Southern District Health Board
Ophthalmologist, Dr B

A Report by the
Health and Disability Commissioner

(Case 17HDC01496)

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Contents

Executive summary

1. This report considers the management of a man's ophthalmology care by Southern District Health Board (DHB) between December 2015 and January 2016 (inclusive). During this time, he suffered significant deterioration in his vision and experienced delays in receiving a semi-urgent MRI scan — the next diagnostic step in his care.

Findings summary

2. The Commissioner found Southern DHB in breach of Right 4(1) of the Code. When the man presented on 18 December 2015, the Emergency Department did not escalate his care to the on-call Ophthalmology service, and therefore more proactive steps were not taken to follow up on a pending Ophthalmology appointment. Southern DHB also failed to ensure that its locum ophthalmologist was aware of the unavailability of MRIs during the Christmas and New Year period. This meant that the man experienced an unacceptable delay in receiving an MRI scan.

Recommendations

3. Southern DHB is to provide a formal written apology. It is also to review the orientation provided to locum clinicians, and advise HDC of how it will ensure that locum staff receive important information. In addition, Southern DHB is to review its management and communication of MRI availability over public holidays, and advise HDC whether the DHB's expected referral waiting times for Radiology are now documented.

Complaint and investigation

4. The Health and Disability Commissioner (HDC) received a complaint from Mr A about the services provided by Southern DHB and an ophthalmologist, Dr B. The following issues were identified for investigation:

- *Whether Southern DHB provided Mr A with an appropriate standard of care between December 2015 and January 2016.*
- *Whether ophthalmologist Dr B provided Mr A with an appropriate standard of care in December 2015.*

5. The parties directly involved in the investigation were:

Mr A	Consumer/complainant
Dr B	Provider/ophthalmologist
Southern DHB	Provider

6. Further information was received from:

Dr C	Emergency Department (ED) doctor
Dr D	General practitioner
Dr E	Clinical Director Ophthalmology
Mr F	Optometrist

7. Also mentioned in this report:

Dr G	ED doctor
Dr H	ED consultant
Dr I	ED doctor
Dr J	Ophthalmologist

8. Independent expert advice was obtained from an ophthalmologist, Professor Charles McGhee (**Appendix A**), and an emergency medicine specialist, Dr Vanessa Thornton (**Appendix B**).

Information gathered during investigation

9. This report discusses the care provided to Mr A, aged in his fifties at the time, by Southern DHB between December 2015 and January 2016 (inclusive).

10. Mr A reported that he had had "problems with eyes fighting each other [and] severe headaches" during 2014 and 2015, and had a number of optometry and doctor visits during this time. Mr A believes there were delays in his care and treatment, which had a detrimental effect on his vision. Mr A told HDC: "My vision loss has changed my life and I feel aggrieved and disappointed about what has occurred. I am now permanently blind in my right eye."

December 2015

11. On 15 December 2015, Mr A presented to Hospital 1's Emergency Department (ED) and was triaged by a registered nurse. She documented Mr A's history of worsening blurred vision in the right eye as being "[l]ike a film over eye", with intermittent flashes and pain behind the eye for the past two weeks. The nurse carried out a visual acuity test,[1] which noted 6/12[2] in Mr A's right eye, and 6/6–2[3] in his left eye.

[1] Visual acuity relates to the clarity or clearness of vision. A visual acuity test is an eye examination that checks how well a person sees details or symbols. In this instance, the Snellen test was used, which involves a chart of letters and symbols viewed from a distance of six metres.
[2] Visual acuity is expressed as a fraction. The first number refers to the distance the patient stands from the chart in metres, and the second number indicates the distance at which a person with normal eyesight could read the same line as that read by the patient.
[3] Mr A could see only two letters on the 6/6 line.

12. Mr A was then seen by an ED doctor, Dr G, who documented that Mr A complained of:

> "[Right] eye tenderness on and off for at least a week.
>
> Mild 1.5/10 to max 3/10 headache around [right] eye, pressure like headache/eye pain behind eye."

13. Dr G noted Mr A's reason for presenting to ED as "misty vision [right] eye slowly increasing over the last month, light flashes in [right] eye when loud sound". Dr G carried out an eye examination and noted that no right eye redness, swelling, or pupillary abnormality was detected. Visual acuity was noted to be moderately reduced in the right eye but normal in the left eye.

14. Dr G discussed Mr A's presentation with an ED consultant, Dr H, and decided to complete testing to rule out giant-cell arteritis.[4] Mr A's test result was normal, and Dr H made an interdepartmental referral to the Ophthalmology Outpatient Department for a specialist opinion.

15. On 17 December 2015, Mr A was seen by his optometrist, Mr F. At this appointment, Mr A complained of a three-week history of blurred vision in the right eye. When Mr F examined Mr A's eyes, it was noted that Mr A's unaided vision was six times poorer than at his last appointment a year ago. Mr A could not identify any of the colour vision test plates with his right eye, scoring 0/14, whereas one year earlier he had seen of all them, scoring 14/14. Mr F told HDC that these results were "indicative of pathology". Mr A's left eye was noted to be normal. Mr F booked Mr A for a visual field test with a colleague the following day (as Mr F was not working that day) to see whether a diagnosis could be made regarding Mr A's recently observed visual loss.

16. On 18 December 2015, Mr A returned to the optometry clinic for the visual field test. Also on this date, the interdepartmental referral[5] was received by Hospital 1's Referral Centre, and Mr A re-presented to Hospital 1 ED. The ED triage nurse performed a visual acuity test, which showed 6/24 for the right eye and 6/6 for the left. Mr A was then seen by an ED doctor, Dr C. Dr C noted Mr A's history of right eye pain and decreased, blurry vision for several weeks. Mr A had ongoing mild eye pain and intermittent floaters. He denied redness, swelling, or discharge from the eye. On examination, he was not distressed, and Dr C could not see any bleeding, tearing, or drainage. There was no increased pressure on palpation of the eye. Mr A refused a slit-lamp[6] examination because this had been performed recently at the optometrist's clinic.

[4] Also known as temporal arteritis — a condition in which the temporal arteries, which supply blood to the head and brain, become inflamed or damaged.
[5] Dated 15 December 2015.
[6] A slit lamp allows the eye to be examined with a beam or a slit of light that can be adjusted for height and width. When directed at an angle, the slit of light accentuates the anatomic structures of the eye, allowing close inspection.

17. As there were no acute changes to his presentation, Dr C planned for Mr A to go home and to have follow-up with the Ophthalmology Outpatient Clinic after the weekend (on Monday) regarding his referral. Dr C told HDC:

> "[A]fter reviewing my documentation of [Mr A's] encounter regarding his worsening painless vision loss I would be sure to in the future call the on call ophthalmologist directly myself to ensure emergent follow up rather than relying on the patient to have to wait to hear for a referral."

18. On 21 December 2015, Mr F returned to work and reviewed the results of the visual field test. He told HDC that there was "significant depression of [Mr A's] visual field (reduced sensitivity to light or 'blind spot')". Mr F was unable to suggest a diagnosis for Mr A's visual loss, and therefore sent an urgent referral to Hospital 1's Referral Centre. On the same day, Mr A's referrals were prioritised as "Urgent".[7]

Eye Clinic and MRI request

19. On 24 December 2015 (six days after the first referral by Dr H), Mr A was reviewed by a locum ophthalmologist, Dr B. Dr B told HDC that he was aware from Mr F's referral that Mr A's vision had dropped from 6/12 in the right eye to 6/36. On examination, Dr B recorded that Mr A was exhibiting relative afferent pupillary defect (RAPD),[8] could see only hand movements in the right eye, had reduced colour vision, and had total loss of the right visual field.

20. Dr B told HDC:

> "Based on the history (onset over at least 3 weeks and his vision on presentation), the additional history of right eye symptoms a year previously and the lack of any serious ocular findings, other than acuity, his presentation suggested to me that his right eye problem was a chronic one with a several week history of exacerbation."

21. Dr B stated that he did not consider that Mr A's condition was "within the limited category of acute ophthalmological conditions that would necessitate an MRI within 24 hours". Nonetheless, he did consider it sufficiently serious to merit a semi-urgent MRI, which he expected to be performed prior to a follow-up clinic two weeks later.

22. Mr A told HDC that he was assured that he would receive an MRI "inside 2 weeks". However, as discussed below, Southern DHB told HDC that Mr A's referral was not acted upon owing to the time of year, the upcoming closure, and the apparent acuity (semi-urgent).

[7] At the time of events (December 2015), the waiting time for an urgent ophthalmology consultation was between 1–4 weeks.

[8] When the eye's pupil contracts or dilates only slightly when light shines over it, instead of shrinking immediately as it should. This indicates that there may be an underlying health problem.

MRI availability

23. Southern DHB told HDC:

> "[Since the MRI referral was made] immediately before Christmas, MRI availability was limited to on-call only between 25 and 28 December 2015; [urgent referrals] only between 29 and 31 December 2015, and was closed from 1 to 10 January 2016."

24. Southern DHB reported that communication outlining the January 2016 closure period for MRIs was sent to clinical staff on 22 December 2015. The memo was addressed to "SMOs,[9] RMOs,[10] Duty Managers, General Managers, Medical Directors". It stated:

> "Due to MRT[11] vacancies we are unable to provide MRI scans at [Hospital 1] between 1 and 10 January 2016 (inclusive).
>
> Contingency cover is in place for critical referrals; these patients will be scanned at [Hospital 2].
>
> If there is a critical need for MRI between these dates please:
>
> - Refer the patient to [Hospital 2] Radiology, discuss with the Consultant Radiologist on duty.
> - Arrange a transfer of the patient's care to your equivalent team at [Hospital 2].
> - Consult with the Duty Manager at [Hospital 1] to coordinate patient transport."

25. Dr B told HDC that he did not receive the above communication, and was not aware of the limited availability of MRIs when he referred Mr A. He said that he had not been provided with a DHB email account, and did not have one at the time of events, and he was not informed of the limited availability by any other method. Southern DHB confirmed that Dr B was under a short-term locum contract and therefore did not use a Southern DHB email mailbox.

26. In Southern DHB's complaint correspondence to Mr A, the DHB stated: "[U]nfortunately [Dr B], being new to staff, was not aware of radiology wait times, and that during Christmas 2015, MRI availability was limited ..."

27. Southern DHB also told HDC that Dr B's induction training did not include orientation to Radiology. Southern DHB said that at that time there was no documented expected referral waiting time for radiology services.

January 2016

28. On 12 January 2016, Mr A attended Hospital 1's ED and was triaged by a nurse, who noted that he had redness and swelling around his right eye and that his vision in the right eye had been poor for the last five weeks.

[9] Senior medical officers.
[10] Resident medical officers.
[11] Medical radiation technologist.

New left eye symptoms

29. On 18 January 2016, Mr A was referred to ED by his general practitioner, with new left eye symptoms. He was triaged in ED by a clinical nurse specialist, who noted: "Loss of vision left eye has previously had total visual loss [right] eye and woke today with 'raining' feeling on left eye." She recorded left eye visual acuity of 6/6–1[12] but that Mr A stated that he had blurred vision and was concerned, "as this is how [his right] eye started".

30. Mr A was then seen by an ED doctor, Dr I, who noted that Mr A had had left eye flashes and floaters since the morning and a mild headache. She documented: "1 month ago developed similar symptoms on [right] eye which progressed … to complete visual loss." Dr I also noted that an MRI scan had been requested on 24 December 2015 but had yet to be performed.

31. Dr I carried out an eye examination and discussed Mr A's case with the ophthalmology registrar. Dr I documented: "[T]o be seen urgently in [Hospital 2] eye clinic today." Mr A was admitted to Hospital 2 acutely under the on-call consultant ophthalmologist, Dr J. Dr J reviewed Mr A and found severe right eye vision loss, and noted the need for an urgent MRI of the orbits, brain, and spine. The working diagnosis at this time was neuromyelitis optica.[13]

32. On 19 January 2016, an MRI was attempted at Hospital 2, but was unsuccessful as the MRI scanner bore size was unable to accommodate Mr A's build. An urgent request was instead made for a CT of the orbits and head.

33. On 20 January 2016, a CT scan showed a small 9mm lesion at the right orbital apex, but the cause of the lesion could not be defined. On the same day, Dr J wrote to another DHB (DHB2) requesting an urgent MRI, and stated: "[I]f this could possibly be done before the weekend would be very appreciated."

34. Mr A told HDC that between 24 December 2015 and 12 January 2016, Dr D contacted Hospital 1 numerous times on his behalf to obtain an appointment date for an MRI but did not receive an adequate response.

MRI

35. On 22 January 2016, an MRI was carried out at DHB2 (3.5 weeks after Mr A's appointment with Dr B). Dr B told HDC that it was not his intention that Mr A would wait 3.5 weeks before receiving an MRI. It was his expectation that a semi-urgent MRI could be performed before the follow-up clinic appointment. Dr B stated that had he known of the restriction in MRI availability, he would have given Mr A the option of a private MRI. Mr A told HDC that he would have paid for a private scan but never received this option.

[12] Mr A could see only one letter on the 6 metre line.

[13] A rare but severe inflammatory process of the central nervous system.

36. The MRI confirmed a small lesion at the right orbital apex but excluded demyelinating[14] disease elsewhere.

Subsequent events

37. Because of the delay in receiving an MRI, Mr A did not receive a follow-up ophthalmology review two weeks after his consultation with Dr B on 24 December 2015.

38. On 24 January 2016, Mr A was discharged from Hospital 2. His discharge summary noted "diagnosis unclear". Mr A was seen by Dr J at a follow-up appointment on 26 January 2016. At this time, further investigations and treatment were planned for Mr A.

39. Subsequently, a diagnosis of presumed sarcoid inflammatory ocular disease[15] was made.

Further information — Southern DHB

40. Southern DHB told HDC that it recognises the effect of vision loss on Mr A and how it has affected his life and well-being. It apologised for any of its actions that may have contributed to this.

41. Southern DHB told HDC that since these events it has made the following changes to its service:

a) Southern DHB notifies its patients at Hospital 2 of a referral to Radiology, and the priority and waiting times. Southern DHB advised that it is in the process of rolling this out across the district.

b) Southern DHB has mandated use of electronic referral for Radiology across the district, which it believes will assist considerably with urgent patient referrals.

c) Waiting times for Radiology will be added to the DHB bulletin, which is updated regularly for all clinical staff.

d) Southern DHB has made improvements to its induction of locum and new staff, which includes ensuring that Radiology waiting times and processes are highlighted.

42. The Clinical Director of Ophthalmology at the time, Dr E, commented that Mr A was seen by Dr B within an appropriate time interval. Furthermore, Dr E considered that Dr B's management plan for Mr A on 24 December 2015 (blood tests and semi-urgent MRI) was appropriate. Dr E also noted that the investigations planned could most appropriately be performed on an outpatient basis as opposed to hospital admission.

Responses to provisional decision

Mr A

43. Mr A and his partner were given an opportunity to respond to the "information gathered" section of the provisional opinion. They advised that they were happy with the information

[14] Loss or destruction of myelin (sleeves of fatty tissue that protect nerve cells in nerve tissue).
[15] Ocular sarcoidosis can cause inflammation and damage to any part of the eye, owing to clumps of inflammatory immune cells called granulomas.

provided, and want to make clear that they do not hold Dr B accountable. They stated: "[W]e believe [Southern] DHB severely let down not only [Mr A] but also Dr B."

44. Where relevant, other aspects of Mr A and his partner's response has been incorporated into this report.

Southern DHB

45. Southern DHB was given an opportunity to respond to the provisional opinion. It advised that it accepts the failings identified in its management of Mr A's care, and is very regretful of this. It also accepted the recommendations made.

Dr B

46. Dr B was given an opportunity to response to the relevant sections of the provisional opinion. Dr B advised that he is grateful that HDC concluded that he did not breach the Code.

Opinion: Southern DHB — breach

Introduction

47. In mid-December 2015, Mr A presented to Hospital 1 with acute right eye symptoms associated with decreased vision. Subsequently, he developed further significant and permanent right eye visual loss. While awaiting a semi-urgent MRI, he began experiencing similar symptoms in his left eye.

ED presentation — 18 December 2015

48. Mr A presented to ED on 18 December 2015. A visual acuity test was carried out by the triage nurse, and an ED doctor, Dr C, also examined him. Dr C noted that as there were no acute changes to Mr A's previous presentation from 15 December 2015, and an ophthalmology outpatient appointment was pending, her plan was for Mr A to go home and be followed up with the outpatient clinic after the weekend. Dr C accepts that in retrospect, she should have contacted the on-call ophthalmologist directly to ensure "emergent follow up".

49. My expert advisor, emergency medicine specialist Dr Vanessa Thornton, advised:

> "Acute visual loss is a rare presentation to ED. [Mr A] presented with persistent acute significant visual deterioration. The differential diagnosis is large and experience in the eye examination may be limited for an emergency physician. This history alone with documented visual acuity loss is an emergency in the eye. Early discussion with a specialist ophthalmologist is appropriate."

50. Dr Thornton considered that on 18 December 2015, Mr A should have been discussed acutely with the on-call ophthalmology service, even if an urgent referral had already been accepted by this time. She advised that the adequacy of the ED assessment, in

combination with the recommendation for Mr A to follow up with Ophthalmology himself after the weekend, was a moderate deviation from the accepted standard of care.

51. I accept Dr Thornton's advice. I am critical that in light of Mr A's presenting symptoms on 18 December 2015, he was not escalated to the on-call Ophthalmology service. This meant that more proactive steps were not taken to follow up on Mr A's Ophthalmology appointment.

MRI delay

52. On 24 December 2015, Mr A was seen by locum ophthalmologist Dr B. Dr B planned for Mr A to have a semi-urgent MRI prior to a follow-up appointment in two weeks' time.

53. Unfortunately, at this time (Christmas and New Year), MRI availability was significantly reduced and limited. Southern DHB told HDC that Mr A's referral was not acted on because of the upcoming holiday closures, and because the referral was only semi-urgent.

54. Although Southern DHB emailed staff about the unavailability of MRIs during the holiday period, this information did not reach Dr B, as he was a locum and did not have an email account at the time. Dr B did not receive this communication in any other form, nor was he oriented to Radiology when he commenced working at Southern DHB. At the time of events, there was also no documented expected referral waiting time for Radiology.

55. Mr A began experiencing symptoms in his left eye similar to those of his right eye. He presented again to ED and received an MRI — 3.5 weeks after his appointment with Dr B. Because of the delay in receiving an MRI, Mr A did not receive a two-week follow-up Ophthalmology appointment.

56. My expert, ophthalmologist Professor Charles McGhee, advised that he would have expected Mr A to have received an urgent MRI scan within a few days, "and certainly not delayed until late January". He advised that this delay represents a "major" departure from accepted standards.

57. I agree. I am critical of Southern DHB's poor communication and guidance to Dr B about the availability of MRIs during the Christmas and New Year period. Southern DHB's failure to ensure that all relevant staff were provided with such information meant that Mr A experienced an unacceptable delay in obtaining imaging — the next diagnostic step in his care. Further, had Dr B been informed of this key information, he may have taken further steps to ensure that Mr A received timely imaging and follow-up assessment.

Conclusion

58. Between December 2015 and January 2016, Mr A was experiencing an emergency in his eye. During this time, aspects of the service provided to Mr A by Southern DHB let him down. As stated above, I am critical of the following:

- On 18 December 2015, Mr A was not escalated by Southern DHB's ED to the on-call Ophthalmology service. This meant that more proactive steps were not taken to follow up on Mr A's Ophthalmology appointment.

- Southern DHB failed to ensure that Dr B was aware of the unavailability of MRIs during the Christmas and New Year period. This failure meant that Mr A experienced an unacceptable delay in obtaining imaging — the next diagnostic step in his care.

59. For these reasons, I consider that Southern DHB failed to provide services to Mr A with reasonable care and skill, and breached Right 4(1)[16] of the Code of Health and Disability Services Consumers' Rights.

Opinion: Dr B — adverse comment

60. On 24 December 2015, Mr A was reviewed by locum ophthalmologist Dr B. Dr B did not consider that Mr A's condition was within the range of acute ophthalmological conditions that would necessitate an MRI within 24 hours, but did consider it sufficiently serious to merit a semi-urgent MRI, which he expected to be performed prior to a follow-up clinic in two weeks' time.

61. Unfortunately, at that time of year MRI availability was significantly reduced and limited. Southern DHB told HDC that the referral was not acted on because of the upcoming closures, and because the referral was only semi-urgent.

62. Although email communications about MRI availability went out to Southern DHB staff, this information did not reach Dr B, as he was a locum and did not have an email account at the time. He also did not receive the information in any other form, and nor was he oriented to Radiology when he commenced working at Southern DHB. Additionally, there was no documented expected referral waiting time for radiology services. Dr B told HDC that it was not his intention that Mr A would wait 3.5 weeks for an MRI, and that had he known about the MRI restrictions, he would have offered Mr A the option of a private MRI.

63. My expert, Professor McGhee, considered that in this case "the rapidity of vision loss would merit hospital admission for fuller work-up and an urgent MRI or CT imaging of the brain and orbit". I do note, however, that Southern DHB's then Clinical Director of Ophthalmology, Dr E, considered Dr B's management plan to be appropriate, and did not agree that Mr A should have been admitted to hospital, as the investigations planned could most appropriately be performed on an outpatient basis.

64. Whether through hospital admission or on an outpatient basis, I accept Professor McGhee's advice that greater urgency should have been placed on Mr A's next diagnostic step of an MRI. I am critical that this did not occur. In my view, it is a significant mitigating factor that Dr B was unaware of the limited availability of MRIs during the Christmas and New Year period. I note that Dr B said that had he known this information, he would have

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

taken further steps to ensure that Mr A received a timely MRI. I have therefore not found Dr B in breach of the Code.

Recommendations

65. I recommend that Southern DHB:

a) Provide Mr A with a formal written letter of apology for its breach of the Code. The apology should be sent to HDC within three weeks of the date of this report, for forwarding to Mr A.

b) Advise HDC, within three weeks of the date of this report, whether it now provides locum clinicians with a DHB email account upon employment, or any other such method that allows locum clinicians to receive important information.

c) Review its management and communication of MRI availability over public holidays and/or closedown periods, and, within two months of the date of this report, provide HDC with information on how it ensures that availability is appropriate, and that communications reach all staff.

d) Advise HDC whether it has documented expected referral waiting times for Radiology. If not, Southern DHB should consider documenting such expected waiting times, and report back to HDC on the outcome of its consideration within two months of the date of this report.

e) Review the orientation provided to locum clinicians, and provide HDC with an updated outpatient staff orientation manual, within two months of the date of this report.

Follow-up actions

66. A copy of this report with details identifying the parties removed, except the experts who advised on this case and Southern DHB, will be sent to the Medical Council of New Zealand, and it will be advised of Dr B's name.

67. A copy of this report with details identifying the parties removed, except the experts who advised on this case and Southern DHB, will be sent to the Royal Australian and New Zealand College of Ophthalmologists and placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent ophthalmology advice to the Commissioner

The following expert advice was obtained from ophthalmologist Professor Charles McGhee:

"**1.0 Background to case:**

1.1 From the notes provided to me: [Mr A], [aged in his fifties] was aware of variable visual symptoms for more than a year by November/December 2015. He had already been seen by an optometrist approximately a year earlier (17/12/2014), who noted normal visual acuity (6/6) in both eyes, no other abnormal features and he prescribed reading spectacles for presbyopia (natural phenomenon of ageing of the eye).

1.2 In mid-December 2015 (15th) he presented to [Hospital 1] with a more acute, three-week, history of right ocular symptoms associated with decreased vision in the right eye. Subsequently, he developed further, significant, permanent right visual loss over a few weeks and he questions whether the handling of his case by the optometrist and Southland DHB meets the expected standard of patient care in New Zealand. I note that I have specifically been asked to comment on the involvement of Southland DHB and not the optometric review.

Key Chronology of episode from clinical notes/patient's summary

2.0 initial review at [Hospital 1]-ED

2.1 15th December 2015: [Mr A] presents with ocular tenderness for more than a week, with a number of symptoms including runny/blocked nose and ache around left eye, having recently been seen by GP and treated for possible sinusitis.

2.2 Seen by [Dr G] in [Hospital 1] Emergency Department ([Hospital 1]-ED). A recent, and crucial, symptom is noted by [Mr A] of 'mistiness' of vision in the right eye over a period of a month. He also noted 'light flashes' when eyes were closed and these were precipitated by loud sounds.

3.0 18/12/15: (Friday) return to [Hospital 1]-ED

3.1 Patient re-attended the [Hospital 1]-ED (seen by Dr C) to check if vision had deteriorated further, having been seen by a local optometrist as recommended in the meantime (see below but probably no optometry letter, unless hand-written, available at [Hospital 1]-ED at this time).

3.2 Noted the history of a several week period of intermittent pain right eye with occasional floaters, no redness swelling or discharge — 'white flashes' in right eye with loud noises and lid closed. Examination revealed no new findings and patient declined slit lamp examination since he had just seen the optometrist.

3.3 Unfortunately, I can see no record of the visual acuity having been checked in the typed summary of this [Hospital 1]-ED event.

3.4 Recommended that [Mr A] to phone ophthalmology clinic after weekend to check apt. (21st).

3.5 **COMMENT:**

I cannot identify recording of visual acuity in the typed report for this assessment in the notes that I have available to review […] Had the visual acuity been checked, or had the patient been discussed with the optometrist, the further rapid deterioration in the right eye vision from 6/12 to 6/36 in only three days might have been identified and a greater sense of urgency prevailed.

4.0 21/12/15 (Monday) Optometry review and referral

4.1 Following an optometry review, probably on Thursday 17th December (full optometry notes not available to me), a detailed and comprehensive referral to [Hospital 1] Referral Centre was made by [Mr F], dated Monday 21st December. Noted that following a three-week history of visual disturbance the patient's vision had profoundly dropped from 6/6 earlier in the year (January 2015) to 6/36 in the right eye but remained normal at 6/6 left. [Mr F] also noted that the right eye had reduced colour vision, a relative afferent pupillary defect, and loss of the right visual field in all four quadrants — all these observations clearly being suggestive of a significant right optic nerve abnormality.

4.2 [Mr F] reasonably concludes 'in summary. I could not ascertain a cause for the visual loss in the right eye. Can you please see him as a matter of some urgency?'

[…]

5.0 24/12/15 (Thursday) initial ophthalmology review

5.1 Seen by [Dr B] (Ophthalmologist) — recorded profound loss of vision (now hand movements only in right eye) with loss of ability to discriminate Ishihara (colour chart) and a debatable pupillary defect — APD (afferent pupillary defect) noted — though one would have expected a profound RAPD/APD by this stage and such was noted by the Optometrist days before!). No significant optic disc abnormality detected/noted.

5.2 Suggests a 'semi-urgent' MRI of orbits and brain and a follow-up review in 2 weeks. Notably the MRI was first attempted 3.5 weeks later, only after an urgent request from [Dr J] but I also note the limited service available over the festive break.

5.3 COMMENT:

Notably this profound visual loss suggests that in the preceding 10 days or so, considering the [Hospital 1] ED notes and the optometrist's referral letter together, that the patient's vision in the right eye had dropped rapidly and dramatically from 6/12 to 6/36 and then to only hand movements. I believe this rapidity of vision loss would merit hospital admission for fuller work-up and an urgent MRI or CT imaging of the brain and orbit. I do note this clinical assessment was on Christmas Eve before major public holidays and in the context of limited radiology provision, however, I

believe this lack of urgent investigation was a *major* breach of expected standard of care.

6.0 18/1/2016 Re-presentation to [Hospital 1]-ED

6.1 Re-presented to [Hospital 1]-ED with more extensive visual loss right eye and now reports symptoms in left eye. Assessed by [Dr I]. Vision now only light perception in right eye, but remained normal, at 6/6, left. However, patient notes to registrar that the initial visual symptoms in right eye were similar. Proptosis of right eye noted as well as a profound RAPD (relative afferent pupillary defect).

6.2 [Dr I] discussed [Mr A] with the [Hospital 2] Ophthalmology service and an urgent same day assessment organised in [Hospital 2] with acute hospital admission.

7.0 18/01/2016 Review in [Hospital 2] Ophthalmology Service

7.1 Seen by [Dr J] of the [Hospital 2] Ophthalmology service — findings of severe right vision loss noted as well as the need for an urgent MRI of orbits/brain/spine. Admitted under ophthalmology for further workup of the ocular disease and treatment.

7.2 Definitive diagnosis not reached for the cause of the progressive visual loss in the right eye, despite subsequent biopsy of a small (9mm) lesion near the orbital apex, below but not significantly compressing the right optic nerve.

7.3 However, the working diagnosis of possible sarcoid related optic neuropathy has been concluded and the patient appropriately treated with systemic corticosteroids. However, there is little prospect of improved vision in right eye at such an advanced stage.

8.0 19/01/16 MRI Assessment

8.1 MRI attempted, possibility expedited due to request of [Dr J] the day before, but due to extremely high BMI of patient, unfortunately [Mr A] was unable to fit into the MRI machine and therefore the procedure was abandoned.

8.2 On 20th January a CT of head and orbits was carried out showing a right orbital abnormality and an MRI was subsequently accomplished at [DHB2] (a larger capacity MRI scanner) on 22nd January 2016.

9.0 Specific Additional Comments

9.1 Assessment of [Mr A]'s condition — December 2015 onwards

The patient had a variety of ocular, sinus and headache symptoms which were potentially misleading. He did however have one key symptom at presentation — mistiness of vision and one critical sign — reduced vision of the right eye that did not improve with pinhole correction.

Therefore he should have been investigated for ocular disease by an ophthalmologist and by radiological assessment on a semi-urgent basis. I believe this is a *major* breach of clinical standards.

9.2 Appropriateness & timeliness of diagnostic measures undertaken

Clinical assessment at [Hospital 1]-ED appears to have been appropriate on both the 15th and 18th Dec. However, I note visual acuity was not recorded on 18th Dec at [Hospital 1]-ED and had this been checked this may have prompted more urgent referral, than the referral of the 15th. Especially if the intervening, significant, reduction in vision over a very short time-interval been appreciated. […]

Similarly had the ED doctor discussed the case with the Optometrist (who had seen the patient the day before) the severity of visual loss would have become apparent.

Nonetheless, the [Hospital 1]-ED referral of the 15th December was appropriately triaged as URGENT by the ophthalmology service on 21st December.

9.3 The timeliness and urgency of [Dr B]'s referral

On the 18th December had visual acuity been assessed, or when the Optometry referral was received (dated 21st Dec), a more urgent referral might have been expected. However, by that date the Ophthalmology service had already organised an urgent review for 24th December.

With the profound right visual loss, and the rapid rate of loss, identified by [Dr B] on 24th December, despite impending festive holidays and limited availability of radiology (MRI) assessment, I believe most ophthalmologists would have admitted the patient for a full work-up and expected an urgent MRI scan within a few days — and certainly not delayed until late January. This represents a *major* breach of expected clinical standards.

9.4 Coordination of care between Southern DHB staff and departments

It is unclear if any verbal/electronic communication was made between [Hospital 1]-ED and the Ophthalmology service other than the non-urgent referral of 15th December. Such communication would have merited a more urgent review e.g. later assessment of profound vision loss on the 18th Dec and by the Optometrist the day before (17th) would have merited an urgent review (as subsequently assessed by ophthalmology on receipt and triage of the initial referral from 15th).

Was the Optometry letter or any other communication available to [Hospital 1]-ED staff when they examined [Mr A] on 18th December? It might have increased the sense of urgency in assessing this patient.

Was the SDHB policy on availability of very limited MRI, and other imaging, during the festive period clearly communicated to staff, particularly [Dr B], such that other options for urgent cases could be explored — e.g. referral to other centres.

Whilst we can all understand the exigencies of annual leave requirements in small units, unfortunately, severe illness never takes a holiday and alternative routes for radiological assessment need to be clearly delineated at such times.

10. Any other relevant matters

Since a definitive diagnosis has not yet been made in this case it is difficult to assess if the visual impairment could have been prevented, arrested or reversed in [Mr A]'s case if earlier investigation by CT or MRI had been possible. However, presuming that the working diagnosis of sarcoid-related optic neuropathy is the most likely, then earlier diagnosis and early immunosuppression with high dose systemic corticosteroids may have preserved or even partially reversed the vision loss.

I trust this answers all your questions in this case but I am happy to clarify any points you wish.

Yours sincerely,

Professor Charles NJ McGhee
MBChB, BSc(Hons), PhD, DSc, FRCS, FRCOphth, FRANZCO
Maurice Paykel Professor and Chair of Ophthalmology,
Director, New Zealand National Eye Centre"

Appendix B: Independent emergency medicine advice to the Commissioner

The following expert advice was obtained from emergency medicine specialist Dr Vanessa Thornton:

> "I have been asked to provide an opinion to the commissioner on case number 17HDC1496, and I have read and agree to follow the commissioner's Guidelines for Independent advisors.
>
> I am the Head of Department of Middlemore Hospital Emergency Department New Zealand the largest Emergency Department in Australasia. I have been the HOD since 2008. My qualifications are FACEM (Fellow of the Australasian College of Emergency Medicine) and MBChB at Auckland University. I have been a fellow of the college for 19 years and graduated as a Doctor in 1992. I am drawing on my experience as an Emergency Physician.
>
> **Summary of presentation**
> [Mr A] presented to the ED at 0853 on the 15th of December. He was seen by the triage nurse who noted that he had a 3/52 history of eye problems and had blurred vision in R eye like a film over the eye and pain and flashes over the eye for the last 2/52. He had been treated by GP with antibiotics and nasal spray.
>
> At 1042 [Mr A] was seen by [Dr G] and noted to have R eye tenderness on and off for the last week. The pain was mild to mod at 1–3/10 and felt like pressure behind the eye. There is a history of runny blocked nose but no fever cough or sweats. No discharge from the eye or red eye. The reason for the presentation on the 15th was misty vision in R eye slowing increasing over the last month with light flashes in the R eye.
>
> [Mr A]'s past hx was of hayfever and had seen the GP who had given nasal spray and oral antibiotics. An optometrist had reviewed his vision and noted that his vision was normal.
>
> [Dr G] examined the eye and noted the visual acuity of 6/6 –2 and 6/12 with pin hole which had been performed by the nurse. No conjunctival haemorrhage and ant chamber was open and clear bilaterally. I'm assuming a slit lamp was used. There was no uptake of fluroscene.
>
> The impression was of sinusitis and some symptoms of glaucoma with reduced vision on the R.
>
> [Dr G] discussed this case with [Dr H] who I am assuming is the ED SMO. [Dr H] suggested an ESR and CRP to rule out temporal arteritis and if the results were normal a referral to ophthalmology OPC was required.
>
> [Dr G] apologised to [Mr A] for the long wait for the results which were normal and discharged the patient with an outpatient referral to ophthalmology. [Mr A] was advised to return if there were any changes or concerns. [Mr A] departed at 3.20pm.

I reviewed the referral written to the OPC which was received on the 16th of December at 2315 but had a further stamp on for the 18th of December. I note that this referral was prioritised as urgent to the 21/12/2015.

[Mr A] returned to the ED at 1753 on the 18th of December. He was seen by the triage nurse and was noted to have R eye pain and deterioration and had seen an optometrist who was concerned and sent him back to ED. The Visual Acuity performed by nurse showed 6/24 R eye and 6/6 on the Left.

[Mr A] was seen by [Dr C] at 6.37pm. The history was of deterioration in vision in the R eye over the last 2–3 days. [Mr A] had been seen in ED and by an optometrist and his vision had deteriorated. He had ongoing mild pain and intermittent floaters in the eye. He denied redness swelling or discharge from the eye. On examination he was not distressed and did not show conjunctival haemorrhage or tearing or drainage. No increased pressure on palpation of the eye. [Mr A] refused a slit lamp exam on the 18th on the basis he had just had a slit lamp exam at the optometrist.

The plan made by [Dr C] was for the patient to go home as there were no acute changes today and to follow up the clinic on Monday regarding referral to clinic.

The patient was documented as agreeing to the plan.

1. **The appropriateness of the care provided to [Mr A] on the 15th of December 2015**
   a. **Adequacy of assessment carried out**
   b. **The recommendations made**

[Mr A] had a thorough history and examination performed in ED. [Dr G] noted that there was a reduction in the visual acuity over a month for [Mr A] to 6/12 and considered in her differential glaucoma along with temporal arteritis.

[Dr G] completed an examination of the eye including the visual acuity, and external review of the eye and a slit lamp examination. [Dr G] did not perform a small part of the exam the visual field examination at the time of presentation.

[Dr G] is an SHO and thus discussed this with her senior Dr who suggested a referral to ophthalmology clinic which was completed at the time of presentation. Good advice was given for return and for follow up which [Mr A] subsequently followed. I note that the clinic had booked a clinic time and deemed this referral urgent.

The assessment at the time of presentation was at the expected level of care for [Dr G]. The recommendations were at expected level of care although consideration to a discussion with an ophthalmologist with the reduced vision of 6/6 to 6/12 may have been appropriate. This may have still resulted with a clinic follow-up but slightly expedited. Excellent documentation of the advised follow-up plan with early return to ED if deterioration.

2. The appropriateness of the care provided to [Mr A] on 18th December 2015
a. Adequacy of assessment carried out
b. The recommendations made

[Mr A] returned to ED 2 days later on the 18th of December. His referral had been as a result of a review by an optometrist due to his deterioration in vision. In ED the triage nurse now noted the vision in the R eye was 6/24 as versus 6/12 on the previous presentation which was documented in the electronic notes. [Mr A] gave a history on his return of floaters and flashes in the eye. [Mr A] was usually completely well with no history of diabetes, hypertension or cardiac disease.

[Dr C] completed an external review of the eye but did not complete a slit lamp as the patient felt this had been completed by optometrist. [Dr C] did not complete a visual field examination but in the case of the visual acuity of 6/24 the vision on the R eye was almost absent and this part of the exam may not have assisted.

The differential for unilateral painless persistent loss of vision includes lens dislocation, vitreous haemorrhage, acute maculopathy, retinal detachment, retinal artery occlusion, retinal vein occlusion, ischemic optic neuropathy. Retinal detachment classically has a history of flashes and floaters most commonly associated with the loss of vision. A full detachment classically can occur over a week.

A patient with this acute visual loss based on the history and the documented visual acuity change in ED should have been discussed acutely with the on call ophthalmology service even if an acute referral had been accepted by the ophthalmology service on the previous presentation.

With the presentation on the 18th December [Mr A] should have been discussed acutely with ophthalmology. The adequacy of the assessment in combination with the recommendations was below the expected level of an ED. [Mr A] had documented acute persistent visual change this is a moderate deviation in the expected level of care.

Summary
Acute visual loss is a rare presentation to ED. [Mr A] presented with persistent acute significant visual deterioration. The differential diagnosis is large and experience in the eye examination may be limited for an emergency physician. This history alone with documented visual acuity loss is an emergency in the eye. Early discussion with a specialist ophthalmologist is appropriate.

Vanessa Thornton
Emergency Medicine Specialist"