

A Decision by the Deputy Health and Disability Commissioner (Case 20HDC01779)

Key events	2
Relevant legislation and guidance	8
Responses to provisional opinion	9
Opinion: Department of Corrections — breach	10
Opinion: Dr B — adverse comment	13
Opinion: Health NZ — other comment	14
Changes made since events	14
Recommendations	16
Follow-up actions	17
Appendix A: In-house clinical advice to Commissioner	18

- This report is the opinion of Dr Vanessa Caldwell, Deputy Health and Disability Commissioner, and is made in accordance with the power delegated to her by the Commissioner. The report concerns a complaint from Mr A about care he received at a prison operated by the Department of Corrections Ara Poutama Aotearoa (Corrections), in 2019 and 2020.
- 2. Mr A complained that Corrections failed to provide him with the appropriate standard of health care when he began to experience health problems, including hearing issues, in August 2019. Mr A stated that prison staff did not listen to his concerns about his symptoms properly and took nine months to arrange a specialist appointment for him, by which time he had become profoundly deaf in his left ear.¹
- 3. The following issue was identified for investigation:
 - Whether the Department of Corrections provided Mr A with an appropriate standard of care between August 2019 and November 2020 (inclusive).

¹ A person with profound hearing loss will not hear any speech and will hear only very loud sounds.



- 4. This report sets out the Deputy Commissioner's opinion on the adequacy of the care Mr A received from Corrections.
- To assist in the assessment of the standard of care provided, HDC sought in-house clinical advice from Dr David Maplesden, a general practitioner (GP). Dr Maplesden's advice is attached in full as Appendix 1, and specific aspects of his advice are referred to throughout the opinion.

Key events

August 2019

- 6. Mr A told HDC that he started to feel unwell and experience problems with his left ear around 15 August 2019.
- On 25 August 2019, a custodial staff member contacted the prison's health centre to advise that Mr A (aged in his fifties at the time) had complained of dizziness. A registered nurse assessed Mr A, who reported that he had felt giddy and had a blocked left ear and a faint, ringing sound in that ear. The nurse documented (in Mr A's electronic health centre records) that earwax was 'covering the canal, no infection or discharges, no malodorous odour on the ear'. Mr A was advised that his balance may have been affected by his 'ear issue', and an appointment was booked for him to see an ear hygienist.
- 8. Corrections told HDC that patients presenting with acute unilateral sensorineural hearing loss³ now 'would be added to a recently developed clinical assessment resource developed for [its] frontline nursing staff'. Corrections said that acute unilateral sensorineural hearing loss 'needs urgent Medical Officer review (not ear hygiene) and acute [otorhinolaryngology (ORL)]⁴ referral usually by talking to an [ORL] registrar on the telephone'.

September 2019

9. On 11 September 2019, an ear nurse specialist⁵ held an ear hygiene clinic at the prison and saw Mr A. Mr A was documented as having a moderate amount of earwax in his right ear, which was removed, but minimal wax in his left ear. Mr A reported that he had poor hearing

HXC

² Known as tinnitus.

³ Acute unilateral sensorineural hearing loss is the sudden loss of hearing in one ear, which occurs over a period of up to 72 hours. The hearing loss can vary in severity and may be temporary or permanent. Other symptoms may include distortion of sounds in the affected ear, tinnitus, a blocked or full feeling in the ear, imbalance or dizziness, and nausea/vomiting.

⁴ An otorhinolaryngologist is a specialist in medical and surgical treatment of ear, nose, and throat conditions. Otorhinolaryngology was previously more commonly known as ear, nose, and throat (ENT) surgery.

⁵ The clinic visits the prison periodically to provide wax removal services.

in his left ear and felt dizzy when lying on his left side. The ear nurse noted '[query] labyrinthitis⁶ or BPPV⁷'.

- On 12 September 2019, the day after his ear hygiene appointment, Mr A submitted a 'Request for health services form' (known as a health 'chit') to staff. Mr A asked for help, saying that he still could not hear from his left ear and felt dizzy, unbalanced, and 'seasick'. On receipt of the chit, a health centre physiotherapist made a booking for Mr A to see a doctor, noting that 'ear suction did not help'.
- On 13 September 2019, Mr A was reviewed by Dr B, a medical officer (MO). Dr B carried out an examination and took a history from Mr A, documenting that his left ear had felt blocked for around three weeks. Mr A reported decreased hearing on the left, decreased balance, moderate vertigo (dizziness) with head movements/change in position, and repeated clicking or ringing sounds with position changes. Mr A also reported being unable to walk in a straight line or run on the spot and had fallen in his cell twice.
- Dr B's assessment was 'peripheral vertigo, possibly Meniere's⁸ as has decreased hearing, positional change and tinnitus'. Mr A refused blood tests or amitriptyline medication,⁹ but agreed to take an alternative medication, prochlorperazine, for vertigo, nausea, and vomiting. Dr B documented that he would refer Mr A to the ORL service and Audiology services at the public hospital but did not mention providing Mr A with safety-netting advice about follow-up or what to do if he had any problems in the meantime. Corrections told HDC that Dr B's review of Mr A was thorough but should have included safety-netting to review Mr A in two weeks' time if he had not improved.
- 13. Mr A told HDC that he does not recall being seen or assessed by Dr B and recollects being seen by the ear nurse specialist and the clinic's nursing staff only.

First ORL referral — 13 September 2019

A copy of Dr B's referral to the ORL service appears in Mr A's records. In it, Dr B described Mr A's 'troubling' symptoms as recorded in his notes, his physical examination, and the current plan, and asked ORL to evaluate Mr A. There is no entry in Mr A's health centre notes, as there is for his other referrals, to show that this referral was faxed to the ORL service. At the time, the prison's referral system was paper-based and external referrals were sent by fax. The public hospital is operated by Health New Zealand | Te Whatu Ora

HXC

⁶ Inflammation of part of the inner ear called the labyrinth, which can cause a feeling of spinning (vertigo), hearing loss, and other symptoms.

⁷ Benign paroxysmal positional vertigo (BPPV) is an inner ear disorder where changes in head position can lead to sudden vertigo.

⁸ Symptoms of this inner ear disease can include dizziness, hearing loss, tinnitus, and pressure in the ear.

⁹ Mr A told HDC that he refused because of a phobia of needles and having suffered side effects from amitriptyline previously.

(Health NZ) Waitaha Canterbury. 10 Health NZ told HDC that its ORL service had no record of receiving Dr B's referral of Mr A.

- 15. Corrections was unable to confirm that the referral was faxed to the ORL service, as its records show only that Dr B wrote Mr A's referral in the health centre's MedTech electronic health record. Corrections said that the referral should then have been given to an administration support officer (ASO) to send by fax. The ASO should then have entered a reminder in MedTech to ensure that the referral was followed up in a given timeframe (typically a fortnight) and entered the referral information in a tracking spreadsheet. This process was described broadly in section 3.19 of the health centre's Local Operating Manual (LOM)¹¹ concerning referrals to external healthcare providers.
- 16. Corrections stated that in this case, the referral was neither recorded in MedTech to prompt a reminder nor added to the tracking spreadsheet (both tasks that would be carried out by an ASO). As a result, Dr B and the registered nurses at the health centre would not have been aware that the referral had not been actioned. Corrections also noted that it was 'not unusual for months to pass before being notified of an appointment' following a specialist referral.
- 17. Corrections told HDC that it was likely that the hard-copy referral was misplaced and not given to the administrator to forward on (Corrections did not advise how this conclusion was reached). Corrections stated that it was working to resolve barriers to the implementation of an electronic referral system, and it would develop a system to ensure that specialist referrals are tracked and followed up so that patients are seen in an appropriate timeframe. The electronic referral process would also improve the blank MedTech template that was being used, by ensuring that sufficient detail was provided in referrals.
- Mr A submitted a chit dated 20 September 2019, on which he stated: 'I still have the same symptoms. Unbalancing, dizz[i]ness and still no hearing in my left ear yet.' A copy of the chit itself appears in Mr A's records, but it is not shown as being received in his electronic health record. Corrections did not refer to this chit in its responses to HDC.

October 2019

19. Mr A submitted chits on 10 October 2019 and 16 October 2019 asking whether his ORL appointment had been booked. On 17 October 2019, a nurse documented that Mr A had submitted a chit about his ORL appointment and noted: '[P]lan email to admin to follow up, letter to explain sent.' The nurse's letter to Mr A appears in his records and states that an administrator was asked to follow up about his ORL appointment. There is no evidence that the referral was followed up.

HXC

19 June 2024

¹⁰ Previously known as Te Whatu Ora|Health New Zealand Waitaha Canterbury or the Canterbury District Health Board.

¹¹ The version that applied at the time of the events.

In a statement to Corrections, the nurse described the letter sent to Mr A and did not mention taking any action to follow up on the referral. Corrections told HDC that 'it does not appear that any actions were taken to follow up the September 2019 referral until February 2020 ... likely due to the [MedTech] recall not being set up'.

November 2019

- On 6 November 2019, Mr A saw the ear nurse again. It appears that the appointment was a routine follow-up to his previous ear hygiene appointment. The ear nurse documented that Mr A had a moderate amount of wax removed from his right ear, with a small amount of ear wax removed from his left ear. The ear nurse also noted that Mr A said that he had 'no hearing' in his left ear and was waiting to see the specialist.
- Mr A told HDC that he had lost all hearing in his left ear by the time he attended this appointment. He recalled having a third ear hygienist appointment subsequently, and said he was frustrated that he had the two additional appointments given that the first ear hygienist appointment did not improve his symptoms.
- In a statement to Corrections, Dr B said that 'it was not expected that a second hygienist appointment would resolve [Mr A's] symptoms'. Dr B suggested that the second ear clinic appointment may have been booked accidentally.

February 2020

- On 20 February 2020, a custodial staff member contacted the health centre to advise that Mr A had been experiencing dizzy spells, migraines, and feeling off balance since August 2019. A nurse saw Mr A, who reported that he 'almost fell over in the kitchen', his migraines were '[left] side of forehead eye etc', and he had lost the hearing in his left ear. Mr A was noted to be 'very concerned' about his hearing loss and dizzy spells. He was booked on the doctor's list for 26 February 2020.
- 25. On 25 February 2020, Mr A submitted another chit stating: 'I would like to see the doctors concerning my left ear/I've been deaf now for six months and still nothing has been done about it.' A nurse spoke to Mr A on the telephone, at which time he again complained of migraines, nausea, and dizziness. A note was made for the doctor to consider prescribing some pain relief for Mr A.
- On 26 February 2020, Dr B reviewed Mr A's records and spoke to the nurse who had seen Mr A the previous day. Dr B noted that since August 2019, Mr A had reported migraines, which he had not suffered previously, decreased hearing, and unsteadiness. Dr B documented that he would refer Mr A to ORL and a private audiology service and ask that he be reviewed by a medical officer in clinic 'as [query] central lesion needs to be considered given [his] ongoing symptoms'. Corrections told HDC:

'[I]t would have been appropriate for [Dr B] to review Mr A before a referral was sent. It is likely that if this had happened, the assessment would have contributed more

information to the referral, which would better support [Health NZ's referral] triage process.'

Second ORL referral — 26 February 2020

A copy of Dr B's ORL referral of 26 February 2020 appears in Mr A's notes and is shown as having been faxed to the ORL service two days later. Dr B included most of the information about Mr A's presentation from his previous ORL referral, adding:

'[G]iven that his symptoms have not improved, and he is now requiring medication for headaches, I would appreciate your input and possible endorsement for studies to evaluate for a space occupying lesion.'

- 28. Dr B said that he used bold type for that sentence to indicate that the request was urgent.
- Health NZ said that general practitioners are expected to follow the guidance on HealthPathways, which states that the first step in relation to hearing loss is to arrange audiometry (a hearing test) for the patient. Health NZ stated that referrals that lack an audiogram, ¹² as Dr B's did, would often be refused, but his referral was accepted as low priority, as referrals for hearing loss generally are.

March 2020

30. On 2 March 2020, Mr A submitted a chit that stated:

'I am wondering when I'm going to see the doctor. I put in a medical chit last week concerning deafness in my left ear. I've had now for seven month[s]. And still nothing has been done. Why — that's a real concern?'

- A nurse responded to Mr A by letter, advising him that he had been referred to ORL and they were awaiting a reply from the hospital.
- On 5 March 2020, Corrections was notified that an ORL appointment had been scheduled for Mr A on 12 May 2020. Health NZ told HDC that the ORL service would normally see a low priority referred patient, as was Mr A, within 120 days of referral. Mr A's appointment date was 76 days after the second referral of 26 February 2020. Mr A was not informed that his ORL appointment had been booked (as is required by section 3.19 of the health centre's LOM).
- On 18 March 2020, Mr A submitted another chit concerning his symptoms, which stated: 'I'm still getting constant headaches and migraines on the left side of my head. Causing me a lot of discomfort. Could you please address this.' A nurse documented that Mr A had been placed on the doctor's list at the request of Dr B.

HXC

19 June 2024

¹² A chart that displays the results of a hearing test, showing how well a person hears frequency (high or low pitch) and intensity (loudness) of sounds.

On 19 March 2020, Dr C saw Mr A in the health centre. Dr C noted Mr A's ongoing complaints of left-sided headache and left-sided hearing loss, and that his sleep was poor and he was stressed. Dr C was concerned about the possibility of an acoustic neuroma ¹³ and documented that he would refer Mr A for a CT scan and request that his ORL appointment be brought forward.

Request to ORL — 19 March 2020

- Dr C's letter to ORL requested that Mr A be seen sooner than 12 May 2020, on the basis that his 'hearing loss seems profound' and he was concerned about an acoustic neuroma. This letter, along with Dr C's CT referral, is recorded as having been faxed to the ORL service on 19 March 2020. The ORL service declined to see Mr A earlier. Health NZ stated that there was no audiogram or new information included with Dr C's request to indicate that a change of priority was needed. Ultimately the CT scan was not required as Mr A went on to have an MRI scan under ORL.
- 36. On 24 March 2020, Mr A was seen by a nurse after custodial staff reported that he was unwell. Mr A said that he was still having migraines, for which he needed pain relief, but he was documented to be well otherwise.

ORL appointment — 12 May 2020

On 12 May 2020, Mr A saw Dr D at the ORL outpatient clinic at the hospital. Dr D noted that Mr A's previous vertigo and balance issues had resolved, as had his headaches. Dr D stated, however, that an audiogram performed at the hospital that morning had demonstrated that Mr A had 'profound hearing loss' on his left side and some high-frequency hearing loss on the right side. Dr D said that he explained to Mr A the wide range of possible causes of that degree of hearing loss. He arranged for Mr A to have an MRI scan to exclude a possible acoustic neuroma and noted that Mr A would be seen again in three months' time.

July 2020

- Mr A underwent an MRI scan on 6 July 2020. The results, reported on the same day, were normal and showed no evidence of a tumour. The results were not provided to Mr A at that time. Health NZ told HDC that the ORL service had since realised that it failed to send Mr A or his GP (in the prison's health centre) a clinic letter with the results of his scan. Health NZ wrote to Mr A retrospectively on 8 June 2021 with the results of the MRI, confirming his diagnosis of 'left sudden sensorineural hearing loss of unknown [cause]'.
- Mr A's electronic notes show that he submitted a chit on 27 July 2020 requesting his MRI results (the chit itself is not in the records provided to HDC). A nurse documented that the MRI results were not available on MedTech, and the result would therefore be requested from the doctor and the ORL service. Health NZ told HDC that 'the results would ... have been available to any medical practitioner on [Mr A's] electronic medical file'.

¹³ A benign tumour originating from the vestibular nerve connecting the inner ear to the brainstem, which can cause hearing loss, imbalance, tinnitus, dizziness, and facial numbness.



August 2020

- On 3 August 2020, Mr A's lawyer wrote to the prison to request an update about the 40. management of Mr A's medical issues. The lawyer said that Mr A had not been updated and was 'significantly unwell' with poor hearing and migraines.
- On 7 August 2020, Dr B obtained the results of Mr A's MRI and wrote to him to advise that 41. it was a normal examination and there was no evidence of a tumour.
- On 14 August 2020, the health centre manager wrote to Mr A with an update in response 42. to his lawyer's letter. The manager apologised to Mr A for the health centre's delay in receiving the result of his MRI, which she said was outside the prison's control.

December 2020

Corrections told HDC that the acting health centre manager met with Mr A in early 43. December 2020 to discuss his concerns. The acting manager 'acknowledged the difficult times [Mr A] has experienced' and apologised on behalf of Corrections. Mr A told HDC that he did not accept this apology and wrote to the acting manager to confirm that on 15 January 2021. His letter stated that he planned to pursue action against Corrections for 'incompetent medical care ... which has resulted in having permanent hearing loss'.

Relevant legislation and guidance

The standard of health care that Mr A was entitled to while in prison is set out in section 75 of the Corrections Act 2004 (the Act), which states:

'Medical treatment and standard of health care

- 1) A prisoner is entitled to receive medical treatment that is reasonably necessary.
- 2) The standard of health care that is available to prisoners in a prison must be reasonably equivalent to the standard of health care available to the public.'
- The relevant clinical guidance for the assessment, management, and referral of adults with hearing loss, such as Mr A, is set out on HealthPathways Canterbury (HealthPathways). 14 Pertinent to this complaint, the guidance directs health practitioners to take the following actions:
 - Establish whether the hearing loss is sudden (within the last 72 hours) or long-standing (present for more than 72 hours).
 - Establish whether the hearing loss is conductive (sound not reaching the inner ear) or sensorineural (from damage to the auditory nerve or hair cells of the inner ear).

¹⁴ HealthPathways is an online resource that provides the main source of assessment, management, and referral information about Canterbury health services for general practice teams and other community healthcare providers.

- If idiopathic¹⁵ sudden onset sensorineural hearing loss is suspected, telephone the acute ORL registrar at the hospital for advice on treatment and assessment.
- Arrange audiometry for long-standing hearing loss, and urgent audiometry for sudden onset hearing loss.
- Unless a tumour or cholesteatoma¹⁶ with facial palsy or vertigo is suspected, request a non-urgent ORL assessment and include community audiogram results.

Responses to provisional opinion

Corrections

A copy of the provisional opinion was provided to Corrections for comment. Corrections told HDC that it acknowledged the background to Mr A's complaint and accepted the proposed recommendations.

Dr B

- Dr B was provided with a copy of the sections of the provisional opinion that related to him for comment. Dr B told HDC that it can be difficult to arrange to see a particular patient in the available time in the prison setting. He said he must ask a custody officer to bring him the patient, and a nurse or healthcare assistant to act as chaperone, and those staff have other duties that may affect their ability to assist him. Dr B said that he must triage the patients on his clinic list to determine which patient's need is most pressing, as well as review new patients who have been admitted or transferred, and he must attend to emergencies.
- 48. Dr B said that when he referred Mr A to ORL for the second time on 26 February 2020 he already had his own observations, the nurses' observations, and Mr A's concerns well documented. Dr B stated:

'In a perfect world I would have had the luxury of interviewing and examining him in person; given the frustration with my original referral being lost I chose to re-refer [Mr A] immediately so that there would be no further delay. My only motivation was to expedite what had already taken too long, for his benefit ...

There is an overwhelming amount of work ... to be done each day. I endeavour to do the most good for the most patients each day I am working at the prison, and there is no nurse or custodial officer who would not vouch for my commitment, conscientiousness and long hours of service.'

_

¹⁵ Arising spontaneously or of unknown cause.

¹⁶ An abnormal, non-cancerous growth behind the eardrum.

49. Dr B told HDC that the prison now has an electronic referral system called ERMS. He stated:

'[ERMS] leaves an electronic trail and responses from the specialty to the referrer are received ... or can be reviewed online. This would have prevented the initial delay in the [ORL] service receiving [his] original referral [of Mr A].'

Dr C

50. Dr C was provided with a copy of the sections of the provisional opinion that related to him for comment. Dr C did not provide a response to HDC.

Mr A

A copy of the section of the provisional opinion comprising the information gathered during the investigation was provided to Mr A for comment. Mr A told HDC that he submitted five additional chits about his hearing loss that were not acknowledged or followed up by Corrections. He said that the chits were dated 20 August 2019, 24 September 2019, 18 October 2019, 2 November 2019, and 14 December 2019. Mr A also commented on several aspects of his care, and that information has been incorporated into this report where relevant.

Opinion: Department of Corrections — breach

Having undertaken a thorough assessment of the information gathered and guided by the clinical advice provided by Dr David Maplesden, I am critical of aspects of the care Mr A received from Corrections. I have set out my decision below.

Communication and follow-up of first ORL referral — breach

- Health NZ told HDC that the ORL service would normally see a low priority referred patient within 120 days of referral. On that basis, Dr B's initial referral of 13 September 2019 would likely have resulted in Mr A receiving an ORL appointment by early January 2020.
- Unfortunately, Dr B's first referral was not sent to the ORL service. From the available information, it is unclear whether this error was caused by Dr B or the health centre's administrative staff. Regardless, the error meant that the ORL service was not aware of the request to review Mr A, and the health centre's usual process of creating a MedTech reminder and adding the referral to the tracking spreadsheet was not completed. As a result, neither Dr B nor the health centre staff noticed that Mr A had not been offered an ORL appointment. As Corrections acknowledged, the referral was not followed up until late February 2020, more than five months later.
- Dr Maplesden considered that Corrections' failure to send the first ORL referral was a moderate departure from the accepted standard of care if it was due to an inadequate

H.

19 June 2024

¹⁷ Mr A also listed a sixth chit dated 25 February 2020, which is referred to in the 'Key events' section of this report and contained in his Corrections' patient notes. The five other chits Mr A listed are not included in his patient records, the reason for which is unclear.

process. Dr Maplesden said that the departure would be less serious only if the failure was instead due to human error for which there was some mitigation.

- I accept Dr Maplesden's advice. Corrections demonstrated that an ostensibly reasonable, albeit paper-based, referral process was operating in the health centre. I note, however, that Corrections' Chief Medical Adviser recommended, after reviewing Mr A's case, that the process be developed to improve tracking and follow-up of specialist referrals. On balance, I accept Corrections' conclusion that the failure to send the referral was a result of human error. As Corrections did not provide any mitigating factors in that respect, I am satisfied that the error represented a moderate departure from the accepted standard of care.
- In the five months following the initial ORL referral, Mr A enquired about the date of his ORL appointment and/or reported his ongoing symptoms on six documented occasions (four chits, the second appointment with the ear nurse, and a conversation with a custodial staff member, who then contacted the health centre). On 17 October 2019, in response to one of the chits, Mr A spoke to a nurse, who agreed to follow up on the status of his ORL referral. While the nurse wrote to Mr A to confirm that, there is no evidence to suggest that the referral was followed up with the ORL service at that time. This was a missed opportunity by Corrections. If the referral had been followed up as planned, health centre staff would likely have discovered that Dr B's referral had not been received by the ORL service. The referral could then have been sent and, while Mr A's ORL appointment would likely still have been delayed, the delay was only a month at that time.
- As noted above, Dr Maplesden stated that the seriousness of the failure to follow up Mr A's ORL referral was dependent on the cause of the failure. The circumstances indicate that this failure was also likely to have been a result of human error. As Corrections did not provide any mitigating factors in relation to this failure, I am satisfied that the error represented a moderate departure from the accepted standard of care.
- Mr A was eventually seen by ORL on 13 May 2020, four months after the latest date he would likely have been seen had Dr B's initial referral been sent. In my view, this unnecessary four-month delay was the result of a breakdown in the prison's process for sending and following up specialist referrals. It also suggests that Mr A's continued contacts about his ORL referral, and his distressing symptoms, were not taken as seriously as they should have been. It is troubling that despite Mr A advocating for himself, the relevant staff at the medical centre were not alert to the fact that a response from the ORL service was overdue, especially as time went on.
- on Dr Maplesden advised that, in hindsight, it is unlikely that any intervention after 13 September 2019 would have altered the progression of Mr A's hearing loss, as 'the window of opportunity for early intervention was well past' by that date. Nonetheless, I recognise that Mr A experienced an unnecessary delay at a time when he was concerned about, and regularly reporting, a sudden worrying decrease in the hearing in his left ear (amongst other symptoms). I accept that Mr A's concerns were then heightened by additional worries about the possible long-term impact of the delay on his hearing.

Conclusion

Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code) states that every consumer has the right to have services provided with reasonable care and skill. Corrections did not meet that standard regarding Mr A's 13 September 2019 ORL referral, as it was neither sent to the ORL service nor followed up with the ORL service for five months, resulting in a delay in Mr A being seen by an ORL specialist. Mr A quite reasonably feels let down by Corrections in this respect. His complaint highlights the importance of having adequate processes in place for the management and follow-up of external specialist referrals. Accordingly, I find Corrections in breach of Right 4(1) of the Code.

Initial presentation on 25 August 2019 — other comment

- Mr A first presented with symptoms, including his left ear feeling 'blocked', on 25 August 2019. He was assessed by a nurse and booked into an ear hygiene clinic after the nurse found that earwax was 'covering' his left ear canal. Dr Maplesden stated that this assessment was 'somewhat less comprehensive for [the] new onset balance symptom than that recommended in the relevant HealthPathways' guidance, but the initial management was 'probably reasonable' where an 'obvious wax blockage' existed.
- The medical centre's records do not definitively state that the wax seen in Mr A's left ear was blocking (occluding) his ear canal. The records demonstrate that an amount of wax was obvious, however, and do not exclude occlusion of the ear canal. On that evidence, I cannot conclude that there was a deficiency in Mr A's care in this respect. Notwithstanding that, I acknowledge Corrections' development of a clinical assessment resource for frontline nursing staff to emphasise that patients presenting with acute unilateral sensorineural hearing loss first need urgent review by a doctor, rather than ear hygiene.

Medical review of 19 March 2020 — educational comment

- When he reviewed Mr A on 19 March 2020, Dr C documented that he wanted him to be assessed by ORL earlier than his booked appointment, as he was concerned that Mr A might have an acoustic neuroma. While Dr C's request to the ORL service was declined on the basis that it included no new information and lacked an audiogram, I am not critical of his actions in this respect. Health NZ rightly highlighted that the HealthPathways adult hearing loss guidance states that a hearing test should be the first step in cases of hearing loss. Dr Maplesden advised, however, that in practice, making audiology and ORL referrals consecutively can delay an ORL appointment if the audiology assessment in the public sector is delayed. As Dr C was not making a new referral, but contacting the ORL service to request an existing appointment be brought forward, it would have been counterproductive for him to have waited until Mr A had had a hearing test before doing so.
- Dr Maplesden noted that it was important that Mr A was seen in person at this appointment as he required a neurological review. At that point, Mr A had not been reviewed since

¹⁸ Dr Maplesden stated that it is accepted practice in the community to offer a private audiology assessment to help to expedite a specialist appointment. This practice was followed in Mr A's case, as he was referred to a private audiology service rather than the hospital's audiology service on 26 February 2020.



September 2019 and had the new symptom of persistent headache, in conjunction with his existing neurological symptoms. Dr Maplesden stated that the review should have focused on excluding any new neurological signs that might represent 'red flags' for significant or time-critical intracranial pathology, such as papilloedema, ¹⁹ which might need urgent intervention. Although Dr C reviewed Mr A in person, his notes do not make mention of a neurological assessment having been conducted at this appointment. However, the fact that Dr C referred Mr A for a head CT scan suggests that a neurological assessment may have been completed but not documented. That being the case, it is a shortcoming in Dr C's record-keeping.

Opinion: Dr B — adverse comment

Medical review of 26 February 2020

- In the five months after Mr A's review with Dr B on 13 September 2019, Mr A frequently reported his ongoing symptoms and asked whether his ORL appointment had been booked.
- Dr B reviewed Mr A's records on 26 February 2020, in response to a chit Mr A submitted the previous day, which stated: 'I would like to see the doctors concerning my left ear/I've been deaf now for six months and still nothing has been done about it.' Mr A also reported migraines, nausea, and dizziness to a nurse, who telephoned him about the chit. In his statement to Corrections, Dr B described the review, stating: '[A]Ithough the patient was not seen in person on 26.2.20 the chart was reviewed and the MO [Dr B] spoke to the nurse involved.'
- As a result of this review, Dr B made the second ORL referral, which led to an ORL appointment being arranged for Mr A. Nevertheless, I am critical that Mr A was not seen and assessed as part of this review. Dr Maplesden advised that Mr A required a neurological review at that point, as he had not been reviewed since September 2019 and had the new symptom of persistent headache, in conjunction with his existing neurological symptoms. Dr Maplesden stated that the review should have focused on excluding any new neurological signs that might represent 'red flags' for significant or time-critical intracranial pathology, such as papilloedema, which might need urgent intervention.
- on Dr Maplesden considered that the failure to see and assess Mr A on this occasion represented a mild to moderate departure from the accepted standard of care. I agree. Although Dr B sent new ORL and audiology referrals, his chart review and discussion with nursing staff was insufficient given that Mr A had not been assessed for five months and was known to have new and ongoing symptoms. Corrections also considered that it would have been appropriate for Dr B to have reviewed Mr A before he sent the second ORL referral. As Corrections stated, an in-person assessment would likely have contributed more information to the referral, which would have assisted Health NZ to triage it. While further information may or may not have affected the priority Health NZ assigned to the referral,

HXC

¹⁹ Swelling of the optic nerve due to increased intracranial pressure of any cause.

involving Mr A in this discussion about his own health was appropriate and may have lessened his feeling that health centre staff were not listening to his repeated concerns.

- The health centre's systems or processes may have contributed to Dr B carrying out a chart review on this occasion, rather than seeing Mr A. Given that Dr B documented that he would ask for Mr A to be reviewed in a future MO clinic for a potential central lesion, it is possible that systemic factors influenced his decision not to undertake the review himself at that time. In his response to the provisional opinion, I note that Dr B referred to difficulties he experienced in seeing patients in the time allowed, as he required the assistance of busy custodial officers and clinic staff as chaperones and typically had to triage many patients with different needs throughout day.
- Health NZ rightly highlighted that the HealthPathways adult hearing loss guidance states that a hearing test should be the first step in cases of hearing loss. While acknowledging that, I am not critical that Dr B made his ORL and audiology referrals concurrently, rather than including an audiogram with the ORL referrals. I accept Dr Maplesden's advice that, in practice, making audiology and ORL referrals consecutively can delay an ORL appointment, if the audiology assessment in the public sector is delayed. In addition, as demonstrated in Mr A's case, the ORL service is able to undertake an audiogram immediately prior to the specialist review.

Opinion: Health NZ — other comment

- Health NZ stated that it had discovered, in responding to HDC about this investigation, that the ORL service had not written to either Mr A or the prison's health centre with the results of Mr A's 6 July 2020 MRI scan. As a result, Mr A did not receive the results from Dr B (who it appears also had to request the results) until around one month after the MRI.
- Health NZ told HDC that the omission occurred as the ORL service planned to offer Mr A a follow-up appointment, but that did not happen due to system constraints. Health NZ said that the MRI scan did not in fact require Mr A to return to the ORL service, and it would have been sufficient to have sent him a clinic letter with the results.
- Ultimately, this issue caused a relatively minor communication delay for Mr A, which has since been remedied with Health NZ's apology and 8 June 2021 clinic letter to him and the prison health centre. However, it constituted nearly a year's delay in Health NZ providing Mr A with results that he should have been sent in July 2020. This is a further reminder of the importance of having adequate processes in place to manage patient administration, including failsafe measures to avoid patients' next steps being overlooked, as were Mr A's on this occasion.

Changes made since events

75. Corrections told HDC that the following changes have been implemented or are underway as a result of Mr A's experience:

- a) Corrections' Chief Medical Officer was leading work with Health NZ Waitaha Canterbury to resolve issues that were limiting the implementation of an electronic referral system, including the available technology, the management of privacy, and information sharing. Corrections said that this work was a priority and would be progressed 'with urgency'. (Corrections has since advised HDC that the prison now uses an electronic referral system.)
- b) Corrections was reviewing proposals to replace its current patient administration system. It said that business requirements had been established to ensure that Corrections 'moves as close as possible' to a paperless system, while ensuring that Health NZ had consistent access to clinical records and the electronic referral processes.
- c) Corrections' Event Review Group (which includes the Chief Nurse and Chief Medical Officer) reviewed Mr A's case. As a result, the Manager, Health Quality and Practice was to undertake a review of the processes in place at the prison to manage access to care. Corrections said that the review would aim to provide assurance that the prison's processes for the management of paper-based referrals is robust, and that there are sufficient steps in place to mitigate the risk of referrals being lost. Corrections advised that the review was to be completed by 31 December 2022.
- d) The paper-based referral system was being monitored to ensure that all referrals were actioned appropriately and an audit of a sample of referrals was to be completed by 31 January 2023 to ensure that the system was working.
- e) The Chief Medical Officer was to provide guidance to doctors about writing referrals on the MedTech blank referral template, to ensure that referrals are 'full, detailed and adequately demonstrate the referral criteria'. The guidance was to be issued by 30 November 2022. Corrections stated that this issue would be remedied by the electronic referral process in time.
- f) Acute unilateral sensorineural hearing loss was added to a 'clinical red flags' poster to prompt staff to arrange immediate review if a patient presents with those symptoms. A reminder would accompany the poster to explain why acute unilateral sensorineural hearing loss is listed as a red flag. Corrections said that the poster was to be circulated to all doctors and health services staff by 1 December 2022.
- g) A clinical assessment resource was developed for frontline nursing staff in relation to acute unilateral sensorineural hearing loss.
- h) A new e-learning module concerning documentation was released in August 2022. All new nurses are expected to complete the module as part of their orientation, and all existing staff were expected to complete the module by the end of 2022.

Recommendations

- I recommend that Corrections: 76.
 - a) Provide a written apology to Mr A that reflects on the deficiencies identified in this report. The apology should be sent to HDC, for forwarding to Mr A, within three weeks of the date of this report.
 - b) Having confirmed that the prison now has an electronic referral system, please provide:
 - A copy of the health centre's current policy/process for making and following up external specialist referrals in that system.
 - An explanation of how referral errors are identified in the system.
 - Information (such as audit data) about the impact of the introduction of the electronic referral system on referral errors.
 - Provide an update on the replacement of the patient administration system with a new, paperless system.
 - Review the guidance for doctors in the prison health centre's current local operating manual about responding to health chits, including when it is appropriate to see and assess a patient versus carrying out a chart-only review (as happened in Mr A's case). If shortcomings are identified, please explain the issue/s found, the improvement measure/s, and the date of implementation.
 - e) Provide a copy of, or consider the need for, a specific policy/process for clinical staff in relation to arranging an audiogram²⁰ (both publicly and privately) to accompany an ORL referral.
 - Provide a copy of the clinical red flags poster that includes acute unilateral sensorineural hearing loss and confirm the date on which it was issued and how and to whom it was distributed.
 - g) Provide a copy of the clinical assessment resource that was developed for frontline nursing staff concerning acute unilateral sensorineural hearing loss and explain when and how the resource was implemented.
 - h) Use Mr A's case as the basis of a training session for the prison health centre's nursing staff on acute unilateral sensorineural hearing loss and provide evidence of the content and completion of that training by all relevant staff.
 - Provide information about the content of the e-learning module developed regarding i) documentation and confirm that it was completed by the staff who worked at the health centre at the time of the events, and those who have joined since.
- Corrections' responses to points b) to i) should be provided to HDC within four months of 77. the date of this report.

 $^{^{}m 20}$ A pure tone audiogram with bone conduction, tympanometry, and speech discrimination test.



Follow-up actions

A copy of this report with details identifying the parties removed, except the Department of Corrections, Health NZ Waitaha Canterbury, and the clinical advisor on this case, will be sent to the Office of the Ombudsman and the Office of the Inspectorate and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: In-house clinical advice to Commissioner

The following in-house advice was obtained from Dr David Maplesden, a GP, on 9 August 2021:

- '1. My name is David Maplesden. I am a graduate of Auckland University Medical School, and I am a practising general practitioner. My qualifications are: MB ChB 1983, Dip Obs 1984, Certif Hyperbaric Med 1995, FRNZCGP 2003. Thank you for the request that I provide clinical advice in relation to the complaint from [Mr A] about the care provided to him by staff of the health unit at the prison. In preparing the advice on this case to the best of my knowledge I have no personal or professional conflict of interest. I agree to follow the Commissioner's Guidelines for Independent Advisors.
- 2. I have reviewed the following information:
 - Complaint from [Mr A]
 - Response from Department of Corrections (DoC)
 - Clinical notes [prison] heath unit
 - Response and clinical notes Canterbury DHB
- 3. [Mr A] complains about delays in the investigation and management of his left sided hearing loss so he has now been left with permanent loss of hearing. He states he developed symptoms of vertigo, nausea and decreased hearing in his left ear in August 2019 and provided a health chit which was not acted upon. Several weeks later he placed a further chit as the symptoms were persisting. He was reviewed by a MO and referred for ear washout. This failed to resolve the symptoms and despite a further ear syringe and repeated provision of health chits it was several months before a formal hearing assessment was performed and he was eventually seen by an ENT specialist who ordered an MRI scan.
- 4. Based on the clinical notes a timeline has been provided as follows:
 - 25 August 2019 complaining of dizziness, blocked L ear with hearing loss.
 Plan to book ear hygienist
 - 11 Sep 2019 ear hygienist visit right ear cleared.
 - 12 Sep 2019 concerns raised again about worsening hearing loss accompanied by vertigo, migraines and decreased balance.
 - 13 Sep 2019 referral to ENT and audiology at CDHB.
 - 17 Oct 2019 c/o followed up with medical centre no appointment time yet from CDHB
 - 6 November 2019 ear hygienist visit in prison

- 26 Feb 2020 second referral to ENT clinic as symptoms not improving and concern about space occupying lesion noted
- 19 Mar 2020 referral to ENT asking for earlier appointment (given appointment on 12 May) as profound hearing loss and concerns about acoustic neuroma (benign tumour). Moving the appointment earlier was declined.
- 12 May 2020 seen by CDHB ENT clinic, MRI arranged and follow up in 3 months.
- 16 June 2020 Prison health notified MRI requested by ENT scheduled 6 July 2020.
- 6 July 2020 MRI performed and reported.
- 7 Aug 2020 C/o notified of results of MRI no sign of a tumour (delay was
 due to results not being provided to prison until then notes indicate no
 follow-up until pt requested results on 27 July 2020).
- No indication within notes that pt was seen again by ENT clinic (over three months later) before 23 October 2020.
- With respect to the presentation on 25 August 2019, [Mr A] complained of recent onset giddiness, blocked feeling in the left ear and faint ringing (tinnitus). Assessment of hearing is not specified. Vital signs were normal and there was apparently some wax in the left ear (unclear if the canal was occluded). If it was evident there was wax causing total occlusion of the canal, initial management was probably reasonable although the assessment was somewhat less comprehensive for new onset balance symptom than that recommended in the relevant HealthPathway 1. If there was no obvious wax blockage to account for the symptoms I would be concerned that [Mr A] was not referred for more urgent MO review to establish a cause for his symptoms, particularly if acute (duration less than 72 hours) unilateral hearing loss was suspected². [Addition by Dr Maplesden, 24/04/24: it really lies in interpretation of the "cerumen noted covering the canal" statement. This could refer to wax covering the skin of the canal without occluding the canal which is a common and normal finding and could not be regarded as a cause of sudden hearing loss. However, if there was significant wax apparently occluding the canal (tympanic membrane not visualised) which is also a reasonably common occurrence this might be regarded as a possible cause of the hearing loss. Therefore, the two scenarios were presented. Sudden onset hearing loss without an obvious cause (which would be the case here if there was no obvious occlusion of the ear canal from wax) should have resulted in seeking of MO advice acutely although such an action would not necessarily have altered the patient's outcome,

https://canterbury.communityhealthpathways.org/17706.htm Accessed 9 August 2021

https://canterbury.communityhealthpathways.org/451138.htm Accessed 9 August 2021



¹ Canterbury Community HealthPathways. "Vertigo".

² Canterbury Community HealthPathways. "Hearing Loss in Adults".

- particularly if the hearing loss had occurred more than 72hrs previously. [Redacted]³]
- The ear hygienist saw [Mr A] on 11 September 2019 noting minimal wax in the left ear and normal tympanic membrane but persisting left sided symptoms of hearing loss and dizziness when lying on that side. [Mr A] submitted a further health chit because of the persisting symptoms unresponsive to ear toileting and MO review was arranged for 13 September 2019. An adequate assessment was performed with diagnosis of peripheral vertigo possibly due to Meniere's disease given the hearing loss. The MO has noted will refer per HPs [HealthPathways] to ENT and audiology. Trial of prochlorperazine in the interim. Records indicate two outbox referral documents were generated on 13 September 2021. The ENT referral gives presenting issue as: 3 weeks L ear tinnitus, decreased hearing, positional vertigo. A copy of the consultation note is included which refers to likely peripheral vertigo, normal neurological examination (including absence of nystagmus) and normal tympanic membrane. While including results of tuning fork, head thrust and Dix-Hallpike tests might represent best practice, I believe the referral had sufficient information to enable prioritisation with most likely diagnosis being Meniere's disease but differential including vestibular schwannoma (although vertigo symptom is usual of more subtle and gradual onset in the latter condition). Acute unilateral hearing loss is an atypical initial presenting symptom for BPPV. The audiology referral was adequate. I note both referrals were paper-based rather than electronic and I am unsure what barrier there is to [the prison] medical service using the electronic referral system. As discussed below, CDHB states it has no record of receiving the referrals dated 13 September 2019 and I am unable to determine if this represents process issues at [the prison] or DHB end, although there is no reference in [the prison] notes to the referral being faxed compared with record of a later referral being faxed (and received by the DHB). Use of the ereferral process would at least allow auditing of the referral process. [Addition by **Dr Maplesden, 20/03/24:** If there was a failure to fax the referral because the process for handling referrals was inadequate, I would say moderate departure [from the accepted standard of care] (the PHU [public health unit] is expected to have a robust process in place for managing clinical correspondence). If this was human error despite a robust process, there may be mitigating factors that would reduce the severity.]
- 7. On 17 October 2019 [Mr A] queried the timing of his ENT appointment and health unit staff have recorded: [Mr A] asking when he will see specialist about ear. Nil appointment yet. Plan email to admin to follow up. Letter to explain sent. It is unclear if the appointment was followed up as planned and I would be critical if it was not. [Addition by Dr Maplesden, 20/03/24: If this was [the] result of an inadequate process, [it was a] moderate departure [from the accepted standard of care]. If the failing of an individual to follow expected process, there may be

-



³ Outside of scope.

mitigating factors that reduce the severity.] However, as discussed in [the prison] MO response and confirmed in the DHB response, a wait of weeks to months is not unusual for the clinical scenario described in the referral letters. However, I note that if MO review had occurred within 72 hours of onset of the left sided hearing loss (defined as acute hearing loss), recommended management per the cited hearing loss HealthPathway is *Phone the acute ORL registrar to arrange urgent audiometry (pure tone audiogram with bone conduction and tympanometry) to distinguish conductive from sensorineural hearing loss.* [Addition by Dr Maplesden, 20/03/24: The window of opportunity for early intervention was well past by [13 September 2019]. This is essentially an educational comment.] However, it appears unlikely (in hindsight) that any intervention after 13 September 2021 when the referrals were submitted would be likely to have altered the progression of [Mr A]'s hearing loss. There is weak evidence that high dose steroids may be beneficial for some patients with acute idiopathic sensorineural hearing loss if commenced early, but it is less likely to be beneficial in patients with concurrent vertigo⁴.

- [Mr A] provided further health chits in regard to persistent ENT symptoms in September and October 2019. On 20 February 2020 he reported left sided headaches in conjunction with the ENT symptoms (past history of migraine noted). Migraine medication was prescribed and a further ENT referral generated by the MO to the DHB ENT service (26 February 2020) enclosing the previous referral details and new history of headache, and Given that his symptoms have not improved and he is now requiring medication for headaches, I would appreciate your input and possible endorsement for studies to evaluate for a space occupying lesion. There is a record the referral has been faxed (28 February 2019) with no such record evident following the September 2019 referrals. Concurrent referral was made to [a private audiology service]. The DHB notes receipt of the referral dated 26 February 2021 and comments that in the absence of an attached audiology report the referral would usually have been rejected. However, on this occasion the referral was accepted as routine priority (see within 120 days) and appointment scheduled for 12 May 2020 with audiology assessment scheduled at ENT clinic immediately preceding the specialist appointment. Prison staff were notified of the appointments on 5 March 2020 and the [private audiology service] referral was cancelled.
- 9. As previously discussed, I am unable to ascertain why the referrals generated in September 2019 were not received by the DHB, and it seems possible the intention by prison staff to follow up the referrals in October 2019 was not completed given the failure to detect the referrals had not been received. This might require further investigation or comment by the DoC with respect to both the referral processes and follow-up of referrals. I am not critical of the failure by the MO to include an audiology report in the referrals given concurrent referral had been made for

⁴ Foden N, Mehta N, Joseph T. Sudden onset hearing loss. Causes, investigations and management. Aust Fam Phys. 2013;42(9):641–644



audiology assessment on both occasions and the symptom of new onset unilateral hearing loss was noted in the referrals. The referrer is caught in the situation where there is a lengthy delay for audiology assessments in the public sector (and not all patients can afford a private audiology assessment) which adds to the lengthy delay for an ENT assessment if the referrals are done sequentially. Furthermore, as occurred in this case, the ENT service can undertake an audiology assessment immediately prior to specialist review in any case. However, in the community it would certainly be accepted practice to offer private audiology assessment if that would expedite the specialist appointment and this was evidently done once the delay in [Mr A] receiving either audiology or ENT appointments was noted.

- 10. On 19 March 2020 a prison MO sent a further letter to CDHB ENT service requesting [Mr A]'s appointment be expedited due to his ongoing headaches and hearing loss (recorded erroneously as right sided) and Hearing loss seems profound. I am concerned he has an acoustic neuroma. The DHB notes there was no new information (including audiogram) provided and the scheduled review date remained unchanged. The MO referred [Mr A] for a brain CT scan and this was declined as not being appropriate for the suspected pathology (focused MRI is used for diagnosis of acoustic neuroma (vestibular schwannoma)). It is unclear if [Mr A] was formally assessed by a MO prior to sending these referrals and I would be mildly to moderately critical if he was not assessed given the persistent headache symptom and no MO review evident since the assessment in September 2019. [Addition by Dr Maplesden, 20/03/24: [This criticism] applies to both [26 February 2020 and 19 March 2020] as the new symptom of headache in conjunction with the existing neurological symptoms required a full neurological review in case there were signs (such as papilloedema) that might have necessitated urgent intervention.] Review would be aimed primarily at excluding development of any new neurological signs that might represent red flags for significant or time-critical intracranial pathology.
- 11. [Mr A] was seen by the DHB service on 12 May 2020 and the consultation report concludes: An audiogram was performed this morning, which demonstrates a profound hearing loss on his left side and, on the right, his hearing in the lower frequencies up to 3 kHz is within normal limits, however he does have some high-frequency hearing loss, I have discussed with [Mr A] the wide range of aetiologies that can cause a hearing loss of this degree. However, I have booked him for an MRI IAM in order to exclude the possibility of an acoustic neuroma. We will see him again in 3 months' time with that result. MRI was performed on 6 July 2020 (as noted in the DHB response, vestibular schwannoma is usually a very slow growing tumour and urgent imaging is not indicated). The MRI did not show any significant abnormality although there was no copy of the report sent to the referrer. When it was noted the report had not been received following queries by [Mr A] on 27 and 31 July 2020, a MO accessed the DHB result database on 7 August 2020 and informed [Mr A] of the normal result (letter sighted). The DHB response notes the follow-up referred to in the ENT specialist letter did not eventuate due to

constraints in the system for booking follow-ups. An apology is offered for the fact neither [Mr A] nor the referrer were notified of the MRI result or follow-up management advice. [Mr A] was eventually offered a follow-up appointment in June 2021 (almost a year after his MRI scan) which he declined on 11 May 2021. A letter was sent to [Mr A] from the ENT service on 3 June 2021 confirming and explaining his normal MRI result (diagnosis of idiopathic sensorineural loss affecting his left ear with no treatment available) and advising regular review of his right sided hearing to detect any deterioration early.

12. The DoC response includes the following comments:

Corrections' Chief Medical Adviser has reviewed the care provided to [Mr A] and has made the following recommendations (which will be followed up by Corrections Health Services):

- Acute unilateral sensorineural hearing loss needs urgent Medical Officer review (not ear hygiene) and acute ENT referral usually by talking to an ENT registrar on the telephone. Patients presenting with Acute unilateral sensorineural hearing loss will be added to a recently developed clinical assessment resource developed for our frontline nursing staff.
- The Medical Officer review, although thorough, should have included a safety net to review the patient within two weeks if there was no improvement.
- Corrections' Health Services will develop a system to ensure specialist referrals are tracked and followed up to ensure the patient is seen within appropriate timeframes.

I believe these are appropriate remedial actions/comments. [Addition by Dr Maplesden, 20/03/24: However, documentation of provision of safety netting advice is very variably undertaken in primary care yet it is almost "second nature" to provide general safety netting advice such as "if you get worse or fail to improve come back for review".] Attention might also be given to confirming a process for audiology assessments required as part of ENT referrals noting the DHB comment (per HealthPathways) that for other than urgent referrals: Arrange audiometry for pure tone audiogram with bone conduction, tympanometry, and speech discrimination test ... as public access to audiometry for adults is limited to specialised testing, consider private audiometry.'