Medical Centre

Medical Practitioner, Dr C

A Report by the

Health and Disability Commissioner

(Case 14HDC01205)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Table of Contents

Executive summary

1. Ms A was aged 39 years at the time of these events. On 6 May 2014, she injured her left index finger and thumb. She presented to an accident and medical centre and was assessed by GP Dr B, who recorded that Ms A had "obvious bruising and swelling" and limited movement of her left index finger. Dr B ordered an X-ray, which showed that Ms A's finger was fractured. Dr B reviewed the X-ray with orthopaedic surgeon Dr F, and a plan was made to splint Ms A's finger and to review her in a week's time. Ms A was referred to Dr C for follow-up treatment and assessment. Dr C was registered with the Medical Council of New Zealand under a general scope of practice, and has a special interest in musculoskeletal medicine.

2. Ms A saw Dr C at the medical centre's orthopaedic clinic on five occasions between May and July 2014. Dr C also referred Ms A to physiotherapist Ms H, who saw her four times. On 10 July 2014, Ms H wrote to Dr C and stated: "[F]urther hand therapy may not be beneficial. We recommend that [Ms A] has a further specialist review." Ms H copied Ms A's regular GP, Dr D, into this letter. On 14 July 2014, Ms A consulted with Dr D, who referred her to a hand surgeon, Dr G. On 18 August, Dr G and two other orthopaedic surgeons operated on Ms A's finger. Despite the fact that surgery went well, Ms A has been left with arthritis and limited function in her finger.

Findings

3. Dr C failed to recognise the severity of the injury to Ms A's finger, and to reflect critically on the course of treatment he provided her. He also failed to interpret relevant X-rays and radiology reports adequately, order repeat X-rays or organise CT scans, and refer Ms A to a hand surgeon. Accordingly, Dr C did not provide services to Ms A with reasonable care and skill, and so breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[1]

4. Adverse comment is made in respect of the medical centre regarding the level of specialist support provided to Dr C.

Recommendations

5. It is recommended that Dr C provide Ms A with an apology for his breach of the Code. In the event that Dr C returns to practise medicine, it is also recommended that within six months from the date of his return to practice he:

   a) undertake an audit of his clinical records to demonstrate that he has considered appropriate investigations and critically reflected on his treatment plans; and
   b) arrange for further training regarding the assessment of radiology reports, use of corticosteroid injections, and when to make specialist referrals.

6. It is recommended that the medical centre review the professional support available to medical staff who operate its orthopaedic clinic but do not hold an orthopaedic qualification.

[1] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."

Complaint and investigation

7. The Commissioner received a complaint from Ms A about the services provided to her by Dr C and the medical centre. The following issues were identified for investigation:

- *Whether Dr C provided an appropriate standard of care to Ms A between May and July 2014.*
- *Whether the medical centre provided an appropriate standard of care to Ms A between May and July 2014.*

8. Information was obtained from the following parties:

Ms A	Consumer/complainant
Dr B	Provider/general practitioner
Dr C	Provider/doctor — general scope
Dr D	Provider/general practitioner
Dr E	Provider/Medical Director, medical centre
Dr F	Provider/orthopaedic surgeon
Dr G	Provider/hand surgeon
Ms H	Provider/physiotherapist
Hand physiotherapist	Provider
Medical centre	Provider
Radiology service	Provider
Medical Council of New Zealand	
ACC	

Also mentioned in this report:

Dr I	Orthopaedic surgeon

9. Independent expert advice was obtained from a sports physician, Dr Graham Paterson (**Appendix A**).

Information gathered during investigation

Background

10. Ms A was aged 39 years at the time of these events.

11. The medical centre is a primary healthcare provider. It provides a number of services including a general practice, an accident and medical centre, and an orthopaedic clinic.

Presentation to the medical centre

12. On 6 May 2014, Ms A injured her left index finger and thumb. That day, she presented to the medical centre's Accident and Medical Centre and was assessed by

general practitioner (GP) Dr B. Dr B recorded that Ms A said she was unable to straighten her left index finger and that it seemed "to be getting less movement even though swelling has settled".

13. Dr B documented that on examination there was "obvious bruising and swelling" on Ms A's left index finger, and that Ms A was able to flex her proximal phalanx[2] but was unable to flex the "rest of [her] finger". Dr B also recorded that Ms A's finger was in "slight flexion",[3] that the finger's neurovascular bundle[4] was intact, and that there was a "small haematoma over [the] pip [joint] of [the] index finger".[5] Dr B also recorded that there was a collection of blood underneath Ms A's thumb nail, and that there was normal flexion and extension in the "tip [of her] thumb".

14. Dr B ordered an X-ray of Ms A's thumb and finger. Dr B recorded that the X-ray showed a fracture of the "distal aspect of the intermediate phalanx with displacement"[6] of Ms A's finger. The radiology report for the 6 May 2014 X-ray stated: "[C]orner fracture at the base of the intermediate phalanx of the left index finger with angulation/displacement."

Review with Dr F

15. Dr B reviewed Ms A's X-ray with orthopaedic surgeon Dr F, who was running an orthopaedic clinic that day (more details below). Dr B recorded that on examination Dr F was able to get Ms A to flex and extend her finger "a little and is happy with this". In response to my provisional opinion, Ms A recalled that she was able to move her finger only "with intense pain".

16. Dr F told HDC that his advice "at that time was to splint the finger, which was done, and that she should be seen within a 7 day period with repeat X-rays as there [was] a risk of subluxation/dislocation". Dr F said that Ms A was not a patient in his clinic, and he was not able to "follow her up", as he went on leave for a month. Dr F further stated that Ms A's X-ray on 6 May 2014 showed a mild subluxation,[7] and that he "did not feel it was inappropriate to treat this [injury] in splintage but emphasised the importance of follow-up X-rays and the need [for Ms A] to be put in an orthopaedic clinic".

17. Dr B made a plan to "splint and review [Ms A's finger] with X-rays in the ortho[paedic] clinic in one weeks time". An appointment was made for Ms A to see Dr C at the medical centre's orthopaedic clinic on 15 May 2014.

[2] A proximal phalanx is a bone at the base of the finger.
[3] Flexion refers to bending of a limb or joint.
[4] Neurovascular bundle refers to the nerves, arteries, veins and lymphatics that typically travel together in the body.
[5] A haematoma is a solid swelling of clotted blood within the tissues. PIP refers to the proximal interphalangeal joint. The PIP joint is located between the proximal and intermediate digital phalanges (bones in the finger).
[6] An intermediate phalanx is a bone in the middle of the finger. Distal aspect refers to the fracture being situated away from the center of the bone.
[7] Subluxation refers to a partial dislocation.

Medical Centre's Orthopaedic clinic & Dr C

18. Dr C ran the orthopaedic clinic three days a week. At the time of these events, Dr C was registered with the Medical Council of New Zealand under a general scope of practice, and has a special interest in musculoskeletal medicine. Dr C holds qualifications in musculoskeletal medicine and pain and pain management. Since 2007, Dr C has worked in musculoskeletal medicine and fracture clinics. In 2014, his supervisory arrangements with the Council were with the New Zealand Association of Musculoskeletal Medicine, from which he was receiving vocational training.[8] Dr C is no longer registered with the Council or practising medicine.

19. In 2014, orthopaedic surgeons Dr I and Dr F ran an afternoon clinic on alternate weeks. The Medical Director of the medical centre, Dr E, told HDC that the clinics run by Dr I and Dr F "tend to be for those patients likely to need operative management or non urgent high tech imaging (CT/MRI)".

20. Each clinic is supported by two registered nurses who have fracture clinic experience and are competent with the application of casts and other splints. Dr E told HDC that he is involved in the clinic "if problems arise, if they are overloaded, [or] if there is unexpected sickness", and stated that his involvement "can be from advisory, to running a clinic".[9]

First appointment with Dr C

21. On 12 May 2014, Ms A telephoned the medical centre to say that her appointment date was later than the intended one week after her 6 May consultation (as per Dr B's plan). The medical centre stated that a registered nurse on duty arranged for Ms A to be seen at the end of Dr C's clinic that day, at approximately 4.30pm.

22. Dr C recorded: "[Ms A] is one week post left index finger base of middle phalanx intra-articular fracture.[10] She reports it was a direct blow mechanism […] rather than a pulling injury." He also recorded that Ms A was concerned that her finger had become deformed. Dr C noted that on examination Ms A's finger had "moderate PIP joint swelling" and no boutonnière[11] or rotational deformity. Dr C also noted that Ms A's flexor digitorum profundus and superficialis muscles[12] and extensor[13] mechanisms were "all intact". Under the heading "plan", Dr C recorded:

[8] The Medical Council of New Zealand requires that vocational training in musculoskeletal medicine is undertaken through the New Zealand Association of Musculoskeletal Medicine (NZAMM). Once NZAMM training has been completed, the doctor is awarded Membership of the NZAMM (MNZAMM).
[9] Dr E holds a diploma of Community Emergency Medicine, and is a Fellow of the Royal New Zealand College of Urgent Care. Dr E has many years of experience working in the Urgent Care environment.
[10] An intra-articular fracture is a fracture situated within a joint — in this case within the middle joint of the finger.
[11] Boutonnière deformity is a deformed position of the fingers or toes, in which the joint nearest the knuckle (PIP) is permanently bent toward the palm, while the farthest joint (DIP) is bent back away from the palm.
[12] Flexor digitorum superficialis and flexor digitorum profundus refer to muscles in the forearm that flex the fingers.
[13] Extensor refers to muscles that extend a body part, in this case the hand.

> "We've taken her out of the splint and secured the finger with buddy strapping today. The finger should recover but I'll keep a close eye on it. We'll see her back next week for another X-ray and review."

23. With respect to this consultation, Dr C told HDC: "[L]ike [Dr F] I felt that [Ms A's] initial presentation was conducive to a good recovery." Dr C further stated:

> "X-rays were not obtained on 12 May 2014, as [Ms A] was not booked into my clinic. I saw her briefly at the end of my clinic. She had talked to a nurse at the clinic who then informed me that [Ms A] was anxious about her injury and needed reassurance. X-rays at this point would not have changed management as we know from subsequent X-rays that the fracture lost its position at a later time."

Second appointment with Dr C

24. On 19 May 2014 Ms A attended her second appointment with Dr C, and at this time a further X-ray was performed. On examination Dr C recorded: "[T]he apparent rotation of [Ms A's] finger is comparable to the other side." He also recorded that the X-ray showed a "mild joint line disruption as previously". Dr C made a plan to "continue with buddy strapping and limited activities" and arranged to see Ms A in "2 weeks for a planned final review".

25. The radiology report for the 19 May 2014 X-ray stated: "Fracture involving the radial volar aspect of the base of the left index finger middle phalanx involves the articular surface.[14] This is estimated to involve at least 50% of the radial articular surface.[15] The fracture fragment is displaced … by approximately 4mm."

26. Dr C told HDC that on 19 May 2014 he considered that the X-rays taken that day showed no change of position from the X-rays that Dr F had reviewed on 6 May 2014. Dr C also stated that he believed a final review two weeks after the 19 May 2014 consultation was "an anticipated time for [a] reasonable recovery".

27. Ms A told HDC that at this appointment she voiced concern about the progress of her injury and that Dr C reassured her that "it was just a bad break and it would take time".

Third appointment with Dr C

28. On 30 May 2014, Ms A attended her third appointment with Dr C. Dr C noted that four weeks had passed since Ms A had injured her finger, and that "she still doesn't have much movement in the PIP joint". On examination, Dr C recorded that there was moderate PIP joint swelling in Ms A's finger, and that the PIP joint had a range of movement between 5–20 degrees. Dr C also noted that Ms A's flexor digitorum profundus and superficialis muscles and extensor mechanisms were "all intact".

[14] Volar refers to the palmar aspect of the joint (ie, the palm side); the radial aspect is the area of the articular surface on the thumb side of the joint. Articular surface refers to the area of contact between two bones that move on each other, in this case the area of contact between two of the bones in the left index finger. The middle phalanx is a bone in the finger.
[15] The radial articular surface refers to that area on the thumb side of the joint.

29. Dr C recorded his plan as follows:

> "She is heading away [overseas] for 3 weeks next week. I've advised to continue PIP joint mobilisation but she will be limited by the joint swelling. I've prescribed some Ten[o]xicam[16] to see if this helps. She thinks that she can tolerate NSAIDs[17] (reports nausea from Tramadol) and I've advised her to watch for GI[18] side effects. I'll see her back in clinic after she gets back from overseas."

Fourth appointment with Dr C

30. Upon return from her holiday, Ms A saw Dr C on 23 June 2014. At that consultation she told HDC that she expressed concern:

> "[T]he bone [in my finger] seemed to be raised and abnormal. He [told me] it was early days and that I needed [a] hand physio. As almost a last decision he decided to inject into the joint a [cortisone] injection. This was very painful as he nerve blocked the base of my finger on both side[s] first which left me with very colourful bruises. I was given the hand therapy number which I called and made an appointment."

31. In a letter separate from the body of clinical notes,[19] Dr C recorded that Ms A had lost her tenoxicam medication whilst on holiday but "was able to pick up some Voltaren". He also documented that Ms A reported that her finger had "stiffened up a lot in the last couple of weeks". Dr C noted on examination that there was "mild to moderate left index finger swelling". He recorded: "[Ms A has] virtually no movement at the PIP joint today. I could only move the joint a couple of degrees passively." Ms A's flexor digitorum profundus and superficialis muscles and extensor mechanisms were noted as being intact.

32. Dr C recorded his plan as follows:

> "Unfortunately [Ms A's] PIP joint has stiffened up significantly since I last saw her. I advised that we get onto some treatment as soon as possible today. After a discussion of the risks and benefits I injected the PIP joint via a volar approach[20] with Kenacort[21] 10mgs in a small amount of local anaesthetic. The injection was done following a ring block with lignocaine[22] 2%. [Ms A] really needs to get this joint mobilised, so I've referred her to a [hand physiotherapist] for mobilisation work. I'll see her back in my clinic next week for review."

33. Ms A also said that Dr C "mentioned that he would [have] liked to give [her finger] a good push/bend" but said he did not think she would cope with the pain. Ms A stated

[16] Tenoxicam is an anti-inflammatory medication used to relieve inflammation, swelling, stiffness, and pain.
[17] Nonsteroidal anti-inflammatory drugs.
[18] Gastrointestinal.
[19] This letter was addressed to the medical centre, where Dr C was practising.
[20] The hand is turned palm side up.
[21] Kenacort is a corticosteroid that is used to reduce inflammation.
[22] Lignocaine is a local anaesthetic.

that she replied that she would not have been able to cope with the pain and that she would not let Dr C push down on her finger. She also told HDC that at this consultation she was not informed that her finger had deteriorated.

34. Dr C told HDC: "I am concerned that [Ms A] mistook that I was about to apply severe force to her finger." He further commented:

> "Unfortunately, she lost the anti-inflammatory medication I had prescribed and I'm unsure if she experienced any other problems whilst overseas. [On 23 June 2014] her finger was now extremely stiff at the PIP joint and I was certainly concerned about the setback in her progress. As it was 7 weeks since the injury she was outside any acute surgical management …
>
> Although the fracture position was unfavourable at the 7-week mark, prior to this there had been an expectation of a good recovery. Unfortunately, while on her overseas holiday the finger deteriorated markedly and I'm sure she would have presented back to us if that had been possible."

First appointment with Ms H

35. On 24 June 2014 Ms A saw physiotherapist Ms H. Ms A told HDC that Ms H was "not overly optimistic about the potential outcome of [her] finger", and said that she should have been referred to her "a lot earlier". Ms H recorded that Ms A reported that her finger was "painful after the injections. Throbbing — low grade. Sensitive ++. Not able to bend the finger — frustrated and worried about the situation."

36. On examination, Ms H recorded that Ms A's finger was "very swollen" and was "sensitive in general to the touch … movement very restricted at the PIP". Ms H showed Ms A appropriate exercises, educated her as to her condition, and provided her with day and night finger sleeves to help reduce the swelling.

Second and third appointments with Ms H

37. On 27 June 2014, Ms H recorded: "[F]eels she has made some progress, remains sensitive." On examination, Ms H noted: "[S]welling has gone down significantly, some improvements in range and less sore today." She issued Ms A with new finger sleeves due to the reduction in swelling, and discussed self-massage and further exercises.

38. On 1 July 2014, Ms H recorded that Ms A felt that her finger was "starting to move more, coping with exercises well". On examination, Ms H recorded: "[S]welling going down … continued improvements in passive range rather than active." Ms H's plan was to continue with treatment exercises and "swelling measures as before". She also recorded: "[P]rogress letter needed for GP ? whether it would be worth having an up to date X-ray." Ms A said that at this consultation Ms H "strongly recommended" that she have another X-ray.

39. On 1 July 2014 Ms H wrote to Dr C and said:

> "Whilst there has been some progress I am concerned that the flexor and extensor tendons may be adhered …
>
> I notice that she has not had an X-ray since 19th May and feel it could be useful to see the final joint position especially with regard to the interruption to the articular surface."

Fifth appointment with Dr C

40. On 4 July 2014, Ms A attended her fifth and final appointment with Dr C. Ms A told HDC that she asked Dr C for an X-ray, and that "it was obvious to the uneducated eye that the bone was dislocated but [Dr C] continued to say it was early days and that I should come back next time for another [cortisone] injection into the top side of the joint".

41. Dr C recorded: "[Ms A's finger] felt better after the PIP [joint] corticosteroid injection last week and a lot of the swelling has subsided." He ordered an X-ray and recorded that it showed a "mild posterior subluxation of the PIP joint. Intra-articular fracture as previously [19 May X-ray]." On examination Dr C noted: "[Ms A's finger] seems to be less sensitive today but her hands are very cold from being outside." He also recorded that her PIP joint had a range of motion between 0–20 degrees, which was an improvement from the previous week.

42. Dr C's plan was recorded as follows:

> "[Ms A] will return to [hand therapy] today and it sounds like they are lining up a dynamic splint which would be useful. We need to continue to push intense mobilisation of the joint and I'll see her back in my clinic next week for consideration of a low dose corticosteroid injection to the dorsal[23] PIP joint. She will arrive at clinic a bit earlier to have EMLA[24] applied (on the dorsal surface of the proximal IP[25] joint please). I've also advised her to keep her hands warmer to help reduce joint stiffness."

43. The radiology report for the 4 July 2014 X-ray stated:

> "Comparison [to the] 19/5/2014 [X-ray].
>
> Increased posterior subluxation of the middle phalanx.[26]
>
> Slight increase in the anterior displacement/rotation of the volar fracture fragment with irregularity of the articular surface.[27]"

[23] Dorsal refers to the back side of the PIP joint of the finger.
[24] EMLA is a cream that numbs the surface of the skin for a short period and is applied before certain medical procedures (in this case, a corticosteroid injection).
[25] IP refers to the intermediate phalanx (defined above).
[26] Posterior subluxation refers to the backward partial dislocation of the middle bone in the left index finger.
[27] Anterior displacement of the volar fracture fragment refers to forward displacement of the fracture from the direction of the palm side (volar). Irregularity of the articular surface refers to the irregularity of the surface of the fragment fractured from the finger joint.

44. With respect to this consultation, Dr C told HDC:

> "X-rays were repeated at the request of her Hand Therapist, which showed subluxion of the PIP Joint, but it was already outside the acute surgical window … a follow-up appointment was booked but [Ms A] did not return."

Fourth appointment with Ms H

45. On 8 July 2014, Ms A attended her fourth and final appointment with Ms H. On examination, Ms H recorded: "[S]welling going down … continued improvements in passive range rather than active." A plan was made to continue swelling measures and finger exercises. Ms A told HDC that at this consultation Ms H "was very concerned and felt I needed to see a surgeon and there was not much she could do for me at this point".

Ms H' letters to Dr C and Dr D

46. On 10 July 2014, Ms H again wrote to Dr C and stated:

> "As you are aware [Ms A] has been attending for Hand Therapy since the 24th June with minimal progress. I reviewed [Ms A] again [8 July 2014] following her X-ray on the 4 July. In view of the increase in the posterior subluxation of the PIP joint, the increase in angulation of the volar fracture segment and the joint surface irregularity further Hand Therapy may not be beneficial. We recommend that [Ms A] has a further specialist review."

47. Ms H also wrote to Ms A's regular general practitioner, Dr D, enclosing a copy of the above letter and noting: "[Ms A] may choose to come and discuss the situation further with you for your opinion."

Appointment with Dr D

48. On 14 July 2014 Ms A saw Dr D. Ms A told HDC that Dr D advised her not to go back to Dr C and to cancel her upcoming appointment with him (which she did). Dr D recorded in his clinical notes:

> "[S]ee X-ray marked limitation, flexion [PIP joint] to only 5 degrees. Needs to see hand surgeon. I will refer."

49. Dr D referred Ms A to hand surgeon Dr G.

Subsequent care provided by Dr G

50. Ms A presented to Dr G on 1 August 2014. On examination Dr G recorded: "[T]here is obvious deformity of the PIP joint." Upon reviewing the X-rays, she documented: "[T]here is little change on the X-rays of the 19th May, but the X-rays on the 4th July there is even more obvious subluxation of the joint which is quite significant."

51. Dr G further documented: "[H]er joint is never going to function in the position it is in currently. It is unlikely that she will regain any significant range of motion and I would expect her to get slowly worsening arthritis in this joint with time. She

currently has non functional movement of finger, sitting in close to full extension with negligible flexion."

52. Dr G made a plan to order an urgent CT scan and recorded that she discussed Ms A's presentation with two plastic and two orthopaedic surgeons, who "all agree[d] that surgical intervention [was] required".

53. On 13 August 2014 Ms A attended a further appointment with Dr G, to discuss the imaging obtained from her CT scan and the planned surgery. Dr G recorded in her letter to Dr D:

> "[Ms A] is aware that this is a reasonably high risk surgery and I am not expecting her to obtain [a] normal PIP joint. I am hoping that we will get a range of motion from about 30–60 [degrees]. If we get anything more than this, I think this will be a bonus. She is also aware that due to the degree of disruption of her joint, I think it is likely she will develop further arthritis in the joint down the track. Other risks have been discussed."

54. On 18 August 2014 Ms A's surgery was performed by Dr G and two other orthopaedic surgeons. The surgery involved a bone graft (harvested from the wrist) and fixation of the fracture with two screws.

55. On 28 August 2014, ten days after the surgery, Ms A attended a postoperative appointment with Dr G. Dr G's letter to Dr D following that consultation recorded that Ms A's wounds were "nicely healed" and she had a "30–60 [degree] range of motion at the joint". All sutures were removed and plans for continued rehabilitation (with hand therapists) were discussed.

56. Ms A advised HDC that she has been left with limited function and arthritis in her finger.

Further information from the medical centre

57. Dr E told HDC that the medical centre has not made any changes as a result of Ms A's complaint, "other than discussion about the outcome, and supporting [Dr C] in not allowing his clinics to be over booked". Dr E further stated that he is "currently quite happy that we provide a robust and safe service".

58. On behalf of the medical centre, Dr E stated:

> "I am truly sorry that [Ms A] had a poor outcome from the conservative management of her finger fracture and that she ultimately had to have an operation on it. As doctors we work hard to ensure good outcomes for all patients all of the time, but sometimes despite robust systems and best intent things simply do not work out as intended. Finger fractures are notoriously difficult and troublesome. This small joint does not like either being injured or operated on. I am satisfied that [Dr C] has reflected a lot on this case and will exercise a lot more caution in the future."

Supervision of Dr C

59. With respect to the supervision of Dr C's practice at the orthopaedic clinic, Dr E told HDC:

> "[Dr C] works autonomously. His knowledge of, and experience in, acute orthopaedics and musculoskeletal medicine is significantly in excess of any other practitioner at the medical centre. He does of course, and has always had, collegial support from myself, or any other general practitioner at the medical centre, should he require it. In practice, this has always tended to be for other medical issues patients may raise with him, and not orthopaedic or musculoskeletal issues for which they have been booked to his clinic.
>
> In 2014, he also had access to [Dr F] and [Dr I] — both consultant orthopaedic surgeons — who worked once a week with us. In addition he has collegial relationships with other orthopaedic surgeons in [the region] and musculoskeletal specialists. Although these support relationships were in place, I would point out that it was not a supervisory relationship …
>
> We have specific nursing staff support for the clinics [Dr C] runs, and I value their opinions and trust them to report to me any concerns about patient management, unhappy patients, unsatisfactory outcomes and so on. They have never raised any concerns about how [Dr C] interacts with his patients, or how he manages them …
>
> From my own observations of [Dr C's] clinical practice, I have always found him to be thorough, conscientious, respectful and knowledgeable. He has a detailed and current knowledge of the evidence behind (or not behind) injury and musculoskeletal problems. I am unaware of any previous complaints or unsatisfactory outcomes from his clinics which he has been running for us three times a week for the last four years."

60. Dr E told HDC that he reviews "the reports of all radiology" undertaken by GPs at the medical centre to ensure the injuries are managed appropriately and "that appropriate follow up has been booked". However, Dr E stated that he does not review the radiology reports routinely once the patient is under the care of "any of the fracture clinics as I consider the skills and knowledge of [Dr C] and [Dr F] to be superior to mine".

61. Dr C stated that in 2014 he had a supervisor in relation to the musculoskeletal pain physician training he was taking. However, he said: "[This supervisor] had no involvement with my fracture clinics and this would not be expected of him."

Referral process at the medical centre

62. Dr E told HDC that an injured patient who presents to the medical centre is usually referred to one of the Clinic's GPs following assessment by a triage nurse. The GP can then choose to follow up the injury, "although it is encouraged [that] they refer them to a fracture clinic for follow up as it tends to enhance the patient journey as the clinic is supported by a plaster nurse".

63. When referring a patient, the GPs write on the consultation slip (which the patient gives to reception) that they would like a fracture clinic appointment booked. Dr E advised: "I ask the GPs to specify when and with whom." Reception staff then choose an appropriate appointment time. If an appointment is not available then one of the clinic nurses will "usually discuss" the matter with Dr E, who will make a space to book the patient with himself or another GP. Formal referral letters are not required for in-house referrals, "just good clinical notes as per each and every consultation".

Further comment from Dr C

64. Dr C stated that he has reviewed Dr G's clinical notes and her subsequent management of Ms A's injury. He commented: "[M]y practice is informed by research. I seek out reliable studies and consensus views as to what constitutes best practice management of these types of injuries and will continue to do so."

65. Dr C further stated:

> "[W]ith the benefit of hindsight and the later imaging I would agree that early surgery would have been appropriate in this case. Unfortunately we do not have the prescience to always establish which fractures will become unfavourable. Many closed finger injuries achieve the best outcome with careful and conservative management. I am sorry this was not the case for [Ms A]."

66. Dr C also commented that he did not recall Ms A asking for a surgical referral, which he would have been "happy to arrange at any stage".[28]

67. Dr C told HDC that he has reflected on his practice and made a number of changes:

> "I no longer accept 'add ons' to my clinic, and am more likely to ask the referring GP to discuss the case first with the acute hand service at [the] Public Hospital. For cases I do see in my clinics, I am also more likely to refer early for specialist review and investigations by either a plastic surgeon, or orthopaedic surgeon with a special interest in hands, even if I think based on initial presentation that conservative management remains most appropriate. I am also more conscious of the need to critically review an initial diagnosis made by me or other clinicians and be open to changing or reviewing this [my diagnosis] and seeking input from others in this process."

Responses to the provisional opinion

68. The parties were given an opportunity to comment on the relevant sections of the provisional report. These responses have been incorporated into the report where appropriate. Further responses have been outlined below.

Ms A

69. Ms A told HDC that she felt she "was never made aware that any doctor [she] was seeing through the 'Orthopaedic Clinic' was anything other than the name suggested — *an Orthopaedic specialist/[doctor]*" (emphasis in original). She stated that at every

[28] There is no record of Ms A requesting a surgical referral during her consultations with Dr C.

consultation with Dr C she expressed concern about the progress of her injury, and that he "always replied it was just a bad break". Ms A stated that she was reliant on Dr C's expertise and guidance and felt strongly let down by him, and considered that he should have referred her to an orthopaedic specialist on many occasions.

Dr C

70. Dr C stated that he did not wish to make any comment on the provisional opinion.

Medical centre

71. Dr E stated that he agreed with HDC's expert in that Ms A "should have been referred to a hand surgeon at a much earlier stage". He further said that non-specialist doctors are limited to referring to private specialists or the public hospital if high tech imaging such as a CT is required. He said that "the only way for [Ms A] to have had a CT would have been via early referral, or, self funding" — noting that ACC does not fund referrals from non specialists for CT scans.

72. Dr E reiterated that Dr C was experienced in managing orthopaedic cases, and that no supervisory relationship existed between Dr C and the orthopaedic surgeons operating from the medical centre. Dr E noted that GPs have access to specialist opinion "simply by calling the hospital". He expressed concern about requiring further specialist support and the impact it might have on GPs who run special interest clinics.

73. Dr E outlined the way the orthopaedic clinic is run currently, and noted that he continues to review all acute radiology to ensure that the immediate management of fractures is appropriate. He further commented that local hand therapists have met with the medical centre's clinicians and "provided education". He also stated that the medical centre will continue to do its "very best to provide a safe and 'best for patient' approach to injury management".

Opinion: Introduction

74. Ms A was aged 39 years at the time of these events. On 6 May 2014, she injured her left index finger and thumb. She presented to the Accident and Medical Centre and was assessed by GP Dr B, who recorded that Ms A had "obvious bruising and swelling" and limited movement of her left index finger. Dr B ordered an X-ray, which showed that Ms A's finger was fractured. Dr B reviewed the X-ray with orthopaedic surgeon Dr F, and a plan was made to splint Ms A's finger and review her in a week's time. Ms A was referred to Dr C for follow-up treatment and assessment.

75. Ms A saw Dr C at the orthopaedic clinic on five occasions between May and July 2014. Dr C also referred Ms A to physiotherapist Ms H, who saw her four times. On 10 July 2014, Ms H wrote to Dr C and recommended that Ms A have "a further specialist review". Ms H copied Ms A's regular GP, Dr D, into the letter. On 14 July 2014, Dr D referred Ms A to hand surgeon Dr G, who operated on Ms A's finger.

Although the surgery went well, Ms A has been left with limited function and arthritis in her finger.

76. This opinion considers the care Ms A received from Dr C and the medical centre between May and July 2014, in particular whether Dr C correctly identified the severity of the injury to Ms A's finger and treated her appropriately. It also considers whether the medical centre provided appropriate orthopaedic specialist support to Dr C.

Opinion: Dr C — Breach

77. At the time of these events, Dr C was registered under a general scope of practice with the Medical Council of New Zealand (the Council) and had worked in the area of musculoskeletal medicine since 2007. He was also receiving vocational training with the New Zealand Association of Musculoskeletal Medicine. Dr C ran the medical centre's orthopaedic clinic three days a week. As stated, following her initial presentation to the Accident and Medical Centre on 6 May 2014, Ms A was referred to Dr C at the orthopaedic clinic.

Standard of care provided by Dr C

78. At the first appointment on 12 May 2014, Dr C recorded "moderate PIP joint swelling" of [Ms A's] finger and made a plan to secure the finger with buddy strapping and see [Ms A] "back next week for another X-ray and review". Dr C told HDC that X-rays were not ordered for this consultation as "[Ms A] was not booked into my clinic. I saw her briefly at the end of my clinic." Dr C also commented that, like the orthopaedic surgeon Dr F, who reviewed Ms A on 6 May 2014, he felt that Ms A's initial presentation was conducive to a good recovery.

79. My expert advisor, sports physician Dr Graham Paterson, was critical of the care Dr C provided to Ms A on 12 May 2014. Dr Paterson advised that Dr C should have been alerted to the possibility of a more serious injury and the need to conduct a repeat X-ray, based on the 6 May 2014 X-ray report, the mechanism of injury (ie, a direct blow), and Ms A's report of deformity in her finger. Dr Paterson further commented that at this consultation he would expect "a request for a repeat X-ray to be made at the very least, but preferably either a review by an appropriate consultant or a CT scan of the fracture should have been organised to plan [for] optimal future management [of Ms A's finger]".

80. However, Dr Paterson also considered that the fact that Dr C's first contact with Ms A occurred when she was added onto the end of a clinic "slightly" mitigated Dr C's failure to recognise the severity of Ms A's injury "on that one occasion".

81. On 19 May 2014 Ms A attended a further consultation with Dr C, and a second X-ray was performed. Dr C recorded that the X-ray showed a "mild joint line disruption as previously". He made a plan to "continue with buddy strapping and limited activities" and arranged to see Ms A in "2 weeks for a planned final review". Dr C told HDC that

the X-ray taken on 19 May 2014 showed no change in position from the X-ray Dr F had reviewed on 6 May 2014.

82. Dr Paterson was critical of the care Dr C provided to Ms A on 19 May 2014. Dr Paterson stated that based on the clinical records for the consultation, Dr C "gives no indication that he recognised the significance of [Ms A's] injury", and that the 19 May 2014 X-ray report "describes the fracture in a significantly more concerning manner" than Dr C's evaluation of the X-ray images. I accept Dr Paterson's advice.

83. Dr Paterson advised that an X-ray showing an intra-articular fracture involving 50% of a joint surface with 4mm of displacement "should have prompted an onward referral to an appropriate consultant" or a CT scan of the fracture. Dr Paterson commented that "possibly the knowledge that [Dr F] had been involved in [Ms A's] case on [6 May 2014] gave Dr C a false sense of security".

84. On 30 May 2014, Dr C recorded that there was moderate PIP joint swelling in Ms A's finger and that it had a range of movement between 5–20 degrees. Dr C prescribed anti-inflammatory medication and made a plan to "continue PIP joint mobilisation" and review Ms A once she returned from holiday. With respect to this consultation, Dr Paterson advised that Dr C failed to implement appropriate management of Ms A's finger injury "due to his failure to recognise the severity of the X-rays from the previous consultation on [19 May 2014]". I accept Dr Paterson's advice.

85. On 23 June 2014, Dr C recorded that there was "mild to moderate left index finger swelling" and that Ms A had "virtually no movement at the PIP joint". Dr C injected Ms A's PIP joint with a corticosteroid, made a plan to review Ms A in a week's time, and referred her to physiotherapist Ms H for further treatment.

86. Dr C told HDC that at this consultation he was "certainly concerned" about the setback in Ms A's progress and noted that "as it was 7 weeks since the injury [Ms A] was outside any acute surgical management". Dr C also told HDC that "unfortunately, while on her overseas holiday the finger deteriorated markedly, and I'm sure [Ms A] would have presented back to us if that had been possible".

87. Dr Paterson advised that at the 23 June 2014 consultation it was "significant" that Dr C recognised and recorded an objective decrease in the range of motion of Ms A's left index PIP joint. Dr Paterson advised that Dr C's referral to physiotherapist Ms H "was an appropriate option". However, Dr Paterson also commented that "48 days on from an intra-articular fracture involving 50% of a joint surface with 4 mm of displacement, the administration of an intra-articular corticosteroid injection in the form of Kenacort 10mg is not appropriate". I accept Dr Paterson's advice.

88. Dr Paterson noted that no further X-ray imaging was ordered as a consequence of the 23 June consultation. He stated that had the fracture been shown by a current X-ray to be healed, and the nature of the fracture was less serious, then the administration of a corticosteroid injection may have been an appropriate treatment option.

89. With respect to Ms A's trip, Dr Paterson further commented:

> "The deterioration that [Dr C] identified following [Ms A's holiday], to my mind, was always going to develop by virtue of the nature of this fracture. It is not causally linked to the holiday, the loss of the anti inflammatory medication, or any other problems that she may have experienced whilst overseas."

90. On 1 July 2014, Ms H wrote to Dr C stating that Ms A's last X-ray had been on 19 May 2014 and that it could be useful to order another X-ray to see the final joint position.

91. On 4 July 2014, Ms A attended her fifth and final appointment with Dr C, who recorded that her finger "seems to be less sensitive today" and that the PIP joint had a range of motion between 0–20 degrees. Dr C ordered a further X-ray, which he recorded showed a "mild posterior subluxation of the PIP joint". Dr C made a plan to "continue to push intense mobilisation and I'll see her back in my clinic next week for consideration of a low dose corticosteroid injection to the dorsal PIP joint". Dr C told HDC that the 4 July 2014 X-ray "showed subluxion of the PIP Joint, but it was already outside the acute surgical window".

92. With respect to Dr C's 4 July 2014 consultation, Dr Paterson commented that the improvement in Ms A's joint mobility "seems to have encouraged" Dr C to continue with intense mobilisation of the joint "rather than critique the problem in its entirety". Dr Paterson advised that Dr C's intention to administer a possible further steroid injection in one week's time "would be completely inappropriate". Dr Paterson also noted that whilst Dr C's interpretation of the 4 July 2016 X-ray "is along similar lines" as the radiology report, his use of the word "mild" when describing the posterior subluxation of the PIP joint signalled that Dr C did not recognise the severity of the fracture.

93. Overall, Dr Paterson advised that the care Dr C provided to Ms A represented a moderate departure from the accepted standard of care, and that Dr C should have either referred Ms A to a hand surgeon or, alternatively, organised a CT scan. I accept Dr Paterson's advice and consider that Dr C missed multiple opportunities to ensure that Ms A received appropriate treatment of her finger.

94. In my view, Dr C did not recognise the severity of Ms A's injury or critically reflect on the course of treatment he provided her. While Dr C had experience in musculoskeletal medicine, which included managing fractures, he should have recognised the limitations of his expertise and referred Ms A to an appropriate hand surgeon. I am also critical of Dr C's decision to administer a corticosteroid injection and recommend PIP joint mobilisation, and of his failure to interpret the radiology reports adequately or order repeat X-rays or organise CT scans at the appropriate times.

Conclusion

95. Accordingly, in light of Dr C's failure to:

- recognise the severity of Ms A's injury;
- interpret the X-rays and radiology reports of Ms A's finger adequately;

- order repeat X-rays or organise CT scans at the appropriate times;
- treat Ms A's finger appropriately, including when administering a corticosteroid injection and recommending PIP joint mobilisation; and
- refer Ms A to a hand surgeon,

I consider that Dr C did not provide services to Ms A with reasonable care and skill, and so breached Right 4(1) of the Code.

Opinion: Medical centre — Adverse comment

96. Dr C was registered under a general scope of practice with the Medical Council of New Zealand (the Council) and has a special interest in musculoskeletal medicine. He holds a postgraduate diploma in musculoskeletal medicine and a master's degree in pain and pain management. In 2014, his supervisory arrangements with the Council were with the New Zealand Association of Musculoskeletal Medicine, from which he was receiving vocational training.

97. The medical centre operates a number of medical services including an orthopaedic clinic. Dr C ran the orthopaedic clinic three days a week. At the time of these events, orthopaedic surgeons Dr I and Dr F ran the orthopaedic clinic on alternate weeks. The orthopaedic clinic is supported by two registered nurses who have fracture clinic experience and are competent with the application of casts and other splints.

98. The Medical Director of the medical centre, Dr E, told HDC that Dr C worked autonomously in the orthopaedic clinic, and that at the time of these events he had access to Dr F and Dr I, who worked on alternate weeks. Dr E also noted that Dr C had "collegial relationships with other orthopaedic surgeons in [the region] and musculoskeletal specialists". Dr E stated: "[A]lthough these support relationships were in place, I would point out that it was not a supervisory relationship."

99. Dr E also stated that Dr C has "a detailed and current knowledge of the evidence behind (or not behind) injury and musculoskeletal problems". Dr E commented that he was "unaware of any previous complaints or unsatisfactory outcomes from [Dr C's] clinics which he has been running for us".

100. Dr E further stated that he values the opinions of the orthopaedic clinic nurses and trusts them to report any concerns about "patient management, unhappy patients, unsatisfactory outcomes and so on". Dr E noted that the nurses "have never raised any concerns about how Dr C interacts with his patients, or how he manages them".

101. Dr C told HDC that in 2014 he had a supervisor in relation to the musculoskeletal physician training he was taking, but that this supervisor had no involvement in his fracture clinics, and this would not be expected of him. I acknowledge that Dr C has experience and training in musculoskeletal medicine. I also note Dr E's comments

that although Dr C worked autonomously in the orthopaedic clinic, he had access to Dr F and Dr E at times.

102. I further note Dr Paterson's observation that the support Dr C received when staffing the orthopaedic clinic "was not of an optimal standard" at the time of these events, and that "the potential for consultant orthopaedic support was in place for only one third of the time and yet Dr C has no formal orthopaedic training".

103. In response to my provisional opinion, Dr E submitted that GPs have access to specialist opinions by calling the hospital and expressed concern about requiring further specialist support and the impact it might have on GPs who run special interest clinics.

104. I acknowledge Dr E's submission and note that Dr C was not a vocationally registered GP. He was registered under a general scope of practice with a special interest in musculoskeletal medicine and lacked formal orthopaedic training. Dr C was also operating in an orthopaedic clinic where the two other clinicians were orthopaedic surgeons. This is different to a GP run special interest clinic. As such I continue to be guided by Dr Paterson's advice and remain concerned about the support that was available to Dr C.

Recommendations

105. I recommend that Dr C provide a written apology to Ms A for his breach of the Code. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Ms A.

106. In the event that Dr C returns to practise medicine, I recommend that he undertake the following actions within six months from the date of his return to practice:

a) A random audit of his clinical records for three months from the date of his return to practice to demonstrate that he has considered appropriate investigations accurately, including repeat X-rays, and critically reflected on his treatment plans.

b) Arrange for further training regarding:

i. The assessment of radiology reports.
ii. The appropriate use of corticosteroid injections.
iii. When to make referrals to specialists.

107. I recommend that the medical centre:

a) Review the professional support available to medical staff operating the orthopaedic clinic who do not hold orthopaedic qualifications. The medical centre is to provide HDC with a report detailing the changes it has made to implement support to appropriate medical staff within three months of the date of this report.

Follow-up actions

108. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Medical Council of New Zealand (MCNZ) and the district health board. MCNZ and the district health board will be advised of Dr C's name.

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

Appendix A: Independent advice to the Commissioner

The following expert advice was obtained from sports physician Dr Graham Paterson:

Report One:

"I am happy to provide expert advice to the Health & Disability Commissioner, regarding the above case.

I acknowledge receipt of the following documents:

1. Copy of the Commissioner's Guidelines for Independent Advisors.
2. [Ms A's] letter of complaint.
3. [Dr C's] response.
4. [The medical centre's] response.
5. Clinical records from [the medical centre] covering the period 10 May 2014–4 July 2014.
6. Clinical records from the [hand physiotherapist] covering the period 24 June 2014–10 July 2014.
7. Clinical records from [another medical centre] covering the period 6 May 2014–4 July 2014.
8. Specialists notes from Orthopaedic Surgeon, [Dr G] covering the period 1 August 2014 to present.
9. Digital X-ray images from [radiology service] supplied on a CD.
10. Photographs of [Ms A's] finger.

I have familiarised myself with the information relating to this case as supplied by your office. I do not know either [Ms A] or [Dr C]. I am not aware of any personal or professional conflict that would prevent me from giving expert advice on this case.

As requested by yourself, I will respond to all six questions, and in doing so, advise on:

(a) What is the standard of care/accepted practice?
(b) If there has been departure from the standard of care or accepted practices, how significant a departure do you consider it is?
(c) How would it be viewed by your peers?

In regard to this last point, I will for clarity state that I am a Vocationally Registered Sports Physician, and [Dr C] has a General Registration with the New Zealand Medical Council, and practises under supervision in the Musculoskeletal Medicine training programme.

I would therefore judge him to be the equivalent of a Sports Medicine Registrar (someone who has been accepted into the college Specialist Training Programme and is working towards a fellowship in Sports Medicine).

Our practice has been a recognised Registrar training post since 2000, and we have had one or two Registrars working under supervision each year since.

I therefore feel it would be more appropriate in this case to comment on how it would be viewed by a number of Sports Medicine Registrars, rather than by my peers.

1. On 14 May 2014, [Ms A] was concerned regarding increased deformity of her joint. Should the joint have been X-rayed at this point to exclude fracture movement? Was [Dr C's] management at this point (removing zimmer splint, buddy tape and mobilise) appropriate, given the injury history, examination and radiological findings and progress to date?

I believe the above question relates to an incorrect date. [Ms A] was first assessed by [Dr C] on May 12, 2014, not May 14.

[Dr C's] medical records from the consultation on May 12, 2014 read:

'[Ms A] is one week post left index finger base of middle phalanx intra-articular fracture. She reports it was a direct blow […] rather than a pulling injury. She was concerned that the finger has deformed so has been booked into the end of my clinic today.

Examination:	*Moderate PIP joint swelling.*
	No Boutonniere deformity.
	No rotational deformity compared to the right index finger.
	FDS, FDP, and extensor mechanisms all intact.
Plan:	*We've taken her out of the splint and secured the finger with buddy strapping today. The finger should recover but I'll keep a close eye on it. We'll see her back next week for another xray and review.'*

The initial X-ray from the 6th of May 2014 reported by [a] Radiologist, recorded:

'corner fracture at the base of the intermediate phalanx of the left index finger with angulation and displacement'.

It is not apparent from the medical records supplied as to whether or not the original images were available at the time of [Dr C's] first assessment on the 12th of May. However, the X-ray report would have been available, and in this context with a patient reporting increased deformity, a repeat X-ray was indicated. It is possible with [Ms A's] appointment with [Dr C] being at the end of his clinic that radiology services were not available.

(a) [Dr C's] record of that consultation gives no indication that he recognised the significance of this injury. (This in fact should have been recognised at the initial medical consultation six days earlier.) That not withstanding a repeat X-ray should have been requested or alternatively a CT scan of the fracture organised.

(b) I consider this to be a moderate departure from the standard of care or accepted practices.

(c) In these circumstances, I would expect a Sports Medicine Registrar to have recognised the significance of this injury and therefore appreciate that such an injury has a poor prognosis. I would expect a request for a repeat xray be made at the very least but preferably either a review by an appropriate consultant or a CT scan of the fracture should have been organised to plan optimal future management.

2. Was [Dr C's] management of [Ms A] on 19 May 2014 and 30 May 2014 appropriate, given the examination and radiological findings (new X-ray report 19 May 2014) and progress to date? Please comment on the standard of documented assessment on 19 May 2014.

[Dr C's] medical records from the consultation on May 19, 2014 read:

'[Ms A] is 2 weeks post left index finger base of middle phalanx intro articular fracture.

Examination: The apparent rotation of the finger is comparable to the other side.

XR: Mild jointline disruption as previously.

Plan: She can continue with the buddy strapping and limited activities. I will see her back i[n] two weeks for a planned final review.'

The Radiologist's report from the repeat X-ray on May 19, 2014 reads:

'CLINICAL DETAILS:
2 week follow up post fracture.

FINDINGS:
Fracture involving the radial volar aspect of the base of the index finger middle phalanx involves the inter articular surface. This is estimated to involve at least 50% of the radial articular surface. The fracture fragment is displaced by approximately 4mm.

COMMENT:
Displaced intra articular fracture'

[Dr C's] medical records from the consultation on May 30, 2014 read:

'[Ms A] is 4 weeks post left index finger base of proximal phalanx fracture. she still doesn't have much movement in the PIP joint

Examination: Moderate PIP joint swelling.

FDS, FDP, and extensor mechanisms are all intact.

Active PIP joint ROM 5–20°

Plan: *She is heading away [overseas] for 3 weeks next week. I've advised continued PIP joint mobilisation but she will be limited by the joint swelling. I've prescribed some Tenoxicam to see if this helps. She thinks she can tolerate NSAIDs (reports nausea from Tramadol) and advised her to watch for GI side effects. see her back in clinic after she gets back from overseas.'*

(a) For the reasons stated in the answer to question 1 ie. the nature and severity of this fracture with its inherent poor prognosis does not appear to have been appreciated, I believe that [Dr C's] care over these two consultations is not up to an acceptable standard of care.

With specific reference to the standard of documented assessment on 19 May 2014 I believe [Dr C] has either not undertaken an adequate assessment or been short for time when he made his consultation records.

(b) Moderate

(c) With a radiology report describing an intra articular fracture that involves at least 50% of the joint surface I would expect a Sports Medicine Registrar to organise a consultant opinion or a CT scan of the fracture.

3. Was [Dr C's] management of [Ms A] on 23 June 2014 (including intra-articular steroid injection) appropriate given the examination and radiological findings and progress to date?

[Dr C's] medical records from the consultation 23 June 2014 is in a different form to the earlier medical records. This is written as a separate letter, rather than as compared to an entry into an accumulated clinic record. The relevant parts of that letter read:

'Diagnosis:
Intra-articular fracture, base of middle phalanx left index finger, 6 May 2014.

History:
[Ms A] returns to my clinic after being away for the last month [overseas]. Unfortunately, she lost the Tenoxicam that I had given her with some misplaced baggage. She was able to pick up some Voltaren [overseas] but was unsure of the dose. She reports that the finger has stiffened up a lot in the last couple of weeks.

Examination:
Mild to moderate left index finger swelling. She has virtually no movement at the PIP joint today. I could only move the joint a couple of degrees passively FDS, FDP and extensor mechanism all appear intact.

Treatment Plan:
Unfortunately [Ms A's] PIP joint has stiffened up significantly since I saw her last. I advised that we get on to some treatment as soon as possible. After a discussion of the risks and benefits, I injected the PIP joint via a volar approach with Kenacort 10mg and a small amount of local anaesthetic.

The injection was done following a ring block with Lignocaine 2%. [Ms A] really needs to get this joint mobilised so I have referred her to [the hand physiotherapist] for mobilisation work. see back in my clinic next week for review.

Yours sincerely

[Dr C]'

I note that there was no further X-ray imaging undertaken as a consequence of the consultation on 23 June. It is significant that [Dr C] recognised and recorded a significant objective decrease in range of motion at the left index PIP joint. In light of these findings, an onward referral to a hand therapist, as was undertaken with the referral to [the hand physiotherapist], was appropriate. However, 48 days on from a significant intra-articular fracture, the administration of an intra-articular corticosteroid injection in the form of Kenacort 10mg is not appropriate. If the fracture healing had been shown by a current X-ray to be complete and indeed the nature of the fracture was less serious, then this could be viewed as an appropriate treatment option.

(a) I therefore believe that the care from the consultation on 23 June 2014 was not of an acceptable standard.

(b) Moderate.

(c) I believe this management would be viewed poorly by a group of Sports Medicine Registrars.

4. Was [Dr C's] management of [Ms A] on 4 July 2014 appropriate given the examination, latest radiological findings and progress to date? Was his documented intended management (review in a week for consideration of a further steroid injection) appropriate to the clinical situation?

[Dr C's] record of the consultation with [Ms A] from 4 July 2014 appears to be in the form of an email to [the hand physiotherapist]. [Dr C] recorded:

'[Ms A's] left index finger felt better after the PIPJ corticosteroid injection last week and a lot of the swelling has subsided.

XR:

Mild posterior subluxation of the PIP joint. Intra-articular fracture as previously.

Examination:

PIP joint range of motion 0 to 20° (significantly improved cf last week), FDS, FDP, and extensor mechanisms all intact. The finger seems less sensitive today, but her hands are very cold from being outside.

Plan:

[Ms A] will return to [the hand physiotherapist] today and it sounds like they are lining up a dynamic splint which would be useful. We need to continue to push intense mobilisation of the joint and I'll see her back in my clinic next week for consideration of a low dose corticosteroid injection to the dorsal PIP

joint. She will arrive at clinic a bit earlier to have EMLA applied (on the dorsal surface of the proximal IP joint please). I have also advised her to keep her hands warmer to help reduce joint stiffness.

The X-ray report from the images taken on 4 July 2014 reported by [a] Radiologist, state:

CLINICAL DETAILS:
Follow-up fracture.

FINDINGS:
Comparison 19/5/2014.

Increased posterior subluxation of the middle phalanx. Slight increase in the anterior displacement/rotation of the volar fracture fragment with irregularity of the articular surface.'

The radiology report describes increased posterior subluxation of the middle phalanx and slight increase in the anterior displacement/rotation of the volar fracture fragment with irregularity of the articular surface. [Dr C's] interpretation of the X-ray is along similar lines, but the use of the word 'mild' at the start of his description is not in keeping with the radiologist's report. The improvement in joint mobility seems a positive, but in light of [Dr C's] earlier comments which suggest he does not fully understand the nature and severity of this fracture, explains why he '*wanted to continue with intense mobilisation of the joint'*. For these reasons, I find:

(a) [Dr C's] consultation from 4 July does not demonstrate an acceptable standard.

(b) Moderate.

(c) I believe sports medicine registrars would not view his intention of a possible further steroid injection in one week's time to be appropriate.

5. Do you feel there was any point at which [Dr C] should have referred [Ms A] for expert orthopaedic review? Do you feel [Dr C] was acting, at all times, within his expected scope of practice?

I feel that, at [Dr C's] first consultation on 12 May 2014, he should have referred [Ms A] for an opinion from either a plastics surgeon or orthopaedic surgeon with a special interest in hands. An alternative course of action would have been to organise a CT scan of the fracture which would, I presume, require an assessment from a recognised musculoskeletal physician, as presumably [Dr C] would not have access to funding of high tech imaging through ACC. At all of the subsequent consultations, with the possible exception of the 4 July appointment, I feel [Dr C] should have instigated either of the above options.

In spite of [Dr C's] stated experience of working in orthopaedic, musculoskeletal or fracture clinics since 2007, it seems he does not have the clinical acumen/experience to manage fractures of this nature. As someone who is practising under a general scope of practice, I believe [Dr C] should have sought

help from his supervisors/medical colleagues within the field of musculoskeletal medicine or orthopaedics.

6. Do you have any other comments regarding [Dr C's] involvement in [Ms A's] management or on the content of [Dr C's] response?

[Dr C's] three-page response letter dated 17 September 2014 sets out an orderly and detailed account of the events. It is significant that, on [Ms A's] first visit to [the medical centre], she was assessed by [Dr B], General Practitioner, who then sought a review from [Dr F], Orthopaedic Surgeon.

I note that [Dr F] […] lists areas of specialisation as [general orthopaedics, hip and knee replacement, spine surgeries, sports]. Possibly the knowledge that [Dr F] had been involved in this case on the day of presentation gave [Dr C] a false sense of security.

Phalangeal pilon fractures are intrinsically unstable and often result in longterm stiffness and deformity of the joint involved irrespective of the management. However, recognition of the specific nature of the fracture that [Ms A] had sustained earlier in the treatment course would have allowed for the possibility of a better outcome.

The deterioration that [Dr C] identified following [Ms A's] holiday [overseas], to my mind, was always going to develop by virtue of the nature of this fracture. It is not causally linked to the holiday, the loss of the anti inflammatory medication, or any other problems that she may have experienced whilst overseas as [Dr C] seems to be implying.

[Dr C] has not acknowledged that, through a combination of the stated injury mechanism, examination findings, and the X-ray images, an earlier diagnosis of a comminuted pilon fracture was possible. This lack of recognition by [Dr C] possibly contributed to the poor outcome that has resulted. However it definitely delayed [Ms A] gaining access to appropriate best practice management that included a CT scan and an opinion from a specialist skilled in the management of complex finger fractures.

Dr Graham Paterson

SPORTS PHYSICIAN"

The following further expert advice report was obtained from Dr Paterson:

Report Two:

"I remain unaware of any personal or professional conflict that would prevent me from giving expert advice in this case.

I acknowledge receipt of the 11 relevant documents. I have read and familiarised myself with all 11 documents but have paid particular attention to documents 1, 2, and 10.

I understand the implications of the 'disclosure of advice'.

With regard to your specific question '*could you please clarify whether you remain of the view that you are an appropriate expert to advise on the standard of care [Dr C] provided to [Ms A]?*' I would like to make the following points:

[Dr C] has a General Registration with the New Zealand Medical Council, and practises under supervision in the Musculoskeletal Medicine training programme.

[Dr C's] work at [the medical centre] is under a general ACC contract and therefore he could be viewed to be functioning as a General Practitioner.

[Dr E], the Medical Director of [the medical centre], in his letter to HDC of February 9, 2016 describes [Dr C] as '*an independent contractor' ... '[Dr C] works autonomously' ... 'He is not therefore under any direct supervision.'*

Furthermore [Dr E] refers to the type of clinic at which [Dr C] consulted with [Ms A] as an *'orthopaedic clinic'.*

Orthopaedic Clinic, as compared to a Fracture Clinic, suggests that someone with specific orthopaedic training would ultimately be responsible for each consultation that takes place at that clinic.

At the time of the consultations, under investigation as part of the HDC investigation into [Ms A's] complaint, these 3 clinics were taking place with the potential for Consultant Orthopaedic second opinion support in place for one third of the time.

Therefore [Dr C], who has no formal orthopaedic training, was practising 2/3rds of the time without any potential for orthopaedic support. As such he would be best viewed as a Medical Officer of Special Scale (MOSS).

I have 21 years' experience as a Sports Physician and during that time have supervised Sports Medicine Registrars for 19 years. I also completed 6 years as a General Practitioner with a strong interest in Sports Medicine. I therefore believe I am an appropriate expert to advise on the standard of care [Dr C] provided to [Ms A].

[Dr C's] medical record from the initial consultation on May 12, 2014 reads:

'[Ms A] is one week post left index finger base of middle phalanx intra-articular fracture. She reports it was a direct blow […] rather than a pulling injury. She was concerned that the finger has deformed so has been booked into the end of my clinic today.

Examination: *Moderate PIP joint swelling.*
No Boutonniere deformity.
No rotational deformity compared to the right index finger.
FDS, FDP, and extensor mechanisms all intact.

Plan: *We've taken her out of the splint and secured the finger with buddy strapping today. The finger should recover but I'll keep a close eye on it. We'll see her back next week for another xray and review.'*

The initial X-ray from the 6th of May 2014 reported by [a] Radiologist, recorded:

'corner fracture at the base of the intermediate phalanx of the left index finger with angulation and displacement'.

It is not apparent from the medical records supplied as to whether or not the original images were available at the time of [Dr C's] first assessment on the 12th of May. However, the X-ray report would have been available, and in this context with a patient reporting increased deformity, a repeat X-ray was indicated. Furthermore [Dr C] has documented that the patient describes the injury mechanism as '*a direct blow […] rather than a pulling injury'* and this should have alerted him to the possibility of a more serious injury.

[Dr C's] medical record from the second consultation on May 19, 2014 reads:

'[Ms A] is 2 weeks post left index finger base of middle phalanx intra articular fracture.

Examination:	*The apparent rotation of the finger is comparable to the other side.*
XR:	*Mild jointline disruption as previously.*
Plan:	*She can continue with the buddy strapping and limited activities. I will see her back in two weeks for a planned final review.'*

The Radiologist's report from the repeat X-ray on May 19, 2014 reads:

'CLINICAL DETAILS:
2 week follow up post fracture.

FINDINGS:
Fracture involving the radial volar aspect of the base of the index finger middle phalanx involves the inter articular surface. This is estimated to involve at least 50% of the radial articular surface. The fracture fragment is displaced by approximately 4mm.

COMMENT:
Displaced intra articular fracture'

[Dr C's] record of that second consultation on 19 May 2014 is brief suggesting that he has either not undertaken an adequate assessment or been short for time when he made his consultation records. He again gives no indication that he recognised the significance of this injury. The two radiology reports from May 6 and May 19 2014 are by different radiologists. However the second report describes the fracture in a significantly more concerning manner and this report is not consistent with [Dr C's] evaluation of the images. An X-ray showing an intra-articular fracture involving 50% of a joint surface with 4 mm of displacement should have prompted an onward referral to an appropriate consultant.

[Dr C's] medical record from the third consultation on May 30, 2014 reads:

[Ms A] is 4 weeks post left index finger base of proximal phalanx fracture. she still doesn't have much movement in the PIP joint

Examination: *Moderate PIP joint swelling.*
FDS, FDP, and extensor mechanisms are all intact.
Active PIP joint ROM 5–20°

Plan: *She is heading [overseas] for 3 weeks next week. I've advised continued PIP joint mobilisation but she will be limited by the joint swelling. I've prescribed some Tenoxicam to see if this helps. She thinks she can tolerate NSAIDs (reports nausea from Tramadol) and advised her to watch for GI side effects. I'll see her back in clinic after she gets back from overseas.'*

Despite noting that the patient '*still doesn't have much movement in the PIP joint'* [Dr C] has failed to implement appropriate management due to his failure to recognize the severity of the X-rays from the previous consultation on May 19.

[Dr C's] medical record from the fourth consultation on June 23, 2014 is in a different form to the earlier medical records. This is written as a separate letter, rather than as an entry into an accumulated clinic record. The relevant parts of that letter read:

*'**Diagnosis:***
Intra-articular fracture, base of middle phalanx left index finger, 6 May 2014.

History:
[Ms A] returns to my clinic after being away for the last month [overseas]. Unfortunately, she lost the Tenoxicam that I had given her with some misplaced baggage. She was able to pick up some Voltaren [while away] but was unsure of the dose. She reports that the finger has stiffened up a lot in the last couple of weeks.

Examination:
Mild to moderate left index finger swelling. She has virtually no movement at the PIP joint today. I could only move the joint a couple of degrees passively. FDS, FDP and extensor mechanism all appear intact.

Treatment Plan:
Unfortunately [Ms A's] PIP joint has stiffened up significantly since I saw her last. I advised that we get on to some treatment as soon as possible. After a discussion of the risks and benefits, I injected the PIP joint via a volar approach with Kenacort 10mg and a small amount of local anaesthetic. The injection was done following a ring block with Lignocaine 2%. [Ms A] really needs to get this joint mobilised so I have referred her to [the hand physiotherapist] for mobilisation work. I'll see back in my clinic next week for review.

Yours sincerely

[Dr C]'

It is significant that [Dr C] recognised and recorded an objective decrease in range of motion at the left index PIP joint. In light of these findings, an onward referral to a hand therapist at [the hand physiotherapist], was an appropriate option. However, 48 days on from an intra-articular fracture involving 50% of a joint surface with 4 mm of displacement, the administration of an intra-articular corticosteroid injection in the form of Kenacort 10mg is not appropriate.

[Dr C's] medical record of the fifth and final consultation on 4 July, 2014 appears to be in the form of an email to [the hand physiotherapist]. [Dr C] recorded:

'[Ms A's] left index finger felt better after the PIPJ corticosteroid injection last week and a lot of the swelling has subsided.

XR:
Mild posterior subluxation of the PIP joint. Intra-articular fracture as previously.

Examination:
PIP joint range of motion 0 to 20° (significantly improved cf last week), FDS, FDP, and extensor mechanisms all intact. The finger seems less sensitive today, but her hands are very cold from being outside.

Plan:
[Ms A] will return to [the hand physiotherapist] today and it sounds like they are lining up a dynamic splint which would be useful. We need to continue to push intense mobilisation of the joint and I'll see her back in my clinic next week for consideration of a low dose corticosteroid injection to the dorsal PIP joint. She will arrive at clinic a bit earlier to have EMLA applied (on the dorsal surface of the proximal IP joint please). I have also advised her to keep her hands warmer to help reduce joint stiffness.

The X-ray report from the images taken on 4 July 2014 reported by [a] Radiologist, state:

CLINICAL DETAILS:
Follow-up fracture.

FINDINGS:
Comparison 19/5/2014.
Increased posterior subluxation of the middle phalanx. Slight increase in the anterior displacement/rotation of the volar fracture fragment with irregularity of the articular surface.'

The radiology report describes increased posterior subluxation of the middle phalanx and slight increase in the anterior displacement/rotation of the volar fracture fragment with irregularity of the articular surface. [Dr C's] interpretation

of the X-ray is along similar lines, but the use of the word 'mild' at the start of his description is not in keeping with the radiologist's report and signals that he is still not recognizing the severity of the fracture. His intention of a possible further steroid injection in one week's time (this would be 18 days after the first steroid injection) would be completely inappropriate.

The improvement in joint mobility seems to have encouraged him to *'continue with intense mobilisation of the joint'* rather than critique the problem in its entirety.

[Dr C's] three-page response letter to HDC dated 17 September, 2014 sets out an orderly and detailed account of the events.

It is significant that, on [Ms A's] first visit to [the clinic], she was assessed by [Dr B], General Practitioner, who then sought a review from [Dr F], Orthopaedic Surgeon.

I note that [Dr F], lists areas of specialisation as [general orthopaedics, hip and knee replacement, spine surgeries, sports]. Possibly the knowledge that [Dr F] had been involved in this case on the day of presentation gave [Dr C] a false sense of security.

The deterioration that [Dr C] identified following [Ms A's] holiday [overseas], to my mind, was always going to develop by virtue of the nature of this fracture. It is not causally linked to the holiday, the loss of the anti inflammatory medication, or any other problems that she may have experienced whilst overseas as [Dr C] seems to be implying.

[Dr C] has not acknowledged that, through a combination of the stated injury mechanism, examination findings, and the X-ray images, an earlier diagnosis of a comminuted pilon fracture was possible.

A copy of [Dr C's] response to my preliminary advice, a specific question from HDC (pertaining to why he did not request a repeat X-ray on 12 May, 2014), and a request for further information (relating to five specific issues put to him by DHC), dated 6 February, 2016 was forwarded to me by HDC on 4 March 2016. At the same time I received copies of correspondence from [Dr F] and [Dr E].

[Dr F's] letter of August 20 2015 states … '*My recollection of the event was that I was asked to review [Ms A's] X-ray'. My advice at the time was to splint the finger, which was done, and that she should be seen within a 7 day period with a repeat X-ray as there is a risk of subluxation/dislocation. [Ms A] was not a patient in my clinic. I was not able to follow her up as I went on leave and did not return until the next month, hence my advice to have her followed up in another orthopaedic clinic.'*

I take from this that [Dr F] had not examined the patient and hence may well not have had any knowledge of the injury mechanism.

[Dr C's] letter is structured in such a way that it is not all clear which paragraphs of his response relate to which question. I therefore initially responded to his comments by inserting my comments into his original document.

However in summary none of [Dr C's] comments alter my opinion that he failed, on multiple occasions, to recognise that he was dealing with a comminuted pilon fracture that would have been best managed by early recognition of the poor prognosis associated with this fracture and an early onward referral to a specialist hand surgeon.

The fact that his first contact with [Ms A] occurred when she was added onto the end of a clinic, and hence he was possibly short for time, slightly mitigates him not recognising the severity of the injury, on that one occasion. However on any of the other subsequent consultations I fail to see why his standard of care was not up to an acceptable standard.

I consider this to be a moderate departure from the standard of care or accepted practices.

I would also conclude that the support that [Dr C] received at [the medical centre], when staffing the Orthopaedic Clinics was not of an optimal standard. I base this on the fact that at the time of these consultations in question the potential for Consultant Orthopaedic second opinion support was in place for only one third of the time and yet [Dr C] has no formal orthopaedic training.

Yours sincerely

Dr Graham Paterson
SPORTS AND EXERCISE PHYSICIAN"