Bi-temporal visual defect
16HDC00174, 12 June 2018

District health board ~ Ophthalmologist ~Optometrist ~ Eye clinic ~Brain tumour ~ Right 4(1)

In 2001, a nine-month-old boy was referred to a district health board eye clinic. He was started on occlusion treatment of the left eye to improve the development of his right eye (using a patch on the left eye). Following this appointment, he failed to attend several scheduled appointments.

In 2005, the boy was seen by an optometrist who referred him back to the eye clinic to assess his pale discs, poor visual acuities (visual clarity), and the possibility of coloboma.

Several months later, the boy was seen by an ophthalmologist at the eye clinic. The ophthalmologist examined the boy's fundi, finding pale and deeply cupped optic discs, more so on the left side, which were thought to represent bilateral optic disc colobomas. No refraction was performed, and there is no record of further investigations having been suggested or ordered, and there is no record of a treatment or follow-up plan.

In 2012 the boy saw another optometrist. A colour vision test was carried out, although both eyes were not tested. Visual field testing found a reduced visual field in the right eye and no response in the visual field of the left eye. Further visual field testing showed a bi-temporal visual defect.

The boy next presented to the optometrist in 2014. Visual field tests for that day indicated that both the right and left eye visual fields were significantly reduced. These findings prompted the optometrist to refer him back to the eye clinic for further investigation. The most recent visual field test results and the full visual field testing undertaken in 2012 were not included with this referral.

Two months later, the boy saw an ophthalmologist at the eye clinic. The ophthalmologist recommended re-review after further visual field examinations. These visual field examinations were scheduled for later in the year. However, the boy's eyesight continued to deteriorate, and the optometrist referred him to the eye clinic for an MRI. On receipt of the MRI referral, the boy was booked to see an orthoptist and an ophthalmologist at the district health board eye clinic, but these appointments and the further visual field examination were cancelled by his family.

In 2015 the boy was seen for the visual field test. However, this could not be performed owing to further marked vision deterioration, including a lack of light perception in both eyes. As a result, an urgent MRI scan identified that a craniopharyngioma (a brain tumour) had caused his lack of vision.

Findings
The DHB was found to have breached Right 4(1) for the following reasons:

a) The manner in which the diagnosis of optic colobomas was made in 2005, despite evidence of a deterioration from the previously measured level of visual function, without taking adequate measures to exclude other pathology, and without any documented plan for follow-up.
b) The delay in performing the visual field tests that were noted to be required in 2014.

c) The lack of robust processes regarding the management of non-attendance, as well as the orthoptic management of small children.

When the optometrist identified a bi-temporal field defect in 2012 it was found that he failed to recognise the importance of this at the time, and that consequently he failed to refer the boy to the eye clinic as a matter of urgency. A bi-temporal visual field defect is commonly due to a tumour of the pituitary gland and the boy's deteriorating vision should have been considered to be due to a lesion. Accordingly, the optometrist was found in breach of Right 4(1).

Criticism was also made in relation to the optometrist taking only one recording for the boy's colour vision result in 2012.

Further criticism was made in relation to the adequacy of the referral information provided by the optometrist when he referred the boy to the eye clinic in 2014. The optometrist did not include either the most recent visual field test results or the reliable full visual field testing that he had undertaken in 2012.

Recommendations

It was recommended that the DHB complete the following actions and report on the outcome:

a) Consider whether a policy is required to ensure that a full clinical assessment is carried out prior to any treatment being commenced on children.
b) Review its "Did Not Attend" policy with a view to ascertaining whether there should be a process to follow up any unattended appointment with a written response to the referrer and the patient (or the patient's carers), which should include a record of the receiving doctor's clinical assessment of the importance and acuity of the problem as described in the referral, and advice about what further measures should be taken.
c) Use the case for staff training, focusing particularly on the breaches of the Code identified.