Dental Service

Dentist, Dr B

A Report by the

Deputy Health and Disability Commissioner

(Case 20HDC01411)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. A man underwent surgery for the extraction of his wisdom teeth. During the extraction of one of the teeth, the dentist severed the man's lingual nerve accidentally and did not notice the injury, either at the time, or during either of two follow-up appointments.

2. This report considers the adequacy of the care provided to the man, both at the time of the extractions, and in the follow-up care, as well as the adequacy of the dentist's clinical notes, and whether his sedation practice complied with professional standards.

Findings

3. The Deputy Commissioner found that in failing to monitor the man using capnography while he was at least moderately sedated, contrary to the Dental Council of New Zealand's Sedation Practice Standard, and in failing to maintain adequate patient notes, contrary to the Dental Council of New Zealand's Standards Framework, the dentist breached Right 4(2) of the Code.

4. The Deputy Commissioner also found that, as the dentist did not refer the man to a specialist or for an ACC treatment injury claim at a sufficiently early stage following the extractions, and did not conduct a sufficiently detailed examination of the man's mouth at two follow-up appointments, the dentist breached Right 4(1) of the Code.

Recommendations

5. The Deputy Commissioner recommended that the dentist arrange for an audit of his patient notes, provide evidence of completion of safe sedation training, reflect on and review his practice in light of HDC's expert advisor's comments, and apologise to the man.

6. The Deputy Commissioner recommended that the dental service confirm implementation of new policies relating to safe sedation and treatment injury, audit compliance with those policies, and use an anonymised version of this report as a basis for staff training.

Complaint and investigation

7. The Health and Disability Commissioner (HDC) received a complaint from Mr A about dental services provided by the dental service and Dr B. The following issues were identified for investigation:

- *Whether the dental service provided Mr A with an appropriate standard of care between 18 December 2019 and 17 February 2020 (inclusive).*
- *Whether Dr B provided Mr A with an appropriate standard of care between 18 December 2019 and 17 February 2020 (inclusive).*

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8. This report is the opinion of Deputy Commissioner Dr Vanessa Caldwell, and is made in accordance with the power delegated to her by the Commissioner.

9. The parties directly involved in the investigation were:

Mr A	Consumer/complainant
Dental service	Provider
Dr B	Provider/dentist

10. Also mentioned in this report:

Dr C	Dentist
Dr D	Oral and maxillofacial surgeon

11. Further information was received from:

District Health Board (DHB)
Accident Compensation Corporation (ACC)

12. Independent expert advice was obtained from a dentist, Dr Nitish Surathu, and is included as Appendix A.

Information gathered during investigation

Background

13. Mr A was in his twenties at the time of the events described in this report. He had been suffering recurrent dental problems caused by impacted wisdom teeth.[1]

14. This report discusses the dental care provided to Mr A in December 2019 by Dr B at the dental service, and, in particular, the permanent nerve damage suffered by Mr A during wisdom tooth extractions. The report also concerns the follow-up care provided to Mr A between December 2019 and February 2020.

Pre-extraction

15. On 10 December 2019, Mr A consulted with dentist Dr B about having his wisdom teeth extracted. They discussed the procedure, including sedation options.[2] Mr A chose oral sedation for the procedure.

[1] Pericoronitis, which is swelling and infection of the gum tissue around the wisdom teeth caused by partial or total failure of the wisdom teeth to come through the gums.

[2] Sedation was either oral, in the case of an intended minimal level of sedation, or intravenous, if moderate sedation was intended.

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16. Scans had shown that there were complications involving the root of Mr A's lower right wisdom tooth.[3] However, Dr B told HDC that he felt that the extractions were within his capability. He said that he did discuss the complexity of the procedure with Mr A, and offered him the option of seeing a specialist, but Mr A opted to have the procedure carried out by Dr B.

17. Dr B also told HDC that he discussed the risks of the procedure with Mr A, including the possibility that tooth fragments would need to be left in place in the jaw if his tooth broke during the extraction.

18. Dr B said that he told Mr A that nerve damage could also result from the procedure, leading to temporary or permanent numbness. The clinical notes record this discussion.

19. Mr A told HDC that he misunderstood Dr B, and thought that the option of seeing a specialist was offered only in case he wanted intravenous sedation (for which Dr B was not certified). Mr A said that he was happy with oral sedation, so he did not take up the option of seeing a specialist. He did not appreciate from his discussions with Dr B that his extraction might be more complex than usual.

20. The clinical notes from 10 December 2019 record discussion about sedation options and the words, "possibility of nerve damage informed". There is also a record entered on 18 December 2019 of discussion about the option of a specialist referral for the procedure, but it is unclear whether that entry was made before or after the procedure was carried out.

Decision to carry out extraction at the dental service

21. Dr B told HDC that all general dental practitioners with an interest and experience in surgical extraction of impacted wisdom teeth would have undertaken the procedure confidently. He said that in the previous seven years he had successfully extracted many similar impacted wisdom teeth, and in his eight years of dental practice had not caused permanent nerve injury to a patient.

22. The dental service told HDC that its dentists are aware of the practice policy of referring cases that are outside their scope of practice or expertise to appropriate specialists as per the Dental Council guidelines.

23. The dental service also told HDC that Dr B was experienced in difficult extractions, and that dentists from other branches of the dental service regularly refer difficult extractions to Dr B. In addition, Dr B had carried out many similar extractions over his five years with the dental service without a permanent nerve injury occurring.

[3] The root was unusually close to the inferior alveolar nerve, and had an atypical root morphology. Dr Nitish Surathu, a dental expert, advised HDC that this increased the risk of damage to the surrounding alveolar structures, especially the inferior alveolar nerve and the lingual nerve.

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Extraction — sedation and preparation

24. On 18 December 2019, Mr A attended an appointment at the dental service to have all four of his wisdom teeth removed. The extractions were performed by Dr B.

25. A dental assistant was present at the appointment as a sedation assistant. Both the dental service and Dr B told HDC that a second dental assistant was also present, although this is not recorded in any contemporaneous notes, and the sedation record is signed only by Dr B and the dental assistant.

26. Dr B discussed the procedure with Mr A and sought his consent to both the procedure and the oral sedation. The consent form signed by Mr A on 18 December includes the following:

> "I understand that there are risks associated with any dental, surgical, and anesthetic procedure. These include, but are not limited to:
>
> - Post-operative infection or inflammation
> - Swelling, bruising, and pain
>
>   …
> - Bleeding requiring more treatment
> - Possibility of a small fragment of root or bone being left in the jaw intentionally when its removal is not appropriate …
>
>   …
> - Damage to the nerves during tooth removal resulting in temporary, or possibly partial or permanent numbness or tingling of the lip, chin, tongue, or other areas"

27. Mr A was administered the oral sedation.[4] Once he was sufficiently sedated, he was administered topical and local anaesthesia.[5]

28. Dr B told HDC that he first gave Mr A 10mg of midazolam (the oral sedative), and then after one hour, a further 5mg. Dr B said that during the sedation, Mr A was monitored constantly by the dental assistant, and following the administration of the sedative, Mr A walked into the treatment room unsupported. Dr B told HDC that a capnograph[6] was available onsite, but he made a judgement call not to use it because he intended to give only minimal sedation.[7] He said that he was well aware at the time that the Dental Council Sedation Standard states that a capnograph is mandatory for an intended level of moderate or

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[4] A total of 15mg of midazolam, a medication used for procedural sedation. Midazolam induces sleepiness, decreases anxiety, and causes a loss of ability to create new memories.

[5] For the lower right wisdom tooth, the anaesthetic injections used were 2.2ml Scandonest 2% 1:100k IAN block, and 2.2ml Septanest 4% 1:100k Buccal infiltration.

[6] A device for monitoring the concentration or partial pressure of carbon dioxide in the respiratory gases.

[7] The Dental Council's Sedation Practice Standard sets out definitions of minimal, moderate, and deep sedation.

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greater sedation. The Dental Council's Sedation Practice Standard is annexed to this report at Appendix B.

29. Dr B told HDC that during the procedure, Mr A dozed intermittently, but regularly responded adequately to verbal commands and light tactile sensation. He walked out of the surgery unsupported. Dr B felt that this was consistent with mild sedation.

30. The dental service told HDC that its practice protocol is that if moderate sedation is intended, a capnograph and a three-person team should be used. Dr B intended to administer only minimal sedation to Mr A. The dental service said that at the time of Mr A's procedure, it did not have a dedicated sedation policy, but printed copies of the Dental Council Sedation Standard were available for staff to follow.

31. The patient notes for the procedure record: "[G]ood sedation. Pt was in sleep. Pulse oximet[er] to monitor."

32. In response to the provisional opinion, Mr A told HDC that although he does not remember this part of the procedure, his wife is certain that he required support from her and Dr B to walk into the treatment room following the oral sedation.

Extraction — procedure

33. Three of Mr A's wisdom teeth were removed without complication. The lower right tooth was more difficult, and it fractured while Dr B was trying to remove it. As a result, a portion of the tooth was left in place in the jaw.

34. Dr B told HDC that the crown and one of the roots of the tooth was removed, with one root remaining. As the root was very close to the nerve, Dr B felt that it was too risky to attempt removal of the remaining fragment, and he considered that the socket would heal itself eventually. Sutures were placed to close the wound.

35. Mr A told HDC that after the procedure, he was told that a small fragment of the lower right wisdom tooth had been left behind because it was too close to the nerve to remove, but that he did not need to do anything about the retained fragment.

Post-extraction advice

36. Mr A went home after the procedure. However, as the anaesthetic wore off, his pain increased and he was unable to take oral pain medication due to the pain in his mouth. The wound at the site of the lower right wisdom tooth extraction would not stop bleeding.

37. Mr A's wife called Dr B, who advised that Mr A should take pain medication and wait until the next day. Mr A was unhappy with that advice and instead went to the Emergency Department at the public hospital, where he presented with nausea and vomiting. He was given anti-nausea medication, painkillers, and a swab soaked in medication to stop the bleeding.[8]

[8] Tranexamic acid, used to control bleeding.

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38. Dr B recalls the telephone call in the evening after the procedure. He told HDC that Mr A's wife informed him that Mr A had taken painkillers and anti-inflammatory medication an hour earlier but was still in unmanageable pain. Dr B said that he advised that Mr A take paracetamol as well, and wait for the medication to take effect. Dr B stated that he also advised that Mr A go to the Emergency Department if his pain continued once the practice had closed for the evening. That account is also recorded in the practice notes.

23 December 2019 follow-up

39. In the days following the extraction, Mr A experienced numbness in the right-hand side of his tongue. At a follow-up appointment on 23 December 2019, he advised Dr B of the persistent numbness. Dr B explained to Mr A that sensation should return over the next few weeks, but that it could take some months to return completely.

40. Dr B told HDC that at the 23 December appointment, he performed a detailed examination of Mr A's mouth and the incision scar, and he did not notice any lingual scar.[9] He said that he is aware of the lingual nerve[10] anatomy, and never makes a lingual incision during surgical extraction of teeth.

41. The patient notes from 23 December record the numbness, an oral examination, and Dr B's advice that the numbness might take some months to heal. The notes also record that Mr A was experiencing pins and needles, and Dr B's opinion that this was a good sign.

42. Dr B told HDC that he was reassured by Mr A's presentation on 23 December. He said that normal sensation usually returns within a few weeks, and it was therefore reasonable to take an initial wait-and-see approach. He said that his plan was to monitor Mr A and assess him at further follow-up appointments. Dr B told HDC that he discussed this approach with Mr A, who agreed with it.

20 January 2020 follow-up

43. Mr A told HDC that on 15 January 2020 he was advised to obtain a referral to ACC for a treatment injury claim.[11]

44. Mr A said that he returned to Dr B on 20 January 2020 and asked for the referral to ACC, but Dr B refused this and advised that there was no fix except "cutting of the numb tongue".

45. Dr B denies that an ACC referral was discussed in any of the follow-up appointments he had with Mr A. Dr B told HDC that they had some general discussion about progress, and he advised Mr A that if there was no improvement in a few days' time, he should consult a specialist. Dr B denies that he told Mr A that there was no fix for his numb tongue.

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[9] A scar on or affecting the tongue.
[10] A nerve running alongside the jawbone and providing sensation to the front of the tongue.
[11] With the intention to be referred to a specialist to investigate and treat the cause of the numbness.

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46. Dr B also said that an ACC claim was not filed because there appeared to be some signs of nerve regeneration. He said that if there had been no signs of recovery, an ACC claim would have been filed.

47. The patient notes record that at the 20 January appointment, Mr A's tongue remained numb, but sometimes he felt pins and needles and a burning sensation. The notes record some discussion about nerve damage and healing, that there were some good signs, and that the plan was for continued monitoring at that stage. The note ends: "If needed will make specialist ref[erral]."

48. The dental service told HDC that its dentists are aware of ACC forms for any form of treatment injury, and are advised to file ACC claims in cases of any treatment-related complications.

Further contact with the dental service

49. After the 20 January appointment, Dr B went on annual leave. He told HDC that he advised Mr A that he would be going away, and that he should contact the practice if he had any concerns. Dr B said that he also told Mr A that if the numbness had not improved by the next review appointment, it would be appropriate to refer him to a specialist.

50. A follow-up appointment was made for 13 March 2020, but later this was cancelled by Mr A.

51. In the meantime, Mr A attended the dental service on 17 February 2020 to complete some fillings unrelated to the earlier removal of his wisdom teeth. At that appointment, Mr A saw another dentist, Dr C. He informed Dr C that his tongue remained numb following the extractions performed by Dr B. Dr C agreed that she would pass that message on to Dr B once he returned from leave.

52. Dr C told HDC that she left a message for Dr B. Dr B denies that he received any message from Dr C advising him that Mr A was continuing to have problems with numbness in his tongue.

53. The conversation between Dr C and Mr A about the numb tongue is documented in the patient notes. The notes record: "[S]till numb/tingly lip and tongue right side. I said I would let [Dr B] know this update once he is back from his holidays."

54. A practice note records a message left on Mr A's voicemail on 9 March 2020 asking him to contact the practice to book a follow-up appointment.

55. Dr B told HDC that he tried to call Mr A on his return to work on 16 March 2020, but the call went unanswered. There was no further contact between any dental service staff and Mr A relating to follow-up appointments or further dental treatment.

ACC referral and subsequent treatment

56. On 11 March 2020, Mr A visited his GP and requested an ACC treatment injury referral for a specialist to review his numb tongue, which was made by the GP the same day.

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57. In response to the provisional opinion, Mr A added that he visited his GP to obtain the ACC treatment injury referral only because he could not persuade Dr B to complete one earlier. Mr A also stated:

> "I wish I had done this immediately after [Dr B] refused but I only went to the GP after my wife (who is [a health practitioner]) had a conversation with a [maxillofacial] surgeon regarding the injury."

58. A CT scan on 25 March 2020 showed that much more of Mr A's lower right wisdom tooth remained than he had believed, including a portion of the crown.[12]

59. Nerve damage was suspected, and an MRI scan revealed significant damage to Mr A's right lingual nerve.[13] Because of the significance of the nerve injury and the time elapsed since the injury, it was considered that the chances of regaining full function were slim.

60. On 21 July 2020, an oral and maxillofacial surgeon, Dr D, and a plastic surgeon operated on Mr A under general anaesthetic and found a lingual scar. On exploration of the deeper tissue, it was discovered that Mr A's right lingual nerve had been entirely transected[14] within the tissue immediately under the scar.

61. The surgeons removed the remaining portions of Mr A's wisdom tooth, and performed nerve repair surgery using a nerve grafted from Mr A's arm to fix the severed nerve.

62. Mr A recovered well from the surgery, but as of May 2022, only a small amount of feeling has returned to his tongue, and he suffers from permanent uncomfortable tingling and an inability to taste on the affected side of his tongue. Dr D told HDC that he is cautious about giving a prognosis.

Further information

63. Mr A summed up his concerns to HDC as follows:

> "I am deeply concerned that [Dr B] has not accepted that significant mistakes were made and I am worried that another patient may have similar outcomes as to what I did. Again I would like to state that I only managed to get the outcome I did due to the fact I […] have access to surgeons for advice. A patient that did not have the privileges I have […] could have worse outcomes than I did."

ACC treatment injury report

64. The ACC treatment injury report concluded that the lingual nerve injury was caused by the surgical extraction of the wisdom tooth by Dr B.

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[12] The radiological report reads: "Partial coronectomy/extraction at 48 with associated osseous defect. Some evidence of bony infill but superimposed infection/osteomyelitis is not excluded."

[13] The radiology report records: "High-grade right lingual nerve injury adjacent to 48 extraction socket. Appearances are consistent with at least grade 4 Sunderland injury although grade 5 injury with complete discontinuity and end bulb neuroma is favoured."

[14] Cut through.

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Patient notes

65. Both Dr B and the dental service commented on the standard of Dr B's patient notes.

66. Dr B told HDC that he is aware that he must write detailed notes about surgical extraction technique for each case, as this helps in proper documentation for any assessment needed later. He said that in Mr A's case, his notes could and should have been better. He told HDC that his notes for Mr A are not in keeping with his usual standard of notes.

67. Dr B said that he performed a detailed examination of Mr A's mouth and the incision scar on his first review appointment (23 December 2019), but he did not notice any lingual scar and hence made no notes about it.

68. Dr B said that he is very aware of the lingual nerve anatomy, and never makes a lingual incision during surgical extraction of teeth. However, he also said that he should have given a more detailed account of the surgery in his patient notes.

69. The dental service told HDC that all its dentists maintain patient clinical notes as per Dental Council guidelines, and usually management does not interfere in this unless there is a glaring error such as no notes or incomplete notes.

Dental service policies and procedures

70. A number of the dental service's policies and procedures are referred to in this report. The dental service provided HDC with copies of its policies relating to quality assurance (including follow-up of patients post-procedure), patient complaints, post-extraction instructions to patients, and informed consent.

71. As discussed above, there was no dedicated sedation policy at the time of Mr A's procedure.

Post-extraction referral to specialist

72. Mr A complained that after the extraction, he should have been referred to a specialist much sooner.

73. Dr B agreed that, in hindsight, he could have referred Mr A to a specialist earlier for an opinion. Dr B said that he was guided by the statistic that 90% of post-extraction nerve injuries are temporary, and usually it takes up to a few months for recovery. He said that, in his clinical judgement, the symptoms of pins and needles and burning sensation were indicators of improvement and a recovering nerve injury.

74. Dr B added that this situation was compounded by an unplanned visit overseas for a family emergency, and COVID-19 managed isolation on return to New Zealand. He accepts that he could have been more proactive and informed the dental service of the situation with Mr A, for follow-up in his absence.

75. Dr B accepts that he should have followed up again with Mr A about his progress, and he has apologised to Mr A for this oversight.

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76. The dental service also commented on the absence of a referral to a specialist post-extraction. The dental service said that a decision about a referral to a specialist after a treatment-related complication is left to the individual dentist to action, as per Dental Council guidelines.

Cone beam computed tomography

77. Dr B commented to HDC on his decision not to use cone beam computed tomography (CBCT)[15] in Mr A's case. He said that he believes CBCT should be used where the root of the impacted wisdom tooth lies deep either superimposing on the mandibular nerve canal or seems to be crossing it on regular X-rays. He stated that he is guided by any disrupted outline in the nerve canal, the nerve canal having a step or curve in its course, or an increased density around the roots. These were not present in Mr A's case.

Apology and refund

78. On 5 August 2020, Mr A made a complaint about Dr B to the dental service by email. Dr B responded directly to Mr A in an email on 15 August 2020. The details of Mr A's complaint and Dr B's response have been incorporated into this report where appropriate. In addition, Dr B apologised for the outcome of the procedure he performed, and offered Mr A a refund of the fees he paid to the dental service. Mr A accepted the offer of a refund. However, in response to the provisional opinion, he told HDC that the refund has yet to be paid.

Responses to provisional opinion

79. Mr A, Dr B, and the dental service were all given the opportunity to respond to the relevant sections of the provisional opinion.

Mr A

80. Mr A told HDC:

> "I hope that health professionals that read the final report will realise that mistakes do happen. Taking ownership is important as it allows for steps to be taken to try and provide the best possible outcome for the patient. It makes me angry that I am left with permanent damage because [Dr B] did not follow normal protocols and I am disappointed in myself that I did not advocate for myself more strongly from the beginning."

Dr B

81. Dr B told HDC that there are aspects of the provisional opinion that he continues to disagree with, and that he has already set out his position in earlier correspondence. He also said that although he is disappointed with the conclusions of the provisional report, he respects HDC's opinion and agrees to work with HDC cooperatively on this matter.

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[15] An X-ray that generates three-dimensional images of dental structures, soft tissues, nerve paths, and bone in the craniofacial region in a single scan. Images obtained with CBCT allow for more precise treatment planning.

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Dental service

82. The dental service told HDC that it accepts the Deputy Commissioner's decision and will cooperate fully to implement it.

Opinion: Dr B — breach

Introduction

83. Mr A told HDC that following the wisdom teeth extractions, the site of the lower right extraction would not stop bleeding, and the numbness in his tongue started after the extractions. Dr B does not recall making an incision into the tissue containing Mr A's lingual nerve, and he told HDC that he never makes an incision in that tissue during the extraction of wisdom teeth. However, Dr B did not examine the area at follow-up appointments. Dr D found a scar in the area during his examination in July 2020, and discovered the injury to Mr A's lingual nerve within the tissue immediately under the scar.

84. As part of my investigation, I obtained expert advice from a dentist, Dr Nitish Surathu. That advice is annexed to this report as Appendix A. Dr Surathu advised me that Mr A's lingual nerve was most likely transected during the surgical procedure performed by Dr B, and likely during Dr B's attempts to access the area to remove the tooth, or by an error during the surgical removal of bone from the area.

85. I also note that ACC concluded that Mr A's lingual nerve injury was caused by the extraction carried out by Dr B.

86. In order to make appropriate findings about whether Dr B provided services to Mr A with reasonable care and skill,[16] I must decide whether it is more likely than not that Dr B caused the damage to Mr A's nerve. I have considered the contemporaneous evidence noted above, Dr Surathu's advice, and the conclusion made by ACC, and I find that Mr A's nerve injury was caused by Dr B during the procedure to remove Mr A's lower right wisdom tooth. I consider it unlikely that the injury occurred by other means.

Right for services to comply with professional standards — breach

Sedation

87. Under Right 4(2) of the Code of Health and Disability Services Consumers' Rights (the Code),[17] Mr A had the right to have services provided in compliance with professional standards.

88. The Dental Council of New Zealand's Sedation Practice Standard (Sedation Standard) (annexed at Appendix B) provides that registered oral health practitioners (which includes dentists) must meet the standards contained in the Sedation Standard. As a registered oral

[16] As required by Right 4(1) of the Code of Health and Disability Services Consumers' Rights.

[17] Right 4(2) of the Code requires healthcare providers to provide services that comply with legal, professional, ethical, and other relevant standards.

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health practitioner, Dr B is obliged to comply with the Sedation Standard. The Sedation Standard includes that oral sedation should be used only for an intended level of minimal sedation, and that capnography must be used to monitor a patient when providing an intended level of moderate sedation.

89. Over the course of an hour, Mr A was administered 15mg of midazolam. He then walked into the treatment room. During the procedure he dozed at least intermittently, although clinical notes suggest that he may have been asleep. Dr B told HDC that Mr A responded to verbal commands and light touch, and he believes that Mr A's state of awareness and responsiveness during the procedure was consistent with mild sedation. Mr A remembers little of the procedure.

90. Dr Surathu advised me that the dosage of midazolam used in Mr A's procedure is not regarded as minimal sedation by experienced dentists who provide sedation. He also advised me that the potential for oral sedation intended to be minimal to quickly escalate to moderate levels is well recognised by experienced practitioners, and when Mr A started to show signs of moderate sedation, Dr B should have used the available capnograph to monitor him. I accept Dr Surathu's advice. Dr Surathu noted:

> "The Dental Council's Practice Standard for Sedation dated April 2017 requires all practitioners to use capnography for monitoring the moderately sedated patient with effect from October 1, 2019. [Dr B's] description of [Mr A's] sedated state in his notes suggests that the patient was at least moderately sedated. There is no indication of monitoring with capnography however and the notes record only the use of a pulse oximeter. I would regard this as a significant departure from the standard of care."

91. Mr A was administered a dosage of sedative greater than that regarded as minimal sedation, and the evidence suggests that Mr A was at least moderately sedated. I consider that he should have been monitored using capnography, rather than only a pulse oximeter, in accordance with the Sedation Standard.

Inadequate clinical notes

92. The Dental Council's Standards Framework for Oral Health Practitioners (the Standards Framework) requires dentists to maintain accurate, time-bound, and up-to-date patient records.[18] As an oral health practitioner, Dr B is bound by the Standards Framework and is therefore required to keep good notes.

93. Dr B's clinical notes from 10 December 2019 record some discussion about sedation and the possibility of nerve damage, but do not record any discussion between Dr B and Mr A about whether Mr A should consider a specialist referral. Discussion about specialist referral is included in notes from 18 December 2019, but it is unclear under what circumstances Dr B advised Mr A that a specialist referral might be appropriate. The notes are therefore unhelpful in determining whether Mr A should have understood why he was being advised

[18] https://www.dcnz.org.nz/assets/Uploads/Practice-standards/Standards-Framework-for-Oral-Health-Practitioners.pdf. Accessed 17 March 2022.

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to consider a specialist referral, particularly in respect of the 10 December 2019 appointment.

94. Dr Surathu advised me that the notes do not describe the specific extraction technique used for the lower right wisdom tooth. There is no indication of whether the tongue was raised or accessed, and no indication of whether Dr B noticed whether any surgical instruments slipped into the tissue space where the lingual nerve is located. Dr Surathu advised that detailed notes may have helped to establish at an earlier stage whether the surgical technique contributed to injury and consequent numbness.

95. Dr Surathu considers that Dr B's clinical notes were inadequate, and that the lack of detail is a moderate departure from the standard of care. I accept that advice and find that Dr B's clinical notes were not of the standard required by the Standards Framework.

Conclusion

96. For the following reasons, I find that Dr B breached Right 4(2) of the Code:

- He did not monitor Mr A with capnography, in breach of the Sedation Standard; and
- His clinical notes were insufficiently detailed, in breach of the Standards Framework.

Right to have services provided with reasonable care and skill[19] — breach

Failure to notice lingual scar on examination, and failure to refer to a specialist or ACC post-extraction

97. Following his procedure, Mr A returned to the dental service for follow-up appointments with Dr B on 23 December 2019 and 20 January 2020. At both appointments he told Dr B about his numb tongue. Dr B examined Mr A's mouth on 23 December 2019, but not on 20 January 2020. Dr B did not notice a lingual scar.

98. Mr A returned to the dental service on 17 February 2020 and informed Dr C about the numbness. Dr C and Dr B disagree about whether that message was passed on to Dr B.

99. Dr B feels that his "wait-and-see" approach was appropriate, and he told HDC that he did tell Mr A to consult a specialist if the numbness did not improve.

100. Dr Surathu advised me that on 20 January 2020, following the development of numbness in Mr A's tongue, Dr B should have taken further action, and that to continue with the same course of action at that point was not acceptable. Such further action could have included sensory mapping of the affected area, but ideally Dr B should have referred Mr A to an oral and maxillofacial surgeon for assessment, if only to obtain a second opinion. Dr Surathu advised that despite the presence of some tingling, the appropriate standard of care required Dr B to take some further action following the second review appointment on 20 January 2020. Dr Surathu considers that the failure to do so was a moderate departure from the standard of care. I accept that advice.

[19] Right 4(1) of the Code requires healthcare providers to provide services with reasonable care and skill.

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101. Dr B and Mr A disagree as to whether Mr A requested an ACC referral on 20 January 2020, but I do not find it necessary to make a finding of fact in this regard. Dr Surathu advised me that Dr B should have completed an ACC treatment injury claim at that point, irrespective of whether Mr A requested one. Dr Surathu considers that Dr B's failure to complete an ACC treatment injury claim was a moderate departure from the standard of care. I accept that advice.

102. Dr Surathu also advised me that Dr B's notes for the appointments on 23 December 2019 and 20 January 2020 do not indicate any examination of the lingual region or any identification of the atypical lingual scar (later noted by Dr D). Dr Surathu said that a more detailed examination may have prompted an earlier referral to a specialist. He regards the failure to conduct a detailed examination sufficient to notice the lingual scar as a moderate departure from the standard of care.

103. I accept Dr Surathu's advice. I am concerned that Dr B's explanation for not investigating possible nerve damage is that "he never makes a lingual incision during surgical extraction of teeth", which does suggest a level of over-confidence in ignoring possible risks of this type of surgery. I consider that the lingual scar was present, and that if Dr B had conducted a detailed examination — as he should have — it is likely that he would have noticed the scar and been prompted to take action to investigate any potential long-term damage.

Conclusion

104. For the following reasons, I find that Dr B breached Right 4(1) of the Code:

a) He did not refer Mr A to a specialist or to ACC following the second review appointment on 20 January 2020; and

b) He did not conduct a sufficiently detailed examination of Mr A's mouth on 23 December 2019, and carried out no examination on 20 January 2020.

Other comments

Continuity of care

105. I am also concerned about the lack of action after the appointment with Dr C on 17 February 2020. I do not find it necessary to make a finding of fact about whether Dr C passed on Mr A's message to Dr B. Regardless, I consider that Dr B should have either followed up with Mr A himself to check on progress, or, knowing that he would be away, made arrangements for a colleague to take on that responsibility. I acknowledge that Dr B may have had to leave the country quickly for a family emergency, but I consider that this would not have prevented him from making alternative arrangements to follow up with Mr A.

106. As it transpired, the damage to Mr A's lingual nerve was left undiagnosed for three months. In July 2020, Dr D told HDC that because of the seriousness of the nerve injury and the time elapsed since it occurred, the chance of Mr A regaining full sensation was slim. As at the date of this report, only a small amount of feeling has returned to Mr A's tongue.

107. I note that Dr B has accepted that he should have followed up again with Mr A about his progress, or informed the dental service about the situation for follow-up in his absence,

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and has apologised to Mr A for this oversight. Dr Surathu did not identify a departure from the standard of care in this respect, and I accept that advice.

Referral of extraction to specialist

108. Dr B told HDC that he regarded the extraction as within his scope and expertise. Dr Surathu advised that Mr A's atypical lower right wisdom tooth root morphology,[20] and its intimate relationship with the inferior alveolar nerve,[21] would lead most practitioners to refer the extraction to a specialist or a general dental practitioner with appropriate surgical experience. However, Dr Surathu noted that the treatment injury suffered by Mr A concerned the lingual nerve, and not the inferior alveolar nerve (which was the nerve at particular risk in Mr A's case). Dr Surathu suggested that some practitioners would also consider additional radiological assessment of the tooth with a CBCT.

109. The Standards Framework requires that dentists carry out a task or a type of treatment only if they have the knowledge and skills to do so competently within their scope of practice. It also requires that dentists recognise their own limitations and the special skills of others in diagnosis, prevention, and treatment, and refer patients accordingly.[22]

110. Dr Surathu commented that Dr B's experience in carrying out difficult extractions was informal. I note, however, that Dr B had carried out a large number of difficult extractions over the preceding seven years without incident, and that his colleagues at the dental service regarded him as sufficiently proficient in difficult extractions to refer their own patients to him. I consider that Dr B acted reasonably in his belief that he had the requisite skill and experience to carry out the extraction of Mr A's lower right wisdom tooth.

111. Dr B said that he explained the complexity of the proposed extraction to Mr A at the initial consultation. However, Mr A's understanding was that a referral to a specialist was appropriate only if he wished to have intravenous sedation during the procedure. The clinical notes from the consultation are not sufficiently detailed to provide contemporaneous evidence of what the parties said or understood about the option of being referred to a specialist. I have considered the sufficiency and adequacy of Dr B's clinical notes above. I remind Dr B that all options for treatment should be discussed with patients and documented in order for them to be fully informed.

Extraction procedure

112. It is clear that Mr A suffered significant discomfort following the extractions, and that as a result of the procedure to remove his lower right wisdom tooth, he suffered nerve damage that may be permanent.

113. As discussed above, Dr B did not document his extraction technique in any detail in the clinical notes. Dr B provided HDC with a detailed description of the technique he used, and Dr Surathu was asked for comment. Dr Surathu did not identify any departure from the

[20] The roots of Mr A's tooth had an unusual shape.

[21] The nerve within the jawbone that provides sensation to the lower teeth.

[22] https://www.dcnz.org.nz/assets/Uploads/Practice-standards/Standards-Framework-for-Oral-Health-Practitioners.pdf. Accessed 17 March 2022.

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standard of care in respect of the methods or technique used by Dr B to extract Mr A's wisdom teeth. I accept Dr Surathu's advice.

114. I note that the clinical notes record discussion with Mr A before the procedure, including a warning about the possibility of nerve damage. I also note that the consent form signed by Mr A on 18 December 2019 included warnings about pain, discomfort, bleeding, retained tooth fragments, and nerve damage — including permanent nerve damage.

115. Dr Surathu noted the discussions between Dr B and Mr A, and the warnings in the consent form, and advised that Mr A appears to have been consented to the procedure adequately. I accept that advice.

116. Dr Surathu discussed with HDC the issue of whether the damage to Mr A's lingual nerve was an ordinary risk of the procedure. Dr Surathu advised that although it was not an ordinary risk of the procedure, it was possible that Dr B accidentally transected Mr A's lingual nerve by extending an instrument into the lingual space, and did not notice that he had done so. Dr Surathu advised that although the accidental transection of the lingual nerve was an extraordinary event, it was a possibility, and Dr B's error lay not in the act of transecting Mr A's lingual nerve, but in his actions and omissions following the event (as discussed above). I accept Dr Surathu's advice on this issue.

Opinion: Dental service — no breach

117. Although Dr B was an employee of the dental service, he enjoyed a high degree of independence in his practice, as is usual for experienced dentists in private practice. The dental service had in place a number of company policies, which Dr B was required to follow. Those policies included timely follow-up of patients post-procedure, appropriate post-extraction instructions to patients, and informed consent of patients.

118. My expert advisor, Dr Surathu, did not identify any departures from the standard of care by the dental service. Dr Surathu's advice is annexed to this report as Appendix A.

119. Dr Surathu also evaluated the dental service's policies and procedures and found them to be adequate. I accept this advice. Dr Surathu did note that there is no indication in the policies and procedures of when referral to secondary services will be considered, especially where there are postoperative complications, although he was not critical of that omission.

120. In my view, Dr B's errors were the result of individual clinical decision-making, and were not directly the result of shortcomings in the policies and procedures of the dental service. I find that the dental service did not depart from the appropriate standard of care.

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Changes made

Dental service

121. Following these events, the dental service introduced two new policies to mitigate some of the risks to patients:

a) A Sedation Policy to ensure patient safety in accordance with Dental Council standards for sedation; and

b) A Treatment Injury Policy that requires its dentists to inform management in writing where treatment injury is suspected or confirmed, and to prepare a follow-up plan of action that includes informing the patient, timely referral to an appropriate specialist, and filing of an ACC claim.

122. The additional policies suggest that the dental service has taken Mr A's complaint seriously, which I note with approval.

Dr B

123. Dr B told HDC that he now writes more detailed notes about his surgical extraction technique for each case. He said that he has also started to incorporate CBCT images to help plan his surgical wisdom teeth extractions.

124. Dr B also told HDC that he has taken this matter very seriously and has learned considerably from the incident, and is confident that it will not be repeated.

Recommendations

Dr B

125. I recommend that Dr B:

a) Provide a written apology to Mr A. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Mr A.

b) Arrange an audit by the dental service of his patient notes from his last 12 months of practice, in particular to determine:

   i. whether he has documented his surgical technique adequately; and

   ii. whether discussions with patients prior to surgical procedures are documented fully, including the different options advised and any reasoning given for recommending a particular option.

   Dr B is to report back to HDC regarding the above audit within three months of the date of this report.

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126. In response to the provisional opinion, Dr B told HDC that he completed safe sedation training in November 2021. I recommend that Dr B provide HDC with evidence of the successful completion of that training, and evidence that the training is approved by the New Zealand Dental Association, within three weeks of the date of this report.

127. In response to the provisional opinion, Dr B also told HDC that he has reflected carefully on his approach and reviewed his practice in light of Dr Surathu's comments. I recommend that Dr B provide HDC with details of the outcome of this reflection and review within three months of the date of this report.

Dental service

128. I recommend that the dental service:

a) Confirm the implementation of its new Sedation Policy and Treatment Injury Policy, audit compliance with these policies, and report the results of the audit to HDC within three months of the date of this report.

b) Use an anonymised version of this report as a basis for staff training at the dental service, focusing particularly on the breaches of the Code identified, and provide HDC with evidence of the training within three months of the date of this report.

Follow-up actions

129. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the Dental Council of New Zealand, and it will be advised of Dr B's name in covering correspondence.

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

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Appendix A: Independent clinical advice to Commissioner

The following expert advice was obtained from Dr Nitish Surathu, a dentist:

"The following constitutes advice provided to the Health and Disability Commissioner regarding an opinion sought from me with regard to care provided by [Dr B] at the [dental service] to [Mr A].

In the formulation of this report, I took into consideration the original letter of complaint dated August 5, 2020, clinical records from [the dental service] with regard to care provided, pre-operative X-rays provided, [the dental service's] response dated September 24, 2020 and [the dental service's] policies with regard to care, consent and complaints.

Background

[Mr A] had four wisdom teeth extracted on December 19, 2019 by [Dr B] under local anaesthetic and oral sedation.

Teeth 18, 28, 38 and 48 were extracted, although the 48 was only partially removed. The patient developed lingual nerve related numbness after the procedure on his right hand side. On March 11, 2020, the complainant's GP referred him to an Oral and Maxillofacial surgeon who examined him and performed a surgery for lingual nerve repair on July 21st, 2020. The surgeon noted that the nerve was completely transected.

The HDC requested comments on the following questions and I have addressed each of them individually:

1. What symptoms would usually prompt a referral to secondary services following an extraction?
2. Was the follow up care, provided to [Mr A], consistent with what you would expect as standard practice?
3. What approach would you expect your peers to take, for the removal of wisdom teeth, with a similar clinical presentation to [Mr A's]?
4. Do you consider that the extraction technique used by [Dr B] was consistent with standard practice?
5. Do you consider that [the dental service] have adequate policies and procedures in place?
6. Are there any other matters in this case which you consider warrant comment?

1. What symptoms would usually prompt a referral to secondary services following an extraction?

In general, any post-operative complication following an extraction should be assessed carefully and a referral to secondary services should be considered. [Dr B's] notes indicate that he discussed the root morphology of tooth 48 and the heightened risk of

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nerve damage with the patient in advance. The notes also indicate that the option for referral to a specialist Oral and Maxillofacial surgeon was discussed with the patient. A copy of the patient's extraction consent confirms the information provided with regard to nerve injury although the consent does not document the option of referral to a specialist. The patient therefore appears to have been adequately consented prior to the procedure.

Following the development of numbness in his tongue however, [Dr B] should have ideally referred the patient to an Oral and Maxillofacial surgeon for assessment. It is possible that he felt that the prognosis was reasonable given the patient's neural symptoms of a 'pins and needles' sensation and therefore chose to continue to monitor the patient without referral. The standard of care in this situation would have been to refer the patient to a specialist after the second review appointment in January, if only to obtain a second opinion. [Dr B's] notes however indicate that he chose to keep monitoring the patient although his notes record that he would progress a referral at a later date if necessary. [Dr B] was advised by his colleague in March 2020 that the patient had not noted any improvement in his situation. This was possibly yet another opportunity to consider referral to a specialist. A review appointment with the patient in March 2020 was cancelled by the patient as he had already seen his GP by then to action a referral.

It would therefore appear that [Dr B] did not refer the patient to specialist care when he should have considered the option. I would regard this departure from the standard of care as moderate and I would recommend that [Dr B] reflect on his approach and reconsider his opinion of what symptoms should prompt a referral for specialist services.

2. Was the follow up care, provided to [Mr A], consistent with what you would expect as standard practice?

[Mr A] appears to have been adequately reviewed by [Dr B]. His notes do not however indicate any examination of the lingual region or any identification of any atypical incision scar noted by the Oral and Maxillofacial surgeon who subsequently saw [Mr A]. A more detailed examination may have prompted an earlier referral to the specialist. I would regard this departure from the standard of care as moderate as well and would recommend that [Dr B] consider a more careful examination of the surgical site when he encounters specific complications and document any findings more accurately.

3. What approach would you expect your peers to take, for the removal of wisdom teeth, with a similar clinical presentation to [Mr A's]?

[Mr A's] pre-operative X-ray suggests an impacted lower 48 with atypical root morphology. The X-ray also shows an intimate relationship with the inferior alveolar nerve. Most practitioners would regard such a tooth as best referred to a specialist or a general practitioner with surgical experience for extraction. Several practitioners may also consider additional radiologic assessment of the tooth with a CBCT. [Mr A's] present situation however involves the lingual nerve and this nerve does not run within

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the bone. The lingual nerve was therefore possibly transected during the surgical procedure itself and was most likely injured during the elevation of lingual tissue or an extension of surgical instrumentation into the lingual area of the mandible, while being used to remove bone around the 48. This is also suggested by the scar tissue and the completely transected lingual nerve noted by the specialist. It would therefore be reasonable to conclude that surgical technique led to lingual nerve injury. [Dr B's] notes do not indicate whether he was aware of this. The patient would normally be entitled to an ACC claim for treatment injury, if [Dr B] had reason to suspect this. I would therefore expect my peers to normally consider referral to a specialist Oral and Maxillofacial surgeon for a tooth such as [Mr A's] 48, as most would regard it as a difficult extraction. [Dr B] may however have extensive surgical experience as a general practitioner and he may have regarded the tooth as being within his scope and expertise. I would also think that most of my peers would progress an ACC treatment injury claim if there was a lingual scar and related numbness. I would regard [Dr B's] departure from standard practice in this instance as moderate as well.

4. Do you consider that the extraction technique used by [Dr B] was consistent with standard practice?

[Dr B's] notes do not describe his extraction technique specifically for the 48. His notes indicate that buccal and distal bone was surgically removed and this section appears to be common to the 38 and 48. The notes also indicate that part of the 48 was left behind but seem to imply that the crown and distal root were removed. There is no indication of whether the lingual tissue was raised or accessed. There is also no indication of whether he noted any departure of surgical instrumentation from bone into the lingual tissue space where the lingual nerve is present. I am therefore unable to judge if the extraction technique used by [Dr B] is consistent with standard practice. I would recommend that [Dr B] consider more detailed notes that outline his surgical technique.

5. Do you consider that [the dental service] [has] adequate policies and procedures in place?

An evaluation of [the dental service's] policies and procedures seems to suggest that they are adequate. There is however no indication of when referral to secondary services will be considered, especially when there are post-operative complications.

6. Are there any other matters in this case which you consider warrant comment?

[Mr A] was orally sedated with 15mg Midazolam. This dose is at the higher end of the permitted dose for the drug. The notes record that he was asleep during the appointment suggesting a moderate–deep level of sedation. The notes also indicate that he was only monitored using a pulse oximeter. The Dental Council's Practice Standard for Sedation dated April 2017 requires all practitioners to use capnography for monitoring the moderately sedated patient with effect from October 1, 2019. [Dr B's] description of [Mr A's] sedated state in his notes suggests that the patient was at least moderately sedated. There is no indication of monitoring with capnography however and the notes record only the use of a pulse oximeter. I would regard this as a significant

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departure from the standard of care and recommend that [Dr B] reconsider his patient monitoring while using sedation and ensure compliance with the Dental Council's Practice Standard.

I thank the Health and Disability Commissioner for the opportunity to provide advice on this complaint and I release my report for disclosure under the Privacy Act 1993 and the Official Information Act 1992, after careful consideration of the HDC's guidelines for independent advisors. "

HDC asked Dr Surathu for clarification on two points in his initial advice. On 30 September 2021, Dr Surathu responded as follows:

"Thank you for your email. Please find my replies below [your questions]:

1. In your advice you note, 'I would recommend that [Dr B] consider more detailed notes that outline his surgical technique'. Do you consider the lack of detail in [Dr B's] notes to be a departure from accepted practice and/or the standard of care? If so, how significant is that departure?

I regard the lack of detail in [Dr B's] notes to be a moderate departure from the standard of care. In this instance, detailed notes may have helped establish if surgical technique contributed to injury and consequent numbness.

2. Under heading number 3 you write, 'I would regard [Dr B's] departure from standard practice in this instance as moderate as well'. Could you clarify whether the departure is in respect of [Dr B's] failure to refer the extraction to a specialist, his failure to refer for an ACC injury claim given the lingual scar and related numbness, or both?

The departure from the standard of care was with reference to failure to refer for an ACC injury claim."

The following further expert advice was obtained from Dr Surathu:

"The following constitutes an additional report following previous advice provided to the Health and Disability Commissioner regarding an opinion sought from me with regard to care provided by [Dr B] at [the dental service] to [Mr A] (Ref: 20HDC01411).

In the formulation of this report, I reconsidered the original information that was provided to me when I provided my first report, [Dr B's] response to the advice provided, detailed MRI neurography images and a radiologist's report for the patient from the DHB], the oral and maxillofacial surgeon's notes, [the dental service's] detailed sedation records for [Mr A], [the dental service's] response to the advice provided, [Dr B's] resume that outlined his education and CPD, Dental Assistant statements and informal generic opinions from experienced dentists who provide advanced sedation and are associated with the New Zealand Society for Sedation in Dentistry.

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I do not see any need to make any changes to my original report. I do have the following to add to my original report.

1. There is enough objective evidence to suggest that there was surgical injury of the lingual nerve in this patient. Based on [Dr B's] notes and response, I can only conclude that he was unaware that such an injury had been caused. It is therefore most likely that injury occurred when surgical instrumentation used during the procedure slipped into an unprotected lingual space. [Dr B's] follow up of the patient following reported numbness, while well intended and based on a misleading indication of returning sensation, could have included a referral to a specialist for an opinion as well.

2. [Dr B's] experience in surgical extractions of an advanced nature is informal. The undertaking of advanced care of any kind, even if within the scope of a provider's practice, is a matter of judgement. [Dr B] suggests that he has never had an adverse outcome in the past several years. For this patient however, the outcome is a significantly adverse one. It is encouraging to see that [Dr B] has started to consider more presurgical radiological assessment in cases of this nature. It is difficult to say if [Mr A] himself would have benefitted from a CT scan as [Dr B] has outlined his criteria for deciding against a CT scan in this situation and they are acceptable.

3. The use of oral midazolam in the dosages used in this patient is not regarded as minimal sedation by experienced dentists who provide sedation. The potential for oral sedation intended to be minimal, to quickly escalate to moderate levels, is also well recognised by these experienced sedation practitioners. Oral sedation also does not offer the advantage of slow titration as in the case of IV sedation. The availability of a capnography unit onsite should have prompted [Dr B] to consider its use when the patient was obviously starting to show signs of moderate sedation when he fell asleep.

I thank the Health and Disability Commissioner for the opportunity to provide additional advice on this investigation and I release my report for disclosure under the Privacy Act 1993 and the Official Information Act 1992, after careful consideration of the HDC's guidelines for independent advisors."

The following further advice was obtained from Dr Surathu:

"1. In the documents provided by [Dr B] and [the dental service], the anticipated extraction of [Mr A's] lower right wisdom tooth is described as difficult and complex due to an atypical root morphology and a complex relationship with the inferior alveolar nerve. Could you explain what the increased risk would be of extracting a tooth with these features?

The risk in extracting such a tooth would be damage to the surrounding alveolar structures especially the inferior alveolar nerve and the lingual nerve.

2. In your initial advice to HDC, you wrote 'Following the development of numbness in his tongue however, [Dr B] should have ideally referred the patient to an Oral and Maxillofacial surgeon for assessment. It is possible that he felt that the prognosis was

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reasonable given the patient's neural symptoms of a "pins and needles" sensation and therefore chose to continue to monitor the patient without referral. The standard of care in this situation would have been to refer the patient to a specialist after the second review appointment in January, if only to obtain a second opinion.'

Could you clarify whether you mean that the ideal response would have been to refer [Mr A] to an Oral and Maxillofacial surgeon, however any second opinion would have been adequate (i.e. the Oral and Maxillofacial surgeon is the gold standard, but any other appropriate dental practitioner would be adequate). Or did you mean that ideally he should have been referred as soon as the numbness appeared, but at the very least after the second review appointment? Or possibly both?

I meant that the patient should have been referred to an oral and maxillofacial surgeon at the second review appointment at least. It was certainly reasonable for [Dr B] to wait to see if the numbness improved and review unless he was aware that the lingual nerve had been transected. A 'pins and needles' sensation is often encountered in patients with paresthesia and full sensation often returns. It is possible that [Dr B] took this to mean that full sensation would return on review.

3. What specific steps would the standard of care require [Dr B] to do following the development of numbness?

Ideally, if the numbness was failing to resolve after a second review appointment, a sensory mapping of the region affected by the numbness would have been beneficial in providing a baseline that would establish future improvement. Nerve injuries usually benefit from earlier surgical intervention as surgical repair (of the nature attempted in this case) would have a better prognosis if done early. A careful consideration of the timeframe is therefore warranted.

4. For clarification, could you advise whether the transecting of the lingual nerve is a reasonable risk of wisdom tooth extraction in [Mr A's] circumstances, or was it an extraordinary event?

Lingual nerve paresthesia is a reasonable risk in wisdom teeth extractions and is experienced by multiple patients. This is usually the result of flap traction on the lingual side. Transection of the lingual nerve itself would require surgical instrumentation to depart from the alveolar space where the tooth is housed. This is obviously unintended and accidental but would be regarded as an extraordinary event. In general, surgeons would exercise a lot of caution in this area because of the risks involved.

5. In our initial advice request, it appears that we only requested advice on whether [Dr B] provided reasonable care to [Mr A], and not on the related question of whether [the dental service] provided reasonable care to [Mr A]. There was one question about whether [the dental service] had adequate policies and procedures in place, but we should also have requested more general advice. In particular, could you review your initial advice and advise whether it would change if our advice request letter of 9 April 2021 had requested advice in respect of the care provided by [Dr B] and [the dental service]?

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[The dental service] appears to have adequate policies and procedures in place. At the time, the patient saw [Dr C], it appears that he still had signs suggesting that the numbness was still there. It would however be difficult for [Dr C] to establish whether this was an improving situation.

6. Could you also answer the specific question of whether [the dental service] took reasonable steps to maintain continuity of care for [Mr A] when [Dr B] went on leave (e.g. when [Mr A] saw [Dr C])?

[Dr C]'s notes record that she left a message for [Dr B] about the patient's numbness. I am not sure if [Dr B] received this message or whether he instructed [the dental service] to refer the patient to an oral and maxillofacial surgeon."

Dr Surathu provided further advice by telephone. After some discussion about mouth numbness following oral surgery, Dr Surathu advised that there is not one specific action or series of actions that was required to meet the standard of care. He said that in his practice, he would have used sensory mapping to chart the course and extent of numbness, but other actions, for example referral to a specialist, would be acceptable. The key issue is that although it was acceptable for [Dr B] simply to monitor [Mr A] following the first follow-up, it was not acceptable for [Dr B] to maintain that same course following the second follow-up. He should have initiated some further action after that appointment, and the most obvious action would have been to refer to an oral and maxillofacial specialist to investigate the cause of the numbness. This is because the earlier surgical intervention is attempted, the better the chance of success.

Regarding whether the nerve transection was a normal risk of the surgery, Dr Surathu advised that there is always a risk of nerve damage with this kind of surgery, and paresthesia (partial numbness) is common, but not normally caused by transecting the nerve, but by flap traction (stretching the nerve). Dr Surathu said that while transection is an extraordinary event, it is possible, and [Dr B] is not to be criticised for that alone. It is also possible that he cut the nerve and did not realise it. The key failure is not the transection of the nerve, but [Dr B's] response to it.

Dr Surathu did not identify any departure from the accepted standard of care by [the dental service].

Dr Surathu advised that usually continuity of care is a matter for the individual dentist, and not the group provider. He said that it would have been up to [Dr B] to follow up, and, as he was away and there is conflicting evidence about whether [Dr C] passed the message to him, it is difficult to reach any conclusion on how [Dr B] acted here.

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Appendix B: Dental Council of New Zealand's Sedation Practice Standard

The following extracts are taken from the Dental Council's Sedation Practice Standard:[23]

"**Compliance**

The standards set by the Council are minimum standards which are used by the Council, the public of New Zealand, competence review committees, professional conduct committees, the Health and Disability Commissioner, the Health Practitioners Disciplinary Tribunal and the courts, to measure the competence, performance and conduct of practitioners.

A failure to meet the Council's standards and adhere to the ethical principles could result in Dental Council involvement and may impact on the practitioner's practice.

…

Duty of compliance

Practitioners who practise as part of the clinical team for sedation have a legal responsibility to meet the standards contained in this practice standard. They must ensure that:

- their own clinical practices for sedation meet the standards; and

…

Definitions

- **Minimal sedation** is a drug-induced state during which the patient responds normally to verbal commands. Cognitive function and physical co-ordination may be impaired but airway reflexes, cardiovascular and ventilatory functions are unaffected.

- **Moderate sedation** is a drug-induced depression of consciousness during which patients respond purposefully to verbal commands, either alone or accompanied by light tactile stimulation, throughout the period of sedation. The patient has the ability to maintain their airway patency on request, spontaneous ventilation is adequate and cardiovascular function is usually maintained.

- **Deep sedation** is a drug-induced depression of consciousness during which patients cannot easily be woken but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

[23] https://www.dcnz.org.nz/assets/Uploads/Practice-standards/Sedation-practice-standard-April-2017.pdf. Accessed 17 March 2022.

Names have been removed (except the expert who advised on this case) to protect privacy. Identifying letters are assigned in alphabetical order and bear no relationship to the person's actual name.

…

Sedation techniques and drugs

…

Techniques that do not allow the drug to be titrated to effect, for example, the oral administration of sedative drugs, can result in a less predictable response than when a drug is administered intravenously or via inhalation.

For this reason, oral sedation should only be used for an intended level of minimal sedation.

…

Monitoring

9 You must monitor the patient, appropriately for the technique, drugs and level of sedation, throughout the sedation and recovery periods.

…

10 You must use capnography to monitor the patient when providing an intended level of moderate sedation, except when using only nitrous oxide/oxygen for sedation [from 1 October 2019].”

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