EVIDENCE-BASED CLINICAL PRACTICE GUIDELINE

# GLAUCOMA

**Effective March 1, 2015**

ALBERTA college of OPTOMETRISTS

# Glaucoma Clinical Practice Guideline

The objective of this Clinical Practice Guideline (CPG) is to provide guidance to Doctors of Optometry on the assessment, diagnosis, treatment, co-management, on-going independent management and referral of glaucoma patients. It is based on the best available and most current optometric and medical clinical evidence and research. It is not intended to replace professional discretion and judgment; nor is it intended to be used as an all-encompassing clinical manual. Clinicians must base their assessment, diagnostic, management and treatment regimens on the specific needs of the patient at that point in time.

We wish to acknowledge the Canadian and American Associations of Optometry, and the Canadian Ophthalmological Society for their previously published CPG's used in the development of this guideline.

Glaucoma is a term that describes a group of ocular disorders caused by a variety of different factors and exhibiting a multitude of different signs and symptoms. Glaucoma is also considered a progressive condition that can lead to severe loss of vision if not diagnosed at an early stage and treated appropriately. Its presentation is most often characterized by a loss of retinal nerve fibers, change in the optic disc and increase in intra-ocular pressure. As documented and clinically proven in the optometric and medical literature, it is not necessary for all three to be present for a diagnosis of glaucoma to be made.

Glaucoma can occur at any age and is often called the "silent thief of sight" as its initial presentation does not usually produce vision loss, redness, pain or other easily observed sign or symptom. As such, it is incumbent on every optometrist and other health care practitioner to continually educate patients about the need for routine, comprehensive eye examinations with dilation. Patients who exhibit risk factors such as: a family history, use of certain medications, diabetes, etc. should be checked on a more frequent basis.

## Goals

**It is the goal of every optometrist to:**

1. **Identify those patients at risk for developing glaucoma, diagnose glaucoma as early as possible, minimize the damaging effects of glaucoma and preserve a patient's vision for as long as possible.**

2. **Collaborate and communicate with patients, legal guardians and/or other health care practitioners in order to:**
   - **Increase access to competent vision care services,**
   - **Maximize a patient's visual status and quality of life,**
   - **Improve patient compliance and outcomes,**
   - **Reduce the possibility of duplication of tests and services, and,**
   - **Provide vision care services in the most efficient and effective manner.**

## General Guidelines

1. **Optometrists who graduated after January 1, 2015 and passed the CACO exam, and all others who have successfully completed the ACO Advanced Scope of Practice Certification Course (or similar course approved by the ACO Council) may utilize the following models of care for glaucoma suspects and patients:**
    - **Independent diagnosis, treatment and management.**
    - **Co-management with an appropriately certified optometrist or ophthalmologist.**
    - **Referral to an appropriately certified optometrist or ophthalmologist.**

2. **Optometrists who graduated before January 1, 2015 and have not successfully completed the ACO Advanced Scope of Practice Certification Course (or similar course approved by the ACO Council) may utilize the following models of care for glaucoma suspects and patients:**
    - **Co-management with an appropriately certified optometrist or ophthalmologist.**
    - **Referral to an appropriately certified optometrist or ophthalmologist.**

3. **Co-management of patient care with an appropriately certified optometrist or ophthalmologist requires the following:**
    - **Agreement and discussion of protocols from both practitioners to enter into a co-management model of care.**
    - **Appropriate sharing of test results.**
    - **Appropriate communication of any changes to patient management or advice to patient.**
    - **Agreement on patient follow-up (which practitioner and timeline).**
    - **Appropriate communication and follow-up of any changes to glaucoma status and/or complications.**

4. **Circumstances where an optometrist must refer glaucoma patients to an appropriately certified and trained ophthalmologist include:**
    - **Glaucoma type and severity that is outside the optometrist's level of competence.**
    - **Glaucoma that is not responding to conventional pharmaceutical treatment.**
    - **Glaucoma that requires surgical management.**

## Specific Initial Diagnosis Guideline

**In addition to those tests and procedures conducted during a comprehensive eye examination, the following specific history/procedures should be performed and documented when deemed necessary for patients who are at risk, or, showing early signs of developing glaucoma:**

- **Family and personal (ocular and general) health history.**
- **Assessment of other possible risk factors.**
- **Relevant information and data from previous assessments.**
- **Corrected visual acuities and pupil responses.**
- **Central corneal thickness.**
- **Applanation intra-ocular pressure including time of day (Goldmann or Perkins is considered the current standard of care and is required for all glaucoma suspects and glaucoma patients).**
- **Assessment of the anterior chamber angle and anterior uvea. (Gonioscopy is considered the current standard of care).**
- **Assessment of the retina and optic nerve (dilated fundus examination is considered the current standard of care).**
- **Computerized threshold visual fields.**
- **Stereo retinal photographs.**
- **Scanning laser imaging.**
- **Any other supplemental testing as per the professional discretion and judgment of the optometrist appropriate to that specific patient.**

## Specific On-Going Management Guideline

**Depending on the type, severity and progression of glaucoma, the following procedures should be performed and documented when deemed necessary on glaucoma patients on a regular basis as part of their regular monitoring:**

- **Corrected visual acuities.**
- **Pupil responses.**
- **Applanation intra-ocular pressure (Goldmann or Perkins) including time of day.**
- **Assessment of the anterior chamber angle and anterior uvea. (Gonioscopy is considered the current standard of care).**
- **Dilated fundus examination.**
- **Computerized threshold visual fields.**
- **Scanning laser imaging.**
- **Stereo retinal photographs.**
- **Any other supplemental testing as per the professional discretion and judgment of the optometrist appropriate to that specific patient.**