Specsavers Silverdale Limited

Optometrist, Ms B

Optometrist, Ms C

Optometrist, Mr D

A Report by the

Health and Disability Commissioner

(Case 19HDC01129)

Health and Disability Commissioner

Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report relates to the care provided to a woman by three optometrists over a five-year period. The optometrists were employed by Specsavers Silverdale during the events complained of. The woman had visited Specsavers Silverdale a number of times between 2014 and 2019 complaining of various symptoms in her left eye. In 2019, she was diagnosed with bilateral subacute angle closure glaucoma by another provider, and the ophthalmologist who diagnosed her noted that she had been symptomatic for perhaps as long as five years.

2. The report highlights the importance of documenting clinical assessments properly (even when there are no abnormal findings), and of considering all clinical information (including previous clinical records) as part of any assessment. The report also comments on appropriate assessment and testing for the signs and symptoms of glaucoma, in particular the importance of gonioscopy (a method of examining a specific part of the eye).

Findings

3. The Commissioner considered that optometrist Ms C breached Right 4(1) of the Code by failing to carry out a comprehensive assessment, which should have included gonioscopy, and by failing to document her assessment properly.

4. The Commissioner considered that optometrist Ms B breached Right 4(1) of the Code by failing to explore the woman's history fully, by failing to carry out a comprehensive assessment, which should have included gonioscopy, by failing to investigate a variation in eye pressures fully, and by failing to document her assessment properly.

5. The Commissioner considered that optometrist Mr D breached Right 4(1) of the Code by failing to consider the woman's differently sized pupils in the full context of her presenting symptoms and history, and by making a referral to a specialist that did not include sufficient information and presented information incorrectly.

6. The Commissioner considered that Specsavers Silverdale breached Right 4(1) of the Code in that the multiple failings by multiple staff members indicated a pattern of poor care, for which ultimately Specsavers is responsible.

Recommendations

7. The Commissioner recommended that all four providers make a written apology to the woman, and that the Optometrists and Dispensing Opticians Board consider whether review of the three individual optometrists' competence is warranted.

8. The Commissioner also recommended that Specsavers Silverdale provide the Commissioner with internal audit reports and a report on any remedial actions undertaken; use this report as an education and training guide for its staff; and consider amending its assessment template to require optometrists to review and discuss previous visit records at every consultation with consumers.

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

Complaint and investigation

9. The Health and Disability Commissioner (HDC) received a complaint from Ms A about the services provided by Ms C, Ms B, and Mr D of Specsavers Silverdale Limited. The following issues were identified for investigation:

- *Whether Specsavers Silverdale Limited provided Ms A with an appropriate standard of care during 2014–2018 and in January 2019.*
- *Whether Ms C provided Ms A with an appropriate standard of care in 2014.*
- *Whether Ms B provided Ms A with an appropriate standard of care in 2017.*
- *Whether Mr D provided Ms A with an appropriate standard of care in 2018 and in January 2019.*

10. The parties directly involved in the investigation were:

Ms A	Complainant/consumer
Ms B	Optometrist/provider
Ms C	Optometrist/provider
Mr D	Optometrist/provider
Specsavers Silverdale Limited	Provider

11. Also mentioned in this report:

Dr E	Ophthalmologist
Ms F	Optometrist
Ms G	Optometrist

12. Further information was obtained from the eye clinic and the district health board (the DHB).

13. Independent expert advice was obtained from optometrist Mr Greg Nel (Appendix A).

Information gathered during investigation

Introduction

14. Between 2014 and 2019, Ms A was seen on four separate occasions by three different optometrists at Specsavers Silverdale Limited (Specsavers). In 2019, Ms A was diagnosed with bilateral subacute angle closure glaucoma. This report considers the adequacy and appropriateness of the care provided to Ms A during that time.

Subacute angle closure glaucoma

15. Glaucoma is a group of eye conditions that damage the optic nerve and lead to vision loss. Subacute angle closure glaucoma is a type of glaucoma in which the eye's drainage channels (the angle) become blocked by the iris — the coloured part of the eye responsible for controlling pupil dilation and constriction — leading to inadequate fluid drainage and an increase in pressure in the eye (intraocular pressure).

16. A number of tests can be done to assess for glaucoma. These include measuring the intraocular pressure, assessing the optic nerve (which transmits visual information from the eye to the brain), including specifically comparing different parts of the eye (known as the optic cup-to-disc ratio[1]), undertaking a visual field test to assess whether the field of vision has been affected, and assessing the structures of the angle, in particular by using gonioscopy (a method of examining the eye's drainage angle using a special contact lens and a microscope).

19 June 2014 — initial consultation with Ms C

17. On 19 June 2014, Ms A (aged in her thirties at the time) saw optometrist Ms C at Specsavers for a "Sight Test". Ms C recorded that Ms A reported fogs and pressure in her left eye, a "yellow light bulb flash", and left-sided headaches, which Ms C noted were "not a typical migraine". Ms C documented: "[Left eye] vision is usually lost for a day [and] Floaters — No diplopia [double vision] [and] weepy scratchy [left eye] — pressure more than anything." Ms C also noted that earlier that year Ms A had been referred to hospital for bad migraines with visual auras. Ms C documented that Ms A had no family history of glaucoma or macular degeneration.

18. Ms C documented the following assessments:

- Assessment of the front part of the eye (anterior eye). Ms C recorded that both eyes were "Clear & Quiet" and that both lenses were "Clear".
- Assessment of the interior surface of the back two-thirds of the eye (the fundus). Ms C recorded that the optic cup-to-disc ratio was 0.2 (within the normal range) on both sides. She told HDC that, in hindsight, there is a possible discrepancy in her assessment of the optic cup-to-disc ratio but she believes that photographs taken during the assessment do not show unhealthy optic discs. Other assessments of the fundus[2] were recorded as normal.
- Intraocular pressures were measured as 16mmHg (within normal range) in both eyes but the method of measurement was not recorded.
- Ms A's vision was recorded as normal (6/6[3]) in both eyes.

[1] A normal optic cup-to-disc ratio is about 0.3. Glaucoma can cause the optic disc to enlarge.
[2] The vessels, macula (the central region of the retina, which is the light-sensitive inner layer of tissue at the back of the eye), and peripheral retina (the area of the retina outside the macula, which gives peripheral vision and night vision).
[3] Measure of visual acuity. 6/6 means that a person can see at 6 metres what a normal person can see at 6 metres.

19. Ms C did not document assessments of:

- The drainage angles of the eyes. Ms C said that in accordance with her routine practice, she performed a test to estimate the drainage angle by shining a light into the eye (known as the van Herick test). However, the test showed the angles to be open (that is, normal), so she did not document this. Ms C also told HDC that she understands that the van Herick technique is for glaucoma screening, rather than assessment. However, she felt that it was appropriate to use it as a screening test for Ms A given her presentation.
- The pupils. Ms C said that she did assess Ms A's pupils but because the findings were normal, she did not document this.

20. Although Ms A's vision was assessed as normal, Ms C provided a prescription for near-distance glasses. Ms C told HDC that Ms A reported an improvement for near tasks with the glasses, consistent with Ms C's findings of early gradual loss of close vision caused by aging (presbyopia), and that Ms A made an informed decision to have a prescription for spectacles.

21. Ms C also told HDC that although Ms A's visual field screening was normal, she decided to perform more comprehensive testing of the visual field[4] to "further investigate any potential neuro-ophthalmic cause for [Ms A's] reported headaches". This was scheduled for 31 July 2014.

31 July 2014 — second consultation with Ms C

22. On 31 July 2014, Ms C undertook a further examination of Ms A's eyes[5] but noted no change from the earlier examination. However, Ms C said that the visual field assessment "revealed points of reduced sensitivity more marked in the left eye".[6] She also documented: "[Ms A] finds that [the left eye] is still slightly blurry with [spectacles]."

23. Ms C told HDC that she does not consider that Ms A's presentation was typical of angle closure, which includes halos around lights and sharp eye pain. Ms C noted:

> "[Ms A] described 'yellow light bulb flashes' and then headaches. This is more likely indicative of migraine or possibly photopsia [flashes of light] secondary to vitreo-retinal adhesions [when the vitreous (the gel inside the eye) adheres to the retina, which can affect vision]."

24. Ms C said that she elected to refer Ms A to hospital for further investigation. Ms C documented: "[Assessment] referral to [hospital] — [left eye] consistent [headaches] (not like a typical [headache]) + pressure feeling. [Review] 2 [years]." Neither Specsavers nor the DHB has a copy of the referral in their records; however, Ms A did have a copy, which she provided to HDC. The referral records that it was faxed on 19 June 2014 (i.e., on the day of

[4] A 24-2 full threshold visual field test.
[5] Refraction and posterior slit lamp examination.
[6] Ms C documented: "[Right eye] normal [left eye] defects on the nasal defect."

the first consultation), and notes the reason for referral as: "[Left eye] Intense Pressure + Blurry vision." The referral also includes the following information:

> "Thank you for seeing [Ms A] asap — has been having episodes of [left eye] fogging + bright flashes on [left] side of brain & pressure behind [left eye]. She finds her vision is lost for 24 hours. She said it's not the typical type of migraine she has. [Left] double vision."

25. Ms A told HDC that this referral was "unsuccessful", and she did not receive an appointment. Neither Specsavers nor the DHB has any record of a response to this referral from the hospital.

28 June 2017 — consultation with Ms B

26. On 28 June 2017, Ms A saw optometrist Ms B for a "Sight Test". Ms B documented that Ms A had been seen three years earlier and, since then, her distance vision had changed but her near vision had remained the same. Ms B recorded that Ms A reported "visual auras — has been to hospital regarding bad migraines"[7]. Ms B documented that Ms A had no history of glaucoma. Ms B said that she reviewed the records from 2014 and asked Ms A about the hospital referral, and Ms A's response was that everything was normal. This is not recorded in the clinical records.

27. Ms B documented the following assessments:

- The anterior chamber was noted to be "Clear & Quiet".
- The fundus was noted to be normal, including the optic cup-to-disc ratio.[8]
- Intraocular pressures were measured[9] and the results were 9mmHg (an average of 13, 1, 13) in the right eye and 10mmHg (an average of 10, 5, 15) in the left (both within the normal range). Ms B said that had there been a large variation or elevated eye pressure, her usual practice is to ask for repeat measurements, but she did not do so in this case because of the low pressure and lack of other risk factors.
- Ms B took retinal photographs. She told HDC that there did not appear to be any change in Ms A's optic nerve appearance from the photography in 2014.
- Ms B also assessed Ms A's right eye vision as 6/6 and her left eye to be slightly weaker than normal, at 6/7.5, and provided Ms A a new spectacle prescription.

28. Ms B did not document assessments of:

- The closure angles of the eyes. Ms B said that she assesses angle for every patient, and did so for Ms A by way of a van Herick test, but because the angle findings were normal, she not document this. Ms B stated: "My reference to clear and quiet for the anterior

[7] This is in reference to Ms A's review at hospital in 2014, which was also noted by Ms C.
[8] 0.2 in both eyes.
[9] Using a non-contact tonometer, which uses a small puff of air to measure the eye's pressure.

chamber status means that all anterior chamber findings were normal, including the examination of angles."

- The pupils. Ms B said that she did assess Ms A's pupils, but because the findings were normal, she did not document this.

29. Ms B said that Ms A did not report any symptoms of angle closure such as eye pain, halos around lights, or nausea, which would have indicated the need for gonioscopy in addition to the van Herick test. Ms B also noted the normal intraocular pressure, lack of family history of glaucoma, and healthy optic nerve heads.

15 February 2018 — consultation with Mr D

30. On 15 February 2018, Ms A saw optometrist Mr D for a "Routine Eye Exam".

31. Mr D recorded that Ms A reported that she had had different-sized pupils (anisocoria) for the last three weeks, and that her GP had suggested an eye examination after she complained to her GP of headaches and blurring vision. However, Mr D said that the anisocoria was not Ms A's chief complaint (and he was not aware if this was her GP's main concern as he had no referral letter from the GP); rather, it was that she was having difficulty focussing at a distance, and mild headaches. He said that Ms A did not seem "overly concerned" about the anisocoria. However, Ms A told HDC that her left dilated pupil was her biggest concern, and her other symptoms were worsening. Mr D recorded that Ms A also reported that her distance vision had changed and her near vision remained fine. Mr D did not document that Ms A also had blurring vision and headaches.

32. Mr D stated that he reviewed the previous records and noted that in 2014 Ms A had complained of fogs and flashes but also experienced visual auras associated with migraines, which he said suggested to him that the symptoms were linked. Mr D also said that Ms A had been referred to hospital previously for her migraines, but told him that she had never received an appointment. Mr D stated that nothing recorded in the 2017 notes raised any suspicion, and he noted that Ms A had no family history of glaucoma, macular degeneration, cataracts, or any other health issues.

33. Mr D documented the following assessments:

- A van Herick test, which Mr D recorded as showing that the left eye angle was narrower than the right. In light of this result, Mr D carried out gonioscopy on the left eye, which he recorded as indicating an open angle.[10]
- The anterior chamber was recorded as being "Clear & Quiet".
- The fundus was recorded as being normal, including a normal optic cup-to-disc ratio.[11]
- Intraocular pressures were recorded as 14mmHg in the right eye and 17mmHg in the left (both within the normal range).

[10] "[Anterior meshwork] seen at all 4 angles."
[11] 0.2 in both eyes.

- Ms A's left pupil was noted as being bigger, but both pupils were noted to be reacting to light normally. Mr D recorded that the different-sized pupils were "physiological" (i.e., not due to a concerning cause or pathology). He told HDC that he concluded this because all the clinical information he gathered seemed normal, and "20% of people have anisocoria".
- Ms A's vision was recorded as normal (6/6) in both eyes.
- Mr D took retinal photographs. He told HDC that Ms A's optic nerve head appearance looked consistent with previous digital retinal scan images,[12] and there were no obvious changes consistent with progressive glaucoma.

34. Mr D also documented that Ms A's symptoms were "most likely due to early signs of presbyopia [age-related near vision loss]". He clarified to HDC that he attributed Ms A's blurring vision to visual fatigue as an early sign of presbyopia.

35. Although Ms A's vision was assessed as normal in both eyes, Mr D provided a prescription for new spectacles. Mr D said that Ms A required a small amount of assistance to read comfortably. Mr D planned to review Ms A again in two years' time.

6 January 2019 — referral request

36. On 6 January 2019, Ms A presented to Specsavers without an appointment and requested a referral to an ophthalmologist. Mr D said that he was with another client at the time so could not see her. He stated that Ms A was offered an appointment, which she declined, advising that she just wanted the referral. Mr D said that he was given a note written by Ms A that set out what she wanted included in the referral.

37. Mr D completed a referral to hospital the same day. The referral set out his examination findings from 2018, and stated:

> "[Ms A] insisted on this referral. She [complains of] seeing halos @ night, followed by flashing light bulbs as if she's looking through a fog in both eyes. She also [complains of] having pain in head when using computer at night [such] that she requires pain medication."

38. Mr D said that Ms A did not report these symptoms to him when he saw her in 2018. He said:

> "My usual history taking method included enquiry as to whether the patient has any flashes, floaters or double vision and would have elicited that if [Ms A] had them at the time in 2018."

39. Mr D acknowledged that the referral presented his 2018 examination findings as though they were his findings made that day, and said that this was because of a feature of the

[12] Specifically, Mr D noted that there was no obvious neuro retinal rim notching or other changes consistent with progressive glaucoma due to intraocular pressure spikes.

letter template he used. Mr D added that he did not refer Ms A to hospital in 2018 because his examination findings did not indicate a need for referral.

40. Mr D said that in hindsight, given Ms A's anisocoria in 2018, he could have completed further tests such as a visual field test, but at the time he did not consider that this was indicated.

Subsequent events

41. On 6 January 2019, the same day she requested the hospital referral, Ms A was seen by optometrist Ms F at another optometry clinic. Ms F recorded Ms A's history, noting that Ms A was experiencing light halos and flashes, fogging vision in both eyes, headaches, and eye pressure. Ms F referred Ms A to ophthalmologist Dr E at an eye clinic.

42. Ms A was seen by Dr E on 15 January 2019. Dr E diagnosed bilateral subacute angle closure glaucoma. He noted that Ms A had been symptomatic "of recurrent angle closure glaucoma for perhaps as long as five years", and that she reported discomfort in her left eye with a "foggy quality" to her vision and light halos. Dr E urgently referred Ms A to hospital, where she was seen that day and underwent laser treatments[13] to both eyes. Ms A was advised that she would likely need further treatment to the left eye.

43. Dr E also diagnosed Ms A with plateau iris, an anatomical configuration in which the iris is pushed forward. This may eventually result in partial or complete obstruction of the eye's fluid drainage (aqueous outflow) and can lead to angle closure glaucoma.[14]

Comment from Ms A

44. Ms A told HDC that she mentioned to the Specsavers optometrists many times that she was experiencing halos, flashing lights, and foggy vision, but kept being given only spectacle prescriptions, which she said did nothing to help her symptoms.

Comment from Specsavers

45. Specsavers stated:

> "[W]e would like to express our regret that [Ms A] feels she was let down by our store and we are sorry to hear of her condition and the treatment that she has required. [Ms A's] concerns raise issues that we can focus on for improvement, especially around documentation, and we are taking these steps."

46. Specsavers also commented: "We are conscious that the documentation of each consultation could have been improved."

47. In relation to whether Ms A required the spectacle prescriptions she was given at each appointment, Specsavers said: "An optometrist's job is not limited to correcting visual acuity to 6/6. Optometrists will recommend correction for both vision improvement and to reduce eye strain symptoms." It said that the decisions made to prescribe glasses at each visit were

[13] Laser iridotomy: a procedure to treat closed angle glaucoma using laser to create a hole in the iris.
[14] "Primary Angle-Closure Disease Preferred Practice Pattern", American Academy of Ophthalmology (2020).

based on examination findings and in consultation with Ms A. Specsavers added: "We believe that [Ms A] would have felt her prescription was of benefit to her or otherwise she would have availed herself of our 90-day warranty period."

Training provided

48. Specsavers told HDC that it encourages and supports its optometrists to participate in continuing professional development to maintain their clinical competence. It stated that all Specsavers optometrists have access to online clinical course modules (through iLearn) and ophthalmology-led webinars (MyCPD), as well as annual Specsavers conferences.

Further information — opinion from Ms G

49. In response to the provisional opinion, Ms C provided an opinion from optometrist Ms G about the standard of care provided to Ms A by Ms C. Ms G's opinion is included as Appendix B.

Responses to provisional opinion

50. Ms A, Ms C, Ms B, Mr D, and Specsavers were all given the opportunity to respond to relevant sections of my provisional opinion. Where appropriate, their responses have been incorporated into this report.

Response from Ms A

51. In addition, Ms A told HDC that it is upsetting to her, and a cause of great stress and depression, that she had to pursue an investigation of her worsening eye condition at another optometry clinic. She said that she was told that had she not pursued this, she could have lost vision in her left eye. Ms A feels that there was a "definite oversight" by Specsavers. She stated: "[The optometrists had] poor listening skills, and [did] not [take] down correct notes on all the symptoms I mentioned (every time) I had appointments." She said that to lose her vision would be very serious for her and could ruin her and her family's lives. Ms A added: "This has been such a stressful, exhausting, confusing, expensive part of my life …"

Response from Ms C

52. Ms C told HDC that she readily accepts that she should have kept better documentation in this case. However, she does not consider that it was warranted for her to perform gonioscopy given Ms A's presentation at the time, and her examination findings.

53. Further, in response to the provisional opinion, Ms C provided an opinion from optometrist Ms G (as noted above). In addition, Ms C said that it was comforting to know that a referral was sent, as she recalled. Ms C concluded that because Ms A had a copy of the referral, after Ms C faxed the referral to hospital, she gave it to Ms A to retain. Ms C noted that this would be consistent with what Ms G said about patients being instructed to follow up if they do not receive contact following a referral. Ms C also noted that because Ms A was seen by a DHB neurologist in August 2014, she strongly suspects that the Ophthalmology Department triaged her referral to the Neurology Clinic.

Responses from Ms B and Mr D

54. Ms B and Mr D both told HDC that they had no additional comments to make.

Response from Specsavers

55. Specsavers told HDC that it remains concerned to hear of Ms A's experience at its store. However, it noted Ms G's opinion that it was not necessary to perform gonioscopy at Ms C's appointment, and commented that potentially the same conclusion could also be made about Ms B's appointment.

56. In addition, with respect to the issue of prescribing glasses, Specsavers reiterated that Ms A never availed herself of its 90-day warranty period. Specsavers commented that this leads to the conclusion that Ms A felt that the prescribed glasses were of benefit to her.

57. Specsavers also noted that there was a period of over five years between Ms C's appointment and Ms A's diagnosis (of bilateral subacute angle closure glaucoma). It commented that during that period, Ms A's intraocular lens would have thickened and her angles would have become narrower.

Opinion: Introductory comments

58. Ms A was seen by three different optometrists at Specsavers Silverdale across a period of approximately five years. In 2019 she was diagnosed with bilateral subacute angle closure glaucoma, and the ophthalmologist who diagnosed Ms A noted that she had been symptomatic for perhaps as long as five years.

59. In order to assist my assessment of Ms A's care I sought independent expert advice from optometrist Mr Greg Nel.

60. Mr Nel outlined the following tests for identifying subacute angle closure glaucoma:

> "Sub-acute angle closure is diagnosed by a competent examination of the anterior chamber [the part of the eye that extends from the inside of the cornea to the front of the lens] and educated view of the structures of the angle in particular using gonioscopy [examination of the eye's drainage angle using a special contact lens and microscope] … Competent interpretation of case history is also essential to identify intermittent episodes of angle closure."

61. Having regard to the tests outlined by Mr Nel and his further advice, I have concerns about the care and assessments Ms A received from the Specsavers optometrists, which I discuss in more detail below.

Opinion: Ms C — breach

Assessment — 19 June and 31 July 2014

62. Ms C saw Ms A on 19 June 2014. Ms C noted Ms A's complaint of "fogs and has a pressure" in her left eye, "yellow light bulb flash", and headaches on her left-hand side. Ms C's assessment included a visual assessment and an examination of the anterior segment of the eye, including a van Herick test. However, this was not documented; it was noted only that the anterior segment was "clear and quiet".

63. My expert advisor, optometrist Mr Nel, advised:

> "[Ms A's] presenting symptoms are typical of angle closure and direct observation of the angle structures is essential to screen for a narrow anatomy or anterior synaechae [when the iris adheres to the angle]."

64. Mr Nel stated: "Gonioscopy is the only way to directly view structures of the angle." He further advised:

> "Failure to recognize symptoms that may be [characteristic] of angle closure was a critical oversight and an examination plan that omitted screening of [Ms A's] anterior eye effectively was poor. … Even if van Herick was performed it is not an adequate substitute for proficient gonioscopy, which is a requirement in an optometrist's clinical toolkit. Gonioscopy is the only way to directly view structures of the angle. … The diagnosis of migraine is often one of exclusion and [Ms A's] symptoms were not that of a typical migraine and her angles should have been assessed."

65. Mr Nel further noted that Ms A was later diagnosed as having plateau iris configuration, which Mr Nel advised "puts [Ms A] at risk of angle closure and consequently glaucoma" and "was almost certainly the case at her first visit at Specsavers". Mr Nel stated:

> "In a best case scenario, plateau iris configuration is diagnosed in a young adult and monitored regularly to screen for risk of angle closure. A competent gonioscopy examination would have identified [Ms A's] risk many years earlier."

66. In contrast, Ms G's view is that it is not common optometric practice to perform gonioscopy on every patient. She commented that while gonioscopy would diagnose iris plateau syndrome and iris plateau glaucoma, given Ms A's symptoms and findings and management of the eye examination, it was reasonable for Ms C not to have performed gonioscopy at the time of her consultation. However, Ms G acknowledged that some of Ms A's symptoms may also be shared by a patient experiencing an angle closure attack.

67. In respect of the essential question regarding gonioscopy Mr Nel disagrees with Ms G, and stated:

> "I agree that migraines are possible explanation for [Ms A's] symptoms but it is my opinion that migraines are a diagnosis of exclusion. It should also be noted that her

> symptoms were not those of a classic migraine, this is even noted in the case history. There are … several masquerade conditions to consider with these symptoms. I am of the firm opinion that an optometrist of reasonable standard would understand that angle closure events are one of the clinical entities that may cause the symptoms she describes. … Intermittent angle closure could not have been adequately ruled out without gonioscopy."

68. I accept that Ms C assessed Ms A's pupils, although this is not documented. I acknowledge that she took some steps to investigate Ms A's symptoms, including a van Herick test and a further visual field assessment on 31 July (which showed some abnormalities). I also note that Ms C referred Ms A to hospital for further investigation; it is unfortunate that there is no record of this referral having been sent, or the associated response from hospital, in Specsavers' records. However, I accept Mr Nel's opinion, supported by that of Ms G, that it was reasonable to assume that the referral had been processed appropriately, and that it was not necessary to follow up on it.

69. I acknowledge Ms C's view that Ms A's presentation was not typical of angle closure. However, both experts are in agreement that the symptoms exhibited were consistent with, or could be explained by, angle closure, and I accept these views.

70. Both experts also agree that Ms A's symptoms could have been caused by migraines. Ms G considered migraine to be the "most likely cause", and that it was not unreasonable to pursue investigation of this. Mr Nel, on the other hand, believes migraine to be a diagnosis of exclusion. He also pointed out that Ms A's symptoms were not those of a classic migraine, and that Ms C was aware of this (the hospital referral completed by Ms C specifically comments that Ms A reported that "it's not the typical type of migraine she has"). Ms G's opinion does not specifically address or reason this as a factor in the conclusions she has drawn about gonioscopy.

71. It is also not in contention that gonioscopy is the appropriate test to assess angle closure directly, and that it is within the core competency of an optometrist to perform this.

72. The key difference between the experts' opinions is whether gonioscopy should have been performed. Ms G considers it was reasonable for Ms C not to have performed gonioscopy, whereas Mr Nel has consistently maintained (even in response to Ms G's opinion) that the angles should have been assessed. In his view, not to have done so indicated a poor examination and was a critical oversight.

73. I have carefully assessed the experts' opposing views, together with the evidence — including information directly available to Ms C at the time of her assessments. I prefer the evidence of my expert, Mr Nel, for the following reasons. In particular, I note that Ms A had symptoms of angle closure, that her symptoms were not "usual" for the migraines she was known to suffer (a fact that is particularly compelling), and that it was within Ms C's competence to perform the test. Given its potentially serious consequences and the symptoms Ms A was presenting with, angle closure should have been ruled out, and

gonioscopy was the only way to do this. On this basis, I remain of the view that Ms C should have conducted gonioscopy, and that it would have been reasonable for her do so.

74. It is not possible to determine now whether gonioscopy would have revealed any indications of angle closure or plateau iris, although I note Mr Nel's view that it may have.

Documentation

75. Ms C did not document all the details of her assessment. In particular, she did not document assessing Ms A's pupils or carrying out the van Herick test, or her associated findings, because, according to Ms C, they were normal. Mr Nel also noted that Ms C did not document her method of measuring Ms A's intraocular pressure.

76. Ms C also did not document her diagnosis or rationale for carrying out further tests on 31 July. Mr Nel advised:

> "Although visual fields were recorded at a follow up visit and the notes indicate that a referral to [hospital] was initiated, no diagnosis or specific concerns relating to these visual fields and what relevance they have to the rest of the examination is recorded. No association of how they relate to [Ms A's] ongoing visual frustrations on her left side is made either."

77. Ms G agreed that Ms C's documentation could have been better. In particular, she noted that a reasonable optometrist would document the intraocular pressure after dilating the patient's eyes and, ideally, all intraocular pressure results and the type of tonometer used would be recorded. Ms G also noted that all normal findings should be recorded.

78. Ms C failed to document her assessment fully, which was a departure from the Optometrists and Dispensing Opticians Board's (ODOB's) "Standards of Clinical Competence for Optometrists" (the ODOB Standards) (as set out in Appendix D).[15]

Conclusion

79. Overall, guided by Mr Nel's advice, I have some concerns about the standard of care provided to Ms A by Ms C. In particular:

- She did not carry out a more comprehensive assessment of the anterior eye segment, which should have included gonioscopy.
- She failed to document her assessment fully.

[15] The Optometrists and Dispensing Opticians Board's Standards of Clinical Competence for Optometrists (November 2010) Task 7: "Recording and maintaining of clinical data and records" requires that an optometrist document "all relevant information pertaining to the patient … including … patient history, diagnoses, management strategies, … copies of referral letters and reports …".

80. In my view, the above concerns in total amount to a failure to provide services to Ms A with reasonable care and skill. Accordingly, I find that Ms C breached Right 4(1) of the Code of Health and Disability Services Consumers' Rights (the Code).[16]

Opinion: Ms B — breach

Assessment — 28 June 2017

Discussion about hospital referral

81. Ms B saw Ms A on 28 June 2017. Ms B noted Ms A's reported change in distance vision and that she had a history of migraines for which she had been seen at hospital. Ms B told HDC that she reviewed Ms A's 2014 records and "enquired of [Ms A] about her referral to [hospital]" and, in response, Ms A confirmed that everything was normal. However, the details of the conversation are not recorded.

82. As noted above, my expert advisor, optometrist Mr Nel, considers that Ms A's symptoms in 2014 were typical of angle closure. Mr Nel advised that there is no evidence that Ms B followed up Ms A's symptoms from 2014 or the hospital referral, and he considers that this was "a significant oversight".

83. While I accept that Ms B may have asked Ms A about the hospital referral, there is no evidence that Ms B explored the reason for the referral, and the outcome, adequately. Had she done so, she would have known that Ms A was never given an appointment, and this may have helped to direct her own assessment and management plan. Accordingly, I accept Mr Nel's advice. I note that Ms B has since reflected on the importance of considering all clinical information, including previous clinical records, as part of her assessment.

Assessment

84. Ms B assessed Ms A's vision, intraocular pressure, and the anterior segment and fundus, and took retinal photographs. Ms B recorded that Ms A's intraocular pressure was 9mmHg (an average of 13, 1, 13) in the right eye, and 10mmHg (an average of 10, 5, 15) in the left eye. Ms B said that her usual practice if there is a large variation or the eye pressure is elevated is to request repeat measurements, but that "[g]iven the low pressures recorded and the lack of other risk factors at this visit this was not done in this case".

85. Mr Nel considers that the variation measured in the eye pressures should have prompted further assessment. He advised:

> "Best practice would be to check this again, ideally with Goldman Applanation Tonometry [a particular method of measuring eye pressure that is considered gold standard in New Zealand[17]]. An attempt made to minimize the standard deviation

[16] Right 4(1) states: "Every consumer has the right to have services provided with reasonable care and skill."
[17] Glaucoma NZ "Eyelights" (2018) https://www.glaucoma.org.nz/files/Eyelightsv15-3.pdf.

between measurements should be made and not to do so would be viewed critically by my peers."

86. Ms B documented that the anterior segment was "Clear & Quiet". She said that her assessment included a pupil assessment and a van Herick test but, as her findings were normal, she did not record them. Ms B considered that there was no indication for further assessment such as gonioscopy.

87. Mr Nel advised:

> "Failure to recognize symptoms [from 2014] that may be [characteristic] of angle closure was a critical oversight and an examination plan that omitted screening of [Ms A's] anterior eye effectively was poor. … Even if van Herick was performed it is not an adequate substitute for proficient gonioscopy, which is a requirement in an optometrist's clinical toolkit. Gonioscopy is the only way to directly view structures of the angle."

88. Mr Nel further noted that Ms A was later diagnosed as having plateau iris configuration, which Mr Nel advised "puts [Ms A] at risk of angle closure and consequently glaucoma" and "was almost certainly the case at her first visit at Specsavers". He stated:

> "In a best case scenario, plateau iris configuration is diagnosed in a young adult and monitored regularly to screen for risk of angle closure. A competent gonioscopy examination would have identified [Ms A's] risk many years earlier."

89. It is relevant to note Ms G's view that given Ms A's symptoms, and the findings and management of the eye examination, it was reasonable for Ms C not to have performed gonioscopy at the time of her consultation. Specsavers has submitted that potentially the same conclusion could also be made about Ms B's appointment. However, Ms G was not asked to comment on Ms B's examination and care.

90. Ms B declined to provide further comment on the provisional opinion.

91. I accept that Ms B did carry out a van Herick test, and note that it is now not possible to determine whether gonioscopy would have revealed any indications of angle closure or plateau iris. While I acknowledge Ms G's view regarding gonioscopy at the first assessment (Ms C's), her opinion is not specifically directed to the circumstances of the second. That said, I have carefully considered the potential application of that opinion to the consultation involving Ms B. Taking into consideration all the information, and in particular the comments of my expert advisor, I conclude that there were clinical features, and in particular Ms A's history, that indicated that Ms B should have carried out a more comprehensive examination of Ms A's anterior segment using gonioscopy.

Documentation

92. Ms B did not document the full details of her assessment, including that she carried out a van Herick test and pupil assessment. Ms B said that if her findings had been significant she would have documented these.

93. Ms B's failure to document her assessment fully was a departure from the relevant ODOB "Standards of Clinical Competence for Optometrists" (the ODOB Standards) (as set out in Appendix D).[18] It was also inconsistent with "Specsavers Best Practice Guide to Clinical Record Keeping & Registration Standards" (as set out in Appendix C).

Conclusion

94. Overall, guided by Mr Nel's advice, I have some concerns about the standard of care provided to Ms A by Ms B. In particular:

- Ms B failed to explore Ms A's history fully (including the reason for the hospital referral and the outcome) and carry out a more comprehensive assessment of the anterior eye segment, which should have included gonioscopy.
- The measured variation in the eye pressures should have prompted further assessment.
- Ms B failed to document her assessment fully.

95. In my view, the above concerns in total amount to a failure to provide services to Ms A with reasonable care and skill. Accordingly, I find that Ms B breached Right 4(1) of the Code.

Opinion: Mr D — breach

Assessment and documentation — 15 February 2018

96. On 15 February 2018, Mr D saw Ms A for a routine eye examination. Mr D noted Ms A's anisocoria, which had been present for three weeks. Mr D said that he noted Ms A's previous complaint of flashes and fogs, which he understood was associated with her visual migraines. He said that Ms A also complained of blurring vision and headaches, but this was not documented. Mr D performed a van Herick test, noting that it identified that the left angle was narrower than the right. Mr D then undertook gonioscopy for the left eye, which he considered showed an open angle. Mr D did not consider that there were indications of glaucoma.

[18] The Optometrists and Dispensing Opticians Board's Standards of Clinical Competence for Optometrists (November 2010) Task 7: "Recording and maintaining of clinical data and records" requires that an optometrist document "all relevant information pertaining to the patient … including … patient history, diagnoses, management strategies, … copies of referral letters and reports …"

Gonioscopy

97. Mr Nel was critical of Mr D's assessment. In relation to Mr D's competence in performing gonioscopy, he stated:

> "Given [Ms A's] longstanding symptoms of angle closure and intra-ocular pressure spikes and the later opinion from [Dr E] and [the public hospital], the competence of [Mr D's] gonioscopy needs to be questioned. I believe it is reasonable to conclude that [Mr D's] clinical competence in assessing the angle is below the accepted standard and believe this view would also be held by my peers."

98. Mr Nel further noted that Dr E later diagnosed Ms A as having plateau iris configuration, which Mr Nel advised "puts [Ms A] at risk of angle closure and consequently glaucoma" and "was almost certainly the case at her first visit at Specsavers". That is, in his view, a competent gonioscopy would have identified Ms A's risk.

99. It is now not possible to determine whether the gonioscopy did reveal any indications of angle closure that were missed by Mr D. However, I note Mr Nel's comments that competent gonioscopy would have identified Ms A's risk for angle closure (i.e., the plateau iris configuration). I acknowledge Mr Nel's view that this indicates that Mr D did not carry out the gonioscopy competently, but I am not prepared to make that finding in hindsight.

Conclusion about pupil size difference

100. Mr Nel was also critical of Mr D's conclusion that Ms A's different-sized pupils was "physiological". Mr Nel commented that this conclusion was "presumptive and compounded by the fact that there are no previous pupil findings recorded in [Ms A's] previous examination notes". Mr Nel considers that Ms A's different-sized pupils were "probably features of neurological damage from the acute glaucoma". I also note Ms A's comment that her biggest concern was the difference in pupil size, and that her GP had suggested an optometry review because of this symptom. I am concerned that Mr D's conclusion about this relatively new symptom was not considered in the full context of Ms A's presenting symptoms and history. In particular, I note that this was Ms A's third presentation to Specsavers with ongoing symptoms alongside the newly developed anisocoria and blurring vision.

Assessment and documentation — conclusion

101. Mr D carried out an appropriate examination, including undertaking an assessment of the angles with gonioscopy. However, I am concerned about Mr D's conclusion about pupil size difference. I also note that Mr D did not document Ms A's reported symptoms of blurring vision and headaches. As noted by Mr Nel, it is possible that Mr D's interpretation of his assessment findings may have been influenced by the previously reported normal findings. However, in my view this does not materially mitigate the deficiencies.

6 January 2019 referral

102. Mr D referred Ms A to hospital in January 2019 after she presented at Specsavers to request the referral. Ms A declined an assessment with Mr D at that time. In his referral, Mr D noted

that Ms A had insisted on the referral. He included his assessment findings from 2018 but, because of the template used, the findings were presented as if they were from an examination that day.

103. Mr Nel noted that "[t]he referral listed symptoms, not diagnosis" and did not include "much background". He stated: "Referrals should clearly identify the primary area of concern and include sufficient detail to facilitate a sensible triage by the party in receipt of the referral."

104. Notwithstanding my concerns about Mr D's assessment in 2018, as set out above, I acknowledge that Mr D did not, at that time, consider that Ms A had symptoms that indicated a need for a referral. However, in the context of him providing a referral I agree with Mr Nel that the information contained in the January 2019 referral was unhelpful. In my view, the referral did not include sufficient detail and incorrectly presented the 2018 assessment findings as though they were from an assessment that day. Although I accept that the latter issue was caused by a quirk of the template used, ultimately Mr D is responsible for ensuring that his referrals contain sufficient and correct information.

105. I remind Mr D of the importance of writing referrals carefully, so as to assist the recipient to triage and respond appropriately. I note that the relevant standards (as set out in Appendix D) require that referrals are timely and include appropriate supporting documentation.

Conclusion

106. Overall, guided by Mr Nel's advice, and notwithstanding that Mr D undertook appropriate testing, I have some concerns about the standard of care provided to Ms A by Mr D. In particular:

- His conclusion about Ms A's anisocoria appears not to have been considered in the full context of Ms A's presenting symptoms and history.
- The January 2019 referral did not include sufficient detail, and incorrectly presented the 2018 assessment information.

107. In my view, the above concerns in total amount to a failure to provide services to Ms A with reasonable care and skill. Accordingly, I find that Mr D breached Right 4(1) of the Code.

Assessment of optic cup-to-disc ratio — other comment

108. Mr Nel also questioned Mr D's assessment of Ms A's optic cup-to-disc ratio (0.2 in both eyes), noting that sketches of the optic discs made during subsequent visits to hospital "clearly indicate asymmetric optic cupping, where the left optic cup is sketched as larger than the right". Mr Nel also noted that Dr E recorded an optic cup-to-disc ratio of 0.3 in the right eye, and 0.5 with early optic disc changes in the left. Mr Nel commented:

> "[Optic cup-to-disc ratio] estimations are notoriously subjective, and it is common for different observers to make different estimations but mistaking a 0.5 for a 0.2 cup to disc ratio has the potential to put patient welfare at risk and is below the accepted clinical standard."

109. However, Mr Nel clarified that it is possible that the cup-to-disc ratio could have changed between the time of Mr D's assessment and that of Dr E's. In light of this, I am unable to make a finding as to whether Mr D failed to interpret or document his assessment of the optic cup-to-disc ratio correctly.

Opinion: Specsavers Silverdale Limited — breach

110. Specsavers had an organisational duty to provide services to Ms A with reasonable care and skill, and ensure that those services complied with the Code.

111. Ms A was seen by two optometrists, three years apart, both of whom failed to carry out an appropriate comprehensive examination based on Ms A's presentation. In particular, they failed to carry out gonioscopy, despite the indication do so. They also failed to document all their assessment findings. Ms A was then seen by a third optometrist, whose conclusion about Ms A's newly developed anisocoria appears not to have been considered in the full context of Ms A's presenting symptoms and history, and who also did not document all of Ms A's reported symptoms. Specsavers has acknowledged that the documentation for all the consultations could be improved.

112. I also note Mr Nel's concern that gonioscopy was performed on Ms A only once across the three visits. He commented: "This suggests that it has not been a normal part of the clinical repertoire at Specsavers Silverdale …" Ms G's opinion differs to that of Mr Nel as to whether gonioscopy should have been performed at the first consultation. As discussed in more detail above, while I accept that there is a variance of clinical opinion on this point, ultimately I prefer Mr Nel's evidence that there were clinical features that indicated that gonioscopy should have been carried out by Ms C and Ms B.

113. While each optometrist had an individual responsibility to provide services with reasonable care and skill and in accordance with relevant professional standards, in my view the multiple failings by multiple staff members across multiple presentations indicate a pattern of poor care, for which ultimately Specsavers is responsible. Accordingly, I conclude that Specsavers failed to provide services to Ms A with reasonable care and skill, and therefore breached Right 4(1) of the Code.

114. I note that Specsavers has now updated its policies relating to the requirement for its staff to document all assessment findings, even when they are negative.

Opinion: Specsavers Silverdale Limited, Ms C, Mr D — spectacle prescriptions — other comment

115. Ms C and Mr D both prescribed Ms A spectacles despite their assessment that Ms A had normal vision. Ms C told HDC that a mild refractive error in Ms A's vision was present, which is why she considered that Ms A might benefit from a prescription for near-distance glasses. Mr D considered that Ms A needed a small amount of assistance to read comfortably. Specsavers said that despite a person having 6/6 vision, a prescription can help some people to reduce strain on their eyes.

116. I note Mr Nel's comment:

> "I feel it necessary to emphasize that [Ms A's] vision was perfect without glasses at her first visit, yet she was sold glasses despite the examination notes detailing repeated visual disturbances as her primary concern."

117. Mr Nel's opinion is that prescribing glasses in Ms A's case "was very unlikely to make any difference to her symptoms and would be viewed critically by my peers as overselling". Conversely, Ms G was of the view that Ms C's decision to prescribe spectacles was reasonable, noting that Ms A was of an age for the decline of her short vision. Mr Nel disagreed with Ms G, and commented:

> "I remain critical of this prescription as [Ms A's] unaided visual acuity was good and this prescription did not address her primary concerns of visual disturbances, and on the basis of the examination were difficult to justify clinically and did little to improve her vision."

118. However, Mr Nel conceded that there is quite likely some variance in attitudes as to the reasonableness of the prescription.

119. I note that at Ms A's second appointment with Ms C (on 31 July 2014, a month and a half after the first consultation when Ms C prescribed the glasses), Ms C documented: "[Ms A] finds that [left eye] is still slightly blurry with [spectacles]." This suggests, as Mr Nel highlighted, that the prescribed glasses in fact did not help to address Ms A's primary concern of visual disturbances.

120. Nevertheless, given Mr Nel's concession that there would be professional disagreement on what standard is reasonable for this issue, I accept that it was not unreasonable for Ms C to prescribe spectacles, and am therefore not critical in this respect.

121. Ms G was not asked to comment on Mr D's care, and Mr D declined to provide further comment on the provisional opinion. While I acknowledge Ms G's view regarding the prescribing of spectacles at the first assessment (Ms C's), her opinion is not specifically directed to the circumstances of the third. That said, I have carefully considered the potential application of that opinion to the consultation involving Mr D.

122. Given the context of Ms A's presentation when she saw Mr D, and her symptoms — in particular, the previous complaint of flashes and fogs (which had not resolved with the previous glasses prescription), as well as the newer blurring vision, headaches, and anisocoria — it seems unlikely that the further/continued prescribing of spectacles would solve Ms A's presenting issues . However, again noting Mr Nel's concession that there would be professional disagreement on what standard is reasonable for this issue, I accept that it was also not unreasonable for Mr D to prescribe spectacles, and am therefore not critical in this respect.

123. Notwithstanding my conclusion that the prescriptions were not unreasonable, I note more generally that critical thinking about the overall clinical picture, and about potential diagnoses indicated by a patient's symptoms, is of fundamental importance in optometry practice. Prescribing spectacles will often be appropriate to address a patient's symptoms, or at the very least will be unlikely to cause harm; yet careful consideration and further investigation of potentially concerning symptoms is crucial for timely detection and treatment of eye diseases such as glaucoma. I encourage Ms C and Mr D, and Specsavers, to reflect on this.

Changes made

Changes made by Specsavers

124. Specsavers said that it has used this complaint to "stress the importance of recording detailed clinical notes". Specsavers has also made the following changes:

- It has drafted a new guideline for clinical recording-keeping, which includes the requirement for intraocular pressure to be repeated if all three readings are not within 2mmHg of each other, and for gonioscopy to be used when van Herick angles are less than 0.2.
- It has introduced a random audit of clinical records, which involves randomly auditing three clinical records each month, looking at whether they are detailed enough, and looking for areas for improvement. It said that staff then go through these records at their fortnightly meeting.
- Optical coherence tomography, which includes a retinal photograph and 3D scans of the retinal layers and optic nerve, is now used for all patients. It also has a new visual field analyser, which allows visual field tests to be done on the same day, rather than having to reschedule the patient for a new appointment.
- It now uses Oculo, an e-referral system, which allows referrals to be generated automatically and sent electronically, and shows when the referral has been received.

Changes made by Ms C

125. Ms C told HDC that she has made a number of changes to her practice, including:

- Developing her skills in gonioscopy.
- Developing her skills in angle evaluation through the use of anterior OCT,[19] alongside her gonioscopy and van Herick tests.

126. Ms C stated:

> "I note that my record keeping could be improved in regards to more fully outlining my tentative diagnosis and appropriate next steps in the clinical records, so as to support continuity of care."

127. Ms C said that she now ensures that her results are recorded comprehensively in the patient notes, and she uses electronic records and referrals, which enables reliable and consistent tracking of all referrals.

128. Ms C also said that recently she attended a symposium that covered anterior segment assessment for glaucoma, including a section on gonioscopy.

Changes made by Ms B

129. Ms B said that she now ensures that she records all assessment findings, even when they are normal. She stated that recently she completed a clinical record audit carried out by the Optometrists and Dispensing Opticians Board, which she said reinforced her commitment to improving her record-keeping. Ms B said: "In addition, I [now] better appreciate that examination records should clearly show the case management plan addressed the primary presenting symptoms." She added that this case highlighted the importance of a detailed and effective enquiry, considered alongside all clinical information including previous records.

130. Ms B advised that she has undertaken further training in relation to glaucoma, and provided HDC with details of the courses she has attended. Ms B stated:

> "[T]hese webinars have helped me to understand the rationale for review windows in glaucoma suspect; reviewed guidelines and processes for referral of glaucoma patients; and how to accurately diagnose early glaucoma on visual fields, OCT and gonioscopy."

131. Ms B said that she will continue to develop her skills in gonioscopy.

Changes made by Mr D

132. Mr D said that since this complaint he has been working on improving his gonioscopy skills, and has attended further training on glaucoma diagnosis, including attending study sessions

[19] Optical coherence tomography is a high resolution cross-sectional imaging modality used to measure the anterior chamber angle.

and observation days with an ophthalmologist glaucoma specialist. Mr D said that he also now reviews and discusses cases more often with his colleagues.

133. Mr D has also undertaken self-audits of his patient records to check his record-keeping and to review his patient management.

Recommendations

134. In making the below recommendations, I have taken into account the changes already made by the parties, as outlined above.

Ms C

135. I recommend that Ms C apologise in writing to Ms A for the breach of the Code identified in this report. The apology is to be sent to HDC within four weeks of the date of this report, and will be forwarded to Ms A.

136. I also recommend that the Optometrists and Dispensing Opticians Board consider whether a review of Ms C's competence is warranted, based on the information contained in this report.

Ms B

137. In accordance with a proposed recommendation in my provisional opinion, Ms B provided an apology letter, which has been forwarded to Ms A.

138. I recommend that the Optometrists and Dispensing Opticians Board consider whether a review of Ms B's competence is warranted, based on the information contained in this report.

Mr D

139. In accordance with a proposed recommendation in my provisional opinion, Mr D provided an apology letter, which has been forwarded to Ms A.

140. I recommend that the Optometrists and Dispensing Opticians Board consider whether a review of Mr D's competence is warranted, based on the information contained in this report.

Specsavers

141. I recommend that Specsavers:

a) Provide HDC with a copy of its last two internal audits relating to documentation, and, where issues have been identified from the audits, provide a report on any remedial actions undertaken. Specsavers is to provide this information to HDC within three months of the date of this report.

b) Use an anonymised version of this report as a case study to provide continuing education to its staff, specifically on the signs and symptoms of glaucoma, the importance of gonioscopy, and the differences between gonioscopy and the van Herick test, and provide evidence to HDC that the training has been completed within six months of the date of this report.

c) Consider amending its assessment template to require optometrists to review and discuss previous visit records at every consultation with consumers. Specsavers is to report back to HDC on the results of its consideration, and provide a copy of its updated assessment template if applicable, within six months of the date of this report.

d) Provide a written apology to Ms A for its breach of the Code. The apology is to be sent to HDC within four weeks of the date of this report, for forwarding to Ms A.

Follow-up actions

142. A copy of this report with details identifying the parties removed, except Specsavers Silverdale Ltd and the expert who advised on this case, will be sent to the Optometrists and Dispensing Opticians Board, and it will be advised of the names of Ms B, Ms C, and Mr D.

143. A copy of this report with details identifying the parties removed, except Specsavers Silverdale Ltd and the expert who advised on this case, will be sent to the New Zealand Association of Optometrists 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 optometrist Mr Greg Nel:

"Report for the Health and Disciplinary Commissioner: Case C19HDC01129

I have been asked to provide an opinion to the Health and Disability Commissioner on case number C19HDC01129, and have read and agree to follow the Commissioner's Guidelines for Independent Advisors.

I qualified in South Africa at the School of Optometry at the Witwatersrand Technikon in 1988 and became a member of the British College of Optometrists in 1991. I have worked and lived in New Zealand since 1997 and I was therapeutically endorsed in 2003 after completing the TAPIOT course at the Department of Vision Science at Auckland University. I have worked as an external examiner for the Department of Vision Science several times and done practice assessments as a member of Competence Review Committees for the Optometrists and Dispensing Opticians Board. From time to time I also evaluate self-audits undertaken as part of the accreditation process for practitioners who are CAA accredited optometrists, a scheme administered by the New Zealand Association of Optometrists. I have served on the Cornea and Contact Lens Society Council and also been invited to assess students as an external examiner at the Department of Vision Science at Auckland University.

I work in private practice at a multi practitioner optometric practice in Lower Hutt.

My referral instructions from the Commissioner in this case are to review the enclosed clinical records and advise whether I consider the care provided to Ms A by Specsavers Silverdale was reasonable in the circumstances.

I have been asked to comment in particular on the following visits in 2014, 2017 and 2018 in these areas:

1. Whether all appropriate tests and assessments were undertaken;
2. Whether the care provided to [Ms A] was appropriate and consistent with the accepted standards of practice;
3. Do I consider that there was any delay in identifying glaucoma with reference to [Ms A's] history and presenting symptoms at the time?
4. In my opinion, were all relevant guidelines for management of such symptoms adequately adhered to?
5. Was appropriate specialist input sought and if not, should it have been in the light of [Ms A's] history and presenting symptoms at the time?
6. How reasonable was [Mr D's] assessment of [Ms A] as having '*symptoms most likely due to early signs of presbyopia'* in the light of her history and presenting symptoms at the time?
7. Do I consider that the follow up (or lack thereof) during any of these visits departed from the accepted standards?

8. Provide my comments on the adequacy of the updated policies and procedures at Specsavers Silverdale (Page 3 of their response).
9. Any other matters on this case that I consider require further comment.

And to consider the following for each visit:

1. What is the standard of care/accepted practice?
2. Whether there has been any departure from the standard of care/accepted practice and if so, how significant I consider this to be?
3. How would this be viewed by my peers?
4. Recommendations for improvement that may help to prevent a similar occurrence in future.

Also I've been asked to provide advice where there are different versions of events in the information provided.

1. Sources of information reviewed:

1. [Ms A's] letter of complaint
2. Specsavers response to this complaint
3. Clinical records from Specsavers Silverdale
   a) Dispensing slips 17 July 2014; 28 June 2017; 06 March 2018; 22 November 2018;
   b) Optometrist [Ms C's] examination record: 19 June 2014; Humphrey Matrix 24-2 Frequency Doubling Visual Fields (31 July 2014);
   c) Optometrist [Ms B's] examination record: 28 June 2017;
   d) Optometrist [Mr D's] examination record: 15 February 2018;
   e) Digital Retinal Images dated 19 June 2014; 31 July 2017; 15 February 2018;
   f) Referral to [public hospital] Eye Department dated 06 January 2019
4. Clinical records from [the eye clinic]
   a) the referral letter from [Ms F]
   b) a copy of the clinical records
   c) Copies of the outgoing letters issued following the consultation; and
   d) A letter received from [the public hospital] documenting management following the referral.
5. Clinical records from the DHB

2. Chronological Summary:

On 19 June 2014, [Ms A] presented to [Ms C] of Specsavers Silverdale with symptoms of *'yellow light bulb flash'* and *'floaters'* as well as headaches on the left side of her brain. Specsavers Silverdale booked her for a follow-up visual field assessment in July 2014. Following this she was referred to hospital. Specsavers Silverdale received no follow-up letter indicating that she attended. A letter from a neurologist was sent to [Ms A's] GP in August 2014 describing a neurological workup for Migraine that included

a CT scan. There are also pre-existing HFA 30-2 visual fields done at hospital in March 2010.

On 16 July 2017, [Ms A] was seen by [Ms B] for a routine visit reporting a change in her distance vision. A full ocular health check was performed, including an assessment for glaucoma and macular degeneration, with all the results said to be '*Unremarkable'.* [Ms A] was prescribed distance glasses to reflect the change in her distance vision and was set for a two year recall.

On 15 February 2018, [Ms A] presented with a three year history of anisocoria on the recommendation of her GP. Her pupils were assessed by the attending optometrist, [Mr D], as physiological anisocoria and not requiring referral. The clinical record confirms that she had been '*referred to [hospital] regarding bad migraines but never got an appointment …'*. While [Ms A] had a gonioscopy test, which revealed an open anterior angle in her left eye, other signs of angle closure glaucoma were said to be absent and symptoms were considered to be '*most likely due to early signs of presbyopia'.* The Examination was said to be *'within normal limits'.* A copy of the optical record was sent to [Ms A's] GP and a two year recall was set.

On 6 January 2019, [Ms A] returned to Specsavers Silverdale reporting deterioration in her condition with '*rainbow halos'*, *'flashing bulbs'* and head pain. Accordingly, a referral was made on the same day to the ophthalmology registrar at [the public hospital]. [The second optometry clinic] noted that [Ms A] had an ongoing issue with the dilated left pupil, which had 'persisted over the last two years'. Ms F at [the second optometry clinic] referred [Ms A] to [the eye clinic].

On 15 January 2019, [Ms A] was seen by [Dr E] of the [the eye clinic], who diagnosed her with bilateral subacute angle closure glaucoma. He wrote that she was symptomatic '*for perhaps as long as five years'* and referred [Ms A] to [an] ophthalmologist at [hospital] for ongoing care and treatment. [Ms A] considers that she mentioned the symptoms of halos, flashing lights and foggy vision to Specsavers Silverdale many times and should have been referred earlier.

3. Examination critique:

Examination Date: 19/06/2014 Optometrist: [Ms C]

Given reason for visit: Sight test

Presenting Symptoms include: Left Eye '*foggs and has a pressure, yellow light bulb flash then* left sided headaches *of the brain'*; '*not a typical migraine'*. Left vision is '*usually lost for a day + Floaters'*. '*Weepy'* and '*scratchy'* left eye; '*pressure more than anything'*.

Comments:

[Ms A] presented to [Ms C] with symptoms of a repeated visual disturbance on her left side and associated headache. This is clearly recorded in the case history as is her history

of migraine. The observation that these symptoms are not those of [Ms A's] typical migraine, previously investigated at hospital, is also clearly recorded.

A negative family history of macular degeneration and glaucoma is recorded. In her letter of complaint [Ms A] takes issue with this and denies a family history of glaucoma and I believe that she has misread this symbol as a dash or hyphen. A positive family history is one of several risk factors that inform an individual's risk of glaucoma and is of limited relevance. Typically a positive family history of glaucoma increases the suspicion threshold but, because of the multifactorial nature of glaucoma, a negative history does little to reduce it.

During her examination the screening of her anterior segment does not include any assessment of her angle and her anterior chamber is recorded only as '*clear and quiet*' and there is no mention of anterior chamber depth, the profile of her iris or the presence of any potential obstructions to normal aqueous outflow. Her presenting symptoms are typical of angle closure and direct observation of the angle structures is essential to screen for a narrow anatomy or anterior synaechae. This omission is a major oversight. Furthermore, there is no record of estimation of the angle by any means at all which is a significant departure from the accepted standard of care and would be viewed critically by my peers.

Pupils are also not assessed. This is not consistent with best practice or at acceptable clinical standard. Assessing pupil function is an important part of primary eyecare. Normal pupil function is a reassuring sign of normal function of the entire visual pathway. It is difficult to justify omitting this simple, non-invasive test from an adequate eye examination and this is not an acceptable standard.

Intra-ocular pressures were measured as 16mmHg in both eyes. The measurement method is not recorded.

Retinal images are included in the clinical file which include the optic nerve anatomy. The notes record an optic cup to disc ratio as 0.2 in both sides, which differs from my impression from the included retinal images. Accepted practice is to include an accurate estimation of the cup to disc ratio at every posterior segment examination.

Although visual fields were recorded at a follow up visit and the notes indicate that a referral to hospital was initiated, no diagnosis or specific concerns relating to these visual fields and what relevance they have to the rest of the examination is recorded. No association of how they relate to [Ms A's] ongoing visual frustrations on her left side is made either.

No letter of referral is included in the patient records. Ideally this letter would include an accurate description of the clinical findings and clearly identify areas of concern for the eye department at hospital. A non-specific referral to [the public hospital] eye department with no clear diagnosis or issue of concern would be difficult to correctly triage and could potentially put [Ms A's] vision at risk.

There is no diagnosis noted and setting the recall at 2 years suggests that [Ms C] had no interest in continued review outside the normal routine review schedule. I assume that it was presumed that [Ms A] would be seen at [the public hospital]. Any follow up of the abnormal visual field or her suspicious symptoms depended completely on her being contacted by the hospital for an appointment.

[Ms A's] uncorrected distance vision is recorded as 6/6, yet a pair of distance glasses are recommended and prescribed. In my opinion this strategy was very unlikely to make any difference to her symptoms and would be viewed critically by my peers as overselling.

This record was electronically signed at 02:27:35 on 09/06/2016 which is odd.

Examination Date: 28/06/2017 Optometrist: [Ms B]

Given reason for visit: Sight test

Presenting Symptoms: change in distance vision in the left eye.

Comment:

The history includes detail about the migraine and no further detail. [Ms A's] previous symptoms three years before are not followed up, nor is the outcome of her referral to hospital. This is a significant oversight which prejudices [Ms A's] later clinical outcome significantly.

A negative family history of glaucoma and macular degeneration is recorded exactly as previously.

There is again no detail of any examination of her angle and the anterior chamber status is recorded merely as '*clear and quiet'*. As before this is not accepted standard.

Pupils are not assessed and, as discussed previously, this is not accepted standard.

Intra-ocular pressures are recorded as RE 9mmHg LE 10mmHg. This is the average of a minimum of 3 measurements, the recommendation for non-contact methods. The range is dubious and recorded as RE 13,1,13 and LE 10,5,15. Best practice would be to check this again, ideally with Goldman Applanation Tonometry. An attempt made to minimize the standard deviation between measurements should be made and not to do so would be viewed critically by my peers.

Retinal images are again included, and the notes have the cup to disc ratio as 0.2 as before. I do not believe this to be accurate, although the successive images do not show any obvious changes in the anatomy of the optic discs.

There are no copies of repeat visual fields included in these examination notes and it is reasonable to presume these were omitted from the examination.

No further investigation or special follow ups are arranged, and again the recall is set at 2 years. This implies that [Ms B] had no concerns about any ocular abnormalities. Her history and examination failed to identify anything sinister which is poor and below accepted standard. New distance glasses were again made up.

Examination Date: 15/02/2018 Optometrist: [Mr D]

Given reason for visit: Routine Eye Exam

Presenting Symptom: her visit was recommended by her GP at a visit 3 weeks prior to investigate different sized pupils.

Comment:

History details [Ms A's] migraines and the fact that she was referred and the observation that she never received an appointment at [the public hospital]. The negative family history is recorded again. There is no mention of any vision difficulty recorded in the history.

Anterior chamber depth was investigated at this visit, both van Herick estimation and gonioscopy results are recorded. Narrow angles are recognized using van Herick estimation yet gonioscopy suggests open angles presuming that the abbreviation 'AT' implies the Trabeculum was visible. This scenario is possible with certain anatomical configurations, precisely why gonioscopic examination of the angle is the gold standard as direct views of the structure are a better predictor of angle closure. Irido-trabecular contact and anterior synaechae are only discernible when directly viewed, as are other abnormalities which may interfere with trabecular outflow. Gonioscopy also offers a perspective of the iris profile and some insights of the risk of angle closure secondary to pupil block events. Van Herick estimation on the other hand involves the extrapolation of the angle structure by estimating the clearance between the peripheral iris and the posterior surface of the cornea and offers no direct views of the angle. Given [Ms A's] longstanding symptoms of angle closure and intra-ocular pressure spikes and the later opinion from [Dr E] and [the public hospital], the competence of [Mr D's] gonioscopy needs to be questioned. I believe it is reasonable to conclude that [Mr D's] clinical competence in assessing the angle is below the accepted standard and believe this view would also be held by my peers.

Pupils are recorded as unequal, yet functioning normally with light and accommodation, an absence of any relative afferent defect is also recorded. His comment that this finding is physiological is presumptive and compounded by the fact that there are no previous pupil findings recorded in [Ms A's] previous examination notes. I am unaware of any association between presbyopia and anisocoria or any other abnormal pupil function beyond neurological pathologies, including glaucoma. Routine optometric visits are recommended precisely to screen for pathological entities as their incidence increases past middle age. Angle closure glaucoma is included in these pathologies. Ascribing an acquired anisocoria, obvious enough to concern [Ms A's] GP, to presbyopia

constitutes a major misunderstanding of the single most ubiquitous change in human vision which is presbyopia. This is a significant departure from accepted practice and would be viewed critically by my peers.

Intra-ocular pressures are recorded as RE 17mmHg (19,16,17) and LE 14mmHg (15,14,14). The measurement method is not recorded.

Retinal images are again included with the clinical file and the examination notes again note a cup to disc ratio as 0.2 in both eyes, yet sketches made during all visits to hospital clearly indicate asymmetric optic cupping, where the left optic cup is sketched as larger than the right. [Dr E] has 0.3 in the right and 0.5 with early optic disc changes in the left. This is consistent with the hospital record sketches. These estimations are notoriously subjective, and it is common for different observers to make different estimations but mistaking a 0.5 for a 0.2 cup to disc ratio has the potential to put patient welfare at risk and is below the accepted clinical standard.

4. Comments on Specsavers' Updated Policies and Procedures

Ocular coherence tomography (OCT) is a mature technology that is now the gold standard for assessing the microstructure of the retina. It facilitates more accurate and potentially earlier diagnosis of many retinal pathologies including most types of glaucoma, the commonest of which is primary open angle glaucoma, by providing good longitudinal data comparison. It is an ideal means of optometrists to gain detailed reassurance of ocular health because it is fast and simple to perform, and the capital investment required is within reach of most practices. OCT scan data is also potentially noisy and accurately documents interpatient anatomical variations which often complicate using this diagnosis as a simple screening test. For OCT to be of broad use in glaucoma screening the scans need to be competently incorporated into an overall clinical picture which relies on several facets including direct views of the eye. Views of the angle and optic nerve as well as repeatable visual field abnormalities and intra ocular pressure are all aspects of screening for glaucoma.

Anterior Segment OCT (AS-OCT) does image the angle structures. This is more specialized and is less common in general optometry practice. Even so it should not replace gonioscopy as the gold standard assessment of the anterior chamber and angles as it samples single loci and provides no global impression of the anatomy. Competent gonioscopy should be a routine part of every patient's examination plan as it is essential to screen for pathologies of the angle, which include angle closure. It does require some practice to master but is a simple investigation and competence is a requirement for a qualification in optometry. The fact that it was performed on a patient with occludable angles only once in 3 different visits, and even then incompetently is of concern. This suggests that it has not been a normal part of the clinical repertoire at Specsavers Silverdale and I recommend that this be addressed urgently as a means of both improving patient care and preventing a repeat occurrence.

Sub-acute angle closure is diagnosed by a competent examination of the anterior chamber and educated view of the structures of the angle in particular using gonioscopy, not done at any of [Ms A's] visits to Specsavers Silverdale. Competent interpretation of case history is also essential to identify intermittent episodes of angle closure. It is my firm opinion that access to OCT will not prevent a repeat of [Ms A's] experience.

Specsavers Silverdale's investment in e-referral technology may simplify patient referral to ophthalmology, and provide a more robust record of correspondence, but this investment alone would not prevent a repeat occurrence of [Ms A's] ocular pathology and injury. Only the inclusion of relevant diagnostic information and clinical findings will facilitate the appropriate triage and assessment of case urgency.

Had this been in place in 2014, [Ms A] may have been more likely to be seen by ophthalmology and it may be more likely that her unsuccessful referral was recognized and followed up. The details of the 2014 referral would also presumably be available.

Conclusion:

Having reviewed the further documentation provided:

Response from [Ms C] dated 28 August 2020 and enclosures

Response from [Ms B] dated 28 August 2020 and enclosures

Response from [Mr D] dated 4 September 2020 and enclosures

Response from Specsavers dated 10 September 2020 and enclosures

Copy of referral from [Mr D] to [the public hospital] Eye Clinic dated 6 January 2019

[Ms A's] letter of complaint makes mention of the fact that she was sold several pairs of glasses while she was in the care of Specsavers, which did little to improve her situation. Her comment that she felt '*neglected, and taken advantage of*' are of concern. Specsavers' response mentions their updated policies and procedures include detailed diagnostic imaging of the posterior segment and e-referral facilities. Their response also makes the point that her vision is '*perfect*'. I feel it necessary to emphasize that her vision was perfect without glasses at her first visit, yet she was sold glasses despite the examination notes detailing repeated visual disturbances as her primary concern.

[Ms A] may have been able to avoid permanent ocular injury had her eyes been examined adequately at either of her first two visits at Specsavers Silverdale. There is no evidence of her initial referral to the eye department in 2014 and her eventual referral to ophthalmology in 2019 was only made at her insistence.

In correspondence from [the DHB] to her GP, there is evidence that she saw Neurology for migraine and had a CT scan. It is unclear from the provided documentation whether this visit was as a result of [Ms A's] referral by Specsavers Silverdale or by her GP. In my

experience it is not uncommon for replies to referrals from optometry to be sent to the patient's GP. This reply makes no mention of ophthalmic considerations and does not originate from, or reference, the Eye Department. An email from the Consumer Liaison Coordinator dated 14/05/2020 asserts that all [DHB] records were forwarded for our perusal. I believe it is reasonable to conclude that [Ms A] was not seen at the Eye Department in 2014.

The fact that [Ms A] was not examined by ophthalmology in 2014 was missed at her next visit. The anterior chamber depth or angle width was again not assessed which compounded her situation. When finally advised to return to Specsavers Silverdale by her GP her acquired anisocoria was ascribed to a fictional physiological cause, following an incompetent gonioscopy examination. No follow up visual fields were included at any of the visit notes, despite the first finding being abnormal enough to warrant referral.

Failure to recognize symptoms that may be pathognomonic of angle closure was a critical oversight and an examination plan that omitted screening of [Ms A's] anterior eye effectively was poor. Examinations of her angle were not documented in the clinical records. [Ms C] asserts in the additional documentation supplied that she did examine the angles in 2014 using Van Herick technique, but did not record them because the findings were normal. Similarly, pupil assessment was done and not documented as well.

[The public hospital] Eye Clinic diagnosed [Ms A] with plateau iris syndrome. This anatomical configuration puts her at risk of angle closure and consequently glaucoma.

Even if Van Herick was performed it is not an adequate substitute for proficient gonioscopy, which is a requirement in an optometrist's clinical toolkit. Gonioscopy is the only way to directly view structures of the angle. As a clinical test Van Herick technique has a sensitivity of 62% and a specificity of 89% and as such is a poor substitute and may easily miss plateau iris anatomy as well as many other pathologies of the angle. The diagnosis of migraine is often one of exclusion and [Ms A's] symptoms were not that of a typical migraine and her angles should have been assessed.

The optic nerve asymmetry and abnormal pupil are probably features of neurological damage from the acute glaucoma and may not have been evident at her initial examination at Specsavers Silverdale in 2014.

[Ms A] was re-referred to ophthalmology only on her own insistence and the most useful information on the referral is her symptomology, although he does mention her anisocoria.

Recommendations for improvement:

Previous visit records should be reviewed as part of the case history and initial stage of the examination to facilitate the formulation of a coherent examination plan and to establish a coherent link in longitudinal care.

Examination Records should clearly show how the case management plan addresses the primary presenting symptoms.

The whole globe needs to be competently screened for ocular pathology, including the angles, and relevant investigations over time in a schedule that reflects the specific risk profile of the patient in question.

Referrals should clearly identify the primary area of concern and include sufficient detail to facilitate a sensible triage by the party in receipt of the referral. This should ideally include:

Diagnosis

Relevant History

Summary of clinical findings

At the end of the examination the patient should be given advice that includes details about possible signs and symptoms of events that may need further investigation as well as when, and how urgently, to seek review if these are experienced before the next planned review.

Greg Nel
Optometrist"

Mr Nel provided the following further advice:

"Reference: 19HDC01129

Thank you for the opportunity to provide further input into this matter. I feel that the original report still summarises my opinions accurately, although I have amended my conclusion and recommendation to include the additional information and replies. I add further comment below.

1: The appropriateness of the referral to [the public hospital] Eye Clinic (6 January 2019) by [Mr D].

[Ms A's] experience was not a timely referral as [Mr D] did not refer her at the time of her appointment with him. I do speculate that this may in part be as a result of his presuming normalcy after reading her prior notes. The referral did not include a tentative diagnosis or much background.

The Optometrists and Dispensing Opticians Board's Standards of Clinical Competence for Optometrists has the following clauses: (my bold type for emphasis)

3.3.2 (a): Requires that an optometrist 'Assesses and evaluates the structure and health of the anterior segment including, but not limited to, the cornea, conjunctiva, anterior chamber and aqueous humour, **anterior chamber angle, anterior chamber depth**, episclera, sclera, iris, pupil **and ciliary body (including surgical alterations)**.'

3.3.2 (b): Uses and interprets results from diagnostic tests/equipment including, but not limited to: vital dyes, diagnostic pharmaceutical agents, slit-lamp biomicroscopy, keratometry, topography, **gonioscopy**, pachymetry, tonometry, digital imaging, exophthalmometry, ultrasonography, tomography and confocal microscopy.

4.1 Interprets and analyses examination findings and results in order to determine the nature and aetiology of conditions or diseases and to establish a diagnosis or differential diagnoses.

5.10.1 Recognises the need for referral to other professionals for assessment and/or treatment, discusses this with the patient and recommends a suitable professional.

5.10.2 Makes a timely referral with appropriate supporting documentation.

[Mr D] had the misfortune of seeing [Ms A] last and she was diagnosed with plateau iris syndrome when she finally saw ophthalmology visit, an anatomical configuration which was almost certainly the case at her first visit at Specsavers Silverdale. Much anguish would have been prevented had she been referred with occludable angles then.

2: The appropriateness of changes made by Specsavers Silverdale

These changes will improve the standard of record keeping and documentation significantly. Random Audits are an excellent way of 'snapshotting' an optometrist's performance, examination plan, record keeping, differential diagnosis and case management. These insights are likely to benefit all because the optometrist has an unbiased insight into their performance with the feedback loop to witness their own improvement.

As previously mentioned, OCT is very useful technology in a primary healthcare setting. It is an excellent means of screening and monitoring. It is also potentially noisy and can be difficult to use when patient posture is unstable, in the hands of inexperienced or untrained technicians and in eyes with anatomy that lies outside the normative database. As such it should be used for what it is, an additional tool. I would caution against using it instead of core clinical investigations. Using OCT does not exempt the optometrist from any of the usual clinical investigations.

Oculo, scanned referrals and Healthlink will serve to document incoming and outgoing correspondence and prevent missing correspondence items, which have made this case more complicated to assess and defend. This will also improve the coherence of the

patient's documentation available in the practice. In my experience, findings and concerns are quite often more clearly stated in referral letters than in the clinical records system.

3: The appropriateness of changes made by the individual optometrists

All three optometrists have committed to improved record keeping and doing professional development, in glaucoma particularly, which is good.

Only [Mr D] performed gonioscopy (unilaterally) during his examination with [Ms A], and he concluded that her angles were not occludable which history shows, was not the case.

Van Herick is not a substitute for proficient gonioscopy, which is absolutely required in an optometrist's clinical toolkit. It is the only way to directly view structures of the angle. As a clinical test Van Herick technique has a sensitivity of 62% and a specificity of 89%. Whether the anterior drainage angles are open or not is merely an extrapolation. [Ms A] was diagnosed with bilateral plateau iris syndrome. She was in the typical demographic for angle closure from plateau iris. Competent gonioscopy would diagnose this.

I would hope that [Ms C], [Ms B] and [Mr D] have realised that the Van Herick technique is a test for screening the depth of the peripheral anterior chamber only, and then only valid in some situations. If Van Herick was performed as [Ms B] and [Ms C] assert, [Ms A's] experience serves to highlight its limitations. Several of the glaucomas and many other pathologies require a competent gonioscopy assessment.

Only [Mr D] mentions this specifically. Gonioscopy should form part of all three individuals' glaucoma education commitment.

Yours sincerely

Greg Nel

References:

Diagnosing Angle Closure: Gonioscopy vs. OCT. https://www.reviewofophthalmology.com/article/diagnosing-angle-closure-gonioscopy-vs-oct#:~:text=In%20one%20study%2C%20the%20van,only%2058%20to%2079%20percent.&text=Gonioscopy%20is%20the%20gold%20standard%20for%20diagnosing%20angle%20closure.

https://www.nzao.co.nz/sites/default/files/2015Conference/NZAO%202015%20presentation%20-%20traditional%20assessments.pdf

> To evaluate the diagnostic performance characteristics of the Van Herick assessment (VHA) for identifying angle closure compared to gold-standard gonioscopy, as conducted by trained observers of varying expertise.
>
> https://www.ajo.com/article/S0002-9394(18)30407-0/pdf
>
> The flashlight test and van Herick's test are poor predictors for occludable angles. Ravi Thomas, MD* Thomas George, DOMS* Andrew Braganza, MS* Jayaprakash Muliyil, DrPHt RANZCO Referral Pathway for Glaucoma Management.
> https://ranzco.edu/wp-content/uploads/2019/06/RANZCO-Referral-Pathway-for-Glaucoma-Management.pdf
>
> https://www.odob.health.nz/wp-content/uploads/2018/12/FINAL-REVISED-STANDARDS-OF-CLINICAL-COMPETENCE-FOR-OPTOMETRISTS-Nov-2018.pdf
>
> American Academy of Ophthalmology EyeWiki: Plateau Iris
> https://eyewiki.aao.org/Plateau_Iris#:~:text=Plateau%20iris%20syndrome%20is%20defined,order%20to%20prevent%20vision%20loss"

Mr Nel was asked to clarify the level of departure from accepted standards with respect to the appropriateness of the referral to the hospital Eye Clinic (6 January 2019) by [Mr D]. Mr Nel provided the following response:

> "I consider this a moderate departure from standard. The fact that this referral was made and was accepted moderates it from significant.
>
> My rationale:
>
> [Ms A] should not have been in the position that she had to insist upon referral to ophthalmology. The referral listed symptoms, not diagnosis and included information that was incorrect and likely confounded the proper triage and appointment scheduling. (Normal gonioscopy findings) and ultimately was not timely.
>
> My understanding is that [Ms A's] care pathway to ophthalmology came about because she also saw [Ms F] at [the second optometry clinic] who referred her to private ophthalmology at [the eye clinic] for more timely and emphatic care."

The following further advice was obtained from Mr Nel:

> "Reference: 19HDC01129
>
> Thank you for the opportunity to provide further input into this matter. I feel that the original report still summarises my opinions accurately. I add further comment below further to your questions during our telephone conversation today.

1. Were the signs of plateau iris configuration visible in 2018 or earlier?

Plateau iris configuration describes an unusual anatomical configuration where the depth of the anterior chamber looks normal but the iris insertion is more anterior on the ciliary body than in a normal eye so as to be closer to the trabecular meshwork. As the individual ages, the crystalline lens moves the iris insertion progressively forward to eventually partially or completely obstruct the aqueous outflow.

When [Dr E] examined [Ms A] in 2019, he estimated her being symptomatic for 5 years or more prior to his seeing her. This fits well with the information provided for me to review. Her symptoms were likely a result of intermittent closure of the angle and spikes in her intra ocular pressure. Her risk of angle closure would logically have predated the onset of her symptoms by several years. This would have been evident with a competent assessment of her anterior segment.

In a best case scenario, plateau iris configuration is diagnosed in a young adult and monitored regularly to screen for risk of angle closure. A competent gonioscopy examination would have identified her risk many years earlier.

2. Clarify whether the optic nerve could have changed from a cup to disc ratio of 0.2 in both eyes to right 0.3 and left 0.5, between February 2018 and February 2019?

It is possible that the optic nerve appearance could have changed in this timeframe as it was very likely that [Ms A] had been having episodes of pathologically elevated intra-ocular pressure which causes glaucoma, which involves a thinning of the retinal nerve fibre layer and loss of the neural rim of the optic nerve.

It is, however, also possible that the optic nerve appearance was recorded incorrectly and that her optic nerve had not changed in appearance. Reference images provided do suggest an existing cupping asymmetry although a two dimensional retinal image may misrepresent the actual cupping. It is possible to suffer episodes of significantly elevated intra-ocular pressure and not suffer an observable loss of optic nerve tissue. It is therefore not possible for me to say, with any certainty, whether the optic cupping had changed."

Mr Nel was provided with a copy of the opinion from optometrist [Ms G] (which was provided to HDC by [Ms C] following issue of the provisional opinion). After reviewing [Ms G's] opinion, Mr Nel provided the following further advice:

"Reference: 19HDC01129

Thank you for the opportunity to provide further input into this matter. I have considered [Ms G's] opinion on [Ms C's] actions and summarise my opinions below.

1. The prescribing of distance glasses to [Ms A]

I remain critical of this prescription as [Ms A's] unaided visual acuity was good and this prescription did not address her primary concerns of visual disturbances, and on the

basis of the examination were difficult to justify clinically and did little to improve her vision.

I do acknowledge [Ms G's] point that there are circumstances where such a prescription would alleviate symptoms and improve visual function and such situations are reasonably recorded in the case history. I'm happy to concede that, other than financially, the glasses are unlikely to cause any harm. I also concede that there is quite likely some variance in attitudes in this regard and to the likelihood that [Ms A's] situation would have been improved by prescription distance glasses.

2. Assessment of the angle

I agree with [Ms G's] interpretation of the 'clear and quiet' description as noting the absence of inflammatory conditions of the anterior chamber.

I do not agree however that gonioscopy was not required in this case. I agree that migraines are possible explanation for [Ms A's] symptoms but it is my opinion that migraines are a diagnosis of exclusion. It should also be noted that her symptoms were not those of a classic migraine, this is even noted in the case history. There are several masquerade conditions to consider with these symptoms. I am of the firm opinion that an optometrist of reasonable standard would understand that angle closure events are one of the clinical entities that may cause the symptoms she describes.

Gonioscopy is taught at university and regarded as one of the fundamental skills required of optometrists in their ability to assess and diagnose ocular pathology, as are the limitations of van Herick estimation. Intermittent angle closure could not have been adequately ruled out without gonioscopy.

In my previous response I have described the limitations of van Herick estimation and it should be noted that there is no mention of any assessment of [Ms A's] angles at this first examination at all.

3. Was it reasonable not to follow up the referral?

The situation in Auckland in 2014 is very much like the situation in Wellington now. We have recently switched over from faxing referrals to emailing referrals and optometrists are encouraged to ask for a delivery receipt. It is also normal practice to ask the patient to contact the referring optometrist if they have not heard from the public eye clinic in a reasonable timeframe.

The system in Auckland in 2014 was not ideal and provided the referral was faxed and the fax 'went through' it is reasonable to presume that the referral was processed appropriately.

Yours sincerely

Greg Nel"

Appendix B: Opinion from Ms G

The following expert advice was obtained by Ms C from optometrist Ms G:

> "PROFESSIONAL OPINION REGARDING EYE CARE FOR [MS A] FROM OPTOMETRIST [MS C] IN 2014
>
> …
>
> I have been asked to comment on the reasonableness of the actions of [Ms C] in regards to her assessment and treatment of [Ms A]. In order to do this I have been supplied with the following:
>
> Correspondence from the HDC to [Ms C]
>
> [Ms C's] response to HDC
>
> Optometry records for [Ms A] made by [Ms C]
>
> Mr Nel's opinions on the care of [Ms A]
>
> A redacted form of the HDC provisional opinion relating to [Ms C]
>
> I have not been asked to comment on the care provided by two other optometrists who saw [Ms A] at a later time.
>
> The Optometrists and Dispensing Opticians Board when I was involved in such cases would ask what would a reasonable optometrist do. Not what would I do as the optometrist, nor what would the best optometrist do. This is the approach I have taken for this report.
>
> In regards to [Ms A's] presenting symptoms on 19/6/2014 LE foggs has a pressure, has a yellow light bulb flash then HA on LHS of brain — not typical migraine and vision is usually lost for a day. I would have considered migraines given she is a migraine sufferer, as well as her gender, age perhaps hormonal related, and her symptoms. The flashes could indicate a retinal detachment and dilated fundus examination is indicated. The loss of vision for a day seems unusual and would indicate some specific testing and questioning.
>
> In regards to prescribing glasses I think that is reasonable. [Ms A] is of an age where she should be presbyopic and on retinoscopy was found to be hyperopic. For a similar age patient it is reasonable to prescribe the distance prescription if astigmatic and/or hyperopic for near tasks.
>
> In regards to record keeping [Ms C] has not recorded an assessment of the anterior chamber angle. I note she has examined it and recorded clear and quiet. That is more descriptive of no signs of anterior uveitis. Typically it would be recorded as open, shallow, narrow and/or the van Herrick estimation would be noted. There is no record

of pupil reactions I cannot determine if the pupils were equal in size and reactive ie normal. All normal findings should be recorded.

[Ms C] dilated both of [Ms A's] eyes and this should only be done by an optometrist if the angles were open, ie not narrow and likely to occlude. If the van Herrick was open, gonioscopy would not be done to confirm this. A reasonable optometrist would also record post dilation IOP, particularly if the angle was on the narrow side. It seems reasonable to dilate to exclude other causes of flashes like retinal detachment and perhaps even choroidal melanoma. Dilation did not cause an angle closure attack.

[Ms C] has only 1 recorded value for IOP and it reads as if this was an average and a NCT was used. Ideally all results should be recorded and the type of tonometer used. Incidentally NCT tends to record higher than the Goldmann Tonometer which is the gold standard for glaucoma.

A referral was written on the same day of the eye examination and noted to have been faxed. In Auckland in 2014 hand written faxed referrals were common practice. [The public hospital] Eye Department I would expect would not see this patient for months as it was not an urgent referral. [Public hospital] Eye Department letters are set on a default to the patient's GP not the referrer. This is a frustration to the [local] Optometry profession. A reasonable optometrist would advise the patient of this process and ask them to contact them if they had not received a letter regarding an appointment as it is difficult for the optometrist to ascertain this information.

[Ms A] had a second appointment with [Ms C] on 31/7/2014 for visual fields. The prescription was re-checked as the LE still felt a bit blurred and explained to be adaptive. There is no record of the prescription or VA on that day. Monocular colour vision was normal and this is a common test if a neurological cause of symptoms is suspected or needs to be excluded. Visual fields were done and the LE showed the GHT was outside normal limits and [Ms C] recorded this as dark defects on the L side. According to the notes the visual fields were sent to the Eye Department. A reasonable optometrist might have reviewed their findings of pupils, angles and optic nerve head appearance to ascertain if the visual field could match the nerve.

The fundus photos appear to show disc asymmetry, where the right nerve appears larger and more cupped and paler. It could be from the flash setting being too high and the pupil was more dilated than the left. This is common as the first eye photographed is generally the right eye. Photography is used for recording not examination and [Ms C] has found no disc asymmetry on dilated fundus examination. Disc asymmetry or increased cupping findings both warrant further investigation for glaucoma. Disc paler would warrant further investigation of an optic neuropathy.

[Ms C] has given a 2 year recall. When referring a patient it is common practice to set a shorter recall and review the patient sooner.

In summary [Ms A] [given her age] and a low hyperope is not a typical angle closure glaucoma suspect. Some of her symptoms may also be shared by a patient experiencing an angle closure attack but a reasonable optometrist would not have dilated a patient if they suspected this or narrow angles. From the history of symptoms it is reasonable to investigate migraines as the most likely cause. What is atypical is the length of time the vision in the left eye was lost. It is reasonable to refer for this to be investigated further regardless of the cause being known or unknown. It is common eye care practice for an optometrist to refer a patient and in doing so hand over the care to the ophthalmologist. I note [Ms A] was seen at [the hospital] for visual fields and by [a] Neurologist in August 2014 and therefore [Ms A] would then have been under their care and management.

I note that [Ms A] was later diagnosed with plateau iris syndrome. This is a rare and very difficult condition to diagnose as the anterior chamber appears normal apart from the anterior chamber angle being narrow. The diagnosis is made using gonioscopy as it shows an anterior chamber angle that is much narrower than expected for the anterior chamber. In many instances it is diagnosed after the peripheral iridotomy is done to treat acute angle closure glaucoma. It is not common optometric practice to perform gonioscopy on every patient. Iris plateau glaucoma is more common in younger patients with angle closure glaucoma. I spoke anonymously with an ophthalmologist glaucoma specialist who said even ophthalmologists within this sub speciality find plateau iris very hard to diagnose.

In respect of the provisional views expressed by HDC summarised at paragraph 55, my view is that:

a) I note that gonioscopy would diagnose iris plateau syndrome and iris plateau glaucoma. I think it is reasonable that given the symptoms, findings and management of the eye examination of [Ms A] by [Ms C] that gonioscopy was not done.
b) I consider it was reasonable not to follow up a referral to hospital in light of the system that existed at that time in [the region] for referrals.
c) I consider the decision to prescribe spectacles was reasonable.
d) I agree that there should have been better documentation of the assessment.

[Ms G]”

Appendix C: Relevant policies and procedures

Specsavers' "Best Practice Guide to Clinical Record Keeping & Registration Standards" (May 2017) states: "Clinical records should be understandable and useable by any optometrist and his/her colleagues."[1]

Under "Examination of the eye and visual system" it states: "All observations and test results including those that are normal should be recorded."

Under "Referrals" it states: "A crucial part of clinical record keeping is to clearly indicate whether the patient requires a referral, the reason(s), the urgency, and to keep a copy on file."

[1] Specsavers told HDC that owing to a change of ownership (specifically, a change in shareholding in Specsavers Silverdale Limited in 2014), it has been unable to locate the relevant policies in place prior to May 2017.

Appendix D: Relevant standards

The Optometrists and Dispensing Opticians Board's "Standards of Clinical Competence for Optometrists" (November 2010 and April 2017 versions) states:

> "Task 3. Examination of the eye and visual system
>
> …
>
> 3.3.2 (a) Assesses and evaluates the structure and health of the **anterior segment** including but not limited to: cornea, conjunctiva, anterior chamber and aqueous humour, anterior chamber angle, anterior chamber depth, episclera, sclera, iris, pupil and ciliary body (including surgical alterations).
>
> (b): Uses and interprets results from such tests/equipment as: vital dyes and diagnostic pharmaceutical agents, slit-lamp biomicroscopy, keratometry, topography, gonioscopy, pachymetry, tonometry, photography, pupil reactions appropriate pharmacological testing, exophthalmometry.
>
> (c): Interprets results of tests such as: anterior segment imaging, ultrasonography, confocal microscopy."
>
> "Task 4. Detection, measurement and diagnosis of variations, anomalies, defects and diseases of the eyes, adnexae and visual system
>
> …
>
> 4.1 Interprets and analyses examination findings and results in order to determine the nature and aetiology of conditions or diseases and to establish a diagnosis or differential diagnoses.
>
> …
>
> 4.1.8 Integrates information from results, history, to differentiate changes, to differentiate chronic/acute conditions, to establish a differential diagnosis and to determine a need for additional testing."
>
> "Task 5. Patient management
>
> …
>
> 5.9.1 Recognises the need for referral to other professionals for assessment and/or treatment, discusses this with the patient and recommends a suitable professional.
>
> 5.9.2 Makes a timely referral to other professionals, with appropriate supporting documentation."

"Task 7. Recording and maintaining of clinical data and records

… 7.1.1 Promptly records all relevant information pertaining to the patient in a separate record and in a format which is understandable and useable by any optometrist and his/her colleagues (including such information as name and address of patient, name of examining practitioner, patient history, diagnoses, management strategies, summary of advice given to patient, photographic and video information for all consultations, dates and information relating to all patient contacts, timing of review, copies of referral letters and reports with the record)."

The Optometrists and Dispensing Opticians Board's "Standards of Clinical Competence for Optometrists" (November 2018 version) states:

"Task 5. Patient management

…

5.10.1 Recognises the need for referral to other professionals for assessment and/or treatment, discusses this with the patient and recommends a suitable professional.

5.10.2 Makes a timely referral with appropriate supporting documentation."