

PRESCRIBING IN GLAUCOMA: GUIDELINES FOR NZ OPTOMETRISTS

Introduction

Independent prescribing relates to the capacity to use clinical judgement in respect of diagnosis and treatment. It does not mean working in isolation. The nature of glaucoma management is expected to encourage closer co-operative and collegial relationships with other health practitioners involved in the patient's care.

The common goal of the changes to Optometry's prescribing status is to extend optometric care of glaucoma beyond the diagnosis stage, giving the public easier access to treatment and management for this vision threatening condition. Amendments to the Medicines Act 1981 has increased the number of trained optometrists who are able to treat glaucoma, and thus relieve some of the burden from ophthalmology so that they may concentrate their skills on the more complex cases and problems of our aging population.

A fundamental part of glaucoma management is the ability to prescribe medications that control intraocular pressure, with the goal of preserving optic nerve structure, visual function, and the patient's quality of life. The intention of these guidelines is to assist optometrists to do this within accepted best-practice standards and to identify those patients who are suitable to treat independently.

Practitioners are reminded of their obligations regarding informed consent; that patients under their care should be made aware of all options regarding management of glaucoma including referral to an ophthalmologist, or public hospital care.

As in the management of any pathology, the Board expects that the optometrist will always act:

1. in the best interest of the patient;
2. in close consultation with the patient's other health practitioners;
3. to the current best-practice, evidence based medical standards;
4. within the optometrist's training and experience, and;
5. in the case of glaucoma, within these guidelines.

Guidelines

Before taking on the independent management of glaucoma for a patient an optometrist **must**:

1. Hold a current Annual Practising Certificate as an Optometrist without any conditions that prohibit the prescribing of therapeutic medications.
2. Satisfy the Board that they have sufficient clinical experience in the management of glaucoma. In addition to Board-approved undergraduate therapeutics training or attaining a therapeutics qualification (via a Board-approved post-graduate therapeutics course), this additional experience in glaucoma management will be achieved by:
 - a. Attending 20 hours in a clinical setting where glaucoma management is the major focus, under the direct supervision of an ophthalmologist or board approved optometrist glaucoma prescriber,¹ and providing evidence of this to the Board in the form of a completed case log detailing a minimum of 30 glaucoma cases (specific template must be used), or
 - b. Submitting 5 glaucoma case studies demonstrating clinical experience while participating in collaborative care with an ophthalmologist or board approved optometrist glaucoma prescriber. Board guidance on how case studies should be structured is available on the Board's website.

¹ A Board approved optometrist glaucoma prescriber is someone who has been approved by the Board for glaucoma management and prescribing and has also been specifically approved to supervise others in their pursuit to become approved for glaucoma management and prescribing.

As meeting these obligations allows for independent prescribing, optometrists are further encouraged to continue collaborating with a local ophthalmologist or to seek regular advice as experience develops.

Ongoing CPD requirements require completion of a minimum of 4 hours of glaucoma-specific peer review, per year (8 glaucoma CPD points within each 2 year recertification cycle), that includes peer review sessions specifically on glaucoma management, as follows:

- Glaucoma prescribers are required to complete a minimum of one, two-hour structured peer review session specifically on glaucoma management, each year, including case presentation.² Sessions must be run in accordance with the Board policy on continuing professional development and an ophthalmologist must be present (glaucoma specialist preferred but not essential). When it is not possible to have an ophthalmologist attend, the Board may approve, at its discretion, an optometrist glaucoma prescriber. General glaucoma CPD credits will apply where no case is presented.
- The remaining 2 hour CPD requirement per year can comprise either a further peer review session including presentation (favoured) or an alternative glaucoma-specific event or course (e.g. Glaucoma New Zealand conference or online CPD). Practitioners are expected to reflect on their glaucoma practice and experience in choosing the most relevant CPD option.
- In circumstances where frequent ophthalmologist peer-review occurs on an individual basis (e.g. in the hospital setting), evidence of such peer-review (logged by case on a pro rata basis) together with a glaucoma case report that demonstrates continued/ expanded learning may be submitted in lieu of attendance and presentation at a conventional group peer-review session.

Optometrists are expected to follow the National Health and Medical Research Council of Australia's Guidelines for the Screening, Prognosis, Diagnosis, Management and Prevention of Glaucoma 2010 (NHMRC Guidelines) when making decisions on how to independently diagnose and manage glaucoma. These additional Board guidelines provide guidance for New Zealand optometrists only on whom to treat, and when further consultation or referral is indicated.

An optometrist glaucoma prescriber is expected to:

1. be competent in the use of and have access to:
 - (i) a Goldmann type (including Perkins) applanation tonometer;
 - (ii) an anterior chamber gonioscope;

² Where an optometrist glaucoma prescriber does not have any genuine glaucoma cases to present, glaucoma suspect cases may be presented.

- (iii) a stereo slit lamp biomicroscope with contact or non-contact lens;
- (iv) a Humphrey or Medmont automated visual field analyser, or other clinically proven method;
- (v) a corneal pachymeter;
- (vi) a fundus camera;

- (vii) a sphygmomanometer.

2 have access to, and be competent in the interpretation of, information from at least one of the following:

- (i) a retinal or optic disk optical coherence tomographer;
- (ii) other clinically proven objective measurement of retinal nerve fibre layer and/or optic disk.

Page 76 of the NHMRC glaucoma guidelines defines the use of visual fields to grade glaucoma. The Optometrist and Dispensing Opticians Board endorses a universal grading system to promote clear communication between health care providers. The definitions used are consistent with NHMRC and are taken from Burr et al (2007)³

All optometrists are expected to monitor those with:

- **No glaucomatous impairment:** Under observation as a glaucoma suspect, however not on medication, and no glaucoma visual field defect in either eye.

An optometrist glaucoma prescriber may monitor, initiate treatment and/or manage patients that have:

- **Ocular Hypertension:** On treatment due to significant risk factors that only under best-practice evidence based medicine requires reduction of intra-ocular pressure.
- Raised intraocular pressure secondary to topical steroids.
- **Mild glaucoma:** On treatment, no binocular visual field loss, progressing unilateral glaucoma visual field defect.

NB: While it is understood that binocular visual field testing is rarely performed in glaucoma management, binocular visual field loss is to be interpreted as overlapping defects – where there are corresponding points that meet the criteria for a defect for both right and left eye visual fields.

³ NHMRC guidelines on Using Visual Fields to grade glaucoma, page 76. (taken from Burr et al, The Clinical cost effectiveness of screening for open angle glaucoma: a systematic review and economic evaluation. *Health Technology Assessments*; 11(41): 1-206

Chapter 8 of the NHMRC guidelines covers monitoring and long term care of glaucoma including glaucoma progression and indications to change regime. However, an optometrist must consult directly with, or refer the patient to an ophthalmologist for patients with:

- **Moderate glaucoma:** Up to five missed points (<10 dB mean deviation, or average loss) in binocular central 20° of visual field (meaning when there are more than five missed points in the binocular central 20° of visual field).
- **Severe glaucoma:** Binocular visual field loss below UK driving standards (adapted from Crabb et al 2004, 2005) - Six or more adjoining missed points (<10 dB), and any additional separate missed point(s) or a cluster of four or more adjoining missed points (<10dB), either of which is either wholly or partly within the central 20-degree superior or inferior hemispheric field.
- **Visual impairment:** Includes as per criteria for severe, except binocular visual field loss includes both the upper partial sight, blind, and lower fields of vision.

An optometrist glaucoma prescriber is recommended to consult or refer to an ophthalmologist patients that:

1. are under 40 years of age at diagnosis;
2. have glaucoma secondary to any other pathology;
3. have IOP above the target pressure for more than 12 weeks;
4. require more than two concurrent classes of topical glaucoma medications to reach the target IOP;
5. have any clinically significant adverse effect from any prescribed medication;
6. demonstrates progression in accordance with NHMRC guidelines.

An optometrist glaucoma prescriber **must:**

1. Immediately refer a patient with angle closure glaucoma as an ocular emergency.⁴ In the rare event that emergency treatment is to be initiated by an optometrist, it is expected that every attempt would be made to consult with an ophthalmologist prior to initiating treatment.
2. Maintain a written record of:

⁴ Refer to the Board's website for guidelines on managing Acute Angle Closure Crisis

- a. Patient ocular history, which must include medication prescribed or otherwise taken by the patient. Documentation from the patient's other prescribing health care provider should (as far as may fairly be possible) be used to validate the patient's history
 - b. Identifiable glaucoma risk factors⁵
 - c. A treatment plan, including:
 - i. Targets for intraocular pressure
 - ii. Recording of the optometrist's assessment of key findings and tests
 - iii. Clinical impression at each visit.
3. Appropriately report to all other relevant health practitioners involved in the patient's care.

*Approved by the Board: June 2014
Updated by the Board: May 2018
Updated by the Board: April 2019
Date of Next Review: May 2023*

⁵ NHMRC Guidelines Chapter 6 – Identifying those at risk of developing glaucoma, pg 47-64, table