications listed Dr Searle has a certificate in family planning and a post graduate

diploma in sports medicine. He has completed and renewed a course in Advanced Trauma – ATLS (Advanced Trauma Life Support). He has worked in several rural hospitals in New Zealand as well as in General Practice and accident and medical clinics and currently works in his own practice as well as in the Emergency Department in [name deleted] Hospital. He is also involved in local search and rescue missions and training.

### **Overview:**

This ‘complaint’ was at least partly made in the spirit of trying to avoid a similar set of events happening to another person, and in a sense is a type of ‘near miss’ report.

I am pleased that such a report has been made. This is because there is a danger that such ‘near miss’ incidents are overlooked if no harm actually occurs. This concept is also important in understanding the difference between the standard of care and the subsequent outcome. One of the principles of giving advice to the Health and Disability Commissioner is that the ‘outcome of the care is irrelevant’ – it may be that there was no departure from the accepted standards but the care still resulted in an adverse outcome for the consumer. Conversely there may have been no adverse outcome for the consumer but the care may have been substandard (Ref. 1).

In the spirit of this being a ‘near miss’ type of report I have made a number of recommendations for the doctors and other health professionals, for the medical facilities, and for the patient concerned and for patients in general. Some of this is more generalised advice aimed at preventing errors in general, with most of the advice aimed at the particular errors and situations involved in this case.

### **Basic Information:**

Patient concerned: [Mr A]

Nature of complaint:

- 1) Failure to diagnose and/or failure to arrange adequate timely investigation (X-ray).
- 2) Failure to safely transport to definitive care after investigation (X-ray).

Complaint about:

- 1) [Dr B]
- 2) [Dr D]

Also seen by: Ski field medics, a doctor (or doctors) from [Mr A’s] place of work], the radiographer at [the centre], and subsequently by [hospital] doctors.

### **Documents and records reviewed:**

- Letter of complaint from [Mr A], marked ‘A’ (2 pages)
- Notes of interview with [Mr A] on 14 January 2003, marked ‘B’ (4 pages)
- Letter of response from [Dr B], marked ‘C’ (4 pages)
- Letter of response from [Dr D] dated 23 June 2003 (3 pages) and accompanying documentation (6 pages) marked ‘D’
- Letter of response from [Dr D], dated 19 February 2003, marked ‘E’ (2 pages)
- Additional letter from [Dr D], date 8 April 2003, marked ‘F’ (1 page)



- Letter from [the centre] dated 18 February 2003 with a copy of the x-ray report and [Dr D's] consultation notes, marked 'G' (3 pages).
- Record from [Mr A's] workplace], marked 'H' (1 page)
- [Mr A's] records from [the hospital], marked 'I' (50 pages)
- Records from [the first] medical centre provided by [Mr A] marked 'J'

### **Possible missing information**

The letter of response from [Dr B] appears to have been made without him having access to his notes. It is possible that he may have further comments to make if he reviews these notes, but as his notes are of a good standard I consider it unlikely that any statement he would make about his notes would change my opinion. In particular I do not consider his notes to be missing any information concerning the primary aspect of the 'complaint'.

[Dr B] states he is a 'member of the Australasian College for Emergency Medicine'. This does not tell me if he actually has any qualifications in Emergency Medicine – for example has he passed any of their examinations or course requirements? My understanding is that virtually any doctor can be a 'member' – but passing their examinations or course requirements is another matter. It is also not clear if he has successfully completed a course in Advanced Trauma Life Support (ATLS) (commonly known in New Zealand (NZ) as EMST (Early Management of Severe Trauma)? However I think in this case it is reasonable to make a decision based on assuming he has none of these qualifications (some people would say that if he had these qualifications then a higher than otherwise expected standard of care should be given because he would have the training to provide a higher standard of care – and hence my judgement would be more rather than less severe on [Dr B]). My opinion that he should be judged as a doctor without any special qualifications would appear to be supported by [Dr D's] letter that states [Dr B] 'held general registration, under the oversight of [Dr ...]'

### **Quality of provider's records or lack of them**

#### **[Dr B's] notes:**

The record on the day (06/10/02) is good in that it is readable, and does cover the areas of history and examination findings, treatment, and advice. These points are good in that the comprehensiveness of the assessment of [Mr A] was likely to be good when all these aspects are covered in the notes.

The standardised form used to record the notes is of a reasonable standard. It may be useful for the Ski Patrol to consider having a separate heading to emphasise past medical history. This is because in my experience this history is often not taken, or documented, and as Doctors get used to seeing people with no past history it is easy to forget to ask about this. If forms are taken seriously and completed then these headings can be a useful prompt to remind people to ask. Of note in this case the form was fairly well filled out in that the current medications section and allergies section of the form were

both filled out as 'nil'. This is excellent as at times there is tendency to leave these parts of the form blank.

There was no record made in the section for charting pulse, L.O.C/G.C.S (level of consciousness/Glasgow Coma Scale, pupils, B.P. (blood pressure). I think that although there can be arguments for suggesting that in this case they should have been recorded there are also arguments against this. Also in my experience in this type of case such observations would not be routinely recorded unless it was obvious something more serious was going on – personally I would have only recorded them once I decided I could not clinically clear [Mr A's] neck of having a fracture. Given [Dr B] felt there was no fracture (albiet incorrectly) I do not think we can say his notes were deficient for not recording this information. I have included a longer discussion on these observations as an appendix.

The history and examination as documented is good up to and including 'Tender over C6 across neck' (C6 meaning the 6<sup>th</sup> cervical vertebrae – or 6<sup>th</sup> bone in the neck). After this I have some concerns about the statement 'able to passively flex/extend and laterally flex neck'.

I would not normally suggest attempting passive movement of a neck that had not been first cleared of likely spinal injury (either by clinical decision rule or X-rays) and even then I would probably start with letting the patient actively attempt gentle active neck movements (active movements are patient initiated movement as opposed to passive external doctor initiated movements). I suspect at the point that passive neck movement was done that [Dr B] had decided that there was not a spinal injury. At this point I consider **[Dr B's] standard of care or skill was deficient in that he either did not diagnose or suspect a possible spinal injury, or if he did suspect one he did not take appropriate further action.**

There are good well validated clinical criteria for clearing the cervical spine. **The ATLS manual (Ref. 3 & 4) states that**

**'if the patient is awake, alert, sober, neurologically normal, is not experiencing neck or back pain, and does not have tenderness to spine palpation, spine x-rays or immobilisation devices are not needed.'**

[Dr B's] note clearly states 'painful neck/throacic region' and states 'tender over C6. Thus the above rule for clinically clearing the neck did NOT apply in [Mr A's] case.

Text books on emergency medicine also state that cervical spine injury should be suspected with neck pain (Ref 5 an older text and Ref 6 a newer version). The full quote from Ref. 6 is 'This (cervical spine injury) should be considered in all patients with localised pain or stiffness following trauma. It should be assumed in any unconscious head injury, multiple injured patient or with a local distracting injury'.

Other evidence is accumulating on clinical decision rules which let the doctor safely decide not to X-ray the neck (see Ref. 7 – I have included a quote in the reference

section of my report – although this rule probably needs further testing it looks promising).

The ATLS manual states with respect to any case of suspected spinal injury.

‘The patient should be left completely immobilised until x-rays are taken to rule out vertebral fractures.’ A soft collar does not achieve this and hence the note stating ‘soft collar’ indicates inadequate management – but this probably occurred due to the prior decision not to immobilise this man and safely transport him for X-ray.

The note ‘ongoing analgesia’ is adequate and it is good that the prescription is recorded including the dose, frequency and amount (‘voltaren 50mg tds PRN M30’).

‘R/V (Review) own GP as necessary ...’ is adequate. I think the ‘...’ part means further specific advice may have also been given. It may have been slightly better to give time specific guidelines such as ‘see GP in 3 days if not improving, review with GP in 1 week if not 100% and, see a doctor sooner if worse’. I find this type of advice useful on the basis of the known 48 to 72 hours of acute pain and swelling from soft tissue injuries being the basis of the 3 day recommendation, and the week long limit somewhat arbitrary but on the basis that prolonged pain or symptoms warrant a review to check on normal healing and make sure there is no complication such as stiffness and also because it is hard to give more detailed advice although 90% of soft tissue healing occurs within 6 weeks this is too long a time to wait before seeing the doctor again as some complications need to be managed sooner to prevent prolonged or permanent problems. Guidelines for various injuries such as simple mechanical back pain are starting to specify more specific time periods for follow up but until better evidence accumulates I would have to accept that [Dr B’s] follow up advice is within the range of current normal practice.

**Describe the care as documented and describe the standard of care that should apply in the circumstances.**

**Safety.**

Is the patient now in a safe environment (safe from further injury) & is it safe for the provider?

The environment is usually safe in most medical clinics and hospitals and was likely to have been safe at the Ski Field Clinic where [Mr A] was initially seen by [Dr B]. Initially [Mr A] was immobilised when transported to the clinic and was as reasonably safe from further injury as is possible.

[Dr B] took reasonable care to examine [Mr A] thoroughly. However I think in the presence of possibly spinal injury that passively examining the neck is not a wise practice. This passive examination was probably done as a consequence of the (in my opinion incorrect) decision that [Mr A] did not have a significant spinal injury. This decision then also meant that subsequent safety was not prioritised because

immobilisation of the spine was not thought to be needed.

### **Any Serious Injury?**

Is there any life threatening injury – classically ‘ABC’s (airway breathing and circulation) are checked for & then ‘D’ for disability or neurological function. It is important for example in this case to check that there was not an injury to another part of the body when he fell. This was covered well in [Dr B’s] assessment – he documented ‘GCS 15/15’ (Glasgow Coma Score 15 – this indicates likely full normal level of consciousness which means that [Mr A’s] brain was working reasonably well and hence he almost certainly had a good airway and breathing and circulation (ABCs)). The disability aspect was covered well with a check being made and documented – ‘no loss of power/sensation in arms/across trunk’.

**Taking a full history** (previously commented on above) – to include mechanism of injury, current symptoms (e.g. pain, numbness, loss of use), past history of injuries to the same area, past medical history including medications and allergies. The history probably was adequate although presence or absence of past medical problems was not recorded.

### **Do an appropriate full examination.**

As stated in the previous section on the quality of the records the examination was thorough including a check on neurology – however in the presence of pain or tenderness in the neck I do not think passive examination is a wise practice – this could risk further injury.

**Order appropriate investigation** – e.g. X-rays with full and adequate views. In this situation it also means appropriate safe transportation to a place where this can be done. Such a place would require a doctor capable of interpreting the X-rays. So whilst it has been suggested that this should be done on the mountain or at the ski field or close by, this is in fact not appropriate as even if the cost of the equipment could be justified the employment of staff to run the machine, and interpret the X-rays is not likely to be possible (this is not simply a cost issue but also an issue of such staff not having enough ongoing experience in such a setting to maintain their skills – ski fields are not open all year round etc.).

**Decide on appropriate management** and implement this or seek advice and/or refer on for such management. In this setting as serious injury based on the history and examination findings could not be ruled out then safe transport should have been arranged.

**Give the patient appropriate advice** on follow up, and any complications to watch out for that might need earlier follow up. The advice given for [Mr A] to see his own GP was probably appropriate if the initial diagnosis of no serious neck injury was correct (see also my comments in the previous section on the notes). The use of a soft collar is probably not good practice however – for a long time now with many neck injuries it

has been shown that soft collars worsen the outcome (certainly if used for more than 1 to 2 days – and in this case no warning was given not to use the collar for longer than this). Soft collars also often give a false sense of security – this should be avoided (the neck should either be cleared clinically or by X-rays – otherwise it should be immobilised properly until the neck is cleared).

**Have appropriate systems in place to reduce errors.**

This is where there is great potential to improve the management for all patients. Doctors are human and errors can occur – however they can be minimised and/or the effects of these errors reduced or mitigated by having systems in place to check for errors and if possible to take action to prevent harm or to prevent sub-optimal outcomes for patients.

One system that was in place was having a preformatted form to record the notes in – see my previous comments on this form.

Other systems could include having various checks and prompts for doctors working on the ski-field to remind them about easily missed serious injuries. Clinical decision rules (e.g. Ottawa Ankle Rules, Ottawa knee rules, neck clearance rules), clinical observation protocols (e.g. Glasgow Coma Scale) could be available in a manual and/or as posters on the wall in the clinic etc. I am sure the ski field clinic on the mountain might want to review this in light of this case. Also they could review their process for checking on what doctors would do in various theoretical cases before they actually work on the mountain. One aspect of this could include checking on the understanding of the doctors about what transport is available for injured or ill people and how to activate it etc. It seems from the comments that [Dr B] made and that [Dr D] made that there may have been some confusion or doubt about the transportation options – I am sure they will both review this issue and I think [Dr D] addresses this issue well in his letter.

Another issue is that the Ski-Field patrol that brought [Mr A] to the Ski-Field clinic clearly thought there was a possibility of spinal injury. This is in contrast to the apparently opposite view of [Dr B]. In such situations there should be an in advance agreement that the Ski-Field patrol (if they are still around) is able to draw the doctor aside out of hearing range of the patient and discuss this to help prompt the doctor to think ‘do I have good evidence to rule out more serious injury?’ This would only work well in a positive no shame/blame environment and would need prior agreement between the doctor and the Ski-patrol so that there was not any bad feeling etc. at the time such discussions took place relating to a particular patient. The same feedback might occasionally apply if say the Ski-patrol missed treating something serious when the doctor thought otherwise. This is part of ‘capacity for self-critique’ (Ref 8.) – ‘Overconfidence in judgement is a serious error. Clinicians should cultivate a capacity for reflection on their decisions and especially a willingness to re-examine them in light of new information or input from other team members.’ (Ref 8.)

I would like to say that [Dr D's] letter (23/6/03) shows a good healthy approach to errors and systems and he should be congratulated on having this approach – I am very pleased to see this.

The next system that needs to be looked at is the way doctors make decisions, and the way the system they use to make such decisions can go wrong. This is well discussed in an emergency medicine paper on 'Cognitive Forcing Strategies in Clinical Decisionmaking' (Ref. 8). The idea being that there are techniques that doctors can use to help avoid errors in the way they think that might lead to incorrect decisions being made. In this case there could be many factors that could bias the decision making process, such as past experience of the doctor, the weather, the time of day (was the ski-field about to close and the pressure was on to clear all patients?), the difficulty and/or delays in getting ambulance or helicopter transport etc. Of note safe transport might not have been immediately available – it would require some time to organise and arrive on the scene, or that there might have been a perception that the only available transport was a helicopter and the weather conditions were such that this was not available etc. However I am sure if there was a higher level of suspicion of a serious neck injury that such transport could have been arranged. It is important that doctors step back and make the decision of what is needed to properly manage the patient regardless of where they are and then separately work out how to organise this so that the complexity and/or inconvenience of the transportation arrangements does not bias the initial decision.

#### **The Events after [Mr A] Left the Mountain.**

[Mr A] after leaving the mountain was advised by family to try and get an X-Ray. I note that [Mr A] says that 'we were told that there was no Radiographer on duty during the weekend and one would not be brought in without recommendation from a doctor.' I think this is entirely appropriate and I might add no different to what happens in a big city. To my knowledge no one in New Zealand can order their own X-Ray – a doctor, or other appropriate health professional has to request one. There are many problems with X-Rays including not X-Raying the correct part, false reassurance from initially incorrect reports where X-Rays are interpreted without adequate clinical information, inappropriate exposure to X-Rays (there are small hazards from X-Rays and there are now good clinical decision rules to allow doctors to avoid taking X-Rays if certain clinical criteria apply). Whilst I commend [Mr A] for seeking another opinion, and it is his right to do so, I think he should have gone to see another doctor rather than tried to get an X-Ray directly, and I am sure there would have been doctors available in either [of the two nearby towns].

I have already commented about it not being appropriate to have on the mountain full X-Ray facilities – see my comments above under the title 'Order appropriate investigation'.

It is interesting that 'the doctor [at Mr A's workplace] recommended an X-ray just to be sure'. I think that this probably means that the doctor could not clinically rule out fracture. It is good that this doctor re-considered the diagnosis – an important step in avoiding further error. In this setting I think there is an argument that once the

diagnosis was in doubt safe transportation to get such an X-Ray should have been arranged. Whilst [Mr A] had travelled a long way since his injury on the mountain and it is tempting to think that the risk of further injury is very low clearly this was not the case once his injury was assessed fully in hospital and considered 'unstable'.

Once the X-Ray was taken and a fracture seen then unless someone can say the fracture is stable then immobilisation is required until someone can say the fracture is stable or intervene (e.g. operate) to make it stable. I think in this particular case where the X-Ray was taken without [Mr A] already being immobilised that the radiographer and the doctor in the medical centre at the X-Ray facility were 'put off the scent' so to speak. Normal practice would be for [Mr A] to have been in a collar for the initial X-Ray and I am reasonably sure that if that was the case that the radiographer would not have 'sent me through to a doctor in the medical centre', and that the doctor in the medical centre would not have been falsely reassured by the absence of adequate immobilisation.

The standard of care that should have applied from the time of [Mr A's] presentation to a second doctor [at Mr A's place of work] (back in [the city]) was for [Mr A's] care to be the same or better at each subsequent step. 'Care of the trauma patient should consistently improve with each step, from the scene of the incident to the facility that can provide the patient with the necessary, proper treatment' (Ref 3.). In this case the final facility was [the public hospital]. Care was good prior to seeing the Ski-Field doctor – the Ski-Patrol Medics immobilised and transported [Mr A] from the immediate scene of the accident to the Ski-Field doctor. Unfortunately an error occurred in the decision to clinically clear [Mr A's] neck. After this a new level of care (no immobilisation and self transport) was established. This level of care never deteriorated between [Mr A] presenting to the the doctor [at his place of work] and his arrival at [the public hospital]. Certainly you can argue that it would have been safer if his standard of care had improved – if any of the health professionals involved had thought to immobilise him this would have been commendable. These health professionals are the [work] doctor, the radiographer (name not known to me), the medical centre doctor ([Dr D]), and the orthopaedic registrar that [Dr D] contacted by phone. The fact that none of these four health professionals thought to advise further immobilisation pre-hospital is interesting. My opinion is that because [Mr A] was not already immobilised it was not thought of, or possibly in the case of the orthopaedic registrar it was not thought necessary to advise on appropriate transport. [Mr A] appeared to fall through the 'gaps' so to speak. I think this is a type of cognitive (or thinking) decision error that is understandable in the sense that it is an error of omission (Ref 8.). Basically the usual pattern is for anyone who might have a serious neck injury to be immobilised by the first health professionals to see the patient and for that immobilisation to be left in place (or only temporarily removed) until more serious injury is ruled out. Once this pattern of care is broken and immobilisation is discontinued it takes a different thought process to go back a step and re-consider the need for immobilisation. It would have been commendable if immobilisation was re-instated prior to transportation to [hospital] but I do not think that any one of the health professionals who could have suggested this should be individually held responsible. I think the fact that several health professionals did not suggest immobilisation supports my concept that the error of omission (omission

of immobilisation in this case) is hard to overcome and rectify because the mode of thinking has skipped past the question of 'does this person need to be immobilised'. It is also possible a false sense of safety developed because [Mr A] had travelled such a long way without further incident – a common sense (but not necessarily correct) approach of thinking that the next short trip to the X-Ray facility or to the hospital is so much less likely to cause injury than his previous long trip that these short trips will probably be OK.

**Describe in what ways if any the provider's management deviated from appropriate standards and to what degree.**

I believe I have largely already done this. Basically the standard of care [Mr A] received from [Dr B] was of a good standard with good notes being made, but a major decision error occurred in that [Dr B] clinically cleared his neck of serious injury when there was no evidence that it was safe to do so.

The subsequent lack of immobilisation was understandable in that the decision had been made to clinically clear the neck. Once the decision to clinically clear the neck was questioned by [Mr A's work] doctor then either this doctor, or any of the subsequent health professionals involved prior to [Mr A's] arrival at [the public hospital] should have considered and implemented immobilisation – I think they all deviated from an appropriate standard of care in a minor way and in an understandable way based on [Mr A] presenting to all of them without adequate immobilisation in place. This breach of a good standard of care is unfortunately within common practice of all of these health professionals but they and other health professionals should endeavour to avoid this error in future.

**Answering Questions put to me by the Commissioner's office.**

**[Dr B]**

- Was [Dr B's] examination of [Mr A] on 6 October 2002 appropriate and complete? I have already commented on this – basically it was complete and mostly appropriate
- Was an X-Ray indicated on 6 October 2002? I have already commented on this – in my opinion there was no evidence that it was safe to clinically clear [Mr A's] neck and therefore an X-Ray was indicated.
- Was [Dr B's] follow-up advice on 6 October 2002 appropriate in the circumstances? Given that he had decided an X-Ray was not necessary (although this decision was not correct) then the advice given was reasonably appropriate. I am sure his advice would have been different if he had not decided to clinically clear [Mr A's] neck.

**[Dr D]**

- Should [Dr D] have immobilised [Mr A's] neck on 9 October 2002, on the basis of the information that was available to her once the X-Ray had been performed? Yes, but as already stated other health professionals involved in [Mr A's] care after seeing [Dr B], and before his arriving at [the hospital] should also have suggested and/or organised immobilisation. I think the fact that several other health professionals did not suggest this supports my concept that the error of omission (omission of



immobilisation in this case) is hard to overcome and rectify because the mode of thinking has skipped past the question of ‘does this person need to be immobilised’ etc.). [Dr D’s] statements in her letter preceding the statement ‘I was led to believe that I was dealing with a stable fracture’ are reasonable common sense statements. However assessment of stability of spinal fractures is not a simple common sense matter and this shows a minor error in judgement. I certainly agree with her that given that the orthopaedic registrar did not suggest ambulance transport that it is not surprising that she did not consider ambulance transportation – I have commented on this elsewhere in this report – however I still consider it was primarily her decision once [Mr A] presented to her. The comment that the X-Ray report did not state the fracture to be unstable also tends to make it harder to consider immobilisation – but on the other hand the report did not state it was a stable fracture either. Whilst it would be good for radiologists to comment on this aspect (the stability) of fractures it is not routinely done and [Dr D] needs to be aware of this.

- Please comment on whether [Dr D] should have made arrangements for [Mr A] to be transported to [hospital] by ambulance on the basis of the information that was available at the time. I believe I have already answered this above – yes ambulance transport should have been arranged – this is closely linked and essentially the same decision as did he need immobilisation.
- If ambulance transportation was not necessary, what information should she have provided [Mr A] with. Ambulance transportation was necessary – immobilisation requires more than just a rigid collar but also prevention of movement of the body relative to the head/neck and semi-rigid collar.

### **Conclusion:**

I believe that a decision error occurred when [Dr B] decided to clinically clear [Mr A’s] neck at the Ski-Field medical centre. The subsequent events all hinged on this decision. Whilst it would have been good if the health professionals involved in [Mr A’s] care after seeing [Dr B] and before his arrival at [the hospital] had immobilised [Mr A’s] neck it is not surprising that this did not occur for the reasons already stated. There is much to learn from this case and I would like to thank [Mr A] for bringing this to our attention even though he fortunately did not appear to suffer any adverse consequences as a result of the at times inadequate standard of care he received. In this spirit I have made a number of hopefully constructive recommendations.

### **Recommendations:**

#### **For the Ski Field/Ski Patrol and Ski Field doctors in general:**

The standardised form used to record the notes is of a reasonable standard. It may be useful for the Ski Patrol to consider having a separate heading to emphasise past medical history – I think this could help avoid future errors (although this was not directly an issue in this case). I think this form is used on various ski fields around NZ and perhaps the various Ski Field doctors should review this. Forms are always difficult to design as one patient may have for example a long past history and most might have none – but

nevertheless having a prompt on a form (even if there is not always enough room after it) is in my opinion a good back stop or systems approach to trying to reduce errors.

Ski Field doctors may wish to view an anonymous version of this case as a potential learning exercise. They may also wish to check on their systems and modes of thinking in order to prevent similar errors.

**For Doctors who reconsider the diagnosis** – in this case the [work doctor] and the Doctor who reviewed [Mr A] after his X-Ray ([Dr D]). These doctors need to realise the need to go beyond the step of reconsidering the initial diagnosis (in this case of no significant spinal injury) and say now that we have considered another diagnosis (possible spinal injury) what other management options need to be considered (e.g. pain relief, advice, safe transport, appropriate investigation and/or referral etc.). These doctors become the ‘Referring Doctor’ and as such are responsible ‘for the selection of an appropriate mode of transportation’ (Ref 3.). I also think care should be taken with soft collars – Soft collars often give a false sense of security, and in some neck injuries (e.g. whiplash injury) have been shown to give a worse rather than a better outcome if they are used for more than two days.

**For Radiographers and Radiologists**

Just because a patient presents without immobilisation does not mean they should leave without immobilisation. Radiographers should if in doubt consult appropriate doctors before further moving patients. Radiologists who might give preliminary reports should consider making statements in their reports such as ‘Stability of spinal fractures requires specialist assessment and until this is done immobilisation should be considered’.

**For the orthopaedic registrars at [the hospital] (or indeed any NZ hospital).**

They need to review their responsibility as the ‘receiving doctor’ (Ref 3.) – ‘The receiving doctor should assist the referring doctor in making arrangements for the appropriate mode and level of care during transport’. This means at least briefly saying something like ‘stability of spinal fractures is hard to assess and you should send this person to us by ambulance with appropriate immobilisation in place’.

**For Doctors providing oversight:**

There does not and should not be any implication or laying of blame on doctors providing oversight – this is important as they under the current situation in NZ provide oversight from a distance. We need more doctors to provide oversight and we do not want them to stop providing this service because of fear of liability. Ultimately the doctor on the spot needs to decide if the decision they are making is within their capability and if not to seek further advice or make arrangements for safe transportation to doctors and/or facilities that can provide definitive care. Nevertheless once a ‘complaint’ has been made about a doctor who is working under oversight then in my opinion the doctor providing oversight should be made aware of the result – even if there is no problem found as the ‘complaint’ process can be stressful. I would also suggest to doctors who are under oversight that they inform the doctor who is overseeing them early as they may be able to provide various types of advice such as on

how to respond to a ‘complaint’ and how to immediately review their practice to avoid further problems etc.

[The doctor] who was providing general oversight to [Dr B] should be made aware of this report. This would also apply to any doctor who is providing oversight to [Dr D] as I note she states she has General Registration with the Medical Council of NZ and is a member (but presumably not a Fellow) of the Royal New Zealand College of General Practitioners. A similar recommendation would apply to any doctor who might be overseeing the doctor (or doctors) from [Mr A’s] workplace].

**For Medical Schools and other organisations training doctors** (for example general practitioners (RNZCGP), and the [Royal Australasian] College of Emergency Medicine (RACEM) and the Accident and Medical Practitioners Association (AMPA).

These organisations need to review their teaching and systems for managing and preventing errors to ensure that errors of cognition and clinical decision making are considered – they may well already be doing this but this should be checked.

**For Patients and For Doctors who might be ‘challenged’ by patients.**

It is good that this issue has been raised even though no apparent harm resulted from the substandard level of care. Patients have a key role in alerting health professionals to ‘errors’ and need to continue to do this to help us continue to improve our standard of care. Patients need to realise that occasionally errors do occur and should seek second opinions or consider asking the initial doctor about the evidence they have used to make their decision. Doctors will in turn need to see this as a safety system rather than as patients challenging their ‘authority’.

**References.**

- 1) Statements about Health and Disability [Commissioner] decisions: One of the principles of giving advice to the Health and Disability Commissioner is that the ‘outcome of the care is irrelevant’ – it may be that there was no departure from the accepted standards but the care still resulted in an adverse outcome for the consumer. Conversely there may have been no adverse outcome for the consumer but the care may have been substandard.
- 2) BMJ 2000;320:768-770 (18 March) Education and debate: Human error: models and management, James Reason, Professor of Psychology.
- 3) Advance Trauma Life Support for Doctors, American College of Surgeons Committee on Trauma, Student Course Manual, 1997, ISBN 1-880696-10-X.
- 4) Early Management of Severe Trauma (EMST), Course Manual, Trauma Committee Royal Australasian College of Surgeons. (EMST is an adaptation of Advanced Trauma Life Support (ATLS), 1992, ISBN 0 909844 27 5.)

- 5) Accident and Emergency Diagnosis and Management, Anthony F.T. Brown, 1987, ISBN 0 433 00031 7.
- 6) Accident and Emergency Diagnosis and Management, Anthony F.T. Brown, Fourth Edition, ISBN 0 340 80720 2.
- 7) The Canadian C-Spine Rule for Radiography in Alert and Stable Trauma Patients, Ian G. Stiell et al. JAMA. 2001;286:1841-1848. Results Among the study sample, 151 (1.7%) had important C-spine injury. The resultant model and final Canadian C-Spine Rule comprises 3 main questions: (1) is there any high-risk factor present that mandates radiography (ie, age 65 years, dangerous mechanism, or paresthasias in extremities)? (2) is there any low-risk factor present that allows safe assessment of range of motion (ie, simple rear-end motor vehicle collision, sitting position in ED, ambulatory at any time since injury, delayed onset of neck pain, or absence of midline C-spine tenderness)? and (3) is the patient able to actively rotate neck 45° to the left and right? By cross-validation, this rule had 100% sensitivity (95% confidence interval [CI], 98%-100%) and 42.5% specificity (95% CI, 40%-44%) for identifying 151 clinically important C-spine injuries. The potential radiography ordering rate would be 58.2%. Conclusion: We have derived the Canadian C-Spine Rule, a highly sensitive decision rule for use of C-spine radiography in alert and stable trauma patients. If prospectively validated in other cohorts, this rule has the potential to significantly reduce practice variation and inefficiency in ED use of C-spine radiography.
- 8) Cognitive Forcing Strategies in Clinical Decisionmaking, Pat Croskerry, Annals of Emergency Medicine 41:1, Jan 2003, p110-120.”

*Further advice from Dr Searle*

Further information about Dr B’s qualifications was obtained and the following additional advice was then obtained from Dr Searle:

**“Summary:**

I have been asked to review my opinion given that [Dr B] has completed an Advanced Trauma Life Support (ATLS) course.

**Possible missing information**

I have been told that in 1998/1999 Dr B sat and passed Part I examination of ATLS. As the ATLS course does not have Part 1 do wonder if he is referring to his completion of Part 1 of a fellowship course of the Australasian College for Emergency Medicine – this is a different course to the ATLS course. The Australasian College for Emergency Medicine would be the normal course that ‘Part 1’ refers to so I am not actually certain that he has sat and/or passed an ATLS course.

### Further report comments

Assuming that [Dr B] has passed the ATLS course, my previous comments were that if he had completed the ATLS course that a 'higher than otherwise expected standard of care should be given because he would have the training to provide a higher standard of care and hence my judgement would be more rather than less severe on [Dr B's]. If [Dr B] passed the ATLS course in 1998/99 it is possible he would have used the earlier course manual published 1992 (Ref. 2) rather than the later manual published in 1997 (Ref. 1). I have checked both manuals and they both state that:

**'if the patient is awake, alert, sober, neurologically normal, is not experiencing neck or back pain, and does not have tenderness to spine palpation, spine x-rays or immobilisation devices are not needed.'**

[Dr B's] note clearly states 'painful neck/thoracic region' and states 'tender over C6'. Thus the above rule for clinically clearing the neck did NOT apply in [Mr A's] case. In other words X-rays were required.

My previous comment on the question 'was an X-Ray indicated on 6 October 2002?' still applies – namely 'in my opinion there was not evidence that it was safe to clinically clear [Mr A's] neck and therefore an X-Ray was indicated'. My other comment also stands: 'a major decision error occurred in that [Dr B] clinically cleared his neck of serious injury when there was no evidence that it was safe to do so'. I think that if [Dr B] has completed an ATLS course then his decision to not immobilise the neck and organise further investigation is a more serious breach of the standard of care as you would expect a doctor who has been to such a course to have a higher standard of care than a doctor who has not attended such a course. The course 'is accepted as a standard for the first hour of trauma care by many who provide care for the injured, whether the patient is treated in an isolated rural area or a state-of-the-art trauma center' (from the course overview in Ref 1) – from my experience the ATLS course has in both the past and present been recommended to me by general practitioners, trauma surgeons, and emergency department doctors.

Overall I think [Dr B] failed to meet the standard of care and skill reasonably expected in the circumstances. The lack of skill, or judgement in not ordering an X-ray was a major failure. Most peers would consider this with mild to moderate disapproval in my opinion for a doctor who has not done an ATLS course. Given that [Dr B] has done an ATLS course this disapproval would probably increase to moderate to severe disapproval.

### References

- 1) Advanced Trauma Life Support for Doctors, American College of Surgeons Committee on Trauma, Student Course Manual, 1997, ISBN 1-880696-10-X

- 2) Early Management of Severe Trauma (EMST), Course Manual, Trauma Committee Royal Australasian College of Surgeons. (EMST is an adaptation of Advanced Trauma Life Support (ATLS), 1992, ISBN 0 909844 27 5.)”
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## **Code of Health and Disability Services Consumers’ Rights**

The following Right in the Code of Health and Disability Services Consumers’ Rights is 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.*
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## **Opinion: Breach – Dr B**

Mr A suffered a potentially serious injury while snowboarding on the ski-field on 6 October 2002, and was brought to the medical centre by paramedics who applied a neck brace and placed him on a backboard as a precaution against possible spinal injury. Mr A complained that after the accident when he was taken to the medical centre, Dr B did not assess him adequately and did not arrange an X-ray to rule out the possibility of a neck fracture.

My advisor, Dr Searle, stated that Dr B’s examination of Mr A was thorough and appropriate. However, he raised a concern about Dr B’s entry in the notes that Mr A was able to passively flex and extend and laterally flex his neck. Although it is not clear whether the passive movements were performed to clear the neck injury or after the injury was cleared, my advisor stated that in the presence of pain or tenderness in the neck, passive examination is not a wise practice because of the risk of further injury.

The most accurate way to rule out a neck injury is to take an X-ray of the spine. Although the medical centre had X-ray facilities, they were suitable only for the evaluation of limb injuries. The equipment was considered inadequate for taking spinal views and the Centre’s protocol specifically prohibited medical staff from taking X-rays of the spine and skull.

In the absence of appropriate X-ray facilities at the medical centre, Dr B had to be guided by Mr A’s clinical presentation to determine whether he had a neck injury and required immobilisation and transportation to the nearest appropriate X-ray facility.

My advisor stated that where there is a history of trauma and the presence of neck pain, a cervical spine injury should be suspected. This is supported by the Advanced Trauma Life Support Manual, which states:

“If the patient is awake, alert, sober, neurologically normal, is not experiencing neck or back pain, and does not have tenderness to spine palpation, spine X-rays or immobilisation devices are not needed.”

My advisor noted that text books on emergency medicine also state that cervical spine injury should be suspected with localised neck pain or stiffness following trauma. Mr A experienced neck pain and tenderness after his fall. In his notes Dr B recorded that Mr A had a “painful neck/thoracic region” and was “tender over ~ C6”. In these circumstances, Dr B should not have ruled out a serious neck injury because the clinical evidence suggested that it was not safe to do so. Mr A should have been left immobilised until an X-ray of the neck could be taken and a vertebral fracture ruled out.

Accordingly, by failing to diagnose or appropriately rule out the possibility of a spinal injury, and by failing to arrange an appropriate referral, with neck immobilisation and transportation by ambulance, to a facility where further assessment and management of the injury could be undertaken, Dr B breached Right 4(1) of the Code.

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### **Opinion: No breach – Dr B**

Mr A complained that after the assessment of his injury, Dr B did not provide him with appropriate follow-up instructions.

Having ruled out a serious injury, Dr B discharged Mr A in a soft collar, with a prescription for ongoing analgesia and a request to see his general practitioner if it proved necessary. Dr B’s decision to clinically clear the neck was an error. However, my advisor considered that, given his diagnosis, the follow-up advice provided by Dr B was appropriate and within the range of current normal practice. Accordingly, Dr B did not breach the Code in relation to his follow-up advice.

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### **Opinion: No breach – The Ski Company**

#### *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. Under section 72(5) it is a defence for an employing authority to prove that it took such steps as were reasonably practicable to prevent the employee from doing or omitting to do the thing that breached the Code.

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The ski company, through the medical centre, employed Dr B as a salaried doctor, and it was in this capacity that Dr B assessed and treated Mr A.

Although Dr B breached Right 4(1) of the Code by failing to diagnose or appropriately rule out the possibility of a spinal injury, and by failing to arrange an appropriate referral and transportation to a facility where this could be done, these matters involved clinical decisions of an individual practitioner, and were not reasonably foreseeable or preventable by the ski company.

The ski company is therefore not vicariously liable for Dr B's breach of Right 4(1) of the Code.

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### **Opinion: Breach – Dr C**

Mr A complained that Dr C did not immobilise his neck before referring him to hospital for further assessment and treatment even though she knew from the X-ray that he had a cervical fracture. He also complained that Dr C did not arrange appropriate transportation to the hospital.

Dr C saw Mr A three days after his injury, after he had travelled back to his hometown, and after the X-rays had been taken at the adjacent facility where Mr A was referred by another doctor. Dr C read the interim radiology report and viewed the X-ray films. She noted the fracture of the 5<sup>th</sup> cervical vertebra and considered it prudent not to remove the soft collar Mr A was wearing to carry out a more detailed examination of his neck. Dr C formed the opinion that she was dealing with a stable fracture and, after consulting the orthopaedic registrar at the hospital, told Mr A to go to the hospital for further assessment. She did not immobilise Mr A's neck or organise transfer by ambulance.

My advisor, Dr Searle, considered that Dr C should have immobilised Mr A's neck on the basis of the information she had at the time. I acknowledge that my advisor made similar comments about Mr A's work doctor and the radiographer, and stated that while "it would have been commendable if immobilisation was re-instated prior to transportation to [hospital], I do not think that any one of the health professionals who could have suggested this should be individually held responsible". However, when Dr C examined Mr A, she had additional information not available to his work doctor. She had a radiological confirmation of the fractured 5<sup>th</sup> cervical vertebra. This, in my opinion, placed a higher onus on Dr C to reassess the need to immobilise Mr A's neck prior to his transfer to hospital.

As noted above, Dr C assumed that she was dealing with a stable fracture. Mr A had been walking around with the fracture for three days, and had no significant pain or any neurological signs or symptoms. The radiology report did not state that the fracture was unstable and the issue of immobilisation did not come up in discussion with the orthopaedic registrar. However, my advisor stated that once the X-ray was taken and the fracture seen, unless a suitably qualified person deemed the fracture to be stable, immobilisation with a



hard collar was required until it could be established that the fracture was stable, or steps had been taken to stabilise the fracture. Dr C was not qualified to make the determination and erroneously concluded that the fracture was stable.

I accept that once Dr C became aware of the fracture she should have immobilised Mr A's neck with a hard collar and made arrangements for an ambulance transfer to hospital. By not doing so, Dr C exposed Mr A to unnecessary risk of further injury. Although the absence of prior adequate immobilisation partly explains Dr C's failure to immobilise Mr A's neck, it does not alter the fact that her actions deviated from standard practice.

Accordingly, in my opinion, Dr C breached Right 4(1) of the Code by failing to immobilise Mr A's neck when she knew that he had a cervical fracture, and to arrange or recommend appropriate transport to hospital to reduce the possibility of further injury.

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### **Opinion: No breach – Dr C**

Mr A complained that Dr C did not advise him adequately about the extent of his injury. Dr C viewed the X-ray films with Mr A and pointed out the location of the fracture. In light of Dr C's assessment and conclusion, I am satisfied that she provided adequate information to Mr A and accordingly did not breach the Code in this regard.

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### **Opinion: No breach – The Medical Centre**

#### *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. Under section 72(5) it is a defence for an employing authority to prove that it took such steps as were reasonably practicable to prevent the employee from doing or omitting to do the thing that breached the Code.

The medical centre employed Dr C as a salaried doctor, and it was in this capacity that she assessed and treated Mr A.

Although Dr C breached Right 4(1) of the Code by failing to immobilise Mr A's neck when she knew that he had a cervical fracture, and to arrange appropriate transport to hospital, these matters involved clinical decisions of an individual practitioner, and were not reasonably foreseeable or preventable by the medical centre.

The medical centre is therefore not vicariously liable for Dr C's breach of Right 4(1) of the Code.

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## Other comments

A number of different health professionals were involved in Mr A's care from the time of his injury to the time he arrived at hospital. My advisor commented that, ideally, the standard of care for a trauma patient should improve with each transfer, from the scene of the incident to the facility where the definitive assessment and treatment can be provided.

My advisor stated that the initial care provided to Mr A by the paramedics on the mountain was of an appropriate standard; his neck was immobilised and he was transported to the medical centre on a backboard. Dr B then assessed Mr A. At this point Dr B made a wrong decision in ruling out a serious neck injury. On the basis of his diagnosis, Dr B did not immobilise Mr A's neck, and did not arrange a transfer for an X-ray.

Mr A next consulted his work doctor, three days after his accident. This doctor suspected a more serious injury and referred Mr A for an X-ray. The doctor did not immobilise Mr A's neck. Although the fracture was not confirmed at that point, once the initial diagnosis was in doubt, the doctor should have reassessed the need for Mr A's neck to be immobilised. As my advisor stated:

“Once the decision to clinically clear the neck was questioned by the [work] doctor then either this doctor, or any of the subsequent health professionals involved prior to [Mr A's] arrival at [hospital] should have considered and implemented immobilisation.”

Given Mr A's persisting symptoms, and his work doctor's doubt about the initial diagnosis and his perceived need for an X-ray to rule out the possibility of a fracture, ideally his work doctor should have immobilised Mr A's neck with a hard collar, placed him on a spine board and transferred him by ambulance for an X-ray. This would have been the ideal standard of care, despite the fact that the injury occurred three days earlier and that Mr A had been walking around in the meantime.

After the consultation with his work doctor, Mr A was seen by a radiographer at the radiology and Dr C at the medical centre. Although both health professionals were aware at this point that Mr A had a fracture of the cervical spine, neither ensured that his neck was immobilised before he was referred to hospital. On assessing Mr A's condition and forming a diagnosis different to Dr B's, it would have been prudent for the radiographer and Dr C to have reassessed the management of Mr A and arranged neck immobilisation.

I accept my expert advice that the standard of care should improve with each consultation, particularly when significant, additional evidence is available. This did not occur in Mr A's case, despite the fact that the radiographer and Dr C obtained significant, additional information about Mr A's condition. Although the level of care provided to Mr A did not deteriorate between the time he saw Dr B and his presentation at the hospital, it did not improve. The standard of care would have been improved had the work doctor, the radiographer, Dr C or the orthopaedic registrar immobilised, or arranged immobilisation of, Mr A's neck. Mr A was left exposed to an unnecessary risk of further injury. Thankfully, no further injury occurred.

It is important that when an initial diagnosis is reconsidered and further evidence becomes available that leads to a change in diagnosis, the health professionals involved consider any necessary changes in management of the patient in light of new information.

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### **Actions taken**

- In his response to the complaint, Dr D expressed regret that Mr A was not placed on a spine board and transported by ambulance to a hospital, and apologised to Mr A for the advice he was given by Dr B. Dr D also thanked Mr A for drawing this incident to his attention and indicated that his feedback will be used to improve the safety of medical care on the mountain.
  - Mr A's case has been discussed by the medical centre staff and used to highlight the hazards of missing a fracture.
  - Dr B provided a written apology for Mr A.
  - Dr C provided a written apology for Mr A and advised that the case is to be discussed at an Accident and Medical Clinic meeting and that a policy of applying rigid collars to all neck injuries will be introduced.
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### **Follow-up actions**

- A copy of this report will be sent to the Medical Council of New Zealand.
- A copy of this report, with identifying features removed, will be sent to the Accident and Medical Practitioners Association, the Australasian College for Emergency Medicine, the Royal New Zealand College of General Practitioners, the Royal Australian and New Zealand College of Radiologists and the Medical Radiation Technologists' Board, and placed on the Health and Disability Commissioner website, [www.hdc.org.nz](http://www.hdc.org.nz), for educational purposes.