General Practice Registrar, Dr C

General Practitioners, Dr D and Dr E

A Report by the

Health and Disability Commissioner

(Case 01HDC11702)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Parties involved

Mr A	Consumer (dec)
Ms A	Mr A's mother, complainant
Ms B	Mr A's grandmother
Dr C	Provider, general practice registrar
Dr D	Provider, general practitioner
Dr E	Provider, general practitioner
Ms F	Nurse at the clinic
Ms G	Receptionist at the clinic
Dr H	Mr A's general practitioner

Introduction

Mr A, aged 14, was a gifted rugby player, able to play both at 2nd five-eighth and blindside flanker. His coach described him as starting to excel at the latter position. He was also a talented basketballer and, according to his basketball coach, had leadership qualities and huge potential.

On 26 July 2001 Mr A was at rugby practice with his college's under-75kg rugby team. During the practice, the boys were practising driving over the ball in a ruck, and during this exercise Mr A injured himself. The injury was not immediately obvious, as the coach was not even aware until the next day that Mr A was injured.

To everyone involved, it seemed that Mr A had injured his shoulder; that was where the pain was, and to all three doctors who examined him, his symptoms seemed consistent with a shoulder injury. Tragically, the pain in Mr A's shoulder was masking a serious underlying problem. On the morning of 2 August 2001, Mr A died at his home. The post-mortem findings were that the cause of death was respiratory failure as a result of dislocation of his cervical vertebrae.

This report is about the medical care that Mr A received at four consultations with three different doctors. It cannot be known whether, if the management had been different, Mr A might have survived. The purpose of this report is to review the treatment provided by the three doctors involved and to discuss whether they provided medical services in accordance with the Code of Health and Disability Services Consumers' Rights, in light of the information reasonably available to them.

I wish to express my condolences for Mr A's death to his immediate family – his mother Ms A, stepfather, grandparents, and brother.

Complaint

On 12 October 2001 the Commissioner received a complaint from Ms A (mother) and Mr A's stepfather about the medical services Mr A received prior to his death. The complaint concerned the treatment provided by Dr C, Dr D and Dr E.

The terms of reference for my investigation in respect of each doctor were that they:

> *"… failed to provide services of an appropriate standard to [Mr A] … [and] … to appreciate the seriousness of [Mr A's] medical condition."*

An investigation was commenced on 30 November 2001.

Information reviewed

- Letter of complaint, dated 10 October 2001;
- Initial and additional responses to the complaint from Drs D, E and F;
- Transcripts of interviews with Dr E, Ms A and Ms B;
- Further statement of Dr E;
- Statement of Ms F, nurse at the clinic;
- Copy of complete ACC file;
- Copy of relevant information from New Zealand Police file including post-mortem report of a pathologist.

Independent expert advice was obtained from Dr Steve Searle, a general practitioner, and Dr Chris Milne, a sports physician.

Information gathered during investigation

Mr A was a 14-year-old boy who tragically died on 2 August 2001 as a result of an injury sustained during rugby practice a week earlier. A post mortem revealed that Mr A had dislocated his cervical vertebrae C5/C6.

Prior to his death, Mr A saw three separate doctors, Dr C, Dr D, and Dr E. None of these doctors diagnosed an injury to the cervical spinal cord.

Mr A was a young man of strong build and no known health problems or chronic conditions, other than mild asthma. On the afternoon of Thursday 26 July 2001 he went to rugby practice after school, where he sustained an injury apparently to his left shoulder.

When Mr A returned home that evening, he told his mother, Ms A, of the injury, saying that it was caused when he ran into a goalpost "at full tilt" while completing passing manoeuvres in pairs. Ms A, in a statement to the Police, said that Mr A did not seem unduly worried by the injury.

However, the following morning Mr A woke up and "yelled out" to his mother that he was unable to move his left arm. Ms A accordingly arranged an appointment for Mr A at a medical centre. Ms A said that she wanted to see the family's regular general practitioner, Dr H, but he was not available, and so an appointment was made for Mr A to see Dr C, a general practice registrar who had recently joined the practice.

Dr C

Dr C's notes record that the consultation was for approximately 20 minutes, starting at around 8.45am on Friday 27 July 2001. Her notes record:

> "sore left shoulder on movement since rugby practice yesterday – cannot recall particular injury but tackles, crash bags etc.
>
> Nil rest pain
> Also dizziness – went to bed early ?fever
> Nil sore throat, runny nose, nil pain other joints
> Temp 37.3
> HR [heart rate] 80/min
> Nil cervical lymphadenopathy
> Throat – mild enlargement right tonsil, erythema
> PERL [pupils equal and reactive to light] alert and orientated
> Shoulder – nil deformity
> Nil tenderness
> Painful arc from 25 degrees – full movement with encouragement
> Pain all movements
> Power 5/5 incl elbow, wrist
> Sensation intact
> Radial pulse present
>
> IMP [impression] rotator cuff sprain
> ?brewing URTI [upper respiratory tract infection]
>
> P [plan] paracetamol, arnica
> Ibuprofen if not sufficient
> Off rugby 1/52
> Return if not improving"

Dr C took swabs from Mr A's throat which were sent for laboratory analysis.

On 6 August 2001, when Dr C became aware that Mr A had died, she made additional notes in the clinical record from her memory of the consultation. There is no issue about Dr C making these retrospective notes; she made it clear in the records that the notes were

retrospective, the date on which they were made, and the fact that they were made from memory. Dr C's further notes record:

> "**06 August 2001**
> additional notes from memory
>
> [Mr A] came in with his mother. He had first noticed the shoulder pain on the bus on the way home from rugby practice, he thought it was from the crash bags but couldn't recall a particular injury. He had used only arnica for pain relief. The pain had not disturbed his sleep. His mother commented that he was not himself, she suggested he might be coming down with something. He did not appear unwell."

Dr C informed me that she conducted a neurological examination on the area of Mr A's shoulder that was painful. This is evidenced by the reference to power and sensation in the medical notes. Dr C did not specifically examine Mr A's neck, except for the cervical lymph nodes. Mr A did not report neck pain; if he had, her normal practice would have been to perform a neck examination.

Dr C was unable to recall the exact nature of the pain Mr A described, for example whether it was a dull ache or was sharp and shooting. Dr C did say, however, that if sharp shooting pain had been present, her normal practice would have been to do a neck examination. Her diagnosis of rotator cuff injury was based on the fact that Mr A was able to move his arm in an arc of 25° without pain; the presence of this degree of pain-free movement was indicative of a rotator cuff injury or some other form of musculoskeletal injury to the shoulder.

Mr A went to school on Friday 27 July. Ms A said that Mr A had wanted to go to school. That evening, Mr A's arm remained very uncomfortable. He did, however, go to watch his basketball team play. After he returned, Ms A and Mr A's stepfather put his arm in a sling.

The following day, Saturday 28 July, the family drove to another town to watch a game of rugby. Ms A noticed that Mr A did not appear to be in too much discomfort, although he indicated that his arm was a little sore. When they returned late in the afternoon, Mr A said that the pain "feels like bone" rather than muscular pain. Ms A noted that Mr A consistently indicated that the pain appeared to be originating from his shoulder, although she expressed some concern that this was partly because the medical diagnosis had been of a shoulder injury.

Dr D

That evening, Saturday 28 July 2001, Ms A decided to take Mr A to an accident and medical clinic (the clinic). Mr A's younger brother also went with them. The recollections of the parties involved in that visit differ as to the actual times when Mr A and his family arrived, were seen, and left the clinic. This is not material to the opinion I have formed regarding the standard of care provided to Mr A by general practitioner Dr D.

The receptionist at the clinic, Ms G, knew Mr A and his family well. She recalls that her impression of Mr A was that he was "edgy" and could not sit still. In response to my provisional opinion regarding this consultation, Ms G clarified that on arrival at the clinic,

Ms A had handed her Mr A's ACC form, which had been completed by Dr C. Ms G examined the form and realised that more information needed to be entered as to how the injury had occurred and to which area of the body.

Ms G says she asked Mr A about this and he said that it was "during a tackle" and that he felt pain "over the upper chest and pointed to his chest and left arm". Ms G says she wrote this information on the ACC form. I have reviewed two copies of the "ACC.45 Injury Claim Form". One copy has clearly been amended with the word "tackling" entered over the top of the previous words "tackle bag"; addition of the words "hurt left shoulder"; and alteration of the date in the "patient declaration" section from 27 July to 28 July. These amendments are broadly consistent with Ms G's explanation set out above.

Ms G explained that it is the clinic's policy for the receptionist to interrupt the nurse if there is a concern regarding the urgency with which a patient should be seen. Given Ms A's apprehension and Mr A's presentation of "severe pain", Ms G felt that it was appropriate. She therefore interrupted the nurse, Ms F, who was in a consultation, and asked her to assess Mr A. Ms F responded that Mr A should wait to be seen.

Ms F recalls being asked to see Mr A because of the pain he was in, and confirmed this in her statement to the Police. She said, "When I was called by Ms G to see Mr A, I was in the middle of a treatment for another patient. I went out to the reception area, and Mr A, combined with his mother, explained that he had received a rugby injury to his shoulder, but from my experience his presenting condition didn't warrant taking priority over the patient I was dealing with, but I told him that I would see him as soon as possible." Subsequently, Ms F made a triage assessment of Mr A. She took a history to establish when the injury occurred, the mechanism of the injury, and the part of the body involved. She noted that the injury had occurred two days ago while using the crash tackle bags at rugby practice, that Mr A had seen his general practitioner the previous day and that his left shoulder remained painful. The last line of Ms F's notes states "X-ray ordered". It is not clear from the notes who ordered the X-ray or at what stage of the visit.

In response to my provisional opinion, Ms A explained that Ms F spoke to her about Mr A's injury and filled out a consultation form, while Mr A was being X-rayed. Ms A says she told Ms F that Mr A's pain had been increasing and he was moaning for pain relief because he was so uncomfortable. Ms A recalls that the X-rays were taken before Dr D examined Mr A.

Dr D examined Mr A, with Mr A's mother present:

> "[Mr A] sat on a chair next to his mother and did not appear to be distressed or in pain. I asked [Mr A] if he could pinpoint with his finger to where he experienced the pain and he then touched his left shoulder tip with his right finger. Examining his shoulder he had no visible external injuries or abrasions but the shoulder joint appeared to be slightly swollen. His collar bone appeared intact as did the AC-joint. He had normal hand and finger movements. His shoulder joint was not clinically dislocated and as he had pain in his shoulder joint on passive movement I decided to

> proceed with an X-ray of his shoulder. He walked unaided to the X-ray department and back.
>
> I first looked at the X-ray on the view box in the corridor and then brought it into the examination room … I then showed [Mr A] and his mother the X-ray and what I believed was a visible fracture line of the humerus."

Dr D explained that when he reviewed the X-rays, he considered that there was evidence of a possible crack fracture of the humeral neck of Mr A's shoulder. Dr D's recollection of this is confirmed by Ms F, who also recalls seeing a possible crack on reviewing the X-ray. Dr D recorded this in the medical notes as "suspected crack fracture left humeral neck". Dr D noted that this diagnosis was based not only on the X-ray but also on his examination of Mr A, his swollen shoulder, the confined nature of the pain, the absence of abrasions or bruises on his body above the belt line and the relative ease with which Mr A was able to walk, turn, sit on a chair and climb off the examination couch.

Dr D informed me that in coming to his conclusions, he conducted neurological examinations. He asked Mr A if he could move his fingers, which he could. Dr D also noted that the radial pulse was intact.

Dr D's treatment plan was:

> "Plan → Sling
>
> → Pamol
>
> → Voltaren
>
> → Refer to [Dr H] (orth surgeon)"

It is clear that Dr D's recollection of this consultation differs from that of Ms A in three respects. First, his statement that Mr A did not appear to be distressed or in any obvious pain is difficult to reconcile with the comments of Mr A's mother and Ms G. I accept that Mr A was in pain at this time. Secondly, there is a dispute as to the order in which the X-ray was taken and the substantive consultation with Dr D occurred. Dr D says that he examined Mr A, then led Mr A and his mother down to the X-ray department, reviewed the X-rays and discussed his clinical findings. In response to my provisional opinion, Ms A emphasised that "[Dr D] never led us down to the X-ray", the X-ray was taken before the consultation, and Dr D "seemed to come into the cubicle knowing what the problem was". The clinical notes do not assist me in determining this issue.

The third difference in Dr D's and Ms A's recollections relates to the treatment plan that Dr D described to Mr A and Ms A. Dr D and Ms F say that Ms A was offered the option of travelling to the public hospital that night to see an orthopaedic surgeon. Ms A's recollection is that no immediate referral was suggested.

I have been provided with a copy of a letter written by Dr D to the Police dated 13 August 2001 in which he states:

> "The options I put forward were:
>
> 1. Direct referral to the fracture clinic at [a public hospital] that same evening.
>
> 2. Referral to the orthopaedic surgeon visiting [the clinic].
>
> 3. Consult their own medical practitioner on Monday the 30th to arrange referral to an orthopaedic surgeon."

In response to Ms A's complaint, Dr D explained:

> "After pointing out the suspected fracture line of the humeral neck on the X-ray of [Mr A's] shoulder to him and [Ms A], I explained that fractures and their management are best dealt with by orthopaedic surgeons. I suggested to [Ms A] that [Mr A] should be referred to the Fracture Clinic that evening at [the public hospital]. Upon that suggestion, [Ms A] reacted strongly, adamant that she did not want to travel to the [public hospital's] Fracture Clinic that evening. I further explained that that was our usual protocol with fractures and also that we had no radiology report on his X-rays. She then indicated that she would rather see her own General Practitioner. Her statement that no further treatment was offered is incorrect as I then discussed alternative referrals with her, upon which she chose to take [Mr A] to their own General Practitioner on Monday for a referral to an orthopaedic surgeon. Upon asking her who her General Practitioner was, she mentioned the name of [Dr H] which I documented in the clinic notes. I also documented the intention that he be seen by an orthopaedic surgeon. I suggested that she should make sure to see [Dr H] on Monday. I also mentioned that the Clinic had a visiting orthopaedic surgeon once a week but that [Dr H] would consult a specialist of his choice."

Ms F's recollection supports that of Dr D. She advised me that while she, Dr D and Ms A were standing around the light box reviewing the X-rays and discussing options, Dr D suggested that in light of the delay in obtaining the radiologist's report on the X-rays, Ms A could take Mr A to the public hospital to see an orthopaedic surgeon that night. Ms F does not recall the details of Ms A's response.

Unfortunately, Dr D's notes and, in particular, the last line of his treatment plan quoted above do not help to determine the details of the discussion that took place. On their face the notes show only the intention that Mr A be next seen by his family GP, Dr H, with a view to Dr H arranging a referral to an orthopaedic surgeon.

In her statement to the Police dated 4 August 2001 Ms A said:

> "At one stage [Dr D] and the X-ray man were talking when I barged up and asked them what was going on. They talked for a little time between themselves, not to me. They were discussing the X-ray pictures. [Dr D] said that there was a possibility

> of a fracture and made mention of two little lines in an area that sounded like a 'growth plate' in the arm joint. [Dr D] said that he would send the X-ray away for reading by a radiologist and it would come back in two days with a professional result … I said to [Dr D], 'Can't you do anything else?' He replied 'What else do you want me to do' or 'What else can I do' it was one of those responses."

When interviewed by my staff on 30 September 2003, Ms A said:

> "[Dr D] … wanted me to go back to my GP… that was the only action he wanted me to do and I … said no, I'm not going back to my GP. I want to be dealt with here. I'm here now, and I want continuing care for [Mr A] … I'm sure an orthopaedic surgeon was discussed at that time … there's a visiting orthopaedic surgeon that came to that medical centre that was not, it was not for us to go anywhere else. It was not a referral for us to go and take [Mr A] anywhere else. The orthopaedic surgeon actually visited that medical centre on certain days and … they suggested that he be seen by an orthopaedic surgeon but there was no urgency in it. They didn't refer me to an orthopaedic surgeon that night, they didn't give me an option of going to [the public hospital] that night at all, you know I would have taken him."

In response to my provisional opinion, Ms A informed me that she recalls Dr D mentioning that fractures are best dealt with at a fracture clinic but "as he was unsure whether or not [Mr A] did indeed have a fracture, and this could not be confirmed until Monday … there was no point of a referral at this stage and he wanted to wait until the X-ray had been read by the Radiologist. I was agitated that nothing more was being done ... [Dr D] did not mention any immediate referral to me." Ms A went on to say that "if the offer of referral that evening was indeed offered I would have taken it in an instant".

In short, Ms A emphatically denies that she was told that consulting an orthopaedic surgeon that night was an option. She was very worried about Mr A's level of pain and was seeking further treatment possibilities, but was frustrated when, despite Mr A's increasing distress, no further options appeared to be available. She states that at the time she did not think that Dr D was listening to her concerns that Mr A was in serious pain and was "blasé" about his condition. Ms A said she became frustrated after asking Dr D about other possible treatment for Mr A:

> "But I remember well [Mr A] was in a lot of pain. [Dr D] ended up putting him in a sling and giving us pain relief for him and I remember saying to him, is there nothing else you can do at this stage, I said he needs something else, … the pain is … getting worse, it's not getting any better. Is there anything more you can do and he said to me what more do you want me to do. And I said well you're the doctor, you tell me what to do, and then I walked out of the cubicle because I was pretty pissed off with him because he wasn't actually doing anything to, for [Mr A] … And I was angry with him and I walked out, walked out of the cubicle …"

Ms A informed me that at the time she was "distraught" as she felt that "nothing was being done". She recalls that after leaving the cubicle where Mr A had been seen by Dr D, she

had a discussion with Ms F at the front desk. Ms A said that Ms F "wanted me to go back to my GP and I said no I'm not going back to my GP, I wanted continuing care here because we're here now and I wanted him to see somebody that night, and she was arguing with me". Ms A said that the idea of an orthopaedic surgeon was being "floated around" at that time, in discussions between Ms F and Ms G.

Clarifying this issue in her response to my provisional opinion, Ms A explained that Ms G told her she could make an appointment with the visiting orthopaedic surgeon at the clinic, but Ms F was "adamant that I return to my own GP for referral".

Ms G recalls that Ms A was very unhappy and annoyed. In her statement to the Police dated 21 August 2001, Ms G said that when the X-rays were being reviewed she had overheard Dr D say that he couldn't see a fracture. She gained the impression that he was going to treat it as if a fracture were present and refer Mr A to a fracture clinic. She does not make clear the location of that clinic. However, in response to my provisional opinion, Ms G said she believed that the referral would be to the fracture clinic held once a week on the coast by a visiting orthopaedic surgeon. It was usually her job to arrange appointments for that clinic.

Ms G said she told Ms A "to see [Dr E] as he was the best Sports Injury Doctor around, and we could organise orthopaedic follow-up as well". This led to a disagreement between Ms G and Ms F. Ms F told me she was concerned that Ms G's advice was unhelpful when Dr D had "recommended" that Mr A should return to Dr H.

Mr A's younger brother was present during the consultation with Dr D and provided a statement setting out his memory of events, in response to my provisional opinion. Mr A's brother does not recall the details of the discussions his mother had with Dr D. However, he does recall "Mum, [Ms G] and [a] nurse standing at the front desk talking loud as [Mr A] and I walked out to the car". This recollection is consistent with the description others have provided about that discussion.

The key issue for me to determine is whether Dr D offered Ms A the option of consulting an orthopaedic surgeon that evening. I believe that Dr D may have mentioned the possibility of referring Mr A to a city-based orthopaedic surgeon that evening, but I doubt that it was a firmly recommended part of the overall treatment plan. Had such a referral been specifically emphasised, I believe that Ms A would have recalled it. Faced with Mr A's severe pain and distress – which must have been evident – and if properly advised to do so, I am sure that Ms A would have travelled to the city that night to see an orthopaedic specialist. However, I am also mindful that Ms A's preference was for something more to be done for Mr A, on site at the clinic. Having considered each party's recollection of events, and the clinical notes, I am unable to form a firm view of what exactly was discussed, but on balance it is my opinion that immediate referral to a city orthopaedic specialist was not an option that was discussed in any significant detail. In light of the evidence of my two expert advisors, I will deal shortly with whether such a referral was actually necessary and whether Dr D's actions fell below acceptable standards.

Dr E

That night, the level of Mr A's pain continued to increase. Ms A informed me that Mr A stayed at home all day on both Sunday and Monday. Ms A said that on Monday Mr A was moaning in pain for much of the night.

Ms A informed me that by Tuesday morning 31 July 2001, it was apparent that the pain relief was not working. She felt at that stage that Mr A's pain was still increasing. He had finished the Voltaren prescribed by Dr D. After speaking to Ms F again, Ms A arranged for Mr A to see general practitioner Dr E at the clinic. The consultation with Dr E was made because the family was advised that he was a "good sports doctor".

Dr E, while not a sports physician, had considerable experience in treating sports injuries. He had received training from the Australian Institute of Sport and at the time was the doctor for an overseas rugby team. In a statement dated 4 September 2003, Dr E confirmed that his qualifications are MB ChB (1989, Otago), and that he had the following experience:

> "My experience began in 1995 [in my home country], in the only hospital servicing 170,000 people, I was the senior registrar in general surgery and orthopaedics. In my work I treated adults and teenagers with sporting injuries and was the doctor for the local rugby team. I was subsequently Head of Accident and Emergency Department at [a hospital there].
>
> While in [my home country] I saw between 4–5 cases of sporting injuries where there was damage to the cervical spine. Of those, 2–3 would have been teenagers. I joined [my home country's] national team in 1996 …
>
> In 1996 I was offered and accepted the opportunity to look after the national [home country] rugby team, and went on tours with the team as well as being part of the contingent that went to the Olympic Games.
>
> I received training from the Australian Institute of Sports and Sports Medicine."

Mr A was accompanied to the clinic by his grandmother, Ms B. They arrived at around 9am. Mr A was originally seen by a nurse. The nurse observed in her statement to the Police that she did not notice Mr A being fidgety, and that he seemed relatively comfortable. She made some brief initial enquiries and established that Mr A's arm was still sore and he was not able to perform any exercises with it.

A few minutes later Mr A was seen by Dr E. There is a conflict in the evidence as to the exact progression of events; Ms B stated to the Police that after seeing the nurse, they were shown to a cubicle and Dr E came in after a few minutes, while Dr E states that Mr A and his grandmother came into the cubicle after him.

In her statement to the Police made at interviews on 4 and 10 August 2001 (within 10 days of the 31 July consultation), Ms B said:

> "When [Dr E] came into the cubicle he asked [Mr A] where he was sore and how it had happened. [Mr A] said he had gone into the tackle bag and he had gone down

> and the rest of the forwards had gone over the top of him and had come down on top of him."

Dr E, on the other hand, does not have any recollection of this mechanism of the injury being described to him. When interviewed, he stated:

> "[Mr A] did not say the mechanism [of the] injury. He was presented with his grandmother and from memory the grandmother was the one who does the talking and she was saying that such and such a date was the five days previously that [Mr A] was injured in the rugby practice. The exact nature of the injury, I believe she cannot explain, meaning that [she] wasn't sure exactly whether it was tackle bags or tackle or a scrum or …"

I do not consider it possible to resolve this conflict in the evidence. Whatever he was told, it seems that Dr E was left unclear about the mechanism of injury.

Dr E asked Mr A to remove his sweatshirt. He recalls Mr A removing the shirt "without much of a problem", although "some difficulty" was apparent. However, Ms B recalls that Mr A had some difficulty with this and that she had to help him as he was unable to move his left arm to get the sweatshirt off his right arm.

Ms B recalls the consultation as follows:

> "[Dr E] examined [Mr A's] left shoulder and then moved behind him. He ran his fingers across the top of both shoulders until he got to the edge of the shoulder blades. I don't think he examined the spine or the neck area at all. The doctor tried to get [Mr A] to raise his left arm but he couldn't as it was too sore.
>
> [Dr E] said that he had seen the X-ray report and there was no indication of a break in any of the bones. He felt that there was a fracture there somewhere. That was the impression I got from what he was saying. He said that he would try to get an appointment for a scan to have a closer look at [Mr A's] shoulder."

Dr E, in his response to my investigation, provided considerable detail about his recollection of the consultation. Given the amount of information in Dr E's response, it is helpful to set parts of it out in full, rather than attempt to paraphrase the key passages:

> "[Mr A] tended not to volunteer information so I had to be very specific in my questions. I particularly asked him about loss of power or sensation, or whether he had noticed pins and needles. He denied this. He also described apparently being able to carry on with the rugby practice that day for a while, having attended school subsequently, and was clear that the pain was in his shoulder only with there being no history of neck pain.
>
> On examination, [Mr A] was a big 14 year old … boy. He did not appear to be at all distressed and I noted no coldness or clamminess. On questioning, he very clearly pointed to his shoulder joint as the source of his very significant pain. …

> When [Mr A's] upper body was exposed I was able to see and compare both shoulders. He was holding the left arm with the elbow in flexion. I proceeded to feel the painful area (which was the shoulder itself) and found that he was extremely tender around the shoulder joint, especially the anterior aspect and the proximal humerus area. This was consistent with the diagnosis of rotator cuff injury. [Mr A] could not actively move the shoulder itself due to extreme pain, but he was able to tense the deltoid muscle and bicep. He was able to squeeze my fingers with his left fist. I specifically questioned [Mr A] as I examined him. I compared both hands to ensure that he had no loss of sensation and also that the sensation was equal on both sides. I noted that the grip of both hands was uniformly strong and that he reported no loss of sensation to my light touch to his arm and hand. The circulation to the hand was also noted to be normal. [Mr A] denied pins and needles or any numbness. I specifically asked him about the source of his pain. He denied pain in his neck or other areas asked about. The pain was only from his shoulder. When I reflect back on the consultation, there was nothing in [Mr A's] demeanour that suggested a cervical injury."

When interviewed, Dr E also stated that he was aware that Mr A had seen doctors on two previous occasions in relation to this injury, but was not aware of the details of the first consultation as he did not have the notes available. Dr E stated that he was unable to form an impression as to the progression of Mr A's condition, as he had not seen him previously, but it was clear that the pain relief prescribed was not working. Dr E described Mr A's pain as "intense pain in the shoulder" and noted that it appeared to be worse on waking in the morning.

Dr E stated that he formed the impression that Mr A's limited movement was because of the pain in the shoulder, and was not the result of any motor deficiency. He considered that Mr A's clinical presentation was consistent with the diagnosis of a fracture of the humeral neck. Dr E instructed Ms B to bring Mr A back if his symptoms worsened, or if he had any other concerns.

Ms B informed me that at the end of the consultation she asked Dr E if there was anything more that could be done for Mr A, as the pain was getting worse. Dr E said that he would need to do a scan. He went away and arranged that, and came back to say that the scan had been arranged for the first date he could get, which was two days later.

Ms B stated that during that consultation there was no discussion about the possibility of referral to other services; Dr E advised me that on the basis of his diagnosis, he did not consider an orthopaedic referral was required.

That night, Mr A was up for much of the night in pain, and so the next morning, Wednesday 1 August 2001, Ms B took him back to the clinic. Dr E was not working at the time that they arrived, but nevertheless agreed to see Mr A as he was on the premises for a meeting.

Ms B informed me that Mr A's condition had markedly deteriorated from the previous day. She stated:

> "Oh he was terrible. His face was pale. He was very agitated, very very. He was in agony. Very upset and he wasn't a boy to get upset. And I think I'd told the doctor on the Tuesday that he had a very high pain threshold … on the Wednesday he was a mess."

She continued:

> "While we were waiting [Mr A] was getting very anxious and I was holding on to him saying it's alright boy, it'll soon be alright, they'll do something for you. And he said to me no Nana it's not alright. And he's never complained. He's never complained in his life. And his voice was getting quite, quite strong instead of talking quietly he was talking quite loud."

Ms B informed me that she told Dr E that Mr A was in "such a lot of pain", and that "surely there's something more they can do for him". Ms A told me that she asked specifically if they could go to [the public hospital], but Dr E said that they would "probably wait longer if we went there".

Dr E recalls that Mr A's condition was the same as when he had presented the previous day; he did not consider that the pain had increased. Dr E does not recall doing another physical examination. He did not take or record Mr A's vital signs. He does not recall any change in Mr A's movement; there was still no neck stiffness or guarding. He stated:

> "[Mr A's] complaint was unchanged from when I had seen him previously, namely severe pain in his shoulder only. I was not informed of and nor did I notice any change in or difficulty with his breathing. At this stage I still thought his symptoms to be due to possible humeral neck fracture or a rupture of the rotator cuff with bleeding into the joint. Treatment for both of these conditions is immobilisation and pain relievers."

I do not accept that Mr A's condition was unchanged from the previous day. The triage notes record Mr A's pain as "+ + + +". The evidence provided by Ms B is compelling that his condition had markedly deteriorated that morning and that his distress was apparent both in his demeanour and his voice. She described Mr A as being a "mess". Ms A described Mr A's pain that morning as "excruciating".

I am satisfied that on the morning of 1 August, Mr A's condition had noticeably deteriorated from the previous day. It may be that because of the brief nature of the consultation, and the fact that a further physical examination was not performed, Dr E had little opportunity to observe and assess Mr A.

Dr E considered that Mr A needed stronger pain relief. He stated:

> "Intramuscular narcotic analgesia is, to my experience, always considered when other medications have failed to alleviate pain or may not have been taken for whatever reason. As [Mr A] was a very big young man, I considered that 10 mgs of morphine was appropriate and justified to manage his pain. I therefore asked the nurse to arrange an injection of morphine 10 mgs and an antiemetic maxolon 10 mg as appropriate.
>
> I considered this was appropriate to provide alleviation of his pain whilst we waited for the ultrasound which was to be carried out the next day. I also requested that the broad arm sling be changed to a simple collar and cuff, and having the elbow unsupported. I expected this to assist with the pain which was worse in the mornings. I also advised [Mr A] that lying semi-supine might help."

Ms B informed me that there was no discussion about the possibility of an orthopaedic referral at that stage. Dr E, in relation to this issue, stated:

> "… I consider this issue to be raised with the benefit of hindsight. Of course I now wish I had referred [Mr A] but in the circumstances based upon his clinical presentation this was not indicated.
>
> I was at that stage aware that [Mr A] was to have his ultrasound assessment the next day and that he would be seeing me then. I considered it appropriate to await the following day when this further consultation would take place."

Dr E informed me that he left Mr A and Ms B in the room so that the nurse could administer the morphine and put on a collar and cuff, as he had to attend a meeting. When he returned from his meeting, Mr A and Ms B had left. Dr E stated:

> "I considered telephoning him because I had it in mind to discuss again referral to an orthopaedic surgeon. But as [Mr A] was having his ultrasound the next day and would be seeing me then, and because an orthopaedic surgeon was unlikely to recommend anything different to the management already in place, namely immobilisation and management of pain and inflammation, I, to my regret, decided to wait until I s[aw] him after the ultrasound. Had I suspected neck injury then I would have arranged immediate specialist referral from the moment I formed the suspicion."

Tragically, after leaving the medical centre, Mr A's condition deteriorated. The following morning (Thursday 2 August 2001) he died, after collapsing at about 5.00am. The post-mortem findings of the pathologist were that the cause of death was respiratory failure secondary to bruising of the cervical spinal cord and dislocation of cervical vertebrae C5/C6.

X-ray report
The X-ray report subsequently provided by the radiologist stated:

> "No fractures or subluxations detected."

Unfortunately, despite extensive enquiries, I have been unable to locate the X-ray.

Accident Compensation Corporation
The Accident Compensation Corporation (ACC) has considered a claim for medical error in respect of the treatment provided to Mr A by Dr D and Dr E. In relation to Dr D the claim was declined as a result of conflicts in the evidence.

A finding of medical error was made in relation to Dr E, and was upheld on review. In the course of considering the claim involving Dr E, ACC obtained expert opinions from three doctors, a general practitioner, a sports physician, and another general practitioner. The second general practitioner advisor considered that there had been no medical error, but expressed some reservations about aspects of Dr E's actions. ACC sought further advice from the first general practitioner advisor and the sports physician advisor, both of whom were critical of Dr E's management.

The first general practitioner advisor, who is also from time to time an advisor to the Commissioner, made the following key points:

> "Given that [Dr E] was satisfied that the severity of the pain suffered by [Mr A] was such that it was necessary to administer morphine, then urgent referral to a specialist was certainly indicated. In summary, if [Dr E] thought that [Mr A] was in such pain that he needed morphine, then he should have referred him for specialist orthopaedic assessment."

I note the following key points accepted by the ACC reviewer:

> "• The provision of morphine without taking vital signs was a failure to observe the care and skill to be reasonably expected in the circumstances;
>
> • The provision of morphine in the absence of a firm diagnosis was a failure to observe the care and skill to be reasonably expected in the circumstances;
>
> • The failure to refer [Mr A] to specialist assessment in light of his uncertain diagnosis and escalating symptoms was a failure to observe the care and skill to be reasonably expected in the circumstances."

The ACC finding of "medical error" focused on speculation whether a cervical spine injury was in fact the cause of death (in light of compelling evidence from an orthopaedic surgeon, casting serious doubt on the post-mortem findings). The reviewer accepted that "the management of [Mr A's] treatment was critical in terms of the outcome of his care" even though "the diagnosis was difficult and … any failure to diagnose a cervical neck injury would not have been negligent". However, the reviewer concluded that Dr E failed to

observe a standard of care and skill reasonably to be expected in the circumstances, and that "the evidence clearly shows that standard practice should have resulted in a standard of treatment that would almost certainly have markedly reduced the chances of death".

For the reasons set out in my opinion, I have reached the same conclusion in relation to Dr E's standard of care at the second consultation on 1 August 2001.

Police investigation
The Police also conducted a detailed investigation into the treatment provided by Dr C, Dr D and Dr E, for the purpose of determining whether criminal charges should be laid. My investigation was suspended until a decision was made in 2003 (following expert advice from a neurologist and an emergency physician) that criminal charges would not be laid.

Independent advice to Commissioner

General practitioner advice
The following expert advice was obtained from Dr Steve Searle, a general practitioner with sports medicine training and considerable experience in accident and medical practice:

> "**Report on complaint file 01HDC11702**
>
> 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. In particular Dr Searle has read the guidelines for Independent Advisors to the Commissioner (Ref. 1) and has agreed to follow them. He has been asked to provide an opinion to the Commissioner on case number 01HDC11702.
>
> He has the following qualifications: MB.ChB (basic medical degree Otago University), DipComEmMed (a post graduate diploma in community emergency medicine – University of Auckland), FRNZCGP (Fellow of the Royal New Zealand College of General Practitioners – specialist qualification in General Practice which in part allows him to practice as a vocationally registered practitioner). 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 a certificate (Nov 2003) in Resuscitation to Level 7 of the NZ Resuscitation Council. 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 Dunedin Hospital. He is also actively involved in local search and rescue missions and training.
>
> Dr Searle is not aware of any conflict of interest in this case – in particular he does not know the health providers either in a personal or financial way. Dr Searle has not had a professional connection with the providers to the best of his knowledge.

Basic Information:

Patient concerned: [Mr A]

Nature of complaint: That there was failure to diagnose a neck injury. The main presenting symptom was left shoulder pain.

Complaint about: [Dr C], [Dr D], and [Dr E].

Also seen by: Emergency services in attempts to resuscitate him at the time of his death.

Documents and records reviewed:

Of note various parts of the information have differing views on retrospective recall of how much pain [Mr A] was in. In virtually all aspects of this report I have considered the standard of care to be that assuming [Mr A] was having worsening pain. My report would not change if he was in less pain. Other possible conflicts in evidence that the Commissioner has drawn to my attention – e.g. on page 7 where it is unclear if [Mr A] went into a cubicle before or after [Dr E] – would not in my opinion change my report. Either sequence of events could have occurred without changing my opinion.

Possible missing information:

It is likely that further information about [Mr A] was available to [Dr C] who first saw [Mr A] at the [health centre] which as I understand it was his usual source of general practice care. This means that [Dr C] would have had access to his past medical history, any record of allergies etc. I do not think it is likely that it would contain information that would change my opinion.

I note that on the page numbered 17 [clinical notes] that at the bottom right there could be cut off information, and that on page 18 [clinical notes] there could be information cut off at the top. I think it is very unlikely that any significant information is missing as the parts cut off are clearly well separated from the notes that have been written. Neither doctor concerned has indicated there is a problem with the notes in any case.

The actual X-ray of his shoulder is not available to me. However I think that my report would not be altered by anything that would show up or not show up on this X-ray and that it is satisfactory for me to write this report without seeing the X-ray.

Copies of the prescriptions written by [Drs E and F]. I do not think having this information would change my opinion on the expert advice I have been asked to give.

A copy of the original ACC form was obtained. This did not provide any further particularly useful information. I note the read coded diagnosis ‘S504 Left’ –

meaning a left sided rotator cuff sprain (a strain of part of the shoulder). I also note the description given under the question 'How was the injury caused' – the written note being 'Running into the crash bag (tackle bag)'. I do not think either of these pieces of information change my report.

The post mortem report was asked for and later provided to me. I formed my opinion on the expert advice I have been asked specifically about by the Commissioner prior to reading the post mortem report. Seeing the report has not changed my opinion.

The expert report commissioned by ACC is not available to me at the time of writing my report. It is mentioned on page 40 of the information presented to me. This is probably a good thing so that my report can be seen to be independent of their report. Unless it contains information I have not already seen, that would have been available to the doctors who saw [Mr A] at the time they saw [Mr A], then this ACC expert report probably should not change my opinion.

Quality of provider's records or lack of them

[Dr C]. The records are of a good standard. They recorded the symptoms (the things the patient notices are wrong) including the absence of some symptoms, and the signs (what the doctor finds when looking at and examining the patient). They also recorded the diagnosis (what the doctor thinks is the cause of the problem(s)) and the management plan – which in this case included medication, advice, and the investigation performed (a throat swab).

[Dr D]. The notes taken at the time of this consultation are of an acceptable standard. They were written by as I understand it both the nurse, [Ms F], who initially saw [Mr A], and [Dr D]. They recorded the history and recorded the absence of medication allergies and his use of inhalers. The notes recorded the diagnosis and the management plan.

[Dr E] (notes from 31/7/01). The notes taken at the time of his first consultation are of an acceptable standard. They were written by both [the] nurse and [Dr E]. The notes recorded the history and recorded the absence of allergies to medications, and his current pain relief. They recorded examination findings. The notes recorded the management plan.

[Dr E] (notes from 1/8/01). The notes taken are of an acceptable standard. They recorded that it is a third visit and that the shoulder is very painful. They also recorded the diagnosis and the management plan.

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

Safety (not needed to be commented on in this case)

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.)

Any Serious Injury? Usually if the mechanism of injury is well documented and is likely to exclude serious injury then this question is not usually raised. In this case although the mechanism of injury was uncertain the delay between injury and first presentation (an overnight delay) would tend to suggest that serious injury was unlikely – the delay certainly tends to make it less likely that doctors would think of a very serious injury as a possibility. Also the fact that [Mr A] was moving around himself and not complaining of any problem other than a sore shoulder with movement at his first presentation to a doctor would also not suggest any serious injury. It was noted at his first presentation that there was no rest pain. *Is there any life threatening injury?* – classically 'ABC's' (airway breathing and circulation) are checked for & then 'D' for *Is there any disability or neurological function problem that might suggest more serious injury?* It is clear that his 'ABCs' were initially normal – walking and talking etc. At his first consultation [Dr C] clearly documented normal power and sensation of his affected side and so did check for neurological function. In [Dr D's] situation he had a X-ray showing a possible crack fracture of the left humeral neck. This is unlikely to affect distal sensation or neurological function and examination for this would not be strictly needed. At [Dr E's] first consultation he did note neurovascular status was normal 'n/v OK'.

Taking a full history 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. [Dr C] clearly did take a very full history and of note appropriately checked out the history of dizziness and possible fever. His past history was probably available to [Dr C] as she would have had access to his usual medical record – as commented on earlier I have not seen this record but I do not think it is likely that it would contain information that would change my opinion. [Dr D's] notes appropriately noted [Mr A's] medications and lack of allergies to medications. This was a good standard of care and [Dr E] also noted the extra medications (voltaren and panadol) since [Dr D] recorded the drug history and also rechecked allergies ('NKDA' (which means no known drug allergies)) – this was a good standard of care. Both [Dr D] and [Dr E] noted the date of the injury and the likely mechanism was recorded by [Dr D] 'crash with rugby tackle bag'. [Dr E] did not need to re-record this information as it would have been available from [Dr D's] note. [Dr E] recorded the history of 'painful ROM (range of movement)' and that [Mr A] was 'Unable to do passive ROM exercises'.

Do an appropriate full examination.

This should include distal complications (check on sensation and circulation (or neurovascular status)) – of note this was done by [Dr C] which is a good standard of care as it is common for this to be overlooked. To describe the visible appearance of the injury – this was done by [Dr C] – 'nil deformity'. Palpation (or touching the affected area) to check for tenderness was done by [Dr C] 'nil tenderness' and checking for range of movement and pain with any movement was also checked by [Dr C]. In [Dr D's] situation he had a X-ray showing a possible crack fracture of the left humeral neck. This is unlikely to affect distal sensation or neurological function and examination for this would not be needed. Further examination such as moving his shoulder or arm would be likely to be painful without giving extra useful information and so was not in my opinion needed at this time. When [Dr E] first saw [Mr A] he clearly noted he was 'very tender over shoulder jt (joint) anteriorly especially'. He also noted the absence of active movement 'Can not abduct/flex/or extend' (abbreviated medical terms for various shoulder movements). This was a good standard of examination as he reassessed [Mr A], without simply relying on the previous diagnosis from [Dr D]. When [Dr E] saw [Mr A] again the next day he had already examined him the day before, he had no new, but probably worse pain, and there was an investigation (the ultrasound) booked for the next day – in this situation giving pain relief and waiting for the investigation is in my opinion reasonable. Further examination would probably have given [Mr A] more discomfort and not changed the management plan.

The key issue in this case was should an examination of the neck have been performed? Obviously in hindsight this could have changed [Mr A's] management although it is not certain what such an examination would have found. The answer to the question of the need to examine the neck, based on the information available to the doctors and based on a reasonable standard of care and skill seems to be no – I discuss this at some length in the paragraphs that follow.

Firstly are there any grounds to routinely examine the neck with any shoulder pain regardless of any history or not of neck problems? It is clear that this has been recommended by at least one textbook of general practice (Ref. 2) – this textbook is in some ways ahead of its time in that it makes a particular point of considering the question 'What serious disorders must not be missed?' – with a whole chapter of the text being focused on 'A safe diagnostic strategy'. However this has not been usual practice from my experience of noting what other doctors do (my own occasional observation and my own experience from reading patients' notes forwarded on to me as a general practitioner) and asking those who observe them (Ref. 4). Of note one of the standard sports medicine texts (Ref. 3) list examination of the cervical spine as a 'special test' when considering the examination of the shoulder – this means it is not routinely suggested but should be considered if there is some indication to examine the neck. Emergency Medicine Texts past and present (Ref. 5 and 6) do not suggest routine examination of the

neck – with scapula fractures there is a note to suggest due to the considerable trauma involved to 'check for associated rib, pulmonary, spinal column and shoulder injuries'. However in these same Emergency Medicine Texts with rotator cuff tear there is no such note to check the spinal column. Other texts also do not suggest routine examination of the neck (Ref. 7 and 8) – the section on examining the shoulder has no suggestion to examine the neck but in the section on shoulder pain it has a reminder that shoulder pain may refer via cervical nerves or diaphragmatic referral. A similar reminder statement is included in another Emergency Medicine text (Ref. 10) but no suggestion to always examine the neck. In children there is no suggestion of routine examination of the neck with shoulder pain (Ref. 9) – the suggestion is that spinal injury is rare in children 'less than 1% of admitted trauma patients'.

Secondly was there any particular reason to examine the neck in [Mr A's] case?

I do not think there was any history to suggest a neck problem other than the shoulder pain – as already discussed above the usual standard of care does not involve routinely checking the neck with shoulder pain as the sole presenting complaint. There was no complaint of neck movement worsening the pain or actual neck pain. There was no complaint of pain radiating down the arm or of paraesthesia (tingling or numbness). In my discussion with various doctors of a presentation similar to [Mr A's] only one might have examined the neck at the final presentation with increasing neck pain (Refs. 13 and 14). The doctor who might have examined the neck when there was a representation with worsening pain is at a senior level of emergency medicine working in this situation at a slightly different standard of care to what should apply to this case, but of note he stated that he might have examined the neck and not that he would have examined the neck – none of the doctors I asked who were working at the same level of care would have examined the neck. None of the two general practitioners I asked about what they would do in a similar case would have examined the neck (Ref. 14).

There is a need to consider thoroughly checking the spine in children if there is even transient neurological symptoms such as finger paraesthesia (numbness and tingling) (Ref. 9). In the section on shoulder and upper arm injury of this text (Ref. 9) there is no suggestion to examine the neck. In a standard orthopaedic text (Ref. 11) the comment is made after the 'routine examination of the shoulder' that under the heading 'Examination of potential extrinsic sources of shoulder symptoms' – 'This is important if a satisfactory explanation for the symptoms is not found on local examination. The investigation should include: 1) the neck with the brachial plexus; 2) The thorax, with special reference to the heart and pleura; and 3) the abdomen, for subdiaphragmatic lesions'. A textbook of examination (Ref. 12) suggests when discussing examination of the shoulder that sources of pain away from the shoulder such as the neck should not be hard to sort out. They state 'Theoretically this should cause little difficulty because no limitation of movement or other abnormality should be found on examination of the shoulder.' These text books to me imply that in a case like [Mr A's] that as there was tenderness of his

shoulder and limitation of movement of the shoulder that you would not normally be suspicious of neck problems or other problems outside of the shoulder itself. Whilst I can understand that movement of [Mr A's] arm might cause pain by pulling directly or indirectly on his neck or on the nerves coming out of his neck – in effect this sort of movement is as well as examining the shoulder and arm is also performing part of a neural tension test. What in this case I can not easily explain is why there was tenderness of the shoulder itself – when [Dr E] first saw [Mr A] he clearly noted he was 'very tender over shoulder jt (joint) anteriorly especially'. To me localised tenderness such as this would suggest a shoulder injury – I wonder if there was a second injury of [Mr A's] shoulder as well as the injury found in his neck at the post mortem examination (I comment more on this later). The two main findings suggested for rotator cuff tear on examination, in older and newer versions of an emergency medicine text (Ref. 5 and 6), are 'localised tenderness' and 'inability to initiate shoulder abduction' – these findings were found by [Dr E]. Thus I consider that [Dr E] had no particular reason to consider that this was not a shoulder injury, and he had findings to support his diagnosis.

Order appropriate investigation – Initially an X-ray of the shoulder is not a routine step with an early presentation (within a few days of injury) of a probable rotator cuff strain with no rest pain and thus [Dr C] not ordering this was acceptable. The ordering of the throat swab was an acceptable option for the follow up of the noted finding of 'mild enlargement right tonsil, erythema (redness in this case of the throat or tonsil)'. The use of a shoulder X-ray by [Dr D] was acceptable. Crack fractures are not always easy to see and not always agreed on as to if they are present or not when different doctors look at the same X-ray. Although the actual X-ray is not available to me to check I do not think the presence or absence of any crack fracture would change the management or standard of care in this case or my report on this. Whatever the X-ray showed [Dr D's] management was acceptable. Certainly given the apparently likely diagnosis of a rotator cuff tear or rupture of the rotator cuff of the shoulder then ultrasound is a good investigation (Ref. 3) and [Dr E] did order this.

Decide on appropriate management and implement this or seek advice and/or refer on for such management. I think the pain relief prescribed by [Dr C] and the advice to avoid rugby for a week (1/52 in her note) was appropriate. [Dr D's] plan of a sling, analgesia (pain relief) in the form of pamol and voltaren, and referral to an orthopaedic surgeon was acceptable. Of particular note there has been some discussion about the referral to an orthopaedic surgeon and how, if at all this was offered to [Mr A] and his family. I think that it would have been acceptable to not offer referral to the orthopaedic surgeon and to consider other options such as seeing how he went for a few days and reviewing things later, perhaps after the X-ray was reported. I certainly do not consider there was any need for an urgent orthopaedic referral. Of note the NZ referral guidelines (Ref. 15) are not precise in the time frame suggested for how urgent such a referral should be but the most rapid referral they would suggest would be Semi-urgent (which they define as within 8 weeks). Other international opinions for the management of a rotator cuff

tear suggest 'Tears of the rotator cuff are often managed conservatively (i.e. without referral), but continuing pain and functional impairment may require either arthroscopic or open repair of the rotator cuff' (Ref. 16). Thus overall I do not think there was any apparent need for any of the doctors involved to have urgently referred [Mr A] to an orthopaedic surgeon based on the information that they obtained when seeing and examining him. Obviously if any one of the doctors had found symptoms or signs of a neck problem that would have been different and further investigation and/or referral may have been required depending on what was found – unfortunately no such findings were made prior to [Mr A's] death.

Give the patient appropriate advice on follow up, and any complications to watch out for that might need earlier follow up. I think [Dr C's] advice to 'return if not improving' was within the usual standard of care for a probable rotator cuff strain. Of note [Mr A] did seek further attention when he was not improving and saw [Dr D] and then subsequently [Dr E]. The follow up plan after seeing [Dr D] was clearly either to have a referral at some stage to an orthopaedic surgeon (this was documented in the notes) and/or to go back to the GP for review – [Ms A] informed the Commissioner that someone at the clinic 'wanted me to go back to my GP…' Also [Ms G] stated that she recalled both the options of seeing the GP again and that of orthopaedic referral. I think that either or both of these options was acceptable follow up based on the diagnosis made at the time – a shoulder and not a neck problem. The timing as stated in my previous comments on appropriate management was not critical in that there was no apparent need for a referral to be made within hours or days – the accepted standard was within weeks. The follow up plan from [Dr E] was clearly to see what the ultrasound showed. Usually ultrasounds are ordered within weeks and his arranging to get an ultrasound within days was a good standard of care.

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 (Ref. 17). I think at [Mr A's] initial presentation to [Dr C] there was nothing in particular to suggest that particular systems to reduce errors should have been used – standard practice systems to follow up the throat swab result would have been likely to be sufficient. An option could have been to give more specific follow up advice such as to return at a certain time if he was not 100% better and to return at an earlier time if he was not improving, or sooner if he was worse or noticing something different – such a system would be above and beyond the usual standard of care. In this case I do not believe it would have changed the ultimate outcome.

Other systems include the way doctors think about decision processes and ways to avoid errors (Refs. 2, 17 and 18). These are currently under development and having such systems in place at the time of this case would have been beyond the

standard of care required – I mention them as they could be useful in helping doctors to review this case and learn how to do things differently to help reduce the chances of future adverse outcomes.

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

As stated above in my discussion of the standard of care I do not think any of the providers deviated from the standard of care required. Of note three doctors saw [Mr A] since the time of his injury and none of them suspected neck injury. I think there is some merit in saying that if there was an error it might not be surprising that one doctor might make such an error or even two doctors, but that it is less likely that three doctors would all make the same error. I think that in this case based on the usual standard of care that doctors would use for assessing shoulder injuries at the time of this case that there was unfortunately nothing in particular to suggest there was a neck injury.

Answering Questions put to me by the Commissioner's office

1 When [Dr C] saw [Mr A] on 27 July 2001, did she provide services with reasonable care and skill? *My answer is yes as previously described in my report.* In particular:

   a. Was [Dr C's] examination and diagnosis in accordance with the standard expected of a reasonable and competent general practice registrar?
   Yes she did provide care at this level and at the level expected of a vocationally registered general practitioner.
   b. Was [Dr C's] diagnosis of rotator cuff injury reasonable and supported by the clinical evidence? *Yes*
   c. Did [Dr C's] management of [Mr A] meet the standard expected of a reasonable and competent general practice registrar? *Yes she did provide management at this level and at the level expected of a vocationally registered general practitioner.*

2 When [Dr D] saw [Mr A] on 28 July 2001, did he provide services with reasonable care and skill? *My answer is yes as previously described in my report.* In particular:

   a. Was [Dr D's] examination and diagnosis in accordance with the standard expected of a reasonable and competent general practice practitioner? *Yes*
   b. Was [Dr D's] diagnosis reasonable and supported by the clinical evidence? *Yes*
   c. Did [Dr D's] management of [Mr A] meet the standard expected of a reasonable and competent general practitioner? *Yes*

3 When [Dr E] saw [Mr A] on 31 July 2001, did he provide services in accordance with reasonable care and skill? *My answer is yes as previously described in my report.* In particular:

a. Was there any information available during that consultation that at the time suggested the possibility of a spinal injury? *No there was nothing to suggest the possibility of a spinal injury other than the shoulder pain. In particular there were findings to suggest that there was a localised shoulder injury and in that situation consideration of a spinal injury was beyond the usual standard of care as previously discussed in my report.*
b. Did [Dr E's] examination of [Mr A] meet the standard expected of a reasonable and competence doctor in those circumstances? *Yes.*
c. Was [Dr E's] diagnosis reasonable and supported by the clinical evidence? *Yes.*
d. Did [Dr E's] management at that time meet the standard expected of a reasonable and competent doctor? *Yes.*
e. Was referral to an orthopaedic surgeon required at that time, based on [Mr A's] presentation? *No – I have discussed the issue of the timing of such a referral previously in my report – based on the findings at the time and the diagnosis made there was no need to immediately (within hours or days) refer [Mr A] to an orthopaedic surgeon.*

4 Are there any other matters that you would like to comment on arising out of this consultation? *No.*

5 When [Dr E] saw [Mr A] on 1 August 2001, did he provide services in accordance with reasonable care and skill? *My answer is yes as previously described in my report.* In giving your response to this question, please consider two alternative scenarios:

a. First, please assume that [Mr A's] condition had remained stable from when [Dr E] had seen him the previous day, in accordance with [Dr E's] evidence; *Yes he did provide services with reasonable care and skill.*
b. Secondly, please assume that [Mr A's] condition had deteriorated from the previous day, in accordance with the evidence of [Ms B]. *In this situation with [Mr A] being in more pain I do not believe there were any findings to suggest further examination or investigation other than the ultrasound planned for the next day was needed. In particular I do not think there was ever any symptoms presented that would suggest a neck injury. Giving extra pain relief and awaiting the ultrasound result was of a reasonable standard of care and skill.*

6 In particular:
a. Was there any information available during that consultation that at the time suggested the possibility of a spinal injury? *No there was no particular information presented to suggest spinal injury – there was of course information available in the sense that it is possible if examination of the neck was performed that a different course of action might have followed. I have discussed the issue of should the neck have been routinely examined*

in the case of shoulder pain extensively earlier in my report and concluded that this was not the usual or expected standard of care.

b. Was it in accordance with the standard expected of a reasonable and competent doctor in those circumstances not to perform a further physical examination? *Yes it was a reasonable standard of care. I have discussed this earlier in the report – of note he had been examined the day before and a further investigation was arranged for the next day.*

c. Was it in accordance with the standard expected of a reasonable and competent doctor in those circumstances not to take [Mr A's] vital signs? *Yes it was reasonable – the diagnosis of a localised shoulder problem did not suggest that [Mr A's] vital signs might be abnormal.*

d. Was [Dr E's] continuing diagnosis of either rotator cuff rupture or humeral neck fracture reasonable and supported by the clinical evidence? *Yes it was reasonable and in any event an appropriate investigation to check the diagnosis was organised for the next day.*

e. Was a referral to an orthopaedic surgeon required at that point in time? *No – I have discussed the issue of the timing of such a referral previously in my report – based on the findings at the time and the diagnosis made there was no need to immediately (within hours or days) refer [Mr A] to an orthopaedic surgeon.*

f. Was [Dr E's] management in accordance with the standard expected of a reasonable and competent doctor in those circumstances? *Yes.*

g. Was it appropriate to give morphine to [Mr A] in circumstances where there was no confirmed diagnosis? *This question is 'loaded' in that it assumes the diagnosis was not confirmed. Whilst I have previously said that the diagnosis was to be 'checked' by the ultrasound in fact the ultrasound is often done to check the extent of the tear rather than to necessarily be concerned to immediately confirm that there is a tear – when referring to ultrasound for the investigation of shoulder pain it is stated that 'The size of the defect and the thickness of the intact tissue can be measured' (Ref.3). Of note it is not always necessary to have an investigation to confirm a diagnosis. Many conditions in medicine today still have no investigations that can confirm or deny a particular diagnosis. In the case of shoulder pain '… the diagnosis is dependent on the physical examination' (Ref. 2). Also even if the exact diagnosis was not a rotator cuff tear but rather some crack fracture and/or other damage about the shoulder the clinical finding of localised tenderness to me suggests there was no reason to suspect an injury away from the shoulder. As mentioned else where in my report I have wondered if [Mr A] had both a shoulder and a neck injury but we may never know if this was the case or not. Having said this with the diagnosis either confirmed or not confirmed and an investigation planned the very next day which would have then led to further follow up, I think it was reasonable to give further pain relief. Most references I have cited (e.g. Ref. 5 & 6) simply state 'analgesics' (pain killers) without mention of the particular type of analgesics. Further pain relief was given with 'tramal orally' – this is also reasonable – the indications and drug information of relevance are*

(Ref. 18): 'Uses: Relief of moderate to severe pain. Contraindications: Acute intoxication with alcohol, hypnotics, analgesics, opioids, psychotropics; MAOIs (± 14 days); not to be used for narcotic withdrawal; hypersensitivity to opioids; severe hepatic insufficiency (Tramal Retard only). Precautions: Galactose intolerance; risk of respiratory depression; raised intracranial pressure, head trauma; acute abdominal conditions; renal, hepatic impairment; opioid dependence; abuse potential, dependence; epilepsy, susceptibility to seizures; high doses, long-term use (> 6 months); intraoperative use (esp during light levels of anaesthesia); elderly (> 75 years); pregnancy, labour, lactation, children < 12 years.' As stated earlier in my report there was no particular reason to believe that there was likely to be respiratory depression based on the diagnosis of shoulder and not neck injury. The indications and precautions for the morphine injection are similar to the tramal and the indications specifically include (Ref. 18) 'Relief of moderate to severe pain not responsive to non-opioid agonist analgesia' which was the case with [Mr A's] pain not responding to the paracetamol and anti-inflammatory pain relief he was already taking.

7 Are there any other matters that you wish to comment on in relation to this consultation? *I think it was a good standard of care for [Dr E] to see [Mr A] again rather than another doctor. I note he states that he had intended to review [Mr A] again after the injection of morphine but I suspect this would have been unlikely to change the management. I think the follow up plan with the ultrasound the next day was reasonable.*

Conclusion:

This is a tragic case in which an apparently localised shoulder disorder was the cause of shoulder pain. In particular the finding of localised tenderness in the shoulder at the time [Dr E] saw [Mr A] was I think in hindsight falsely reassuring. I do wonder if there was both an injury to [Mr A's] neck and his shoulder. We may never know this. I did obtain the post mortem report and X-rays taken at the time of the post mortem after forming my opinion on the standard of care of the doctors who saw [Mr A] – this information unfortunately did not reveal any information that could confirm or deny that there was a shoulder injury as well.

Whilst I could find no deficiency in the standard of care of the doctors who saw [Mr A] I do wonder if this case suggests that doctors in general need to change their approach to apparent shoulder injury. As mentioned earlier only one of the references I have used (Ref. 2) suggested routine examination of the neck with isolated shoulder pain. Perhaps this is the way forward but care is needed in that sometimes such recommendations can worsen the overall standard of care – for example the extra time taken to examine the neck or other parts of the body could have major workforce implications (if doctors examined extra parts of the body for all possible referred pain at all sites – not just the shoulder – then the current

shortage of doctors could get worse). More importantly for individual patients apparently safe investigations have often turned out to be harmful or of no benefit in medicine – minor abnormalities or normal variants have been found and then more invasive and risky tests have been done to check them out resulting in harmful events or even death of patients. A complete discussion of this issue is beyond the scope of my report. Other approaches may be more helpful such as when patients come back sooner than expected, even if they have no new symptoms – could this be an indication that something is not right? Representations could be a trigger for doctors to reconsider the diagnosis and to pay particular attention to the possibility that they are not considering another diagnosis because the current diagnosis seems so obvious (Ref. 2, 17, 18).

Recommendations:

That the guidelines on the Ministry of Health Website and reproduced elsewhere (Ref. 15) are urgently reviewed for issues of safety. It is possible that they were originally meant for or designed for one purpose – prioritisation of non-urgent referrals to hospitals but as these guidelines include statements about conditions that are urgent then care needs to be taken with them. I do wonder if the guidelines were meant for non-traumatic or non-injury orthopaedic problems. It should be remembered that even if the guidelines might be designed for non-injury cases there is of course the problem of them being applied to patients who have been injured and neither the doctor [n]or the patient recognises that an injury has in fact occurred. The guideline should include some sort of 'red flag' for serious conditions that need immediate referral – it does appropriately include 'Back pain with neurological bladder involvement (cauda equina syndrome) Refer immediate' but needs something similar with neck pain with neurological involvement and recent definite or possible trauma. The guidelines clearly include 'Rotator cuff tendinitis/tears' which can be traumatic and so I think a doctor or another health professional or member of the public (they can get access to the web-site where this information is kept) could consider the guideline does apply to traumatic causes of orthopaedic problems. I think having within the same guideline statements that neck pain associated with neurological deficit can be referred 'Semi-urgent' meaning 'within 8 weeks' is open to being mis-interpreted and is potentially unsafe. There is a qualification that if the pain is thought to be secondary to malignant disease or infection that the referral should be 'urgent' (within 4 weeks) – it may be that the safety issue in this setting might be covered by the other recommendation that 'Urgent cases must be discussed with the Specialist or Registrar in order to get appropriate prioritisation'. However I think this guideline should state that traumatic or uncertain causes of neck pain associated with neurological deficit should be considered for immediate referral along with safe transportation. This whole issue of what is in a guideline and how it might be used is really a side issue for this case but I think it has significant enough risk to bring it to the Commissioner's attention.

That this case is brought to the attention of the specialist colleges of accident and medical doctors, general practitioners, and emergency medicine doctors to alert them to the possibility of neck injury being present when there is an apparent isolated shoulder problem. My comments early in my report should be brought to their attention – particularly in the section 'Have appropriate systems in place to reduce errors' – and especially the concept of meta-cognition and doctors' decision making processes (Ref. 18)

For the family.

Unfortunately [Mr A's] case was both a rare event and very hard to detect based on current medical knowledge. Any consideration of referral was in my opinion based on the information available at the time, unlikely to be made in time to have made any difference to [Mr A's] outcome as such a referral would not have been considered to have been needed immediately. I think it is likely that if they had taken him to another service, even to a hospital emergency department, that his neck problem may well have not been detected (Ref. 13). The management – namely pain relief and going home to wait and to get the ultrasound as planned – would probably have been the same even if they had taken him to [the public hospital].

I also believe that his particular case will have an impact on doctors and the fact that [Mr A's] case has come to the attention of the Commissioner and to my attention will certainly make doctors more likely to consider neck problems in similar future cases. I thank the family for bringing it to the attention of the medical profession.

References

1) Guidelines for Independent Advisors – Office of the Health and Disability Commissioner – Appendix H of the Enquiries and Complaints Manual – effective date: 1 September 2003.
2) General Practice – John Murtagh – McGraw-Hill Book Company – 1994 – ISBN 0 07 452807 6 – see especially chapter 53 (p522-533) on Shoulder Pain.
3) Clinical Sports Medicine – Peter Brukner, Karim Khan, McGraw-Hill Book Company, 1993 – ISBN 0 07 452852 1.
4) Personal discussion of Dr Searle the author of this report with people who observe doctors in sports medicine clinics – Discussion with sports medicine medics (person with at least first aid training, but who are not a doctors, who have then had further training in sports medicine in courses approved by sports medicine NZ) – one very experienced long term medic who has observed doctors in sports clinics and other settings for many years, and one registered nurse who was a sports medic for many years up until two years ago – both report that without specific neck symptoms common practice of doctors was to examine only the shoulder and not the neck or other structures if there were local signs in the shoulder. Of note in the last year or so it has become more common practice for some of the doctors to routinely examine the neck when there is a shoulder problem. However two years ago at the time of this case it

was not common practice to routinely examine the neck with history of shoulder pain from injury and no history to suggest neck problems.

5) Accident and Emergency Diagnosis and Management, A.F.T. Brown, 1987, ISBN 0 433 00031 7
6) Accident and Emergency Diagnosis and Management, 4th Edition, A.F.T. Brown, 2002, ISBN 0 340 80720 2
7) Oxford Handbook of Clinical Specialities, Oxford University Press, 1987, ISBN 0-19-261621-8
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9) Principles and practice of Children's Emergency Care, Browne et al., Maclennan+Petty, 1997, ISBN 0 86433 106 1
10) Oxford Medical Publications, Accidents and Emergencies, Sixth Edition, 1994, Oxford University Press, ISBN 0 19 262434 2
11) Outline of Orthopaedics, Tenth Edition, J. Crawford Adams, Churchill Livingstone, 1986, ISBN 0 443 03442 7
12) Clinical Examination, Macleod/Munro, Seventh Edition, 1986, Churchill Livingstone, ISBN 0 443 03405 2
13) Personal discussion, of Dr Searle the author of this report, with a senior emergency medicine doctor of the general situation of 14 year old male with shoulder pain post injury of uncertain mechanism, possible tackle type injury, with representations with increasing pain. The response as I talked them through the scenario was that maybe they would have examined the neck on the final presentation but maybe not. Unless there was bilateral shoulder pain, or some specific symptom to suggest neck pathology they would probably not have examined the neck. I avoided stating the final diagnosis until after I asked the doctor what they would do based on the symptoms and signs at each presentation – this method of discussion was in an attempt to avoid getting a retrospective opinion with the benefit of hindsight knowing the final diagnosis of the serious neck injury.
14) Personal discussion, of Dr Searle the author of this report, with two general practitioners of the general situation of 14 year old male with shoulder pain post injury of uncertain mechanism, possible tackle type injury, with representations with increasing pain. The response as I talked them through the scenario was that they would not have examined the neck but one would have at the final presentation examined the abdomen (which is another source of shoulder pain). Unless there was bilateral shoulder pain, or some specific symptom to suggest neck pathology they would probably not have examined the neck. I avoided stating the final diagnosis until after I asked each doctor what they would do based on the symptoms and signs at each presentation – this method of discussion was in an attempt to avoid getting a retrospective opinion with the benefit of hindsight knowing the final diagnosis of the serious neck injury.
15) The Referral Guidelines contained on MIMS Electronic Desktop Version (this is within the package – Index Tab, Clinical Guidelines, Referral Guidelines and then select Orthopaedics (Ref. MIMS NZ Version 1.00 copyright 2003,

MediMedia NZ Ltd, 3 Shea Terrace, Milford, Auckland) – this states with respect to 'Rotator Cuff Tendonitis/Tears' that you should Refer if patient fails to respond to treatment. Evidence of weakness suggestive of a rotator cuff tear is more urgent. This can be contrasted with the section on 'Neck pain associated with neurological deficit' where it states to 'Refer semi-urgent'. These guidelines are also available on the Ministry of Health Website – in there it classifies the priorities in the following manner CATEGORY DEFINITIONS Immediate – within 1 week; Urgent within 4 weeks; Semi-urgent within 8 weeks; Routine within 16 weeks; and Low Priority within 24 weeks. They also state 'Immediate and Urgent cases must be discussed with the Specialist or Registrar in order to get appropriate prioritisation and then a referral letter sent with the patient, faxed or e-mailed'. Thus in this case that is at most 'Semi-urgent' (if it was diagnosed as 'Neck pain associated with neurological deficit' then this guideline states it would be 'Semi-urgent'. If classed as some sort of shoulder pain it is not actually classified other than 'Refer' but in the context of the rest of the orthopaedic guideline it is clear this means the priority is not 'Immediate' or 'Urgent' or 'Semi-urgent' and hence would be a less urgent priority. I think it is a bit vague what is meant by 'more urgent' with respect to the statement in the guideline that states – 'Evidence of weakness suggestive of a rotator cuff tear is more urgent' – but I think it is clear that it means more urgent than cases without weakness but other than this it does not actually clearly classify the patient's referral priority into one of the guideline's own classifications of 'Immediate, Urgent, Semi-urgent, Routine, or Low Priority'.

16) Education and debate ABC of Rheumatology: PAIN IN NECK, SHOULDER, AND ARM, M Barry, J R Jenner). BMJ 1995;310:183-186 (21 January)
17) BMJ 2000; 320:768-770 (18 March) Education and debate: Human error: models and management, James Reason, professor of psychology.
18) Cognitive Forcing Strategies in Clinical Decision Making, Pat Croskerry, Annals of Emergency Medicine 41:1, Jan 2003, p110-120
19) Mims Medicines Database – MIMS NZ Version 1.00 copyright 2003, MediMedia NZ Ltd, 3 Shea Terrace, Milford, Auckland)

Sports physician advice

The following expert advice was obtained from Dr Chris Milne, a sports physician:

"1. Introduction

a) Qualifications, training and experience

I am currently working as a sports physician in full time referral based practice in Hamilton. From 1987 until September 2003 I operated a mixed practice. This consisted of a general practice with an interest in Sports Medicine, plus a specialist referral based practice in Sports Medicine which commenced in 1999.

I hold vocational registration in General Practice and Sports Medicine.

Qualifications:

MB	ChB	Auckland	1981
Dip	Obst	Otago	1985
Dip	Sports Medicine	London, UK	1987
MRNZCGP (Member, Royal NZ College of GPs)			1990
FACSP (Fellow Australasian College of Sports Physicians)			1993
FRNZCGP (Fellow, Royal NZ College of GPs)			1999

In addition, I have attended one of the Sports Medicine courses organised by the Oceania National Olympic Committees at the Australian Institute of Sport in Canberra in 1991. I believe this is the type of course referred to in pages 12 + 76 of the papers supplied to me. These courses last about five days and are devoted to practical aspects of sports medicine. They are particularly directed at doctors and physiotherapists from the Pacific Island countries. I have subsequently been a guest lecturer on four of the courses. Finally, I have been team doctor to the Chiefs Super 12 rugby team from 1997-2003.

The standard applied in my deliberations is that of a doctor with general registration plus some additional training and experience in Sports Medicine. At the time of the consultation in 2001, [Dr E] had 12 years of postgraduate clinical experience, including one year as an orthopaedic registrar in [the public hospital], plus rugby medical experience for five years, and as head of A & E Department of [his home country's] National Hospital.

b) Opinion sought

I have been asked to provide an opinion to the Commissioner on case number 01HDC11702, and have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

…

d) Sources of information

- Letter of complaint
- Copy of the relevant clinical notes
- Letter of response to the complaint from [Dr C] dated 17 December 2001
- Letter to [Dr C] requesting further information dated 1 May 2003
- Letter of response from [Dr C's] counsel dated 12 May 2003
- Letter of response to complaint from [Dr D], dated 18 January 2002
- Letter to [Dr D] requesting further information dated 13 May 2003
- Letter of response from [Dr D] dated 19 June 2003
- Letter of response to complaint from [Dr E] dated 18 January 2002
- Written statement of [Dr E] dated 4 September 2003

- Copies of written police statements of [Ms A] and [Ms B]
- Transcripts of interviews with [Dr E], [Ms A] and [Ms B]

I also consulted the following reference texts:

1. Clinical Sports Medicine, 2nd edition Peter Brukner and Karim Khan McGraw Hill, Sydney 2001

2. Science and Medicine in Sport, 2nd edition J Bloomfield, P Fricker and K Kitch, Blackwell Science, Melbourne 1995

3. Sports Medicine Handbook Roger Hackney and Angus Wallace, BMJ Publishing Group, London 1999

4. Orthopaedic Sports Medicine, 2nd edition JC De Lee, D Drez and M Miller, Saunders, Philadelphia 2002

2. Chronological summary

Thursday	26.7.01	[Mr A] sustained an injury at rugby practice. The team was doing passing manoeuvres, but the actual mechanism of injury is unclear. [Mr A] told his mother of the injury on arriving home, saying he had hurt his left shoulder.
Friday	27.7.01	On awakening, [Mr A] said he was unable to move his left arm. He was taken to [the medical centre] and seen by [Dr C], GP registrar, who diagnosed a rotator cuff problem. [Mr A] went to school that day and went out to watch his basketball team play that evening. After he returned, his arm was put into a sling on account of pain.
Saturday	28.7.01	[Mr A] went to [another town] to watch a game of rugby. At 6.30 pm that evening he was taken to [the clinic] on account of pain. He was seen by [Dr D], who examined him and took an X-ray. On reviewing the X-ray [Dr D] suspected a crack fracture of the humeral neck and recommended a sling plus Voltaren and Pamol, plus review by [Mr A's] usual GP [Dr H].
Sunday	29.7.01	[Mr A] stayed home, but by Monday evening was noted by
Monday	30.7.01	his mother to be moaning in pain for much of the night.

Tuesday	31.7.01	[Mr A] was seen at [the clinic] by [Dr E]. [Dr E] examined [Mr A] and reviewed the X-ray plus the report. The report stated 'no fractures or subluxations are detected'. [Dr E] felt there could still be a fracture present, and arranged an ultrasound scan of [Mr A's] shoulder for Thursday 2.8.01. He considered [Mr A's] clinical presentation was consistent with a fracture of the humeral neck.
Wednesday	1.8.01	Overnight, it appears that [Mr A's] condition deteriorated, so at 8.30 am he was taken back to [the clinic]. [Dr E], who was there for a meeting, reviewed [Mr A] but did not repeat a full examination. He considered that [Mr A] required stronger pain relief and arranged for an injection of morphine 10 mg and Maxolon 10 mg. He planned to review [Mr A] after the meeting but by the time the meeting was over, [Mr A] had left. That afternoon, [Mr A] became restless and at 4 pm his breathing became shallow. He was taken home by his mother [Ms A] at 5 pm. She recalls being up all night with him.
Thursday	2.8.01	[Mr A] began complaining of a sore chest, and at 5 am he collapsed. By 5.30 am he was speaking but not coherent, and had become very pale and clammy. At about 7.30 am [Ms A] noticed his eyes roll back, and couldn't find his pulse. She therefore began CPR, and [Mr A] vomited black material. An ambulance was called urgently and CPR was continued, with [a doctor] in attendance. Unfortunately, resuscitation was unsuccessful.

A subsequent autopsy determined that the cause of death was respiratory failure secondary to bruising of the cervical spinal cord and dislocation of cervical vertebrae at C5-C6 level.

3. Professional opinion

1. When [Dr E] saw [Mr A] on 31.7.01 did he provide services in accordance with reasonable care and skill?

In particular –

a) Was there any other information available during that consultation that at the time suggested the possibility of a spinal injury?

Answer –

Doubt exists as to the actual mechanism of injury. The statement of [Ms B] on page 64 reads:
[Mr A] said he had gone into the tackle bag and he had gone down and the rest of the forwards had gone over the top of him and had come down on him.

This suggests a forced flexion injury to the neck.

The transcript of interview with [Ms B] on P 101-102 makes no mention of a mechanism of injury. The letter of [Dr E] on p 38 states that [Mr A]:

> 'tended not to volunteer information
>
> so I had to be very specific in my questions. I particularly asked him about loss of power or sensation, or whether he had noticed pins and needles. He denied this ……. and it was clear that the pain was in his shoulder only, with there being no history of neck pain!'

The transcript of interview with [Dr E] on p 76 states:

> '[Mr A] did not say the mechanism of injury. He was presented with his Grandmother and from memory ……. She was saying that ……. [Mr A] was injured in the rugby practice. The exact nature of the injury I, I believe she cannot explain, meaning that she wasn't sure exactly whether it was tackle bags or tackle or a scrum or' (statement ends).

In summary, the mechanism of injury is crucial. Although [Ms B] mentions a possible forced flexion injury to the neck on P 64 of her statement, this does not appear in either the statement or interview with [Dr E]. Therefore I conclude that either:

1. The information regarding the possible forced flexion injury was not volunteered to [Dr E].

OR 2. [Dr E] did not elicit this information. He was under the impression, from the previous notes of [Dr D] that [Mr A] had injured his shoulder.

I therefore conclude that there was no other information available which suggested the possibility of a spinal injury.

b) Did [Dr E's] examination of [Mr A] meet the standard expected of a reasonable and competent doctor in those circumstances?

Answer –

If the mechanism was of no particular single incident, then [Dr E's] examination met the standard.

If however, it was as described by [Ms B] on pg 64 then that mechanism is suspicious of a possible forced flexion injury to the neck. In that case, specific examination of the neck, including checking for local tenderness and neck movements would have been indicated.

c) Was [Dr E's] diagnosis reasonable and supported by the clinical evidence?

Answer –

As above, it depends greatly on the mechanism of injury. At the time he saw [Mr A] on 31.7.01 there was left shoulder pain and tenderness, with no complaint of neck pain. In addition, he has indicated that the neurovascular supply to the left arm was intact (N/V OK in notes on page 17). In my opinion, the clinical evidence on 31.7.01 was in favour of [Dr E's] working diagnosis of a fracture of the humeral neck or a rotator cuff tear (although this is rare in a 14 year old).

d) Did [Dr E's] management at that time meet the standard expected of a reasonable and competent doctor?

Answer –

I believe so. The weight of clinical evidence supported his working diagnosis, and he arranged an ultrasound scan for 2.8.01. In addition, he indicated that a follow up X-ray may be required (Notes on pg 17 state 'may need X-ray repeat'). He checked the X-ray films and read the report. With his previous experience as an orthopaedic registrar I would have expected him to be aware of the possibility of open growth plates in the upper humerus in a 14 year old boy. He asked [Mr A] about a supply of pain relief tablets, which was an appropriate thing to check on.

e) Was referral to an orthopaedic surgeon required at that time, based on [Mr A's] presentation?

Answer –

As for (b) above. For a forced flexion injury of the neck, and continuing severe symptoms 5 days post injury, orthopaedic referral plus neck X-rays would have been indicated. For non specific trauma to the left shoulder at rugby training 5 days post injury, an ultrasound scan in 2 days was a reasonable course of action.

2. Are there any other matters that you would like to comment on arising out of this consultation?

Answer –

On page 56 of the statement of [Ms A] states:

'Mum said that [Dr E] had re-examined him quite thoroughly she thought had given him a good check over but that [Mr A] was in a lot of pain …. Mum told me that [Mr A] was asked about medication by [Dr E] and [Mr A] replied that he still had some. [Mr A] wouldn't know what he had left.'

This statement tends to imply that the examination was appropriate, and [Dr E] inquired appropriately about a supply of pain relieving medication.

3. When [Dr E] saw [Mr A] on 1 August 2001 did he provide services in accordance with reasonable care and skill? In giving your response, please consider two alternative scenarios:

a) First, please assume that [Mr A's] condition had remained stable from when [Dr E] had seen him the previous day, in accordance with [Dr E's] evidence.

Answer –

In this scenario [Dr E] probably provided services in accordance with reasonable care and skill. However, [Mr A's] condition was not improving, and it would have been prudent to conduct further questioning and repeat physical examination. Results of that would have some influence over further management.

b) Secondly, please assume that [Mr A's] condition had deteriorated from the previous day, in accordance with the evidence of [Ms B].

Answer –

In this scenario, [Dr E's] service fell short of what I would regard as reasonable care and skill for a doctor with his training and experience. Specifically:

1. There is no evidence that the history was rechecked at this second consultation with [Dr E]. If this had been done, there may have been some mention of either running into a goalpost, as was stated to [Dr C] (page 1) or a possible forced flexion injury of the neck (page 64).

2. No further physical examination was carried out. The historical features mentioned above should have prompted an examination of the neck in a doctor with [Dr E's] training and experience.

3. The assumption appears to have been made, that [Mr A] had a shoulder problem that was not responding to standard therapy (painful shoulder + + + + on page 18 in clinical notes). The possibility of neck pain being referred to the shoulder does not appear to have been considered in much detail, as there is no mention of this in the clinical notes, and no neck X-rays were requested. The neurovascular status of [Mr A's] left arm was examined on 31.7.01 and found to be normal. It was not repeated on 1.8.01, by which time detectable changes may have been present.

4. Orthopaedic referral should have taken place on 1.8.01 (see also my response to Question 4e).

4. In particular:

a) Was there any information available during that consultation that at the time suggested the possibility of a spinal injury?

Answer –

According to the statement of [Ms B] pg 67

> '[Mr A] was perspiring around his forehead and he was cold to touch up but complained about being hot. He looked a little pale when I first saw him.'

And the interview with [Ms B] on pg 105

> 'Oh he was terrible. His face was pale. He was very agitated, very very. He was in agony.'

By contrast, the statement of [Dr E] on pg 44 relating to the consultation on 31.7.01 states

> 'When I reflect back on the consultation there was nothing in [Mr A's] demeanour that suggested a cervical injury. I have seen cervical injuries on other occasions.'

Later on pg 46 relating to the consultation of 1.8.01.

> 'I noted no difference in his movements. Again there was no neck stiffness or guarding. His grandmother said that he could not sleep at night due to the left shoulder pain and said that it was unusual for him to be complaining of pain as he had a high pain threshold.'

However [Dr E] considered the level of pain [Mr A] was experiencing was consistent with the working diagnosis of a fractured neck of humerus or rotator cuff tear, despite being prescribed analgesics.

Taking into account all the above information, it appears on balance that [Mr A's] pain had become worse between 31.7.01 and 1.8.01. This should have prompted further questioning regarding the mechanism of injury, and a repeat clinical examination. Severe pain is one of the indicators of a possible spinal problem.

b) Was it in accordance with the standard expected of a reasonable and competent doctor in those circumstances not to perform a further physical examination?

Answer –

See 4a above. In my opinion, a further physical examination should have been performed on 1.8.01 given that [Mr A] was in severe pain and had been brought back for review.

c) Was it in accordance with the standard expected of a reasonable and competent doctor in those circumstances not to take [Mr A's] vital signs?

Answer –

Generally, vital signs in an Accident & Emergency Clinic would be recorded by a nurse. They do not appear on the clinical notes on pg 17 or pg 18. The vital signs would have most relevance in an associated head injury. There is no evidence [Mr A] sustained a head injury in the accident of 26.7.01. It would have been more relevant

to examine the neck, but the vital signs may have provided some additional useful data (e.g. a grossly elevated pulse). In [Mr A] this may have provoked a questioning of the working diagnosis. The prescription of morphine is an indication to check on vital signs prior to the injection being administered. If the vital signs are not recorded by the nurse, it then becomes the doctor's responsibility to check and record them.

d) Was [Dr E's] continuing diagnosis of either rotator cuff rupture or humeral neck fracture reasonable and supported by the clinical evidence?

Answer –

[Mr A's] repeat consultation on 1.8.01 should have prompted a questioning of the original working diagnosis. Even though this diagnosis had also been made by two other doctors, the continuing high level of pain despite analgesics, one week after the injury should have caused a doctor of [Dr E's] experience to consider alternative diagnoses. Possibilities include acute calcific tendonitis, a brachial plexus nerve injury or referred pain from a neck injury.

No further examination was conducted on 1.8.01 so we have no further clinical evidence to go on.

e) Was a referral to an orthopaedic surgeon required at that time?

Answer –

In my opinion, yes. The continuing high level of pain despite regular pain relief was clearly documented in the clinical notes (pg 18). [Dr E] had previously been an orthopaedic registrar plus head of an Accident & Emergency Department, so would have been aware of the diagnostic difficulties of some trauma cases. In cases of diagnostic doubt, onward referral is desirable. For most clinical problems, one could afford to wait a few days, but tragically not in this case.

f) Was [Dr E's] management in accordance with the standard expected of a reasonable and competent doctor in those circumstances?

Answer –

See my response to question 3a and 3b. If [Mr A's] condition had remained stable, it was reasonable to assume that he had a significant shoulder problem.

If [Mr A's] condition had deteriorated, it would be essential to recheck the history, repeat the physical examination, consider alternative diagnoses and arrange orthopaedic review later that day.

g) Was it appropriate to give morphine to [Mr A] in circumstances where there was no confirmed diagnosis?

Answer –

In certain circumstances, yes. In particular, it could have been considered if transfer to [the public hospital] (approximately 45 minutes away) was to occur. One would also need to consider the waiting time (often up to several hours) before [Mr A] may have actually been seen by an on call orthopaedic registrar. Balanced against this is the fact that morphine, being a strong pain killer (analgesic) would dull some of the clinical signs and make his presentation less dramatic. It is a matter for delicate clinical judgement, including discussions with relatives where appropriate.

The dosage of 10 mg was appropriate for a large 14 year old (he is said to have weighed about 100 kg on page 84 of the documents supplied to me).

5. Any other matters you wish to comment on in relation to this consultation?

Answer –

On page 109 of the interview with [Ms B] she states that she was concerned that she was unaware of how to care for [Mr A] after the morphine injection …….. 'they never explained anything for me to do for [Mr A] or to look for in [Mr A] after having, after having the injection and I was, I was really worried because I thought he'd go to sleep on the way home, I wouldn't be able to lift him out of the car or anything'.

On page 84 of the interview with [Dr E], it is clear he had concerns that [Mr A] might not have taken the medication:

> 'Sometimes you know, people say they, they do take medication but you know, not sure, but I know for certain that giving the injection have some relief for him because of his level of pain.'

I think that [Dr E] was correct in trying to ensure adequate pain relief, but it does not appear that [Ms B] was given specific advice as to what to expect after the morphine injection was given. On the

other hand, despite her uncertainty, she appears not to have asked [Dr E] or the nurse to explain this to her.

This shortfall in communication is a pity because in theory, [Dr E] was arguably amongst the best placed doctors in New Zealand to evaluate [Mr A's] condition. He had previously worked as an orthopaedic registrar, and also as Head of the A & E Department at [his home country's] National Hospital. As such, he would have a good appreciation of the cultural factors pertaining to medical consultations by Pacific Island people and their reticence to question health professionals.

His actions after he heard of [Mr A's] death are commendable. He speaks openly about the personal anguish he has been through (page 40 and 48) and has also met with [Mr A's] stepfather and offers to meet with any member of [Mr A's] family.

The provider's records appear to be of an adequate standard, although they are not as thorough as those of [Dr C], the GP registrar who saw [Mr A] on 27.7.01.

4. Literature search

Given that this sequence of events is both fatal and extremely rare, it fits into the 'not to be missed category' for practitioners. I consulted a range of textbooks that would be used by general practitioners with an interest in sports medicine. As far as I am aware, no specific New Zealand guidelines for the management of cervical or shoulder injuries exist, but the NZ Guidelines Group is currently in the early stages of producing shoulder injury guidelines.

1. Brukner and Khan (2001) mention cervical injuries on pages 719-720 of their 900 page textbook. There is extensive use of the 'common, less common', and 'not to be missed' categories for various injuries, but not for cervical injuries as a cause of shoulder pain (table 14.2 page 233). There is mention of radiation of neck pain to the shoulder on page 216 and acute cervical nerve root pain with referral to the arm on page 227. At no point is it stated that acute neck injuries can present purely with shoulder pain.

2. Bloomfield, Fricker and Fitch (1995) cover cervical spinal injuries on pages 360-368. Again, there is no mention of acute neck injuries presenting purely with shoulder pain.

3. Hackney and Wallace (1999) mention acute spinal injuries on pages 159-160 and head and neck injuries on pages 272-291. Again, there is no mention of acute neck injuries presenting purely with shoulder pain.

These three textbooks would be the ones most frequently referred to by doctors with general registration and an interest in sports medicine.

4. The specialist level text is De Lee, Drez and Miller (2002). This 2600 page, 2 volume textbook has comprehensive coverage of cervical spine injuries on pages 791-840. Bilateral facet dislocations are covered on page 806 (included as an appendix). It can be seen from the text that a high incidence of quadriplegia accompanies these injuries. However, even in a textbook of this size, I could find no reference to significant cervical spinal injuries presenting solely with shoulder pain, and no sensory level (i.e. [Mr A's] presentation).

5. Conclusion

The crux of the matter is that [Mr A] did not give any indication to [Dr E] that he had sustained any injury to his neck. From my experience as a rugby doctor, players are often vague about the actual mechanism of their injuries. At the first consultation on 31.7.01, he provided care of an appropriate standard. At the second consultation on 1.8.01, [Mr A's] ongoing symptoms, particularly if he was deteriorating as stated by [Ms B], should have prompted a review and questioning of the original diagnosis. In my opinion this lack of further questioning and repeat examination was a failure to meet the standard expected. Also in my opinion, the failure was not major, as it was only one day after [Dr E] first saw [Mr A]. Unfortunately, it was to have tragic consequences.

The response of peers is likely to be sympathetic to [Dr E]. Many would probably think 'there but for the Grace of God go I'. Spinal injuries in rugby players have been widely publicised, and doctors are well aware of them. Virtually all major spinal injuries present with spinal pain and/or weakness plus sensory change below the level of the injury. [Mr A] had neither of these features. Furthermore, a cervical facet dislocation is often accompanied by the sensation of a click in the neck. [Mr A] did not have this either. Finally, a dislocation at C5-6 level is uncommonly associated with respiratory failure. Normally the dislocation would have to be at a higher level of the neck for respiratory failure to occur.

For doctors, the salutary lesson is that things are not always what they seem."

Code of Health and Disability Services Consumers' Rights

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

RIGHT 4

Right to Services of an Appropriate Standard

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

…

4) Every consumer has the right to have services provided in a manner that minimises the potential harm to, and optimises the quality of life of, that consumer.

Commissioner's Opinion

The issue for determination is whether each of the doctors who treated Mr A "failed to provide services of an appropriate standard, and to appreciate the seriousness of [Mr A's] medical condition". I shall deal with each doctor's liability in turn.

Opinion: No breach – Dr C

My general practitioner advisor, Dr Searle, was very clear in his advice – Dr C's management of Mr A was in accordance not only with the standards to be expected of a general practice registrar, but also with those of a vocationally registered general practitioner.

Dr Searle noted that Dr C's records were of a good standard and that the provisional diagnosis she made was appropriate and supported by the available clinical evidence.

Dr Searle noted that one of the key tasks for the general practitioner to perform is to check whether there is any disability or neurological function problem that might suggest more serious injury. In the present case, Dr C documented that Mr A had normal power and sensation and also checked neurological function.

Once serious injury has been checked for, it is important the general practitioner take a full history, including the mechanism of the injury, current symptoms, past history of similar injuries and past general medical history. Again, this was something Dr C performed appropriately. Dr C then undertook a thorough examination, including checking the visible

appearance of the injury, palpating to check for tenderness, and checking the range of movement and associated pain.

There was nothing in Mr A's presentation that suggested the possibility of a neck-related injury and, accordingly, Dr C could not reasonably have been expected to have examined Mr A's neck. Dr Searle informed me that Dr C's diagnosis of a rotator cuff injury was reasonable in the circumstances, and supported by the evidence available to her.

While Dr C did not order any further investigation of Mr A's injury, Dr Searle informed me that this was appropriate in the circumstances; an X-ray of a recent rotator cuff tear was not required.

In these circumstances, Dr C provided services to Mr A with reasonable care and skill; indeed, to the standard expected of a vocationally registered general practitioner. Tragically, Mr A's presentation was consistent with a rotator cuff injury, and there was nothing in his history or presentation that indicated that the underlying injury was to his neck rather than his shoulder. Accordingly, in my opinion Dr C did not breach the Code.

Opinion: No breach – Dr D

Assessment and diagnosis
Dr Searle considered that the history taking and examination by Dr D was appropriate. Dr D did not need to carry out a more detailed physical examination, as it would have been likely to cause Mr A distress without in fact providing significant further information. Dr D had sought an X-ray, which was an appropriate course of action, and his management of Mr A was reasonable.

Despite extensive enquiries by my office, I have been unable to locate the X-ray that was taken at the clinic. No copy was made of the film, and the original film has not been found. While it would have been preferable to have been able to review the film, to determine whether Dr D's provisional diagnosis of a fracture was supported by the radiological evidence, it can be inferred that the film displayed a possible humeral neck fracture. Although the radiologist's report subsequently concluded that no such fracture existed, it does not follow that Dr D's provisional diagnosis was negligently made. Dr Searle noted that crack fractures are not always easy to see, and may not necessarily be agreed upon by all doctors viewing an X-ray.

In any event, Dr Searle noted that the result of the X-ray would not be determinative in deciding that Dr D's management of Mr A was reasonable. Regardless of whether the X-ray demonstrated evidence of a crack fracture, Dr D acted reasonably in prescribing pain relief, a sling and referral to Mr A's general practitioner.

I accept Dr Searle's advice. As discussed above, there was no information reasonably available to Dr D pointing to Mr A's neck as the site of the underlying injury, and it would

not be reasonable to expect him to have treated Mr A for a suspected neck injury. Accordingly, based on my expert advice, I consider that Dr D conducted an appropriate examination, appropriately reviewed Mr A's X-ray, arrived at a reasonable provisional diagnosis, and recommended an appropriate course of management.

For these reasons, I consider that Dr D did not breach the Code in respect of his assessment and diagnosis of Mr A.

Referral to an orthopaedic surgeon
Over the course of my investigation, there has been a dispute over the wording of the recommendation Dr D gave Mr A and his mother following the consultation. As discussed in the "Information Gathered" section of this report, Ms A has firmly maintained that Dr D did not present the option of the referral to an orthopaedic surgeon that same night. Dr D has equally firmly maintained that he did offer such a referral.

In light of Dr Searle's advice, however, it is apparent that this issue is of limited significance in assessing Dr D's management of Mr A. Even if the possibility of an immediate orthopaedic referral was not raised, Dr D's management was acceptable. At the time there was nothing to indicate the need for an urgent orthopaedic referral, and it would have been equally acceptable to review Mr A's condition after a few days, perhaps after the X-ray had been reported. Dr Searle commented:

> "The follow-up plan after seeing [Dr D] was clearly either to have a referral at some stage to an orthopaedic surgeon (this was documented in the notes) and/or to go back to the GP for review …. I think that either or both of these options was acceptable follow-up based on the diagnosis made at the time – a shoulder not a neck problem. The timing as stated in my previous comments on appropriate management was not critical in that there was no apparent need for a referral to be made within hours or days – the accepted standard was within weeks."

The dispute surrounding the suggestion of referral to an orthopaedic surgeon is something of a red herring, as in the circumstances the options of waiting and reviewing or referral to Mr A's general practitioner were both acceptable.

It follows that Dr D did not breach the Code in respect of his recommended follow-up plan for Mr A.

Opinion: Dr E

Relevant standard of care
At the time that he saw Mr A, Dr E had general registration and was working at the clinic. From that perspective, the legal standard expected of him was that of a practitioner in such circumstances. However, Dr E also had considerable experience in sports medicine. According to the evidence of Ms A, this was the reason that it was suggested – by Ms G,

the clinic receptionist – that she take Mr A to see him. Dr E does not have vocational registration in sports medicine and does not hold a sports diploma. However, Dr E had considerable experience in treating sports injuries and a reputation as a sports doctor. In these circumstances I consider it appropriate to judge him by a higher standard than that expected of an ordinary medical practitioner, with general registration, working in general practice.

In response to my provisional opinion, Dr E said:

> "From the outset I am concerned that you have essentially rejected the opinion of Dr Searle who like me is a general practitioner but instead have relied upon the opinion of Dr Chris Milne who is a specialist and indeed a sports physician (unlike myself). I consider it is unfair for me to be judged against the standards or opinion of a sports physician given that:
>
> (i) I was not registered as other than a general practitioner (under oversight I might add as I had only recommenced NZ employment in November of the previous year); and
>
> (ii) I have never presented or marketed myself as a specialist or as having specialist knowledge in sports medicine.
>
> At no stage had [the clinic] marketed myself or indeed another of its regular doctors as belonging to any speciality in the time I worked there. I believe the recommendation for Mr A to be brought to see me came from one of [the clinic's] receptionists, Ms G who was a personal friend of Mr A's mother Ms A. If she had made the recommendation, she would have made it from a personal opinion. Of course the fact that I am involved with an international rugby team and perhaps good general performance in orthopaedic cases in the clinic may have helped her arrive at her conclusion – however it doesn't mask the fact that I was not practising as such, and never made any pretensions to."

I have carefully considered Dr E's comments. My view is that his professional background and particular experience in dealing with rugby related injuries distinguishes him from doctors with general registration and no sports medicine training or experience. In the introduction to his report, Dr Milne confirms that the standard applied in his deliberations is that of "a doctor with general registration plus some additional training and experience in Sports Medicine". I do not consider it unfair to hold Dr E to this somewhat higher standard, even though he was not practising or holding himself out as a sports doctor. Patients were likely to be referred to him precisely because he was known to have a background in sports medicine – as happened in this case.

Nevertheless, in forming my opinion, I have considered the relevant standard of care from two perspectives; first, the standard expected of a practitioner with general registration working in an accident and medical clinic; and secondly, the standard of a doctor with general registration, but with considerable experience in sports medicine.

No breach

First consultation – 31 July 2001: Diagnosis
Dr Searle, a vocationally registered general practitioner with considerable experience in accident and medical practice, advised me that he considered that Dr E's history taking, assessment and diagnosis were appropriate. Dr Searle noted that when Dr E first saw Mr A, he conducted a further physical examination, rather than simply relying on Dr D's findings, and that this constituted a good standard of care. Dr E noted the tenderness directly over Mr A's shoulder joint, and also the lack of active movement of the shoulder.

Dr Searle considered that there was no indication of a need to examine Mr A's neck – as was also the case with Drs E and F – and that Mr A's presentation, and specifically the presence of pain directly in the shoulder joint, indicated the likelihood of a shoulder injury. Dr Searle informed me that in relation to a rotator cuff injury, the two main findings to be expected are localised tenderness and the inability to initiate shoulder abduction, both of which were found by Dr E. Therefore, according to Dr Searle, Dr E had no reason to consider that this was not a shoulder injury.

Dr Milne, who has vocational registration as both a general practitioner and sports physician, advised me that from a sports medicine perspective, the mechanism of the injury has a primary and critical significance. Dr Milne considered that establishing the mechanism of the injury could have provided further information to Dr E suggesting the possibility of a spinal injury. He emphasised that this is not a sophisticated diagnostic tool that only experienced sports physicians would use in treating a sports injury, and confirmed that establishing the mechanism of the injury is a basic tenet of sports medicine practice that he would firmly expect from someone of Dr E's qualifications and experience.

In response to my provisional opinion on this issue, Dr E said:

> "[I]f I am to be judged according to the standards expected of a general practitioner with considerable experience in sports medicine, I would then dispute the criticism, that I should have recognised the importance of the information given to me which established the mechanism of injury.
>
> Notwithstanding what I have said about the unfairness in your preferring an opinion from a sports physician like Dr Milne, I do agree with some aspects of Dr Milne's opinion. Establishing the mechanism of the injury is a basic tenet of sports medicine and certainly in my experience it is crucial in determining the cause of an injury. I find it contradictory then, that on the one hand you are ready to accept my considerable experience in sports medicine, yet on the other I am just as readily charged of having missed something that is indeed basic.
>
> In my experience where a player cannot recall the exact mechanism of an injury, it is often the bystanders that are the next reliable source of ascertaining the mechanism. I did not have the benefit of a clear and positive response from my patient, let alone that of an eye witness to the event. [Ms B] was not present at the [rugby] practice.

> But let me say this, I am absolutely certain that [Mr A] did not volunteer me information regarding the mechanism of injury, nor could [Ms B] with any conviction. [Mr A] gave me yes and no answers to questions such as whether he notice[d] pins and needles. But other than that I recall it was mostly [Ms A] who did the talking.
>
> I asked how the injury occurred – that at least is corroborated by [Ms B's] police statement as you recount … Her statement to the Police emphatically states that [Mr A] told me that he had 'gone down over the tackle bag and the rest of the forwards had *gone over the top of him and come down on him."* Yet I stand by my recollection that she answered on [Mr A's] behalf and my take of her answer was he was not certain. I am not questioning her honesty in her recollection but I do question your ready acceptance of her [evidence]. …"

I accept that Dr E does not recall being told of the mechanism of the injury in the detail that Ms B outlined in her statement to the Police. The clinical picture was clouded by the fact that almost all the evidence available pointed to the likelihood of a shoulder injury.

In response to my provisional opinion, Dr E said:

> "Most importantly to me, I had in front of me during the consultation, written evidence of the mechanism of the injury. My questioning gave me no reason to dispute it.
>
> An ACC.45 claim form had been filled in and signed by the guardian and co-signed by [Dr C] as the first provider, which had been presented during his consultation with [Dr D]. An ACC.18 form was filled in by [Dr D]. I remember distinctly now that these two forms were stapled to [Mr A's] medical notes which I had available to me at the time of the consultation.
>
> The ACC.45 form filled in by [Ms A] I presume clearly stated the mechanism of injury as:
>
> > 'Running into the crash bag (tackle bag)'
>
> I am confident that the same mention in regard to mechanism of injury would have been in the notes by [Dr D] or the clinic nurse who had seen him previously. This and the lack of further evidence to the contrary upon specific questioning, was what guided my opinions as to the mechanism of injury …"

Dr E seems to have appreciated the significance of determining the mechanism of injury, and attempted to elicit verbal information from Mr A and his grandmother about the cause of injury. In these circumstances, I consider that Dr E did not breach Right 4(1) of the Code in forming a diagnosis of a shoulder injury.

First consultation – 31 July 2001: Management
Dr E's management was dictated by his diagnosis of a shoulder injury. Accordingly, I have assessed the appropriateness of Dr E's management on the assumption that his diagnosis was correct.

Both Dr Searle and Dr Milne advised me that arranging the ultrasound was an appropriate course of action given the provisional diagnosis. Dr Milne noted with approval that Dr E recorded the possible need for a follow-up X-ray and enquired about the need for further pain relief. Both doctors advised that assuming the diagnosis of shoulder injury was correct, there was no basis on which an urgent referral to an orthopaedic surgeon was warranted, and therefore Dr E managed the situation appropriately.

Dr Milne advised me that had Dr E recognised the significance of the information regarding the possible forced flexion injury to Mr A's neck, neck X-rays and an urgent orthopaedic referral would have been required. Unfortunately, Dr E made an error of judgement at the outset, which guided his subsequent management. However, in the circumstances of the first consultation, Dr E did not breach Right 4(1) of the Code.

Breach

Second consultation – 1 August 2001: Diagnosis and management
When Mr A re-presented on 1 August his condition had significantly deteriorated from the previous day. The triage notes record Mr A's pain as "+ + + +". Although Dr E recalls that Mr A had remained stable, this is inconsistent with the compelling evidence of his grandmother, Ms B. Mr A was clearly in severe pain, and was showing his distress – which was unusual in a stoic and otherwise healthy teenager. There is no suggestion that his pain was being exaggerated. Mr A himself sensed – and told his grandmother – that things were not "alright". It is especially important that doctors listen carefully to reports of increasing pain from patients and family members (who know the patient's usual behaviour) in such circumstances.

There is a conflict in the opinion of my advisors in relation to this consultation. Dr Searle considered that the approach taken by Dr E was appropriate in the circumstances, while Dr Milne considered that Dr E should have undertaken further investigation. Their difference of opinion cannot be explained by the differing perspectives of my advisors, both of whom are vocationally registered general practitioners with considerable experience in accident and medical practice and sports medicine. I assume that their views reflect the spectrum of medical opinion that exists in relation to this issue. Dr Milne made it clear that his advice on this issue was not reflective of his perspective as a sports medicine specialist, but of the basic elements of general medical practice that he would expect any doctor working in an accident and medical practice to demonstrate, regardless of whether they had training or experience in sports medicine.

Dr Searle worked from the basis that as Dr E had arrived at a diagnosis that was reasonable and supported by the evidence, there was little to be gained from changing the initial management plan of pain relief with subsequent ultrasound investigation. Dr Searle noted that while Mr A's pain may have been worse, the nature of his pain was the same. As the

ultrasound investigation was booked for the following day, waiting for the results of that investigation was a reasonable course of action. Given the reasonableness of the initial diagnosis, and the information available, Dr Searle considered there was no apparent need for an urgent referral to an orthopaedic surgeon. Dr Searle also noted with approval that Dr E ensured that the ultrasound was to be obtained with some degree of urgency, given that the normal referral period is within weeks, rather than days.

Dr Milne had a different point of view. He considered that if Mr A's level of pain had increased, it was "essential" to recheck the history, repeat the physical examination, consider alternative diagnoses and arrange orthopaedic review later that same day. Other possible diagnoses that could have been considered included acute calcific tendonitis, a brachial plexus nerve injury or referred pain from a neck injury. Questioning the original diagnosis was necessary given the high level of pain despite analgesics, one week after the injury occurred. A further physical examination could also have demonstrated detectable changes, for example in the neurovascular status of the left arm. In addition, the fact that the regular pain relief was not working and that Mr A's pain had in fact escalated, suggested that orthopaedic review was required. Dr Milne also considered that Dr E should have checked Mr A's vital signs, especially as he was intending to prescribe him morphine. The vital signs – such as a grossly elevated pulse – could have provided some impetus to Dr E to review the original diagnosis.

Right 4(4) of the Code states that providers must provide services in a manner that minimises the potential for harm to a patient. In cases such as this, where there is a spectrum of professional opinion, Right 4(4) supports the imposition of a higher standard of care, to minimise potential harm to patients.

I consider that Dr E should have mitigated the risk that Mr A's increasing pain and distress six days after his original injury was indicative of a serious underlying problem, by checking Mr A's vital signs and undertaking a further physical examination. Faced with such a situation, it is essential that a clinician gathers as much information as possible. Furthermore, I agree with Dr St George (who advised ACC) that "if [Dr E] thought that [Mr A] was in such pain that he needed morphine, then he should have referred him for specialist orthopaedic assessment".

In response to this aspect of my provisional opinion, Dr E said:

> "This opinion seems based on the conclusion that [Mr A's] condition had considerably worsened, and that where professional expert opinion has differed on an issue, you have taken the side that is more 'patient-centred', meaning [Mr A's] family's side.
>
> It has been a shock to find out that you provisionally consider I am in breach of the Code, for following what to me and obviously other colleagues and experts, believe to have been an acceptable course of action. I note again the response by Dr Searle, his extensive reference to 'Referral Guidelines' (and his relevant opinions pertaining to such), and his subsequent posing of the case to other colleagues. Dr Searle clearly states in his professional opinion that even given that [Mr A's] condition had

worsened, my subsequent care in the second consultation had been of an acceptable standard. I am concerned at the implications that your stance would have on the way doctors should practice. Or for that matter, what should be given in training not only in relation to what the specific course of action should be, given the presentation, but also on how to generally approach diagnoses and referral. 'Defensive' medicine comes to mind, and the ramifications of this ha[ve] been touched on by Dr Searle.

The above is just a concern, I do not doubt for a moment that you are legally entitled to take such a viewpoint when professional opinion differs.

In response to whether or not there was any significant deterioration of [Mr A's] condition, I can only maintain that I did not see any evidence of this. When I saw him again, I was told only that his pain remained. If I am to be charged that this by itself should have pointed towards a neck examination, I would ask why when during the consultation, it was said the pain seemed to get much worse at night, which I presumed to be then due to his sleeping position. It is the acceptance of this plausible explanation for the continuing/increasing pain (the second consultation occurred in the morning); rather than the extreme unlikelihood of neck injury given his presentations so far; and the knowledge that he was due to have an ultrasound the very next day, which gave me reasonable cause to:

(1) administer pain relief,

(2) changing the sling to a collar and cuff,

(3) advising to lie semi-supine, and

(4) wait for the ultrasound investigation the following day to guide further management.

I acknowledge that his vital signs should have been taken. The standard clinic protocol in giving narcotics is to have vital signs done before administering the narcotic, the patient to be observed afterwards, and the attending doctor to be consulted before the patient is discharged.

The circumstances of [Mr A's] second consultation with me was unfortunate. Firstly I was not on duty and was expected in a meeting during that morning. As you note, I made the effort to see [Mr A] again even though the meeting had already started. In this respect I did not stay to ensure his vital signs were taken before the morphine was administered. Perhaps it should be taken into consideration that these are valid grounds and not doing them was not negligent nor evidence of failure to mitigate harm to [Mr A]. I had been confident somewhat in that the task of injecting the morphine and by protocol taking vital signs was allocated to the clinic's charge nurse. I also mentioned in previous reports that I specifically asked after [Mr A] when I came out of the meeting. I think this was an hour later. The nurse's response was that they ([Ms B] and [Mr A]) had been in a hurry to leave.

Certainly this is the one area where (particularly with the benefit of hindsight) I accept I could have done better."

I have given careful consideration to Dr E's submissions but remain of the view that he was not sufficiently responsive at the second consultation. I have some sympathy for his view that he was not on duty – but he agreed to see Mr A, and whenever a doctor agrees to see a patient, he or she is subject to the duty of care imposed as a matter of professional ethics and law on a doctor providing health care.

In my opinion, if the severity of Mr A's pain was such that it necessitated the use of narcotic analgesia, it was essential to review the working diagnosis and list of differential diagnoses. Dr E himself acknowledges that at least Mr A's vital signs should have been taken. I agree with Dr Milne that it was also "essential" to recheck the history, repeat the physical examination, consider alternative diagnoses and arrange orthopaedic review later that day.

I do not consider that my view will lead to the practice of "defensive medicine" by practitioners in similar situations in the future. I hope that my report will guide the appropriate course of action in cases where a stoic and otherwise healthy patient presents with severe increasing shoulder pain that does not respond to analgesia nearly one week after an injury. Such circumstances should raise the index of suspicion of the reasonable practitioner and alert him or her to the need to enquire further into the patient's condition and respond appropriately, rather than simply administering a significant dose of morphine to tide the patient over for another day pending specialist review.

For these reasons, I consider that Dr E did not respond appropriately at the second consultation to minimise the potential for harm to Mr A, and accordingly breached Right 4(4) of the Code.

Other comments

Lessons from this case
Mr A's case is a tragedy. As might be expected, his family have demanded answers why their son, stepson, grandson and brother saw three doctors on four separate occasions, but none of them recognised that he had a serious underlying problem.

Understandably, Mr A's family find it hard to believe that this could happen, and feel strongly that complacency and negligence on the part of the doctors must be at least partially to blame for his death. In response to my provisional opinion, Ms A said:

> "I wonder what the real purpose of this investigation is? Is it to prevent a tragedy of this kind happening again or is it to protect the so called professionals. We have no reason to lie about these events. We have already suffered a tremendous loss and live with the consequences on a daily basis. The events surrounding the time of [Mr A's] death are etched on our minds and we live with this the best way we can. We are ordinary people and have not had the guidance of legal or medical experts. Our quest is based on our love for him and the truth being told. This is in no way a revengeful act on our behalf."

The purpose of this investigation has been to carefully and objectively analyse the evidence available to me, and to review relevant expert advice, in order to form my own opinion on the quality of care Mr A received, and to make recommendations that may help prevent a similar tragedy. There is no way of knowing what might have happened had the management been different. Certainly, it is impossible to say with any degree of confidence that the outcome for Mr A would have changed. I hope that Mr A's family will be reassured that by bringing their concerns to my attention, lessons may be learned from this case.

Impact on the doctors
Extensive investigations have been undertaken by the Police, ACC and my Office. The unexpected death of a young patient, and the subsequent investigations, have had a profound impact on the individual doctors.

Dr E in particular has been badly affected by Mr A's death. At interview, his distress in reviewing the events was obvious. In his initial response, Dr E said:

> "I am indescribably devastated by [Mr A's] death. I have gone over and over the events of the two consultations. I have questioned 'did I miss something?' This is a thought that haunts me."

In response to my provisional opinion, Dr E concluded:

> "I have always maintained the deepest regret and sorrow for the loss of this young man [Mr A]. His death has been a steep learning curve and despite almost three years having gone by since the event, I find myself regularly thinking of this tragedy. I have also always maintained an understanding and respect for the feelings of the family. I have three children myself and cannot imagine how I could cope with the loss of one of them."

There is no question that Dr E approached his consultations with Mr A in the utmost good faith, and did what he considered to be appropriate at the time. Dr E went out of his way to see Mr A on the second occasion. Dr E impresses me as a compassionate and well-meaning doctor who, through an error of judgement, has been implicated in a tragic series of events.

Recommendation

I recommend that Dr E review his practice in light of this report.

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 details removed, will be sent to the Royal New Zealand College of General Practitioners, the Accident and Medical Practitioners Association, the Australasian College for Emergency Medicine, Sports Medicine NZ (Inc), and the Australasian College of Sports Physicians, and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

- A copy of this report, with identifying details removed, will also be sent to the Ministry of Health, with a recommendation that the comments of my advisor, Dr Searle, be noted in respect of the Ministry's Referral Guidelines.