Dental Service

Dentist, Dr D

A Report by the

Deputy Health and Disability Commissioner

(Case 20HDC00309 & 20HDC00314)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report concerns the care provided to twin sisters when they received orthotropic treatment over a period of about two years, performed by a general dentist with assistance from various orthodontic auxiliaries at a dental service.

2. The report highlights the importance of providing information about the proposed treatment plan, the risks of treatment, and the available options, to allow consumers to make an informed decision about their care and give informed consent. It also highlights the importance of robust and clear clinical record-keeping.

3. On 19 May 2017, the girls' mother took her daughters for an orthodontic consultation with a dentist as she had concerns about their "crooked" teeth. The dentist recommended a two-phased orthodontic approach for both girls. The phase one treatment included using a combination of removable orthodontic plates and partial braces, and the phase two treatment was to be undertaken once all their adult teeth had grown, and was to include the use of braces for both children. The girls subsequently attended the dental service for various appointments with the dentist and other orthodontic auxiliaries from May 2017 to October 2019. The mother sought a review from another dentist when she became concerned about the progress of her daughters' treatment, and, following this, she terminated the therapeutic relationship.

Findings

4. The Deputy Commissioner considered that the dentist failed to provide the mother with the information that a reasonable consumer in her circumstances would expect to receive, and, accordingly, found that the dentist breached Right 6(1) of the Code. The Deputy Commissioner considered that the mother was not in a position to give her informed consent to the proposed treatments, and that the dentist breached Right 7(1) of the Code. The Deputy Commissioner also found the dentist in breach of Right 4(2) of the Code for deficient clinical documentation, which represented a failure to meet the standards set out by his profession's regulatory body (the Dental Council of New Zealand (DCNZ)). The Deputy Commissioner was critical of the breakdown in communication between the dentist and the mother as a result of the mother's expectations not being managed appropriately.

5. The Deputy Commissioner found that the dental service did not breach the Code, but made adverse comment regarding the insufficiency of processes in place at the dental service to support its practitioners to provide patients with adequate information and obtain informed consent to treatment.

Recommendations

6. The Deputy Commissioner recommended that the dentist provide an apology to the family, and arrange for an external audit to ensure that adequate informed consent was obtained and that clinical documentation was of an appropriate standard.

7. The Deputy Commissioner recommended that the dental service develop and provide training to staff on clinical documentation and informed consent, develop a written

information sheet containing information specific to early orthodontic treatment (orthotropics), and consult with DCNZ to ensure that the dental service's informed consent forms and policies are consistent with DCNZ guidance.

Complaint and investigation

8. The Health and Disability Commissioner (HDC) received a complaint from Ms A about the services provided to her daughters by a dental service and general dentist Dr D. The following issues were identified for investigation:

- *Whether Dr D provided Miss B with an appropriate standard of care from May 2017 to December 2019 (inclusive).*
- *Whether Dr D provided Miss C with an appropriate standard of care from May 2017 to December 2019 (inclusive).*
- *Whether the dental service provided Miss B with an appropriate standard of care from May 2017 to December 2019 (inclusive).*
- *Whether the dental service provided Miss C with an appropriate standard of care from May 2017 to December 2019 (inclusive).*

9. This report is the opinion of Deputy Commissioner Carolyn Cooper, and is made in accordance with the power delegated to her by the Commissioner. The opinion is further to a provisional opinion from Deputy Commissioner Deborah James.

10. The parties directly involved in the investigation were:

Ms A	Complainant/consumers' mother
Miss B	Consumer
Miss C	Consumer
Dental service	Provider/dental practice
Dr D	Provider/general dentist

11. Further information was received from orthodontist Dr E.

12. Independent expert advice was obtained from a general dentist, Dr Angela McKeefry (Appendix A).

Information gathered during investigation

Introduction

13. On 19 May 2017, Ms A took her two daughters, Miss B and Miss C (both aged eight years), for an orthodontic consultation with Dr D at the dental service. Ms A told HDC that she presented to Dr D as she had concerns about Miss B's and Miss C's "crooked" teeth.

14. The dental service told HDC that Ms A presented with her daughters following recommendations from friends, and that Ms A had researched early orthodontic treatment and orthotropics and was "interested in what we do".

15. This report primarily relates to early orthodontic treatment provided to Miss B and Miss C over a period of about two years, performed by Dr D with assistance from various orthodontic auxiliaries at the dental service. The Dental Council of New Zealand (DCNZ) defines the scope of practice for orthodontic auxiliaries as follows:

> "Orthodontic auxiliary practice is a subset of dental hygiene practice that involves implementing orthodontic treatment plans prepared by a dentist or orthodontists, by performing orthodontic procedures and providing oral health education and advice on the care and maintenance of orthodontic appliances in accordance with an orthodontic auxiliary's approved education, training, experience and competence."[1]

16. The DCNZ defines the scope of practice for general dentists as follows:

> "General dental practice encompasses the practice of dentistry in the maintenance of health through the assessment, diagnosis, management, treatment and prevention of any disease, disorder or condition of the orofacial complex and associated structures in accordance with a dentist's approved education, training, experience and competence."

Early orthodontic treatment/orthotropics

17. Orthotropics is described as a specific type of "facial growth guidance". It is a branch of dentistry that specialises in treating malocclusion (imperfect positioning of the teeth when the jaws are closed) by guiding the growth of the facial bones and correcting the oral environment. The treatment creates more space for the teeth and tongue and generally involves the use of a variety of different removable appliances, and myofunctional therapy (a programme of exercises to help restore normal strength and coordination of the muscles of the face and tongue, to ensure optimal functions such as breathing, chewing, swallowing, and speaking). Orthotropics is generally most effective for children aged between 5 and 10 years, and is a form of early orthodontic treatment.

[1] https://www.dcnz.org.nz/i-practise-in-new-zealand/orthodontic-auxiliaries/scope-of-practice-for-orthodontic-auxiliaries/

19 May 2017 — initial consultation

18. On 19 May 2017, Ms A accompanied Miss B and Miss C to an initial orthodontic consultation with general dentist Dr D. Miss B and Miss C had not visited Dr D or the dental service previously. On this visit, Dr D assessed both Miss B and Miss C and made clinical notes.

19. Dr D documented that Miss C had an open bite,[2] open mouth posture,[3] snoring, tongue thrust,[4] and incompetent lips.[5] He recorded Miss C's treatment plan as: "Start with [upper and lower removable devices] stage 1's, then [anterior] brackets. [myofunctional therapy[6]] and [the dental service Breath Course[7]] next holidays."

20. Dr D told HDC that Miss C's presenting conditions were as follows: constricted dental arches; mandibular centre line[8] 2mm left of centre; open bite tendency; upper diastema[9] with potential frenum involvement[10]; rotated 11, 21, and 22 teeth; loss of space for the 12 tooth; and loss of space for the lower adult incisors and class 1 molar positions. However, this is not documented in the clinical record.

21. Dr D also told HDC that his rationale behind the proposed treatment plan was "to treat the constricted dental arches and to address the crowding of the upper and lower anterior teeth".

22. Dr D documented that Miss B had narrow arches, the 23 tooth growing over the 22 tooth, that she had been a finger sucker until age three, and that she was a mouth breather. Dr D recorded his treatment plan for Miss B as: "Start with [upper and lower removable devices] stage 1's and [anterior] brackets. Discussed full braces later. [Breath Course] and [Myofunctional Therapy] in 6 m[o]nths." Dr D also noted that he would do a new "iCAT"[11] in 12 months' time.

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[2] A bite problem (malocclusion) where the top teeth and the bottom teeth do not come together or bite in the correct position. There is no overlap of the teeth, leading them to look "open". Open bites can be caused by either tooth position, jaw position, or a combination of both.

[3] When the mouth and lips begin to create irregular shapes and cause development issues to the mouth, lips, and jaw area. It can be categorised by having the mouth open at rest, breathing in and out through the mouth, a protruding tongue, the tongue pushing against the front teeth, and the lower jaw hanging forward. This can create problems in the development of facial and oral structure, crowded teeth, under bite, over bite, protruding front teeth, speech issues, joint disorders, and abnormally developed facial features.

[4] Unnatural force of the tongue against the teeth during swallowing.

[5] The lips are unable to form an adequate seal under similar unstrained conditions, ie, excessive separation of the lips at rest.

[6] The dental service has a dedicated myofunctional therapist.

[7] To assist in breathing patterns and development of the mouth, teeth and tongue.

[8] The dental midline where teeth of ideal size, shape, and position line up between the lower and upper teeth.

[9] Diastema refers to a gap or space between the teeth, which often is noticeable between the two upper front teeth.

[10] The frenum is a piece of soft tissue that runs in a thin line between the lips and gums and is present on the top and bottom of the mouth.

[11] A more advanced form of dental imaging that produces a three-dimensional construction of the teeth, jaw, nerve pathways, and bone structure.

23. Dr D told HDC that Miss B's presenting conditions included constricted dental arches; an impacting 23 tooth; a deep bite[12]; loss of space for the 12 and 22 teeth; and loss of space and crowding of the lower adult incisors and class 1 molar positions. However, this is not documented in the clinical record.

24. Dr D also told HDC that his rationale behind the proposed treatment plan for Miss B was to treat the constricted dental arches, address the crowding of the upper and lower anterior teeth, and to make room for the impacting canine tooth.

Consent for treatment

25. Dr D told HDC that he discussed with Ms A a two-phased orthodontic approach for both Miss B and Miss C. The phase one treatment included using a combination of removable orthodontic plates[13] and partial braces. The phase two treatment was to be undertaken once all their adult teeth had grown, and was to include the use of braces for both children.

Information supplied

26. Ms A was provided with a "Treatment Letter" (dated 19 May 2017), an "Orthodontic Compliance Agreement", and an "Orthodontic Treatment Financial Agreement" (both dated 12 June 2017) for both Miss B and Miss C.

27. The orthodontic compliance agreements outline the time the treatment is expected to take, and the expected cost of the treatment. The agreements state:

> "I understand that [Miss B's and Miss C's] treatment relies on [their] full compliance of [Dr D's] treatment plan and if this is not sustained added fees may apply."

28. The orthodontic treatment financial agreements outline the cost of stage 1 of treatment for both Miss B and Miss C. These agreements state:

> "I understand that [Dr D] is not a Registered Specialist as Detailed under Section 21 of the 1988 Dental Act. I acknowledge that [Dr D] is a general dentist with a clinical interest in orthodontics … I hereby acknowledge that I have been completely and satisfactorily informed of the treatment considerations and possible risks regarding the proposed orthodontic treatment and that I now consent to treatment."

29. The treatment letters contain standard information about orthodontic treatment, and outline the treatment plans for both Miss B and Miss C. Details of the treatment plans include an active treatment phase using "[r]emovable appliances to develop the arches and make room for teeth", myofunctional therapy to correct the mouth muscle posture, and the [dental service's] Breath Correction course (phase one). The second phase of the treatment

[12] A malocclusion or misalignment of the teeth in which the top front teeth overlap over the bottom teeth. It can also be called an overbite or a closed bite. Deep bites are often caused by a lower jaw that is shorter than the top jaw, causing overlap.

[13] Removable devices (also known as retainers) are used to change the shape of the palate and jaws and to alleviate the crowded teeth, and are also used to correct bad bites. Removable plates are usually worn full-time, including when eating, and are removed only when brushing the teeth.

is called the "Retention phase" and includes the use of orthodontic retainers[14] that are to be worn "all the time for 3 to 6 months then at night — PROBABLY FOR MANY YEARS — to hold the teeth in their new positions during settling and final growth of the jaws".

30. The treatment letters explain that the proposed treatment will take 12 months to complete, and outline the cost involved for the treatment for both Miss B and Miss C. The letters also state that "[f]ull braces may be required when all the adult teeth are through and this will be an additional fee".

31. The treatment letters contain a section titled "Information and Informed Consent Document", which broadly details the possible risks associated with orthodontic treatment.[15] Treatment alternatives are noted as: no treatment at all, referral to a specialist orthodontist for assessment and treatment, and jaw surgery to align the jaws. However, there are no comments in the treatment letters detailing alternative treatment options that were specific to Miss B's and Miss C's cases. The letters also do not refer to Miss B's and Miss C's presenting conditions or diagnoses.

32. The treatment letters outline the following:

> "[The dental service] has highly trained dentists and orthodontic assistants to help with the treatment. I might not see [Miss C/Miss B] at every adjustment appointment but I am continually reviewing [their] treatment progress and if there are any issues these will be brought to my attention."

Clinical documentation

33. There is no record in the clinical notes for either Miss B or Miss C of a discussion with Ms A about the specific risks or benefits of the proposed treatment plans, alternative treatment plans, or expected costs associated with the treatments.

34. Ms A told HDC that she does not recall Dr D discussing risks of treatment or any specific evidence supporting the proposed treatment plan. However, Ms A does recall Dr D discussing the costs of the treatment with her.

35. Dr D told HDC that he accepts that there is a lack of written evidence regarding what was discussed during the initial consultation, but the treatment letters detail all relevant information around informed consent. Dr D said that at the initial appointment, he discussed with Ms A the other treatment options, including doing no treatment at that time.

[14] Removable retainers are explained by the dental service in the Orthodontic Treatment Letter: "Removable retainers are usually worn full time (removed only for meals and cleaning) for 6 months, followed by night time wear for 6 months, then less frequent night time wear (1–2 nights a week) for several years. Sometimes it is necessary to continue the occasional night time wear permanently to ensure that the teeth stay in position."

[15] Including risks associated with patients not cooperating with the treatment plan, cavities, swollen gums, white spots, root resorption, unfavourable growth, jaw joint problems (TMJ), enamel reduction, tooth size discrepancy, and relapse.

36. Dr D did not see Miss B and Miss C again until 16 June 2017, when they presented for their first orthodontic treatment appointments.

Summary of orthodontic treatment

Miss B

37. Clinical notes show that Miss B attended the dental service on 16 June 2017 to be fitted with removable orthodontic plates. On 12 November 2018,[16] Miss B was fitted with partial braces, which were removed on 5 June 2019. Miss B was then fitted with retainers on 5 June 2019.

38. Throughout this period, Miss B also presented to the dental service for various plate adjustment and review appointments, dental hygiene appointments, myofunctional therapy, and the Breath Course. Miss B was seen by various different orthodontic auxiliaries, oral health therapists (OHTs), and dental assistants, and by Dr D.

Miss C

39. Clinical notes show that Miss C presented to the dental service on 16 June 2017 to be fitted with removable orthodontic plates. On 22 August 2018, Miss C was fitted with partial braces, and on 20 November 2018, the braces were removed and Miss C was fitted with an upper retainer.

40. Throughout this period, Miss C also presented to the dental service for various plate adjustment and review appointments, dental hygiene appointments, myofunctional therapy, and the Breath Course. Miss C was seen by various orthodontic auxiliaries, OHTs, and dental assistants, and by Dr D.

Oversight and communication by Dr D

41. Ms A told HDC that by the end of 2018 she became concerned about the progress being made, particularly with respect to Miss B's front braces and the asymmetrical result on removal of the braces and the ongoing use of the orthodontic plates. Ms A told HDC:

> "[My primary concern] was that I was not comfortable with [Dr D's] practice being outsourced to junior, inexperienced staff, and while [Dr D] assured me he would always see the twins it has not always happened in reality."

42. Ms A said that when Miss B's braces were removed, "it was apparent that [Dr D] was not going to check the result so I had to ask the junior nurse for him to come in". Ms A stated that when she attempted to communicate her disappointment to Dr D that he had no intention of checking the results of the treatment, Dr D walked out mid-sentence.

43. Dr D told HDC that he has highly trained auxiliaries "who are very capable of practicing within their scope". Dr D said that Ms A expressed her concerns regarding this at the

[16] The clinical records on this date state braces "OFF". The dental service clarified that this was a mistake, and that it was meant to read braces "ON".

beginning of treatment, and so he made sure that he was present at every appointment that Miss B and Miss C attended, and that this was confirmed in the Treatment Letters.

44. The treatment letters dated 19 May 2017 state:

> "[The dental service] has highly trained dentists and orthodontic assistants to help with the treatment. I might not see [Miss B and Miss C] at every adjustment appointment but I am continually reviewing [their] treatment progress and if there are any issues these will be brought to my attention."

45. Regarding Ms A saying that he left the consultation room when she attempted to raise her concerns, Dr D told HDC:

> "Never in my professional career have I ever walked away [from] a patient when they were talking to me whether in general conversation or when they are discussing concerns. I disagree with this allegation."

46. Dr D also told HDC that on 30 June 2017, the clinical notes show that Ms A had a few questions regarding the treatment, and that these were resolved by way of email. Dr D stated:

> "At no other time in the notes does it state that [Ms A] wanted to speak to me and that I wasn't there … In general terms, if I am ever unavailable, then a phone number is taken and I call the person back. I have always made it my priority to be accessible to my patients."

47. It is unclear from the clinical documentation whether or not Dr D reviewed Miss B and Miss C on every visit to the clinic. There are various references in the clinical notes that state, "[Dr] TO POP IN",[17] "[Dr D] to review [next visit]",[18] "[Dr D] popped in to have a look",[19] "[Dr D] [at appointment]",[20] "[Dr D] pop[p]ed in",[21] "[Dr D] to review",[22] "Mum wants to talk to [Dr D] at appointment wed 05/06/19 — Please call him in",[23] and "[Dr D] to assess in 4 weeks".[24] There are also entries in the clinical notes written by Dr D.[25] However, these are

[17] Documented on Miss B's clinical record on 23 April 2018. Documented on Miss C's clinical record on 21 September 2017 and 26 April 2018.
[18] Documented on Miss B's clinical record on 27 November 2017 and 17 September 2018. Documented on Miss C's clinical record on 10 July 2019 and 8 August 2019.
[19] Documented on Miss B's clinical record on 12 October 2018.
[20] Documented on Miss B's clinical record on 8 October 2018, 13 December 2018, and 27 February 2019. Documented on Miss C's clinical record on 11 July 2018, 12 November 2018, and 20 November 2018.
[21] Documented on Miss B's clinical record on 31 January 2018.
[22] Documented on Miss B's clinical record on 8 April 2019.
[23] Documented on Miss B's clinical record dated 8 May 2019. Dr D was present at the next appointment on 5 June 2019 to speak with Ms A.
[24] Documented on Miss C's clinical record on 8 October 2018.
[25] Documented on Miss B's clinical record on the following dates: 19 May 2017, 20 June 2017, 30 June 2017, 16 October 2017, 27 November 2017, 10 January 2018, 10 May 2018, 11 July 2018, 31 July 2018, 8 October 2018, 12 November 2018, 13 December 2018, 10 July 2019, and 16 August 2019. Documented on Miss C's clinical record on 19 May 2017, 20 June 2017, 11 July 2017, 27 July 2017, 29 August 2017, 16 October 2017,

not consistent throughout the documentation. A "Medical Alert" on the Treatment Card History for both Miss B and Miss C stated, "[DR D] TO SEE EVERY APPT", although it is not clear when this alert was added to the files.

48. Dr D told HDC that he writes comprehensive notes about what is to happen at the next appointment, and if the orthodontic auxiliaries are not able to perform the plan for any reason, he is called through to the treatment room. Dr D said that if he is unavailable, "records are taken and reviewed by [him] and a plan is set in place".

49. The dental service provided HDC with several statements from staff who were involved in Miss B's and Miss C's treatment. The statements corroborate Dr D's assertion that he was present at all appointments, although some staff who were involved in Miss B's and Miss C's treatment have since left the practice and were unavailable to provide statements.

Subsequent events

50. Ms A was concerned about the progress of Miss B's and Miss C's treatment, and sought a review from orthodontist Dr E. Dr E reviewed both Miss B and Miss C and provided a letter to another dental clinic on 31 October 2019, noting the following:

Miss C

Exam findings:

Class I malocclusion
Molars Class I, overjet minimal
Openbite 6 - | - 6 (only touches on first molars)
Mixed dentition

Upper arch: Arch expanded, broad wide arch form
Right central incisor white mark discolouration
Central incisors retroclined,
First molars mild hypomineralisation
Lower arch: Expanded
Central incisors slightly rotated

The panex reveals all teeth to third molars

51. Dr E recommended that Miss C stop wearing the plates to allow "some width and vertical relapse", and that Miss C be monitored periodically until full orthodontic records could be taken. Dr E wrote: "[Ms A] was happy to arrange a follow up appointment next year. I will review any openbite/expansion relapse at that time."

27 November 2017, 10 January 2018, 26 April 2018, 11 July 2018, 22 August 2018, 8 October 2018, 13 February 2019, 3 April 2019, and 10 July 2019.

Miss B

Exam findings:	Class I malocclusion Molars Class I, overjet and overbite minimal Mixed dentition	
	Upper arch:	Central incisors slightly retroclined with enamel discolouration Lateral incisors tipped distal Left deciduous canine lost
	Lower arch:	Mild irregularities Left central incisor rotated First molars tipped distal

The panex reveals upper left canine to be at a mesial angulation, overlying root of lateral incisor. Potential for lower second molars to become impacted (first molars tipped distally). All teeth to third molars visible.

52. Dr E recommended that Miss B be monitored periodically until full orthodontic records could be taken, and wrote that Ms A would arrange a follow-up appointment the next year.

53. Ms A told HDC that Dr E strongly expressed concern and disbelief at the treatment received, and said that the treatment was "shocking". Ms A said that Dr E advised that Miss B and Miss C needed to "wait a period of time post treatment from [the dental service] to reverse the unnecessary treatment in order for her to start a treatment plan on both girls". The therapeutic relationship with Dr D was terminated by Ms A on 31 October 2019, and this is recorded in both Miss B's and Miss C's clinical records at the dental service.

54. Following this, Dr D asked Ms A to seek further clarification from Dr E regarding the specific issues with his treatment, and asked that Dr E provide a written report outlining her concerns. Dr D said that Dr E was not willing to "put this in writing".

Further information

Early orthodontic treatment

55. Early orthodontic treatment is a contentious topic, and it is clear that there are differing views on its effectiveness and usefulness within dentistry. Neither the DCNZ nor the New Zealand Dental Association (NZDA) have position statements on this area of practice.

56. A study by P.S. Fleming in the *Australian Dental Journal* (2017) states:

> "The timing of orthodontic interventions has been a contentious topic for many years with early treatment to address or indeed to prevent skeletal discrepancies in all three planes and to alleviate crowding in common practice. In terms of effectiveness, however, broadly speaking early intervention has not been shown to be superior to later intervention. As such, in view of the additional burden and duration of early intervention, the weight of evidence points to reserving early treatment for localized problems and specific situations with definitive treatment typically initiated in the late mixed or early permanent dentition."

Ms A

57. Ms A told HDC:

> "As well as the obvious financial impact, what I find most upsetting as a parent is the impact on the twins. Namely years of frequent appointments, (often cutting into school and learning time) and the time and effort the twins spent managing, turning and looking after plates, not to mention the times where it has been physically painful, including the early use of braces. As parents we have reassured them on multiple occasions we were doing the right thing for them, and to be proved wrong it's hard not to feel we have let them down."

Dental service

58. The dental service provided staff statements from six employees, including orthodontic auxiliaries, orthodontic assistants, and oral health therapists, who had seen Miss B and Miss C on several occasions. All of the statements note that the staff considered that treatment was tracking well for both Miss B and Miss C, and that they had no concerns when they provided treatment to the children.

59. Some excerpts from the various statements have been included below:

- "[Dr D] was always present with the [two] sister[s'] appointments — there are several alerts on their files to ensure that he is present at every appointment."
- "All treatment is dictated and supervised by [Dr D]. There was a clear alert on their files that he be present at each appointment. I confirm he was present."
- "Before adjusting the plates I would check their progress, measure the opening of the screws and check the width of both arches. Once I was happy with the fit of the plates, patient comfort and rectified any issues I would then get [Dr D] into the room. I would finish by ensuring that my notes were typed up well and any additional comments from [Dr D] were included."
- "When [Miss C] attended the dental service, I took her into one of the clinic rooms and checked if she had any concerns. I then paged [Dr D]. He did his assessment and I assisted him and wrote up any clinical notes about the treatment for the day."
- "[T]he treatment they received the days I was present I believe was appropriate, professional and necessary at the time of the appointment. I did not have any concerns."

Dr D

60. Dr D told HDC that there is debate worldwide about the appropriateness of orthodontic treatment. However, Dr D stated:

> "I believe that I provided treatment plans for [Miss B and Miss C] that resulted in broad dental arches thereby reducing the chances of crowding when all the adult teeth are present. I also believe the treatments I provided are backed by sound scientific evidence."

Responses to provisional opinion

61. Ms A, the dental service, and Dr D were given an opportunity to comment on relevant sections of the provisional opinion. Where appropriate, the comments have been incorporated into this report.

Ms A

62. Ms A reiterated her concerns regarding Dr D allowing orthodontic auxiliaries to undertake treatment, and that Dr D did not examine Miss B and Miss C at every appointment.

Dr D and the dental service

63. Dr D provided a response to the provisional opinion on behalf of himself and the dental service. He told HDC that he maintains that the informed consent process was handled appropriately throughout Miss B's and Miss C's treatment, but largely agreed to action the proposed recommendations.

Opinion: Dr D — breach

Introduction

64. On 19 May 2017, Ms A took her daughters, Miss B and Miss C, to the dental service for an orthodontic consultation with Dr D. Ms A told HDC that she presented to Dr D regarding concerns about "crooked teeth".

65. Over a period of around two years, Miss B and Miss C underwent orthodontic treatment, including removable plates, braces, and retainers. The treatment that was undertaken for Miss B and Miss C is considered "early orthodontic treatment". As noted above, this area of dentistry is contentious, and there is little evidence to support or refute it.

66. As part of my investigation into whether Dr D provided both Miss B and Miss C with an appropriate standard of care, I obtained expert advice from a general dentist, Dr Angela McKeefry.

Appropriateness of treatment

67. Dr McKeefry advised that the appropriateness of early orthodontic treatment is a "subject for extreme debate around the world". However, Dr McKeefry acknowledged that there is evidence-based justification for orthodontic expansion in the mixed dentition (the developmental period after the permanent first molars and incisors have erupted and before the remaining baby teeth are lost), including in cases of cross-bite,[26] bed wetting, potential impacted canines,[27] and sleep apnoea.[28]

[26] Misalignment of teeth where the upper teeth fit inside of the lower teeth.
[27] When a tooth is prevented from coming through correctly due to bone, fibrous tissue, or another tooth.
[28] A potentially serious sleep disorder in which breathing repeatedly stops and starts.

68. Dr D provided HDC with detailed descriptions of the presenting conditions for Miss B[29] and Miss C[30] and (but did not document these at the time).

69. Dr D told HDC that the rationale for Miss B's and Miss C's treatment was to treat the constricted dental arches, to address the crowding of the upper and lower anterior teeth (although this was not documented), and, in Miss B's case, to make room for the impacting canine tooth.

70. Dr McKeefry said that it is unfortunate that the presenting conditions and rationale for treatment for both Miss B and Miss C were not documented in the clinical notes. Dr McKeefry advised that the finding of constricted dental arches in the absence of cross-bite is "subjective".

71. In Miss B's case, Dr McKeefry also advised that the clinical photos do not show a deep bite but rather a clear average bite.

72. Dr McKeefry considers that the impacting upper left canine did give a potential reason to treat Miss B at this time. However, she noted that Dr D did not record whether Miss B's canine was located in the palatal[31] or the buccal[32] area of the mouth. Dr McKeefry said that "[t]his is generally a standard position to note when treating an impacted canine". Taking all of the above into account, Dr McKeefry considers that a "case for treatment" could be made for Miss B.

73. In Miss C's case, Dr McKeefry advised that a slight open bite in the mixed dentition phase of dental development is a common finding and often corrects itself as the teeth continue to erupt. Dr McKeefry said that upper diastema (a gap or space between the upper teeth) is also normal, "and in fact desirable at this stage of dental development as it gives space to the erupting canines". Dr McKeefry considers that there is less evidential support for Miss C's treatment, as opposed to that of Miss B (as discussed above), as Miss C did not have a potentially impacting canine.

74. Regarding Dr D's treatment of the overcrowding for both Miss B and Miss C, Dr McKeefry advised:

> "[T]here does not appear to be any strong evidence base to treat in the mixed dentition for this purpose. That is not to say it won't help, just that reports stating treating in the mixed dentition helped alleviate crowding were unable to control for intercanine width as this widens during this time without any treatment (Bishara et al 1997 {5})."

[29] Constricted dental arches, impacting 23 tooth, a deep bite, loss of space for the 12 and 22 teeth, loss of space and crowding of the lower adult incisors and class 1 molar positions.
[30] Constricted dental arches, mandibular centre line 2mm left of centre, open bite tendency, upper diastema with potential frenum involvement, rotated 11, 21 and 22 teeth, loss of space for the 12 tooth, loss of space for the lower adult incisors and class 1 molar positions.
[31] The side of a tooth adjacent to (or the direction towards) the palate (roof of the mouth).
[32] The side of a tooth that is adjacent to (or the direction towards) the inside of the cheek.

75. With respect to the treatment provided to Miss B, Dr McKeefry advised that the early orthodontic treatment given to her was "not wrong", but she questions whether or not it was "necessary/helpful". Conversely, as discussed above (paragraph 73), Dr McKeefry considers that there is less evidential support for treatment in Miss C's case, as she did not have a potentially impacting canine.

76. Dr McKeefry advised:

> "Performing unnecessary treatment is a severe departure from accepted practice standards. However, there is great debate around this topic and arguments can be made for and against. There is certainly wide support for treatment in the mixed dentition but the evidence backing this is quite limited and there is a need for more quality scientific trials in this area … Some peers would view it as reasonable treatment and others would see it as unnecessary and view accordingly. I think that many peers would accept there are two schools of thought at play here and a lack of sound clinical evidence to either support or detract from treating."

77. I agree with Dr McKeefry's advice.

78. Based on the lack of evidence in the literature, the lack of any position statement from either DCNZ or the NZDA, and taking into account Dr McKeefry's advice, I am unable to make a finding on whether or not the treatment proposed for Miss B was necessary or appropriate. I also note that there was even less evidential support for the treatment proposed for Miss C.

79. While I have accepted Dr McKeefry's advice that performing unnecessary treatment is a severe departure from accepted practice, I note that she does not specifically characterise the treatment provided to either Miss C or Miss B as unnecessary. With the information available to me, I am unable to make a finding on whether or not the treatment provided to Miss C or Miss B was unnecessary. Accordingly, I am not critical of this aspect of the care.

Informed consent

80. As I have acknowledged above, early orthodontic treatment is a contentious area of dental practice and has little evidential basis. Dr McKeefry advised that it is crucial to "ensur[e] the patient has [all] the facts and even appropriate literature on both sides so [that] they can make up their own mind without being swayed one way or the other by the practitioner".

81. Dr McKeefry noted that although the treatment letter was provided following the initial consultation, the letter appears to be standardised, and "[could] be sent to any patient just with the addition of their name". Dr McKeefry advised:

> "These letters did not discuss specific presenting conditions, diagnoses, or specific treatment options. They did not discuss the risks, if any, of doing no treatment for each of the girls' specific situations. The letters covered general risks of orthodontic treatment and lack of patient compliance."

82. I accept Dr McKeefry's advice.

83. In terms of verbal discussions, Ms A told HDC that she does not recall Dr D discussing risks of treatment or any specific evidence supporting the proposed treatment plan.

84. Conversely, Dr D told HDC that at the initial appointment he discussed with Ms A the other treatment options, including doing no treatment at that time, and that the treatment letters detailed all relevant information around informed consent.

85. However, I note that there is no record of a discussion between Dr D and Ms A regarding the risks, benefits, and lack of evidence supporting early orthodontic treatment, and the proposed treatment plans, consent, and details of diagnoses or clinical indications for treatment. Dr D told HDC that he accepts that there is a lack of written evidence regarding what was discussed during the initial consultation.

86. Dr McKeefry stated:

> "There is no recording in the clinical notes of any sort of informed consent process and in fact it seems that the patients had no appointments or discussions with the practice between the orthodontic records being collected (as complete or incomplete as they may be) and the plates being fitted."

87. Dr McKeefry advised that the accepted standard of care is for "all options, risks and costs [to] be openly and honestly discussed with the patient and this detailed in the clinical notes". She stated:

> "If the diagnoses and treatment plans were discussed but not noted in the records, this is a moderate [to] severe departure from accepted practice. If there were no diagnoses and alternate treatment options/costs discussed at all, this is a severe departure from accepted practice … Treatment options, risks and costs must be documented and discussed. Failure to do these things would be viewed very poorly by our peers."

88. There are two conflicting accounts as to whether appropriate discussion occurred between Dr D and Ms A with respect to the proposed treatments. However, in view of both the lack of documented evidence of an adequate informed consent discussion (including a discussion of the treatment options, the risks and benefits, and the lack of clear evidence in support of early orthodontic treatment) and Ms A's recollection that such a discussion did not occur, I consider it more likely than not that Dr D did not discuss the above information with Ms A adequately, in a manner that would allow her to make an informed choice. Accordingly, I accept Dr McKeefry's advice that this represents a moderate to severe departure from accepted practice.

89. Right 6(1) of the Code of Health and Disability Services Consumers' Rights (the Code) stipulates:

> "Every consumer has the right to the information that a reasonable consumer, in that consumer's circumstances, would expect to receive, including — (a) an explanation of his or her condition; and (b) an explanation of the options available, including an assessment of the expected risks, side effects, benefits, and costs of each option; and

> … (e) any other information required by legal, professional, ethical, and other relevant standards …"

90. Right 7(1) of the Code states: "Services may be provided to a consumer only if that consumer makes an informed choice and gives informed consent."

91. In my view, and having regard to Dr McKeefry's advice and all of the evidence before me, a reasonable consumer in Ms A's circumstances (as the mother of the children for whom the treatment was to be provided) would expect to be informed that there was a lack of clear evidence supporting early orthodontic treatment, and of the clinical justifications for recommending the treatment plan despite the lack of clear evidence, the risks specific to the procedure, and details of alternative treatment options specific to both Miss B and Miss C.

92. I am concerned about the informed consent obtained by Dr D for the following reasons:

- Ms A cannot recall a discussion with Dr D about the risks and benefits of the proposed treatment, and there is no documentation in the clinical notes to suggest that such a discussion occurred; and
- The written documentation provided to Ms A does not present balanced information on the contentious nature of early orthodontic treatment, and the other treatment options available, and nor does it explain any of the risks and benefits specific to Miss B's and Miss C's proposed treatment.

93. Accordingly, I find that Dr D breached Right 6(1) of the Code, in respect of the care he provided to both Miss B and Miss C, for failing to provide Ms A with information that a reasonable consumer in Ms A's circumstances would expect to receive. It follows that without this information, Ms A was not in a position to give her informed consent to the treatments. Accordingly, I find that Dr D also breached Right 7(1) of the Code in both Miss B's and Miss C's cases.

Standard of documentation of treatment

94. Adequate documentation is an integral part of clinical practice, and the requirement for practitioners to keep clear and accurate clinical records is a fundamental obligation.[33] It is important that when undertaking treatment, practitioners thoroughly document in the clinical notes all assessments, diagnoses, treatment undertaken, progress, reasoning, recommendations, and discussions. The DCNZ Practice Standards (Standard 1) states:

> "You must create and maintain patient records that are comprehensive, time-bound and up to date; and that represent an accurate and complete record of the care you have provided."

[33] https://www.hdc.org.nz/media/5302/do-the-basics-right.pdf

95. I note that the DCNZ Professional Standards (10) also state: "You must maintain accurate, time-bound and up-to-date patient records."

96. Dr McKeefry advised:

> "The clinical record keeping falls significantly short of accepted practice … The rest of the clinical notes do not record any orthodontic progress apart from a couple of times stating how much the screws have been expanded by (although given there was no planned goal of amount of expansion this is not very useful). There are nowhere any comments about overjet, overbite, crowding, class of malocclusion, not even at the end of phase one treatment when the girls are placed in retainers … The lack of benchmarking measurements recorded before, during and after phase one treatment is a severe departure from accepted practice … Failure to do these things would be viewed very poorly by peers."

97. I agree with Dr McKeefry's advice. Miss B and Miss C's patient records are scant and lacking in detail.

98. Dr D had a responsibility to ensure that the clinical notes were robust and detailed to support his clinical view, and to ensure that the details of the treatment and subsequent consultations for both Miss B and Miss C were documented clearly. I am critical that he did not do so.

99. In my view, and for the reasons outlined above, Dr D's deficient clinical documentation represents a failure to meet the standards set out by his profession's regulatory body, DCNZ. Accordingly, I find that Dr D breached Right 4(2) of the Code.[34]

Oversight and communication by Dr D — adverse comment

100. Ms A was also concerned that Dr D was outsourcing treatment to non-specialist orthodontic auxiliaries, and that Dr D was not consistently present to monitor the treatment provided by the orthodontic auxiliaries, OHTs, and dental assistants.

101. The orthodontic auxiliary scope of practice is outlined by DCNZ as being a subset of dental hygiene practice that involves implementing orthodontic treatment plans prepared by dentists or orthodontists. DCNZ states: "Orthodontic auxiliaries practise under the direction of the dentist or orthodontist who is responsible for the patient's clinical care outcomes …"

102. Dr McKeefry was asked to comment on the appropriateness of Dr D's use of orthodontic auxiliaries, and she advised: "This is entirely appropriate and is a common practice amongst orthodontic specialists as well." I therefore accept that Dr D was not required to be present at every treatment appointment.

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

103. However, I also note Dr McKeefry's comment:

> "It seems that [Ms A] requested that [Dr D] be present at every treatment appointment and he states he was and so must have agreed to this. However, [Ms A] states he was not always there."

104. I also note that there was a "medical alert" on both Miss B's and Miss C's records stating that Dr D was to be present at all appointments (although it is not clear when the alerts were added).

105. While he was not required to, I accept that Dr D did agree to be present for all treatment appointments. I acknowledge Dr D's comments that he was present at every appointment. I also acknowledge the six staff statements provided by the dental service, which all state that Dr D was present at every appointment each staff member attended. However, the dental service advised that other staff who provided care to Miss B and Miss C had since left the dental service and were unable to provide information to HDC.

106. I also acknowledge the lack of documented evidence that Dr D was present at all appointments, and notes in the records such as "[Dr D] to review [next visit]" and "Please call him in" (which do not shed much light on the matter), and the treatment letter stating that Dr D may not be present at all appointments, and that one of Ms A's paramount concerns in her complaint to HDC was that Dr D was not always present to oversee the care provided to her daughters.

107. The evidence is clearly conflicted on whether or not Dr D was in fact present for all of Miss B and Miss C's appointments at the dental service. With the information available to me, I am unable to make a finding on whether or not Dr D was present at all appointments, and in what capacity.

108. However, it is clear that an agreement had been reached between Ms A and Dr D that he would be present at all of Miss B and Miss C's appointments, evidenced by the note in their clinical files. It is clear that over the course of the therapeutic relationship there was a breakdown in communication, and that Ms A's expectations were not well managed.

109. I encourage Dr D to reflect on the adequacy of his communication with Ms A in this regard and ensure that he manages patient expectations in the future. I also encourage Dr D to ensure that his clinical documentation accurately reflects his communication with his patients, to avoid a similar event occurring in the future.

Standard of treatment provided — no breach

110. Dr McKeefry considers that the treatment carried out on Miss B and Miss C was done with reasonable care and skill. I accept Dr McKeefry's comments in this regard and have no residual concerns regarding this aspect of the care provided.

Opinion: Dental service — adverse comment

111. As a healthcare provider, the dental service is responsible for providing services in accordance with the Code. I am concerned that several examples of inadequate record-keeping and provision of information reflect deficiencies at a practice level.

Provision of information and informed consent

112. The dental service had a standard "Orthodontic Treatment Letter" in place at the time of these events. I note Dr McKeefry's comments:

> "This appears to be a standardized letter that can be sent to any patient just with the addition of their name. These letters did not discuss specific presenting conditions, diagnoses, or specific treatment options. They did not discuss the risks, if any, of doing no treatment for each of the girls' specific situations."

113. There is no information in the Orthodontic Treatment Letter relating to early orthodontic treatment or orthotropics and its lack of evidence base that would educate consumers on the benefits and risks of undertaking such treatment and allow them to make a fully informed choice.

114. The only blank sections available on the page are for the insertion of the patient's name, and for the "active treatment phase" of the proposed treatment plan.

115. There is no section available on the form to insert the patient's diagnosis, or an explanation of specific risks, benefits, or other treatment options. The "Treatment alternatives" section is also generalised, and does not contain a section that can be customised to individual patients.

116. The risks that are outlined in the form are broad and are associated with general orthodontic treatment (not early orthodontic treatment). The form states:

> "Orthodontics is an elective procedure, therefore we want you to read the following information and ask us any questions you may have relating to the proposed orthodontic treatment … This is standard procedure in our office."

117. There is no space in the document that encourages or allows practitioners at the dental service to fill out risks specific to individual patients. There is also no wording in the form that would indicate that the patient could expect to receive a detailed explanation of risks, benefits, and diagnoses specific to their individual case.

118. For the above reasons, I am not satisfied that the dental service had adequate informed consent documents and information available for patients. Accordingly, I am concerned that the processes in place at the dental service were insufficient to support its practitioners to provide patients with adequate information and obtain informed consent to treatment.

119. I note that following these events, the dental service updated its policies and consent forms, including its "Orthodontic Treatment Letter", which now includes sections entitled "Clinical

Findings" and "Treatment Limitations". The dental service also developed an "Orthodontic Treatment Informed Consent Document", which outlines the importance of patients understanding the clinical findings, treatment plan, and "any limitations to treatment that were discussed during [the patient's] consultation". The document also refers patients back to the "Orthodontic Treatment Letter" discussed above.

Changes made

120. Dr D told HDC:

> "I accept that my written notes were not as substantial as they should be and as such I have made changes to my practice to ensure that this has been rectified."

121. Dr D said that he underwent two competence reviews with DCNZ in April 2018 and November 2020, where recommendations were made, including improving communication, written information, and informed consent. A follow-up with DCNZ in October 2021 confirmed that these recommendations had been actioned. Dr D also attended a course recommended by DCNZ called "Mastering Your Risk", which included training on informed consent and patient communication.

122. The dental service told HDC that following the events outlined in this report, it made the following changes to its practice:

- The matter was reflected on and discussed amongst staff, and clinicians have made changes to their note-keeping practices to ensure that more detailed and thorough notes are written.
- It amended its "Treatment Letter", "Informed Consent" document, and "Financial Agreement" document. The dental service provided HDC with the updated versions of these documents.

Recommendations

123. In light of the further training and changes made by Dr D as outlined in his response to the provisional opinion, I recommend that Dr D:

a) Provide a written apology to Miss B and Miss C's family for the failings identified in this report. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Miss B and Miss C's family.

b) Arrange for an external audit of a random sample of 20 patients to ensure that:

   i. adequate informed consent was obtained for the treatment; and

ii. the clinical documentation is of an appropriate standard, as stipulated in the DCNZ guidelines.

The results of the audit are to be provided to HDC within three months of the date of this report. If the audit does not identify 100% compliance, then Dr D is also to report back to HDC on what actions have been taken to address the issues.

124. I recommend that the dental service:

a) Develop and provide training to staff on clinical documentation and informed consent. Evidence of the training is to be sent to HDC within six months of the date of this report.

b) Develop a written information sheet (in conjunction with Dr D) containing information specific to early orthodontic treatment, particularly the risks, benefits, and lack of evidence to support this treatment. The dental service is to provide HDC with a copy of this document within three months of the date of this report.

c) Consult with the Dental Council of New Zealand to ensure that the dental service's updated informed consent forms and policies are consistent with Dental Council guidance. The dental service is to report back to HDC within six months of the date of this report with the outcome of that consultation.

Follow-up actions

125. 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 D's name.

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

Appendix A: Independent clinical advice to Commissioner

The following expert advice was obtained from general dentist Dr Angela McKeefry on 29 September 2020:

"**Involved Parties**

I have been asked to provide an opinion to the Commissioner on case numbers C20HDC00309 & C20HDC00314 and have read and agree to follow the Commissioner's Guidelines for Independent Advisors, and that you are not aware of any conflicts of interest.

Complainants: [Miss B] and [Miss C]

Dentist: [Dr D] at [the dental service]

Date: 17 September 2020

Independent Advisor: Dr Angela McKeefry (BDS)

My Qualifications and Training

- Bachelor of Dental Surgery (Otago) 1993
- Fellow of the International College of Continuing Dental Education (In Orthodontics)
- Certified Invisalign provider
- Certified Inman Aligner provider
- Certified '6 Months Braces' provider
- Graduated from the Progressive Orthodontic Seminars (POS) 2-year course with Highest Honours (having started over 50 cases during the course)
- Graduated from the Advanced POS Series — orthognathic surgical, skeletal anchorage and growth cases
- Completed one year of a two year Masters in Specialised Orthodontics (Germany)
- Have been a general dentist doing a wide scope of dental procedures in the same practice since January 1994
- Have served on several dental committees over my career including running the Wellington branch of the recent graduate program for several years.

Instructions from the Commissioner
Thank you for agreeing to provide expert advice to the Health and Disability Commissioner (the Commissioner). The Commissioner is seeking your opinion on the care provided by [Dr D] at [the dental service] to sisters [Miss B] and [Miss C] from May 2017 to August 2019.

Advice Requested

Please review the enclosed documentation and advise whether you consider the care provided to [Miss B] and [Miss C] by [Dr D] was reasonable in the circumstances, and why.

I would ask that you attempt to mimic your usual working practice when you review any images, for example in respect of the amount of time you would typically spend.

In particular, please comment on:

1. Whether all reasonable treatment options were discussed with the family prior to the fitting of plates in June 2017.
2. Whether [Dr D's] proposed treatment (removable orthodontic plates and partial braces) was appropriate in the circumstances, and whether there was adequate discussion with the family of the costs, risks, and benefits of [Dr D's] approach.
3. Whether it appears that the treatments and monitoring carried out by [Dr D] on [Miss B] and [Miss C] were done with reasonable skill and care.
4. The appropriateness of [Dr D] using registered orthodontic auxiliaries to assist him with orthodontic procedures, under his supervision.
5. The adequacy/appropriateness of [Dr D's] communications with the family, both during the period [Miss B] and [Miss C] were under his care, and after the therapeutic relationship ceased.
6. The adequacy of [Dr D's] clinical record keeping.
7. Any other matters in this case that you consider warrant comment or amount to a departure from the expected standard of care or accepted practice.

For each question, please advise:

a. What is the standard of care/accepted practice?
b. If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?
c. How would it be viewed by your peers?
d. Recommendations for improvement that may help to prevent a similar occurrence in future.

If you note that there are different versions of events in the information provided, please provide your advice in the alternative. For example, whether the care was appropriate based on scenario (a), and whether it was appropriate based on scenario (b).

Information Reviewed

1. Letter of complaint dated 13 February 2020
2. Response from [the dental service] regarding [Miss B] dated 12 June 2020

3. Response from [the dental service] regarding [Miss C] dated 12 June 2020
4. Clinical records from [the dental service] for [Miss B] covering the period May 2017 to August 2019
5. Clinical records from [the dental service] for [Miss C] covering the period May 2017 to August 2019
6. Communications between [Ms A] and [Dr D] from November to December 2019
7. Panex (OPG) radiograph provided by [Dr E]
8. Scientific studies cited in the references section
9. Treatment letter from [the dental service] regarding [Miss B] dated 19 May 2017
10. Treatment letter from [the dental service] regarding [Miss C] dated 19 May 2017
11. Signed documents from [the dental service] regarding [Miss B] dated 12 June 2017
12. Signed documents from [the dental service] regarding [Miss C] dated 12 June 2017

Summary of the Facts

19/05/17
[Miss B] and [Miss C] and their Mum attend orthodontic consultations with [Dr D]
16/06/17
Both girls are fitted with orthodontic plates
22/08/18
[Miss C] fitted with partial braces
12/11/18
Likely this is the day that [Miss B] was fitted with partial braces (assume clinical notes saying 'Braces OFF' is a mistake and meant to read 'Braces ON' — this assumption has been confirmed by [the dental service])
20/11/18
[Miss C's] braces removed and upper retainer fitted
05/06/19
[Miss B's] braces removed and retainers fitted
Late August 2019
Both girls have a review appt at separate times with [Dr D]
October 2019
Both girls have a consultation with [Dr E] (orthodontist)

HDC Questions

1. **Whether all reasonable treatment options were discussed with the family prior to the fitting of plates in June 2017.**

It is impossible to say what was discussed with the family regarding treatment options as the clinical notes do not specify what was discussed or agreed upon.

In [Dr D's] email communication with [Miss B] and [Miss C's] Mum he states: 'When you first brought [Miss B] and [Miss C] to see us you had researched early orthodontic treatment. We discussed doing their treatment in 2 phases. The first phase was to make room for all the adult teeth and align the front teeth. The second phase was full braces once all the adult teeth had come through. The goal of this 2-phase treatment approach

is to minimise the amount of treatment required as a teenager and to reduce the need for adult teeth extractions.'

In the treatment letters dated 19 May 2017 there is a standardised comment about treatment options which states:

TREATMENT ALTERNATIVES
For the majority of patients orthodontic treatment is an elective procedure.
One possible alternative to orthodontic treatment is no treatment at all. Other alternatives to the proposed treatment could include:

- Referral to a Specialist Orthodontist for assessment and treatment.
- Adult tooth extraction treatment.
- Jaw [Orthognathic] surgery to align the jaws.

There are no comments in the treatment letters or the clinical records detailing specific treatment alternatives and/or likely outcomes of doing no treatment tailored to their individual cases.

- **What is the standard of care/accepted practice?**
  - All options should be openly and honestly discussed with the patient

- **If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?**
  - If the individualised options were discussed but not noted in the records, this is a moderate departure from accepted practice. If the individualised options were not discussed at all, this is a severe departure from accepted practice.

- **How would it be viewed by your peers?**
  - To have less than perfect clinical documentation would be frowned upon, but it can happen from time to time in busy practices. To not discuss all the options would be viewed very poorly.

- **Recommendations for improvement that may help to prevent a similar occurrence in future.**
  - Perhaps attendance at a clinical record keeping course and an informed consent/communication course.

2. Whether [Dr D's] proposed treatment (removable orthodontic plates and partial braces) was appropriate in the circumstances, and whether there was adequate discussion with the family of the costs, risks, and benefits of [Dr D's] approach.

A. The appropriateness of the treatment is a subject for extreme debate around the world in orthodontic circles.

PS Fleming states in The Australian Dental Journal 2017, 'In terms of effectiveness, however, broadly speaking early intervention has not been shown to be superior to later intervention. As such, in view of the additional burden and duration of early

intervention, the weight of evidence points to reserving early treatment for localized problems and specific situations with definitive treatment typically initiated in the late mixed or early permanent dentition.'{1}

There is evidence based justification for expansion in the mixed dentition in the cases of:

- Crossbite (widely accepted amongst all areas of the profession)
- Nocturnal enuresis (bed wetting) (Timms 1990 {2})
- Potential ectopic (impacted) canines (Baccetti et al 2009 {3})
- Sleep apnoea (Pirelli et al 2004 {4})

In [Dr D's] response letter to HDC he states the presenting conditions for [Miss B] as:

1. Constricted dental arches
2. Impacting 23 tooth
3. Deep bite
4. Loss of space for the 12 and 22 teeth
5. Loss of space and crowding of the lower adult incisors
6. Class 1 molar positions

Rationale for Treatment:

To treat the constricted dental arches, address the crowding of the upper and lower anterior teeth, and to make room for the impacting canine tooth.

Author's comments re [Miss B]:

- It is unfortunate that these presenting conditions and rationale for treatment are not stated in the clinical notes
- Stating there are constricted dental arches in the absence of crossbite is subjective
- The clinical photos do not show a deep bite but rather a clear average bite
- The impacting upper left canine tooth gives a potential reason to treat [Miss B] in the mixed dentition (Baccetti et al 2009 {3}). In this study, successful eruption of the canines was achieved in 65% of the treated group (32 subjects) vs 13% in the non-treated group (22 subjects). I note however this study was limited to palatal positioned canines. [Dr D] does not identify anywhere if [Miss B's] canine is located on the palatal or the buccal. This is generally a standard position to note when treating an impacted canine and iCat scans were done.
- With regard to [Dr D] treating to address the crowding; there does not appear to be any strong evidence base to treat in the mixed dentition for this purpose. That is not to say it won't help, just that reports stating treating in the mixed dentition helped alleviate crowding were unable to control for intercanine width as this widens during this time without any treatment (Bishara et al 1997 {5}).

In [Dr D's] response letter to HDC he states the presenting conditions for [Miss C] as:

1. Constricted dental arches
2. Mandibular centre line 2mm left of centre
3. Open bite tendency
4. Upper diastema with potential frenum involvement
5. Rotated 11, 21 and 22 teeth.
6. Loss of space for the 12 tooth.
7. Loss of space for the lower adult incisors
8. Class 1 molar positions

Rationale for Treatment:

To treat the constricted dental arches and to address the crowding of the upper and lower anterior teeth.

Author's comments re [Miss C]:

- It is unfortunate that these presenting conditions and rationale for treatment are not stated in the clinical notes
- Stating there are constricted dental arches in the absence of crossbite is subjective
- A slight open bite in the mixed dentition phase of dental development is a common finding and often corrects itself as the teeth continue erupting (Fleming 2017 {1})
- Upper diastema is normal and in fact desirable at this stage of dental development as it gives space to the erupting canines
- With regard to [Dr D] treating to address the crowding; there does not appear to be any strong evidence base to treat in the mixed dentition for this purpose. That is not to say it won't help, just that reports stating treating in the mixed dentition helped alleviate crowding were unable to control for intercanine width as this widens during this time without any treatment (Bishara et al 1997 {5})

- **What is the standard of care/accepted practice?**
  - That treatment provided is backed by sound scientific evidence generally found in well regarded peer reviewed literature.
  - That all options are explained and offered even if this involves referral to another practitioner who can provide it and in fact no treatment at all.

- **If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?**

  Given [Miss B's] potentially impacting upper left canine tooth, a case for treatment can be made. The treatment provided was not wrong, but was it necessary/helpful? This is what Sunnak et al wrote in J Dent 2015, 'The results suggest a lack of evidence to prove that early treatment carries additional benefit over and above that achieved with treatment commencing later; however, this does not necessarily imply that

early treatment is ineffective. Further high quality trials are required to assess the effectiveness of early treatment compared to later intervention.' {6} In [Miss C's] case there is less evidential support for treatment as she did not have a potentially impacting canine.

Performing unnecessary treatment is a severe departure from accepted practice standards. However, there is great debate around this topic and arguments can be made for and against. There is certainly wide support for treatment in the mixed dentition but the evidence backing this is quite limited and there is a need for more quality scientific trials in this area.

- **How would it be viewed by your peers?**

Some peers would view it as reasonable treatment and others would see it as unnecessary and view accordingly. I think many peers would accept there are two schools of thought at play here and a lack of sound clinical evidence to either support or detract from treating.

- **Recommendations for improvement that may help to prevent a similar occurrence in future.**

Absolutely ensuring the patient has ALL the facts and even appropriate literature on both sides so they can make up their own mind without being swayed one way or the other by the practitioner.

B. Was there adequate discussion around costs, risks, and benefits by [Dr D] with the family? The family was provided with costs and standardized risks of treatment by letter after the initial consultations. The treatment letters do not detail treatment options for [Miss B] and [Miss C] specifically tailored to their cases.

- **What is the standard of care/accepted practice?**
  - All options, risks and costs should be openly and honestly discussed with the patient and this detailed in the clinical notes.

- **If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?**
  - If the various treatment options were discussed but not documented, then this is a moderate departure from the accepted standard of care. If the various treatment options were not discussed at all then this would be a severe departure from the accepted standard of care.

- **How would it be viewed by your peers?**
  - To have less than perfect clinical documentation would be frowned upon, but it can happen from time to time in busy practices. To not discuss all the options would be viewed very poorly.

- **Recommendations for improvement that may help to prevent a similar occurrence in future.**
  - Perhaps attendance at a clinical record keeping course and an informed consent course.

3. Whether it appears that the treatments and monitoring carried out by [Dr D] on [Miss B] and [Miss C] were done with reasonable skill and care.

Yes, I think they were carried out with reasonable skill and care.

4. The appropriateness of [Dr D] using registered orthodontic auxiliaries to assist him with orthodontic procedures, under his supervision.

This is entirely appropriate and is a common practice amongst orthodontic specialists as well.

5. The adequacy/appropriateness of [Dr D's] communications with the family, both during the period [Miss B] and [Miss C] were under his care, and after the therapeutic relationship ceased.

There are significant questions around the early communications about options and therefore, informed consent. It is not clear if these happened or not and they certainly were not documented in the clinical notes (as discussed above), although I have now been provided with documents given to the family detailing costs, risks of treatment and a broad indication of other ways to treat orthodontic patients in general, but nothing specific to [Miss C] or [Miss B]. With regards the communications during treatment, this is also hard to comment on. It seems that [Miss B] and [Miss C's] Mum ([Ms A]) requested that [Dr D] be present at every treatment appointment and he states he was and so must have agreed to this. However, [Ms A] states he was not always present, and it seems from the clinical notes there were times she wanted to speak to him and he wasn't there. [Ms A] also states that [Dr D] walked out part way through a sentence she was speaking, and I see nowhere that he refutes this. This is poor behaviour and inappropriate for a dentist communicating with his patient's parent (though in the interests of fairness, perhaps he did not hear her?). Communications after the therapeutic relationship ceased seem to have been acceptable and prompt.

6. The adequacy of [Dr D's] clinical record keeping

The clinical record keeping falls significantly short of accepted practice.

- At the initial consultation (which is the only time [Dr D] saw [Miss B] and [Miss C] prior to them having the plates fitted) there was no mention of the patients' chief concerns (presenting complaint) or of the normal orthodontic markers that would be assessed eg what type of malocclusion, how much overjet and overbite ([Miss C's] notes did say open bite, but no measurement of how much, although it can be seen in the photos this was very minimal), how much crowding or spacing. The notes do not detail options, risks, costs.

- There is no entry at all about taking clinical records for assessment and planning. There have been photos and an x-ray provided with the date 19 May 2017, but there is no record in the clinical notes of this being done at [the dental service]. [The dental service] have since confirmed that they did collect these records in the practice on 19 May. I have not seen any study models or digital scans, so were these even taken (which is usual practice)?

- There is no recording in the clinical notes of any sort of informed consent process and in fact it seems that the patients had no appointments or discussions with the practice between the orthodontic records being collected (as complete or incomplete as they may be) and the plates being fitted. Though I note a treatment letter was sent to each of the girls after the initial consultation. This appears to be a standardized letter that can be sent to any patient just with the addition of their name. These letters did not discuss specific presenting conditions, diagnoses, or specific treatment options. They did not discuss the risks, if any, of doing no treatment for each of the girls' specific situations. The letters covered general risks of orthodontic treatment and lack of patient compliance.

- The rest of the clinical notes do not record any orthodontic progress apart from a couple of times stating how much the screws have been expanded by (although given there was no planned goal of amount of expansion this is not very useful). There are nowhere any comments about overjet, overbite, crowding, class of malocclusion, not even at the end of phase one treatment when the girls are placed in retainers. There is also no 'end of phase one' OPG radiograph taken (although arguments can be made for and against this with regards exposure to extra radiation).

- **What is the standard of care/accepted practice?**

Here is what the New Zealand Dental Association states in their Code of Practice on Informed consent:

It is essential that clear, accurate contemporaneous written records are made of informed consent discussions. Records should include information regarding the problem(s), the treatment option(s), the risks, the costs, and the option to which the patient has consented. In the presence of written patient records of the informed consent process it is not necessary to obtain informed consent in writing except in the following circumstances.

Written consent required:

— If the patient is to participate in any research,

— If the procedure is experimental

— If the patient will be under general anaesthetic, or

— If there is significant risk of adverse effects on the consumer.

Dental practitioners may consider obtaining written consent and providing a patient with a copy of this in situations where the treatment is complex, protracted, costly and/or as a reminder of the expectations and obligations of both parties. Written consent can be a useful adjunct to the clinical record notes should issues regarding the treatment be raised in the future. Written consent requires the signature of the patient or authorized person.

Codes of practice potentially breached (from the Dental Council's Standards Framework for Oral Health Practitioners):

1. You must ensure the health needs and safe care of your patients are your primary concerns
10. You must maintain accurate, time bound and up to date patient records
13. You must communicate honestly, factually and without exaggeration
16. You must ensure informed consent remains valid at all times.

- **If there has been a departure from the standard of care or accepted practice, how significant a departure do you consider this to be?**
  - If the diagnoses and treatment plans were discussed but not noted in the records, this is a moderate–severe departure from accepted practice. If there were no diagnoses and alternate treatment options/costs discussed at all, this is a severe departure from accepted practice.
  - The lack of benchmarking measurements recorded before, during and after phase one treatment is a severe departure from accepted practice.

- **How would it be viewed by your peers?**
  - Among the dental profession it is accepted that a diagnosis, documented issues/ measurements all be recorded. Treatment options, risks and costs must be documented and discussed. Failure to do these things would be viewed very poorly by our peers.

- **Recommendations for improvement that may help to prevent a similar occurrence in future.**
  - Perhaps attendance at a clinical record keeping course and an informed consent course

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Further expert advice was received from Dr McKeefry on 16 June 2021 following her review of further information received from [the dental service] and [Dr D]:

"I have read the responses from [Dr D] and [the dental service] (along with their applicable staff statements). It is pleasing to see they have instituted better record keeping procedures.

I note the receipt of the pre-treatment study models from the practice which is great to show these were collected prior to treatment planning. There is nothing else that leads me to change or add to my original report dated Sept 2020."

Further expert advice was received from Dr McKeefry on 11 February 2022 following her review of [the dental service's] clinical documentation policy:

"It is always the clinician's responsibility to keep accurate, appropriate time bound notes/records. This is part of all of our degrees and is spelt out in the New Zealand Dental Association's Codes of Practice. As such, I don't think it is common for a practice to have its own policy. All the clinicians must work within the accepted Code of Practice.

I note that the 'Records Policy' attached is an almost exact copy of the NZDA Code which it has on its website. So I would say it is sufficient (if adhered to)."