

A stylized, monochromatic green eye graphic is positioned in the upper left quadrant of the page. The eye is rendered with fine lines for the eyelashes and iris, and a solid dark green circle for the pupil. It is partially overlaid by the large 'OPR' text.

OPR

COLLEGE OF OPTOMETRISTS OF ONTARIO

OPTOMETRIC PRACTICE REFERENCE

*Excellence in Optometric Care
Serving the Public Interest by Guiding the Profession*



Publishing History

The Guide to the Clinical Practice of Optometry

FIRST PUBLISHED November 1972
REVISED October 1975
September 1982
REPUBLISHED July 1987
REVISED January 1991

The Guide to the Practice of Optometry

FIRST PUBLISHED August 1998
REVISED January 1999

Optometric Practice Reference

FIRST PUBLISHED April 2007
REVISED May 2007

All rights reserved. Copyright 2011 by the College of Optometrists of Ontario.
This Guide may not be reproduced in whole or in part without permission.

Table of Contents

PART 1. Optometric Practice Reference: The Fundamentals

1. Introduction and Purpose

- 1.1 Introduction
- 1.2 The Purpose of the OPR

2. The Practice of Optometry

- 2.1 Scope of Practice
- 2.2 Authorized Acts
- 2.3 The Practice of Optometry
- 2.4 The Practitioner/Patient Relationship

3. Standards and Guidelines: Definitions

- 3.1 Regulatory Standards
- 3.2 Professional Standards
- 3.3 Clinical Guidelines

PART 2. Optometric Care

4. General Clinical Matters

- 4.1 Clinical Equipment
- 4.2 Required Clinical Information
- 4.3 Delegation and Assignment Policy
- 4.4 The Use And Prescribing Of Drugs In Optometric Practice
- 4.5 Referrals
- 4.6 Ocular Urgencies and Emergencies
- 4.7 Infection Control in the Optometric Office
- 4.8 Collaboration and Shared Care

5. Documentation

- 5.1 The Patient Health Record
- 5.2 The Prescription

6. General Procedures

- 6.1 Anterior Segment Examination
- 6.2 Ocular Fundus Examination
- 6.3 Refractive Assessment and Prescribing
- 6.4 Spectacle Therapy
- 6.5 Contact Lens Therapy
- 6.6 Low Vision Assessment and Therapy
- 6.7 Binocular Vision Assessment and Therapy
- 6.8 Visual Field Assessment

7. Specific Diseases, Disorders and Procedures

- 7.1 Age-related Macular Degeneration
- 7.2 Patients with Glaucoma
- 7.3 Patients with Cataract
- 7.4 Patients with Diabetes
- 7.5 Patients with Hypertension
- 7.6 Cycloplegic Refraction
- 7.7 Dilation and Irrigation of the Naso-Lacrimal Ducts
- 7.8 Refractive Surgery
- 7.9 Visual Perception/Learning Disabilities
- 7.10 Orthokeratology*

** Documents under development*





PART 1. Optometric Practice Reference: The Fundamentals



1. Introduction and Purpose

1.1 Introduction

The College of Optometrists of Ontario is the regulatory body for the optometric profession in Ontario. In order to assist the College in meeting its objects, documents relating to optometric practice are periodically developed and published. This Optometric Practice Reference (OPR) represents a complete revision of The Guide to the Practice of Optometry and supersedes previous versions of The Guide. It will be periodically updated in response to changes in public need, economic forces, advances in health care sciences, and statutory and regulatory requirements.

1.2 The Purpose of the OPR

The OPR fulfills four key functions, as follows:

- **To provide information to the public and patients** and/or their representatives regarding the services and behaviour that can be expected from a member of the College.
- **To inform members of the College** of the principles and criteria which underlie the standards of practice and behaviour of the profession and to provide guidelines which the members may use in determining best practices for specific situations.
- **To assist committees of the College** to carry out their work. Some statutory committees of the College are required to assess the practice of members in the course of fulfilling their mandate to protect the public. The principles, standards, and guidelines described herein serve as a basis for their assessment. The Quality Assurance Committee employs regulatory and professional standards when assessing the practice of individual members and uses the clinical guidelines to help members move towards best practices. The Complaints and Executive Committees consider standards and guidelines for the purpose of case disposition. An alleged breach of a regulatory or professional standard is usually required before a member will be referred to either the Quality Assurance or Discipline Committee.
- **To promote ongoing discussion** and education among optometrists, ultimately leading to improvements in the quality of care and best practice for services provided to patients.



2. The Practice of Optometry

2.1 Scope of Practice

The *Optometry Act* specifies the scope of practice of optometry as follows:

The practice of optometry is the assessment of the eye and vision system and the diagnosis, treatment and prevention of:

- a) disorders of refraction;
- b) sensory and oculomotor disorders and dysfunctions of the eye and vision system; and
- c) prescribed diseases.

2.2 Authorized Acts

The Province of Ontario uses the concept of *controlled acts* to describe healthcare procedures and responsibilities that are not within the domain of the public. This forms the basis for regulation of healthcare services in the province. Thirteen of these *acts* are described in the *Regulated Health Professions Act* and each profession-specific act, such as the *Optometry Act*, specifies those that are authorized to the professional group.

In the course of engaging in the practice of optometry, an optometrist is authorized, subject to the terms, conditions and limitations imposed on his or her certificate of registration, to perform the following:

1. Communicating a diagnosis identifying, as the cause of a person's symptoms, a disorder of refraction, a sensory or oculomotor disorder of the eye or vision system or a prescribed disease.
2. Applying a prescribed form of energy.
 - 2.1 Prescribing drugs designated in the regulations.
3. Prescribing or dispensing for vision or eye problems, subnormal vision devices, contact lenses or eye glasses.

2.3 The Practice of Optometry

There are several key principles that form the foundation for the optometric profession. The practice of optometry is:

Professionally based

Above all, the purpose of the optometric profession is to provide for the healthcare needs of patients, by placing the patient's best interest foremost.

Scientifically based

The profession of optometry is founded on research and education in the life and vision sciences, combined with scientific and technological expertise.

Primary health care

Optometrists are independent practitioners who work within Ontario's healthcare system in co-operation with other providers of related services for the ultimate benefit of patients.

Related to eyes and vision

The services generally provided in primary care optometry include:

- the assessment, diagnosis, management and prevention of conditions of the eye and vision system;
- the treatment, correction or rehabilitation of conditions of the eye and vision system;
- the dispensing of eye glasses, contact lenses, and low vision devices;
- referral to, or shared care with, allied health professionals; and
- the promotion of good vision and health through education.

Accountable to the public

The practice of optometry in Ontario is governed by the College of Optometrists of Ontario under the authority of the *Regulated Health Professions Act* and the *Optometry Act*. Accountability is assured in a number of ways including public representation on Council and College committees, and open (public) Council meetings and Discipline hearings. In addition, the College publishes an Annual Report and reports each year to the Minister of Health and Long-Term Care.

2.4 The Practitioner/Patient Relationship

With reference to the practitioner/patient relationship, the optometrist will:

Be accountable

An optometrist is accountable to the individual patient and to the College for all services provided, both personally and by others who are under their direction and supervision.

Act in the patient's best interest

The optometrist is responsible for fostering a relationship of trust with the patient and puts the patient's interest above his or her own. The Professional Misconduct Regulations protect such interests. Examples of acts which are considered to be professional misconduct include:

- Treating or attempting to treat an eye or vision system condition which the

member recognizes or should recognize as being beyond his or her experience or competence. (O.Reg. 859/93 1. (1) 12.)

- Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination. (O.Reg. 859/93 1. (1) 13.)

Encourage patient decision-making

Optometrists give patients the information and counselling necessary for them to make informed choices about treatment and ongoing care, and respect the choices their patients make.

Protect confidentiality

Historical and clinical information is gathered in a manner respecting patient privacy. All records are kept confidential and secure. Release of information requires the consent of the patient or their representative(s), except as required or allowed by law, such as the *Personal Health Information Protection Act*.

Be ethical

Optometrists' behaviour and business practices conform to the profession's accepted ethical standards. This is emphasized in the Professional Misconduct Regulation which includes the following as an act of professional misconduct:

- Engaging in conduct or performing an act that, having regard to all the circumstances, would reasonably be regarded by members as disgraceful, dishonourable, unprofessional or unethical. (O.Reg. 859/93 1. (1) 53)



3. Standards and Guidelines: Definitions

The Optometric Practice Reference contains **standards of practice** (both regulatory and professional) and **clinical guidelines**.

3.1 Regulatory Standards

Regulatory standards are found in the legislation of the Province of Ontario, such as the *Regulated Health Professions Act*, the *Ontario Regulations (O.Reg.859/93)*, and the *Optometry Act*. These standards are mandatory requirements for the profession, and **must** be complied with by the optometrist. Non-compliance with these standards could result in an allegation of professional misconduct.

3.2 Professional Standards

Professional standards describe *what a prudent practitioner would do in certain circumstances*. Every profession has unwritten standards of practice expected of members that are the generally accepted consensus of “right-thinking” practitioners. They come from a variety of sources such as educational programs, professional literature, informal “shop talk”, professional training, and the decisions of a College and the Courts. Rather than putting standards into a regulation, the College may publish documents that describe the existing generally accepted standard on recurring or significant issues. These types of standards do not have the force of law, yet are statements of what the prudent practitioner **usually** does in a given set of circumstances. While the strongest evidence of the professional standard of practice is usually expert testimony, College publications may support or reinforce the expert testimony and make it more likely to be accepted. The value of the publications is increased if they are the result of a consultation process with the members of the profession.

3.3 Clinical Guidelines

Guidelines are suggestions of voluntary behaviour that will assist prudent practitioners. They are not mandatory. They “raise the bar” and give the practitioner recommendations on how to practice at a higher, or “best practice” level. Guidelines are found in various locations including journals and publications of associations or societies. While guidelines usually describe desirable practice methods and behaviour, their application may be limited by the legal scope of practice within the jurisdiction.

Given the changing nature of optometric care, scientific knowledge and public need, standards and guidelines are **evolutionary**.



A stylized, semi-transparent green graphic of a human eye, showing the iris, pupil, and eyelashes, positioned in the upper left quadrant of the page.

PART 2. Optometric Care



4. General Clinical Matters

4.1 Clinical Equipment

Description

Optometrists are expected to be equipped with the instrumentation and supplies required to provide services that meet the standards of practice of the profession.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Every optometrist has access to, and ensures proficient use of equipment, instrumentation, drugs and supplies for the following:

- measurement of visual acuity at distance and near;
- evaluation of visual fields and colour vision;
- determination of refractive status of the eyes both objectively and subjectively;
- measurement of corneal curvature and thickness;
- assessment of ocular motility and binocular function;
- examination of the eye and ocular adnexa, including
 - a biomicroscope;
 - ophthalmoscopes (both direct and indirect);
 - accessory lenses;
- measurement of intraocular pressure;
- pupillary dilation, cycloplegia, topical ocular anesthesia, ophthalmic disclosing agents;
- measurement of the parameters of spectacles including refractive power, lens curvatures, lens thickness, and frame dimensions;
- measurement of the parameters of contact lenses including refractive powers and diameter;
- in-office treatment of common primary ocular emergencies;
- disinfection of instruments and diagnostic contact lenses;
- infection control and cleanliness.

When optometrists do not have a specific instrument, they must have arrangements in place whereby the tests may be performed elsewhere and the results obtained for analysis and retention in the clinical record.

Optometrists are expected to maintain their equipment and instrumentation in good working order, including regular re-calibration.

Clinical Guideline

Scientific and technological advances will bring changes to the equipment available. It is recommended that optometrists stay current with the new technology.

First Published: September 2007

Revised: May 2009

4.2 Required Clinical Information

The provision of optometric care relies on acquiring, updating and maintaining a complement of information about a patient. Analysis of this data enables the optometrist to develop an accurate understanding of the patient's ocular status and to devise an appropriate management plan. Standards relating to required clinical information are intended to ensure the provision of optimal and efficient patient care.

Regulatory Standard

The Professional Misconduct Regulation (**Regulation 859/93 under the *Optometry Act***) includes the following acts of professional misconduct:

2. Exceeding the scope of practice of the profession.
3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Required clinical information to be obtained, when possible, at the patient's first presentation includes:

- the chief concern or request(s);
- a review of ocular or visual symptoms or experiences;
- a general health history, with emphasis on eyes and vision, including medications used and applicable family history;
- the occupational and avocational visual environment and demands;
- the measurement and description of the patient's ophthalmic appliances including purpose and effectiveness; and
- the results of the observation, examination or measurement of:
 - apparent and relevant physical, emotional and mental status of the patient;
 - the external eye and adnexa;
 - pupillary function;
 - the *anterior segment* (**OPR 6.1**) and, when indicated, corneal thickness;
 - ocular media;
 - the *ocular fundus* (**OPR 6.2**);
 - intraocular pressure in adults and, when indicated, in children;
 - presenting monocular visual acuities at distance and near;

- refractive status and best-corrected monocular visual acuity;
- accommodative function;
- oculomotor status;
- other sensory functions, when indicated, such as visual fields, colour vision, stereoacuity, sensory fusion and contrast sensitivity.

All required clinical information must be clearly documented in the patient's health record (OPR 5.1).

In emergency or urgent situations it may be impractical to obtain all information at the first visit. In this case, a specific assessment is appropriate (OPR 4.6). Also, the full complement of required clinical information may not be necessary when providing specific assessments or consultation services for a referring optometrist, physician or nurse practitioner. In such cases, the optometrist will determine what is clinically necessary based on the reason for presentation.

Clinical Guideline

A practitioner may choose to employ ancillary procedures in addition to the normal complement of required clinical information in order to enhance or refine a clinical diagnosis or management plan. This is particularly true when the rapid pace of scientific and technological advancement in equipment and instrumentation is considered (OPR 4.1). Examples of such procedures include, but are not limited to:

- Fundus photography, retinal tomography, optical coherence tomography, scanning laser ophthalmoscopy, and similar high-technology imaging/mapping systems;
- Corneal topography, pachymetry;
- Ophthalmic ultrasonography (A or B scan), ultrasound biomicroscopy;
- Advanced refractive technologies (e.g. wavefront analysis, aberrometry, etc).

While these procedures may contribute valuable information in the assessment of specific clinical presentations, optometrists are reminded that patients should not be required or coerced to undergo ancillary procedures. Prior informed consent is necessary.

First Published: September 2007

Revised: May 2009

4.3 Delegation and Assignment Policy

Introduction

The Province of Ontario utilizes the concept of “controlled acts” to control who may perform healthcare procedures and responsibilities that have a high risk of harm associated with their performance. The controlled acts are listed in the *Regulated Health Professions Act, 1991 (RHPA)*. Each profession-specific act, such as the *Optometry Act, 1991*, specifies any controlled acts that the members of the profession are authorized to perform (the profession’s “authorized acts”). Each regulated profession has a defined scope of practice and some have corresponding authorized acts set out in the profession-specific Act.

There are also numerous non-controlled procedures, some of which are limited to objective data collection and others, which carry a potential risk of harm to the patient. Although these procedures are in the public domain (i.e. they are NOT controlled acts), they may require specific training and skills.

The term *delegation* refers to the process whereby a regulated health professional (RHP), who has a controlled act within his/her scope of practice, orders another person who would not otherwise be authorized to do so to perform this act.

The term *assignment* refers to the process of an RHP assigning the performance of a non-controlled procedure to another person.

Both delegation and assignment of optometric procedures in appropriate circumstances may allow a more timely and efficient delivery of optometric care, making optimal use of time and personnel. In every instance of delegation and assignment, the primary consideration should be the best interests of the patient.

It is a general expectation that optometrists will be responsible for, and appropriately supervise all delegated and assigned activities within their practices. The level of supervision varies with the risk associated with the delegated or assigned procedure. **Direct supervision** refers to situations in which the optometrist is physically present in the same clinical location. This allows the optometrist to immediately intervene when necessary. Direct supervision is expected for ALL delegation (controlled acts), and of any assigned activities, which require interpretation in the performance of the procedure and/or may present a risk of harm to the patient. **Remote supervision** refers to situations in which the presence of the optometrist is not necessarily required since there is no potential risk of harm to the patient. This would be appropriate for certain clinical procedures and objective data collection.

The responsibility for all aspects of any delegated acts or assigned procedures always remains with the optometrist.

Optometrists may also *receive delegation* of a controlled act not authorized to optometry.

Collaboration with other health professionals

Collaboration with other health professionals is a common occurrence in clinical practice. When an optometrist collaborates with another health professional, the College standards and guidelines on collaboration ([OPR 4.8](#)) will apply.

Regulatory Standards

Controlled Acts

The *Regulated Health Professions Act* identifies 13 controlled acts that may only be performed by members of certain regulated health professions. Optometrists are authorized by the *Optometry Act* to perform 4 of the 13 controlled acts, as follows:

- i. communicating a diagnosis identifying, as the cause of a person's symptoms, a disorder of refraction, a sensory or oculomotor disorder of the eye or vision system, or a prescribed disease;
- ii. applying a prescribed form of energy;
- iii. prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses; and
- iv. prescribing a drug designated in the regulations.

The RHPA also discusses delegation of controlled acts:

- 27. (1)** No person shall perform a controlled act set out in subsection (2) in the course of providing health care services to an individual unless,
- a. the person is a member authorized by a health profession Act to perform the controlled act; or
 - b. the performance of the controlled act has been delegated to the person by a member described in clause (a). 1991, c. 18, s. 27 (1); 1998, c. 18, Sched. G, s. 6.
- 28. (1)** The delegation of a controlled act by a member must be in accordance with any applicable regulations under the health profession Act governing the member's profession.

Exceptions

- 29. (1)** An act by a person is not a contravention of subsection 27 (1) if it is done in the course of,
- b. fulfilling the requirements to become a member of a health profession and the act is within the scope of practice of the profession and is done under the supervision or direction of a member of the profession.

The *Optometry Act, 1991* includes the following Professional Misconduct regulations:

17. Failing to maintain the standard of practice of the profession.

18. Delegating a controlled act in contravention of the Act, the *Regulated Health Professions Act, 1991* or the regulations under either of those Acts.
19. Performing a controlled act which has not been delegated to the member in accordance with the regulations.
20. Ordering a person who is under the supervision of a member to perform an act, or supervising an act, in the practice of optometry that is not consistent with the regulations.
21. Permitting, counselling or assisting any person who is not a member to perform an act which should be performed by a member.

Professional Standard

Delegation

Optometrist-Patient Relationship

Delegation will only occur after the optometrist has established a formal relationship with the patient, which normally will include an interview, an assessment, recommendations if appropriate, and informed consent about any clinical investigations and proposed therapy. In some cases where an established patient/practitioner relationship exists, delegation may take place before the optometrist sees the patient.

Presence of the Optometrist

Delegation of an authorized act must only take place when the optometrist is present in the same clinical location as the patient and is available to intervene when required.

Process for Delegation

The optometrist must establish a process for delegation that includes:

- Education and assessment ensuring the currency of the delegate's knowledge, skills and judgement;
- documentation/references for performance of procedures; and
- ensuring the delegate has been delegated only those acts that form part of the optometrist's regular practice.

Informed Consent

Delegation occurs with the informed consent of the patient. Whether the consent is implicit or explicit will depend on the particular activity being proposed to be delegated.

Supervision

The optometrist directly supervises the delegated procedure by direct supervision.

Quality Assurance

The optometrist is expected to ensure there is an ongoing quality assurance mechanism.

Assignment

Optometrist-Patient Relationship

Assignment of certain procedures that are not controlled acts may occur as part of the optometric examination and may occur prior to the optometrist assessing the patient. For example, pre-testing using automated instruments may occur prior to the optometrist seeing the patient.

Presence of the Optometrist

Procedures that are completely objective, present no inherent risk of harm and require no interpretation by the person performing the procedure may be performed without the presence of the optometrist and are considered to be *remotely supervised*. This could include automated procedures such as objective auto-refraction, auto-perimetry and non-mydratic retinal photography. However, the optometrist is expected to review the results of these remotely supervised procedures and communicate appropriately with the patient.

Direct supervision *must* occur whenever clinical interpretation is necessary during the procedure (i.e. subjective refraction), or when the procedure poses a potential risk of harm (i.e. applanation tonometry).

Process for assignment

As with delegation, it is expected that assignment will only occur with certain processes in place, including:

- education and assessment ensuring the currency of the assignee's knowledge, skills and judgement;
- documentation/references for performance of procedures; and
- ensuring only those procedures that form part of the optometrist's regular practice are assigned.

Professional Standard for Receiving Delegation of Controlled Acts

In the public interest, there are situations when an optometrist could receive delegation from another regulated health professional (RHP) to perform a controlled act not authorized to optometry. Other RHP's have delegation regulations and established protocols for delegation of which the member should be aware. In order for an optometrist to receive delegation from another RHP, all of the following criteria must be met:

- i. a process for receiving delegation is in place;
- ii. the member will have a reasonable belief that the RHP delegating the act is authorized to delegate the act, has the ability to perform the act competently, and is delegating in accordance with relevant regulations governing his or her profession;
- iii. the optometrist should be competent to perform the act safely, effectively, and ethically;
- iv. appropriate resources, such as equipment and supplies, are available and serviceable;
- v. the delegated act is clearly defined;
- vi. the delegated act is within the assessment of the eye and vision system and the diagnosis, treatment and prevention of disorders of refraction, prescribed diseases, and sensory and oculomotor disorders and dysfunctions of the eye and vision system;
- vii. the duration of the delegation will be clearly defined and relate to a specific patient;
- viii. the optometrist ensures that patient consent to having the act performed under delegation to the optometrist is obtained and recorded in the patient's health record;
- ix. a mechanism exists to contact the RHP who delegated the act if there is an adverse or unexpected outcome; and
- x. the identity of the RHP delegating the controlled act and of the member performing the controlled act will be recorded in the patient health record.

Guideline for Delegation by an Optometrist

The optometrist remains responsible for all activity within his/her office, including delegated and assigned procedures. It is prudent to always ensure that any activities being delegated or assigned are appropriately supervised and performed in a safe, effective and accurate manner.

Good communication skills for both the optometrist and staff members are essential for effective delivery of patient care, particularly when procedures are delegated or assigned. Formal courses in procedures and communication are very helpful to complement appropriate staff training. Regular staff training, assessment and an effective office policy and procedural manual are also helpful resources to promote competence.

It is also wise to ensure that the person performing the delegated or assigned procedure is clearly indicated within the patient health record. This is essential for both quality assurance and medico-legal reasons.

First Published: February 2005

Revised: May 2009

4.4 The Use And Prescribing Of Drugs In Optometric Practice

Description

Optometrists use diagnostic and therapeutic drugs in the course of providing patient care. The College recognizes that there is a distinction between the use of drugs within a clinical setting and the prescribing of drugs for treatment. Optometrists with authority to prescribe drugs can do so to manage patients with diseases and disorders of the eye and vision system. Such drugs are usually topically applied eye drops or ointments and oral medications for corneal or eyelid infections only.

Regulatory Standard

The Optometry Act, 1991 states that in the course of engaging in the practice of optometry, optometrists are authorized, subject to terms, conditions and limitations imposed on his or her certificate of registration, to perform the following controlled act:

2.1 Prescribing drugs designated in the regulations.

The Designated Drugs and Standards of Practice Regulation, O.Reg. 112/11 (made under the Optometry Act, 1991) describes the following conditions under which an optometrist may prescribe drugs and the drugs that may be prescribed:

Drugs that may be prescribed

1. For the purposes of paragraph 2.1 of section 4 of the Act, and subject to sections 2, 3 and 4 and Part II of this Regulation, a member may prescribe a drug set out under a category and sub-category heading in Schedule 1.

Limitation

2. Where a limitation or a route of administration is indicated in the sub-category heading set out in Schedule 1, a member shall only prescribe a drug listed under that subcategory in compliance with the limitation and in accordance with the route of administration specified.

Training required

3. No member may prescribe any drug unless he or she has successfully completed the relevant training in pharmacology that has been approved by the Council.

Recording

4. Every time a member prescribes a drug, the member shall record the following in the patient's health record as that record is required to be kept under section 10 of Ontario Regulation 119/94 (General) made under the Act:
 1. Details of the prescription, including the drug prescribed, dosage and route of administration.

2. Details of the counselling provided by the member to or on behalf of the patient respecting the use of the drug prescribed.

Non-prescription drugs

5. In the course of engaging in the practice of optometry a member may prescribe any drug that may lawfully be purchased or acquired without a prescription.

The standards of practice related to the prescribing of drugs for the treatment of glaucoma are as follows:

Prescribing of antiglaucoma agents

6. It is a standard of practice of the profession that in treating glaucoma a member may only prescribe a drug set out under the category of “Antiglaucoma Agents” in Schedule 1.

Open-angle glaucoma

7. (1) Subject to subsection (2) and to section 8, it is a standard of practice of the profession that a member may only treat a patient with glaucoma where the patient has primary open-angle glaucoma the treatment of which is not complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment.

(2) It is a standard of practice of the profession that a member may only treat a patient having open-angle glaucoma, the treatment of which is complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment, in collaboration with a physician with whom the member has established a comanagement model of care for that patient and who is,

- (a) certified by the Royal College of Physicians and Surgeons of Canada as a specialist in ophthalmology; or
- (b) formally recognized in writing by the College of Physicians and Surgeons of Ontario as a specialist in ophthalmology.

Referral to physician or hospital

8. (1) Subject to subsections (2) and (3), it is a standard of practice of the profession that a member shall immediately refer a patient having a form of glaucoma other than primary open angle glaucoma to a physician or to a hospital.

(2) It is a standard of practice of the profession that a member may initiate treatment for a patient having angle-closure glaucoma only in an emergency and where no physician is available to treat the patient.

(3) It is a standard of practice of the profession that a member shall immediately refer any patient being treated in accordance with subsection (2)

to a physician or hospital once the emergency no longer exists or once a physician becomes available, whichever comes first.

(4) In this section, “hospital” means a hospital within the meaning of the Public Hospitals Act.

SCHEDULE 1

ANTI-INFECTIVE AGENTS

Antibacterials (topical)

azithromycin
besifloxacin
ciprofloxacin
erythromycin
framycetin
fusidic acid
gatifloxacin gentamicin
moxifloxacin
ofloxacin
polymyxin B/gramicidin/neomycin
polymyxin B/neomycin/bacitracin
polymyxin B/trimethoprim
sulfacetamide
tetracycline
tobramycin

Antifungals (topical)

natamycin

Antivirals (topical)

trifluridine
Acyclovir

Antibacterials (oral) –

for corneal or eyelid infections only and for a duration not exceeding 14 days

amoxicillin
amoxicillin/clavulanic acid
azithromycin
cephalexin
ciprofloxacin
clarithromycin
clindamycin
cloxacillin
doxycycline
erythromycin

levofloxacin
minocycline
moxifloxacin
tetracycline

Antivirals (oral) – for corneal or eyelid infections only

acyclovir
famciclovir
valacyclovir

ANTI-INFLAMMATORY AGENTS

Corticosteroids (topical)

dexamethasone
fluorometholone
loteprednol
prednisolone
rimexolone

Nonsteroidal anti-inflammatory agents (topical)

diclofenac
ketorolac
nepafenac

ANTI-INFECTIVE/ANTI-INFLAMMATORY AGENTS

Antibacterials /corticosteroids (topical)

framycetin/gramicidin/dexamethasone
gentamicin/betamethasone
neomycin/fluorometholone
neomycin/polymyxin B/dexamethasone
neomycin/bacitracin/polymyxin B/hydrocortisone
sulfacetamide/prednisolone
tobramycin/dexamethasone

MYDRIATICS

Mydriatics (topical)

atropine
cyclopentolate
homatropine

ANTI-ALLERGIC AGENTS

Anti-allergic agents (topical)

emedastine
ketotifen
levocabastine

Iodoxamide
nedocromil
olopatadine

ANTIGLAUCOMA AGENTS

β -Adrenergic blocking agents (topical)

betaxolol
levobunolol
timolol

Carbonic anhydrase inhibitors (topical)

brinzolamide
dorzolamide

Miotics (topical)

carbachol
pilocarpine

Prostaglandin analogs (topical)

bimatoprost
latanoprost
travoprost
 α -Adrenergic agonists (topical)

apraclonidine

brimonidine
 α -Adrenergic agonists/ β -adrenergic blocking agents (topical)

brimonidine/timolol

Carbonic anhydrase inhibitors/ β -adrenergic blocking agents (topical)

dorzolamide/timolol

Prostaglandin analogs/ β -adrenergic blocking agents (topical)

latanoprost/timolol

travoprost/timolol

The Professional Misconduct Regulation (Regulation 859/93 under the Optometry Act) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.(3)
10. Failing to reveal the exact nature of a secret remedy or treatment used by the member following a patient's request to do so.

11. Making a misrepresentation with respect to a remedy, treatment or device.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Optometrists utilizing drugs within their practices for diagnostic and therapeutic purposes will:

- use only drugs for which they have been appropriately trained, establish a diagnosis and management plan based upon case history, clinical findings and accepted treatment modalities
- not dispense a drug
- document the drug(s) used, including concentration (when applicable) and dosage
- provide appropriate patient counselling including:
 - general information, including management options, a description of the treatment(s), expected outcomes and normal healing course
 - specific information including any potential significant risks and complications requiring urgent or emergency care (OPR 4.6)
 - how to access after-hours support and emergency care
 - arrange appropriate follow-up care as indicated
- refer the patient to an appropriate health care provider when clinically indicated

Prescribing of Drugs by Optometrists with Authority to Prescribe Drugs

In addition to the above conditions, those with authority to prescribe drugs:

- will maintain appropriate continuing education relevant to the treatment of eye disease by drug therapy as specified by the College
- may issue a prescription (OPR 5.2) and document the treatment and counselling in the patient health record (OPR 5.1)

Use of Drugs by Optometrists without Authority to Prescribe Drugs

Optometrists without authority to prescribe drugs have several options for the treatment of patients with conditions requiring drug therapy, such as:

- refer to another optometrist with authority to prescribe drugs;
- refer to another regulated health care provider who care provide such care appropriate to the condition;
- initiate office treatment, then, make a referral, as above, if required for the condition

It is professional misconduct if a prescription for drugs is issued by an optometrist without authority to prescribe drugs.

Clinical Guideline

Optometrists should be familiar with and adhere to accepted diagnostic and treatment considerations for diseases and disorders of the eye and vision system. Current literature and Clinical Practice Guidelines¹ are helpful to guide diagnostic and therapeutic considerations.

Frequency of follow-up examinations

The frequency of follow-up examinations for conditions of the eye and vision system requiring treatment with drugs varies greatly. Optometrists should use sound clinical judgement to determine an appropriate schedule. Factors that should be considered include:

the severity and morbidity of the condition

- the potential adverse complications
- the patient's systemic health considerations
- expected progress of therapy

Emergency and After-hours care

Patients may require emergency or after-hours care if the condition is not responsive to therapy or if an unexpected response to treatment occurs. During usual working hours it would be appropriate to have patients contact the optometrist's office for instructions. Optometrists should ensure that office staff has appropriate training and direction on arranging care for emergency presentations.

Outside business hours, consideration could be given to:

having an accessible emergency contact system, answering service or other after-hours communication modality

- having formal arrangements with qualified practitioners to provide accessible after-hours consultation when the prescribing optometrist is not available
- directing patients to hospital emergency rooms when appropriate

References:

1. American Optometric Association – Clinical Practice Guidelines (CPG 5, 7, 9, 10, 11)
First published: April 2004 (The Guideline for the Use of Drugs by Optometrists) Revised:
April 2011 (The Use and Prescribing of Drugs in Optometric Practice)

4.5 Referrals

Description

A referral is a request for consultation and/or the provision of treatment made to another regulated health professional (most often an ophthalmologist) when a patient requires care that exceeds the optometrist's scope of practice or ability.

Regulatory Standard

The Professional Misconduct Regulation (**Regulation 859/93 under the *Optometry Act***) includes the following acts of professional misconduct:

2. Exceeding the scope of practice of the profession.
3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Optometrists must be proficient in determining the necessity of appropriate referral for care. An optometrist's decision about the urgency and choice of consultant will be influenced by the patient's ocular and/or systemic condition, risk factors, the community in which the optometrist is practising and the availability of appropriate consultation.

Once the decision has been made to make a referral, appropriate documentation in the patient's *clinical record* (**OPR 5.1**) is necessary, including:

- confirmation of when the referral was requested (e.g. fax information or written documentation of telephone conversation);
- appointment date, time, and consultant;
- confirmation with the patient of the appointment time and location; and
- a copy of the pertinent clinical information forwarded to the consultant.

Timeliness of Referral

Acute conditions which pose an immediate threat to the health and/or vision of the patient require a prompt referral. Examples of these conditions include:

- acute glaucoma;
- retinal detachment;
- papilledema;
- central corneal ulcer;
- sudden, unexplained vision loss; or
- vision-threatening trauma.

If the referral appointment is not available within an appropriate amount of time, putting the patient at risk, the optometrist is required to advocate on the patient's behalf to attempt to arrange a more timely appointment. Otherwise, the optometrist may need to seek an alternative source of care such as a hospital emergency department.

Clinical Guideline

When a referral letter has been written, it is appropriate in most cases to send a copy to the patient's primary healthcare provider.

Many consultants have printed material that includes maps, directions, and office policies. Making these available may be helpful to patients attending these appointments.

If the patient has a specific request regarding the choice of consultant, this request should be honoured where possible and/or appropriate.

(Jan. 2007)

4.6 Ocular Urgencies and Emergencies

Description

Urgencies and emergencies represent potential threats to the ocular and/or systemic health and well being of a patient if not dealt with appropriately. Accordingly, a specific examination is performed to provide prompt assistance, intervention, and/or action to limit potential sequelae.

Regulatory Standard

The Professional Misconduct Regulation (**Regulation 859/93 under the *Optometry Act***) includes the following acts of professional misconduct:

2. Exceeding the scope of practice of the profession.
3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

In urgent or emergency situations, any treatment initiated by the optometrist will be within the profession's *scope of practice* (**OPR 2.1**), and will not exceed his or her experience or competence. An exception to this would be if a controlled act has been *delegated* (**OPR 4.3**) to a member by a member of another regulated health profession with that authority, and the member was properly trained to do so.

Generally, the optometrist is expected to:

- conduct a specific examination to evaluate the immediate problem;
- counsel 'at-risk' patients about signs and symptoms that may require further care (for example, possible retinal detachment symptoms following a posterior vitreous detachment); and
- establish appropriate protocols and ensure that staff members are trained to recognize and respond to urgent and emergency situations.

If the treatment involves a *referral* (**OPR 4.5**) to another health professional, the timeliness of the appointment will be appropriate to the condition and remains the responsibility of the optometrist even if a staff member makes the appointment.

Clinical Guideline

When a *referral* (OPR 4.5) to another health professional is required, the optometrist is expected to attempt to arrange the most appropriate consultation available. In all cases, information concerning the nature of the urgency or emergency is expected to be communicated to the practitioner receiving the referral. Unless the patient is sent to the local emergency department for care, urgent or emergency referral appointments usually require a greater degree of assurance that the appointment time and date are accurately communicated to the patient, and that the patient attends the appointment. In cases where it is not possible to confirm an appointment, referral to the local emergency department with a note stating the reason for referral, may be necessary. In addition, it is highly recommended that the optometrist follow up with the patient on the results of the appointment.

The optometrist may establish an after-hours communication strategy to guide patients in need of urgent or emergency ocular care. This may be in the form of additional recorded phone messages or signs on the office door. Instructing patients what to do, such as going to the local emergency department, or to a walk-in clinic that is known to deliver after-hours care, is appropriate.

Additional information on urgent and emergency care is available on the American Optometric Association website (www.aoa.org) and includes the following clinical practice guidelines:

- CPG 5 Care of the Patient with Primary Angle Closure Glaucoma
- CPG 7 Care of the Patient with Anterior Uveitis
- CPG 10 Care of the Patient with Ocular Surface Disorders
- CPG 11 Care of the Patient with Conjunctivitis
- CPG 13 Care of the Patient with Retinal Detachment and Peripheral Vitreoretinal Disease

First Published: September 2007

Revised: May 2009

4.7 Infection Control in the Optometric Office

Description

Within all health care facilities there is a risk of transmission of infectious agents. Standards demand that all health care workers must mitigate that risk by being educated and proactive in the area of infection control. Documents and guidelines on the topic of infection control are published and periodically updated by government agencies, health care groups and academic institutions. All optometrists must be cognizant of current information on infection control and take appropriate measures within their practices.

Regulatory Standard

13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
17. Failing to maintain the standards of practice of the profession.
53. Engaging in conduct or performing an act that, having regard to all the circumstances, would reasonably be regarded by members as disgraceful, dishonourable, unprofessional or unethical.

Professional Standard

Optometrists must take reasonable and appropriate measures to minimize the risk of contamination and subsequent transmission of infectious agents within their professional practices.

Clinical Guidelines

Optometrists should have specific Standard Operating Procedures (SOP) documented, applied and monitored that define routine practices and additional precautions for the prevention of transmission of infectious agents in an optometric office. All staff should be appropriately educated regarding the SOP.

An SOP should be developed for each office which details the:

1. techniques used to disinfect the office and control transmission of infectious agents
2. frequency of and specific responsibility for disinfection of the office and instrumentation
3. specification of the disinfection substances to be used
4. additional precautions for specific situations.(e.g. patients or office staff with a possible contagion)
5. plans to monitor compliance with and efficacy of the recommended precautions

Health Canada uses the term Routine Precautions to describe the system of infection prevention recommended to prevent transmission of infections in health care settings.

Routine Precautions should be applied to all patients at all times, regardless of diagnosis or infectious status. The basics of Routine Precautions are:

- hand washing (hand hygiene);
- using personal protective equipment (e.g. gloves, gowns, disposable resuscitation devices or pocket masks) when handling blood, body substances, excretions and secretions;
- appropriate handling of patient care equipment and soiled linen;
- preventing needle stick/sharp injuries;
- environmental cleaning;
- appropriately handling of waste;
- adopting personal care strategies (e.g. immunization, stay home when one is sick); and
- covering one's mouth and possibly wearing a surgical mask when coughing or sneezing.

The MOHLTC has a website specifically for Health Professionals where provincial infection control guidelines and health alerts may be accessed.

- http://www.health.gov.on.ca/english/providers/program/emu/emu_mn.html

The MOHLTC has also developed the Ontario Health Pandemic Influenza Plan, which can be found at:

- http://www.health.gov.on.ca/english/providers/program/emu/pan_flu/pan_flu_mn.html

Hand-washing

Hands should be washed before and after every patient contact, with soap and warm water, for 15 – 30 seconds.

Hand sanitizers may be used if hand-washing with soap and water is unavailable or impractical.

Gloves

Gloves are not a substitute for hand washing and are not required for routine patient care activities in which contact is limited to a patient's intact skin.

Sterile gloves are used for surgical purposes, are individually wrapped and are not generally required for optometric purposes. Non-sterile single-use gloves are normally used in optometric offices.

Non-sterile, single use gloves should be worn for contact with blood, body fluids, secretions and excretions, mucous membranes, open skin lesions or exudative rash, for handling visibly soiled items, or if anyone involved in patient care has open skin lesions that can pose a risk to patients or other care providers

Gloves should be put on immediately before the procedure and removed immediately after use, before touching any environmental surfaces.

Transmission Based Precautions

Transmission may occur through the air or by direct contact with environmental surfaces (professional equipment, office furniture, skin to skin). Considerations for transmission based precautions may include:

- Optometric support staff can play a role in initial triage of patients who are suspected of having airborne-transmitted infectious disease.
- Rescheduling patients with suspected airborne-transmitted infectious disease upon entry into office; infectious particles can remain in the room for long periods of time.
- Installing air exchange systems venting outside the office; a step, which may help to reduce the number of airborne pathogens.
- Developing guidelines for disinfection of environmental surfaces (see sample SOP)

Infectious Material Spills

Patients can attend an optometric office in various states of poor health and various spills may occur, for example, as minor as the bleeding of a small cut, or as significant as vomiting. Optometric support staff should employ all precautions in treating and cleaning up such spills by using, as necessary, proper gloves, masks, gowns and disposing of contaminated materials such that no one else could come in contact with them.

Sterilization, Disinfection and Antisepsis

Sterilization

- Defined as the destruction of all forms of microbial life including bacteria, viruses, spores and fungi; usually applied to situations where the epithelium has been breached and/or blood products and/or infectious tissues are involved. Sterilization may be accomplished by:
 - Autoclave
 - 6% hydrogen peroxide x 30 mins
 - 2% gluteraldehyde x 10 hrs

Disinfection (after disinfection, saline-rinse then air dry)

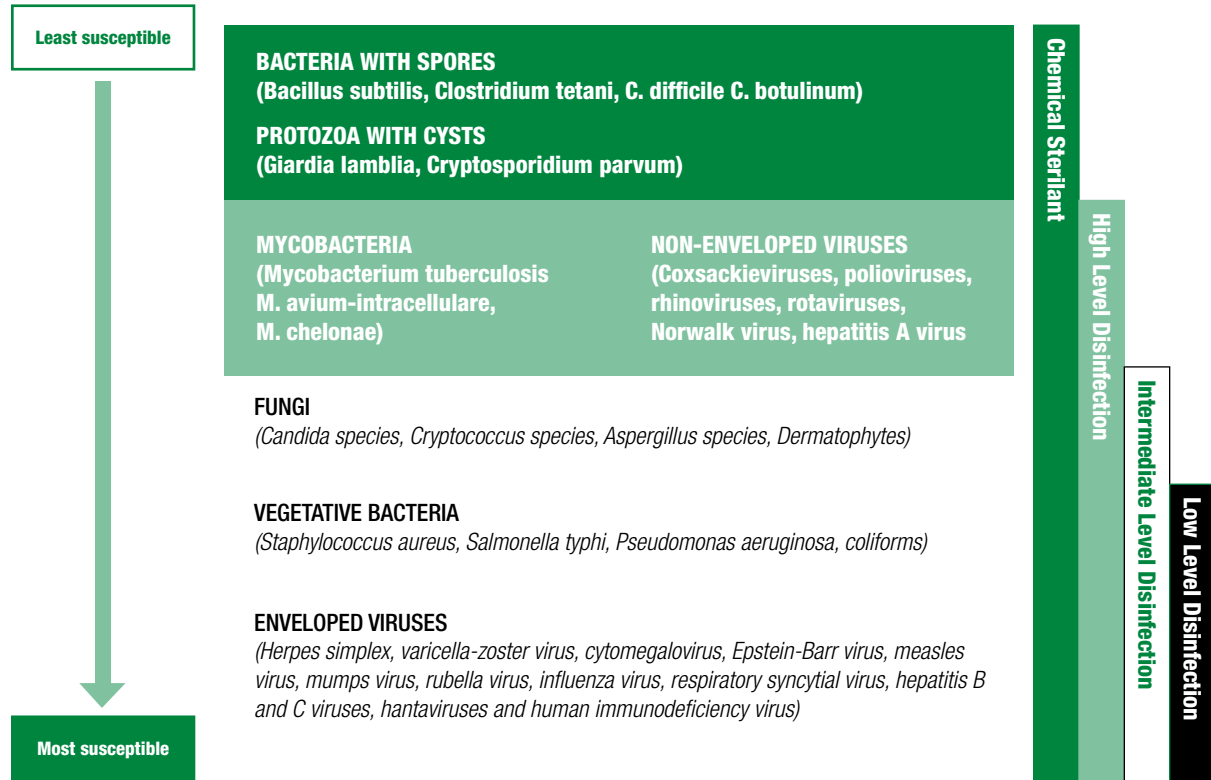
- High-Level Disinfection destroys vegetative bacteria, mycobacterium, fungi, enveloped (lipid) and non-enveloped (non-lipid) viruses **but it does not destroy bacterial spores**. It is accomplished by:
 - 2% gluteraldehyde x 20 mins
 - 1:50 dilution household bleach (hypochlorites) x 20 mins
 - 6% hydrogen peroxide x 10 mins
 - 7% AHP (accelerated hydrogen peroxide = Virox®) x 20 mins
 - 0.2% Peracetic acid x 30 – 40 mins
 - Formaldehyde (37% formalin)

- Intermediate-Level Disinfection does not destroy mycobacteria or enveloped viruses; it is accomplished by:
 - 1:100 dilution household bleach (hypochlorites) x 20 mins
 - 3% hydrogen peroxide x 10 mins
 - 0.5% AHP x 5 mins
 - 60-90% alcohol x 10 mins
 - Iodophors (iodine or povidone-iodine)
- Low-Level Disinfection destroys most vegetative bacteria and some fungi as well as enveloped (lipid) viruses **but does not destroy mycobacteria or bacterial spores**. It involves general housekeeping chores and is accomplished by:
 - QUAT (quaternary ammonium cation); multiple commercial types, i.e. Fantastik
 - Phenolics (i.e. Lysol, Pine Sol)
 - 1:500 dilution household bleach

Antisepsis

- Chemical agents intended for skin or tissue
 - Isopropyl alcohol
 - Chlorhexidine gluconate
 - Iodophors (iodine or povidone-iodine)

Organisms & Recommended Level of Sterilization or Disinfection*



*Canada Communicable Disease Report
Infection Control Guidelines: Handwashing, Cleaning, Disinfection and Sterilization in Health Care, Health
Canada Volume 24S8, December 1998

Assessing the Risk of Patient Contact

Situation	Infection Control Strategy (escalating)
Routine Patient Care No physical contact Communication with patients >1 metre away.	Routine Precautions Handwashing Respiratory etiquette (cover mouth/nose when coughing or sneezing, followed by proper handwashing)
Physical Contact with patients (intact skin)	Contact Precautions Handwashing
Physical contact with patients, where optometrist or patient has infected or open wound, non-intact skin, but no respiratory concerns	Contact Precautions Handwashing Gloves Proper removal and disposal of gloves followed by handwashing
Contact with patients, where procedure may involve body fluids, and/or droplets	Droplet Precautions Handwashing Use professional judgement (personal protective equipment (PPE): Gloves Surgical Mask Eye protectors Gowns Proper removal and disposal of PPE followed by handwashing
Close contact with patients, respiratory symptoms	Droplet Precautions Handwashing Respiratory etiquette (cover mouth/nose when coughing or sneezing, followed by proper handwashing) Use professional judgement (PPE): Gloves Surgical mask for you and/or your patient Eye protectors
Close contact with patients, fever and respiratory symptoms	Droplet Precautions Handwashing Respiratory etiquette (cover mouth/nose when coughing or sneezing, followed by proper handwashing) Use professional judgement (PPE): Gloves Surgical mask for you and/ or your patient Eye protectors Follow health alerts if applicable
Contact with patients with known airborne infection e.g. active TB	Airborne Precautions Droplet Precautions with N95 mask Proper Ventilation
HEALTH ALERT IN EFFECT	FOLLOW MOHLTC GUIDELINES

Disinfectant Uses, Advantages and Disadvantages

Disinfectant	Uses	Advantages	Disadvantages
Alcohols	<p>Intermediate level disinfectant</p> <p>Disinfect thermometers, external surfaces of some equipment</p> <p>Equipment used for home health care</p> <p>Used as a skin antiseptic</p>	<p>Fast acting</p> <p>No residue</p> <p>Non staining</p>	<p>Volatile</p> <p>Evaporation may diminish concentration</p> <p>May harden rubber or cause deterioration of glues</p> <p>Intoxicating</p>
Chlorine	<p>Intermediate level disinfectant</p> <p>Disinfect environmental surfaces</p> <p>Effective disinfectant following blood spills; aqueous solutions (5,000 ppm /1:10 bleach) used to decontaminate area</p> <p>After blood has been removed; sodium dichloroisocyanurate powder sprinkled directly on blood spills for decontamination and subsequent cleanup</p> <p>Equipment used for home health care</p> <p>Undiluted bleach can be used as a high level disinfectant</p>	<p>Low cost</p> <p>Fast acting</p> <p>Readily available in non hospital settings</p>	<p>Corrosive to metals</p> <p>Inactivated by organic material</p> <p>Irritant to skin and mucous membranes</p> <p>Use in well-ventilated areas</p> <p>Shelf life shortens when diluted (1:9 parts water)</p>
Formaldehyde	<p>Very limited use as chemisterilant</p> <p>Sometimes used to reprocess hemodialyzers</p> <p>Gaseous form used to decontaminate laboratory safety cabinets</p>	<p>Active in presence of organic materials</p>	<p>Carcinogenic</p> <p>Toxic</p> <p>Strong irritant</p> <p>Pungent odour</p>
Gluteraldehydes	<p>2% formulations – high level disinfection for heat sensitive equipment</p> <p>Most commonly used for spuds, lacrimal dilators, tweezers, Alger brush tips</p>	<p>Noncorrosive to metal</p> <p>Active in presence of organic material</p> <p>Compatible with lensed instruments</p> <p>Sterilization may be accomplished in 6 – 10 hours</p>	<p>Extremely irritating and toxic to skin and mucous membranes</p> <p>Shelf life shortens when diluted (effective for 14 – 30 days depending on formulation)</p> <p>High cost</p> <p>Monitor concentration in reusable solutions</p>
Hydrogen peroxide	<p>Low level disinfectant (3%) Equipment used for home health care</p> <p>Cleans floors, walls and furnishings</p> <p>High level disinfectant (6%) Disinfection of soft contact lenses, tonoprobes</p> <p>Higher concentrations used as chemisterilants in specially designed machines for decontamination of heat sensitive medical devices</p> <p>Stabilized hydrogen peroxide (0.5%) is used a high level surface disinfectant</p>	<p>Strong oxidant</p> <p>Fast acting</p> <p>Breaks down into water and oxygen</p>	<p>Can be corrosive to aluminum, copper, brass or zinc</p> <p>Surface active with limited ability to penetrate</p>

Iodophors	Intermediate level disinfectant for some equipment (hydrotherapy tanks, thermometers) Low level disinfectant for hard surfaces and equipment that does not touch mucous membranes	Rapid action Relatively free of toxicity and irritancy	Note: Antiseptic iodophors are NOT suitable for use as hard surface disinfectant Corrosive to metal unless combined with inhibitors Disinfectant may burn tissue Inactivated by organic materials May stain fabrics and synthetic materials
Peracetic acid	High level disinfectant or sterilant for heat sensitive equipment Higher concentrations used as chemical sterilants in specially designed machines for decontamination of heat sensitive medical devices	Innocuous decomposition (water, oxygen, acetic acid, hydrogen peroxide) Rapid action at low temperature Active in presence of organic materials	Can be corrosive Unstable when diluted
Phenolics	Low/intermediate level disinfectants Clean floors, walls and furnishings Clean hard surfaces and equipment that does not touch mucous membranes	Leaves residual film on environmental surfaces Commercially available with added detergents to provide one-step cleaning and disinfecting	Do not use in baby nurseries Not recommended for use on food contact surfaces May be absorbed through skin or by rubber Some synthetic flooring may become sticky with repetitive use
Quaternary ammonium compounds	Low level disinfectant Clean floors, walls and furnishings Clean blood spills	Generally non-irritating to hands Usually have detergent properties	DO NOT use to disinfect instruments Non-corrosive Limited use as disinfectant because of narrow microbiocidal spectrum

Definitions

Antiseptics: chemicals that kill microorganisms on living skin or mucous membranes.

Bactericidal: chemical agents capable of killing bacteria. Similarly agents that are virucidal, fungicidal or sporicidal are agents capable of killing these organisms.

Bacteriostatic: chemical agents that inhibit the growth of bacteria but do not necessarily kill them.

Cleaning: the physical removal of foreign material, e.g., dust, soil, organic material such as blood, secretions, excretions and microorganisms. Cleaning generally removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action. The terms “decontamination” and “sanitation” may be used for this process in certain settings, e.g., central service or dietetics. Cleaning reduces or eliminates the reservoirs of potential pathogenic organisms.

Critical items: instruments and devices that enter sterile tissues, including the vascular system. Critical items present a high risk of infection if the item is contaminated with any microorganisms. Reprocessing critical items involves meticulous cleaning followed by sterilization.

Decontamination: the removal of disease-producing microorganisms to leave an item safe for further handling.

Disinfection: the inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores. Disinfectants are used on inanimate objects in contrast to antiseptics, which are used on living tissue. Disinfection usually involves chemicals, heat or ultraviolet light. The nature of chemical disinfection varies with the type of product used.

High level disinfection: High level disinfection processes destroy vegetative bacteria, mycobacteria, fungi and enveloped (lipid) and non-enveloped (non lipid) viruses, but not necessarily bacterial spores. High level disinfectant chemicals (also called chemical sterilants) must be capable of sterilization when contact time is extended. Items must be thoroughly cleaned prior to high level disinfection.

Intermediate level disinfection: Intermediate level disinfectants kill vegetative bacteria, most viruses and most fungi but not resistant bacterial spores.

Low level disinfection: Low level disinfectants kill most vegetative bacteria and some fungi as well as enveloped (lipid) viruses (e.g., hepatitis B, C, hantavirus, and HIV). Low level disinfectants do not kill mycobacteria or bacterial spores. Low level disinfectants are typically used to clean environmental surfaces.

Noncritical items: those items that do not directly contact the patient, or come in contact with only intact skin but not mucous membranes. Reprocessing of noncritical items involves cleaning and/or low level disinfection.

Sanitation: a process that reduces microorganisms on an inanimate object to a level below that of infectious hazard (e.g., dishes and eating utensils are sanitized).

Semi-critical items: devices that come in contact with non-intact skin or mucous membranes but ordinarily do not penetrate them. Reprocessing semi-critical items involves meticulous cleaning followed preferably by high-level disinfection.

Sterilization: the destruction of all forms of microbial life including bacteria, viruses, spores and fungi. Items should be cleaned thoroughly before effective sterilization can take place.

References

- 1) Guidelines for Infection Preventions and Control in the Physician's Office. BC Centre for Disease Control 2004
http://www.bccdc.org/downloads/pdf/lab/reports/Infection_Control_In_Physician_Office_Final.pdf
- 2) A Guide to Selection & Use of Disinfectants. BC Centre for Disease Control 2003.
http://www.bccdc.org/downloads/pdf/epid/reports/CDManual_DisinfectntSelectnGuidelines_sep2003_nov05-03.pdf
- 3) Infection Control for Regulated Health Professionals. Federation of Health Regulatory Colleges of Ontario
- 4) Spaulding's Classification. Cindy Wigston, Infection Prevention & Control Coordinator/Quality Leader, Orillia Soldier's Memorial Hospital.
<http://www.ricn.on.ca/photos/custom/NSMICNfiles/SPAULDING'S%20CLASSIFICATION.pdf>
- 5) Best Practices for Hand Hygiene In All Health Care Settings, Provincial infectious Diseases Advisory Committee (PIDAC), Ministry of Health and Long-Term Care, Published-May 2008, Revised-January 2009.
http://www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_hh_20080501.pdf
- 6) Best Practices for Cleaning, Disinfection and Sterilization of Medical Equipment/Devices in all Health Care Settings, Provincial Infectious Diseases Advisory Committee (PIDAC), Ministry of Health and Long-Term Care, Published-April, 2006, Reviewed and revised February, 2010.
http://www.health.gov.on.ca/english/providers/program/infectious/diseases/best_prac/bp_cds_2.pdf

First published: April 2011

SAMPLE Standard Operating Procedure (SOP)

Levels of disinfection are commensurate with patient risk factors. When in doubt, use of high level disinfection is recommended

Area	Sub-Area	Device	Level of Disinfection	Freq.	Who	DA
Professional	Exam Room (↑ disinfection commensurate with patient's infection)	Spuds, Alger Brush, Lacrimal Dilators, Cannulas	High	1	A	
		Tonometer/Pachimeter probes	Intermediate	1	A	
		Contact Lenses	Intermediate	1	A	
		Forehead/chin rests (phoropter, perimeter, OCT, camera, auto-tonometer/refractor)	Low	1	A	
		Occluders, eye patches	Low	1	A	
		Diagnostic Equipment (i.e. perimeter, OCT)	Low	3	A	
		Sinks	Low	3	A	
		Exam Chair & Unit	Low	3	A	
		R/G Glasses	Low	2	A	
		Trial Frame	Low	2	A	
		Hand Held Instruments	Low	2	A	
	Lab/Dispensing Area	Contact Lens Cases	Intermediate	1	B	
		Frame warmer	Low	4	B	
		Frames on Display	Low	4	B	
		Frame Displays	Low	4	B	
Lab hand tools		Low	3	B		
Administrative	Desk Counters		Low	3	B	
	Computer Keyboards, Mouse & Telephone		Low	3	B	
	VISA Device		Low	3	B	
	Staplers, Tape Dispensers		Low	4	B	
	Pens, Pencils		Low	4	B	
	Fax Machines		Low	3	B	
General Office	Waiting Area		Low	3	B	
	Toys		Low	2	B	
	Door Handles		Low	2	B	
	Washrooms		Low	2	B	
	Light Switches		Low	3	B	

Freq. Codes	
1	After direct patient contact
2	End of day
3	Weekly
4	Monthly

Who	
A	Individuals Directly involved in Patient Care
B	Designated Office Staff/Cleaning Staff

Disinfecting Agent (DA)	Level	Code
2% Glutaraldehyde	H	1
1:50 bleach	H	2
6% H ₂ O ₂	H	3
Virox	H	4
1:100 bleach	I	5
3% H ₂ O ₂	I	6
60 – 90% alcohol	I	7
Iodine/Povidine	I	8
Com. Cleaner	L	9



4.8 Collaboration and Shared Care

Description

The term “collaboration” has arisen to describe sharing of care between professionals. Such shared care is usually complementary. It has become apparent that professionals who provide complementary health care services to patients often will find ways to work together to co-manage/share care of patients. This is often beneficial to patients as it may allow better accessibility to the health care system, lower costs to the system and patients and allow more specialized practitioners to devote more time to their area of expertise.

Optometrists collaborate with many health care professionals including other optometrists, ophthalmologists, family physicians, other medical practitioners, nurse practitioners and opticians. This document describes the characteristics and conditions of collaboration as they apply to the profession of optometry.

History

Optometrists have the regulatory obligation to refer patients to an appropriate regulated health professional (RHP) when the patient’s condition and/or treatment is beyond the scope of practice of the optometrist. This has usually resulted in referral to family physicians or ophthalmologists to institute medical and/or surgical care. Various shared care relationships have developed in this regard including glaucoma management (OPR 7.2), cataract surgery (OPR 7.3) and refractive surgery (OPR 7.8). Although these relationships are common, formal arrangements are usually not developed.

The Health Professions Regulatory Advisory Counsel (HPRAC) made recommendations in its New Directions report (2006) that optometrists and physicians develop formal collaborative relationships with opticians regarding the latter professional group providing refractive data to assist in the development of a prescription (OPR 6.3) for vision correction. HPRAC also recommended that optometrists and ophthalmologists develop collaborative relationships with regards to the management of glaucoma patients. (OPR 7.2)

Regulatory Standards

Controlled Acts

The *Regulated Health Professions Act* (RPHA) identifies 13 controlled acts that may only be performed by members of certain regulated health professions. Optometrists are authorized by the *Optometry Act* to perform 4 of the 13 controlled acts, as follows:

- communicating a diagnosis identifying as the cause of a person’s symptoms, a disorder of refraction, a sensory or oculomotor disorder of the eye or vision system, or a prescribed disease;
- applying a prescribed form of energy;

- prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses; and
- prescribing a drug designated in the regulation.

The *Optometry Act*, 1991 includes the following Professional Misconduct regulations:

2. Exceeding the scope of practice of the profession.
3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
8. Practicing the profession while the member is in a conflict of interest.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.
18. Delegating a controlled act in contravention of the Act, the Regulated Health Professions Act, 1991 or the regulations under either of those Acts.
19. Performing a controlled act which has not been delegated to the member in accordance with the regulations.
20. Ordering a person who is under the supervision of a member to perform an act, or supervising an act, in the practice of optometry that is not consistent with the regulations.
21. Permitting, counselling or assisting any person who is not a member to perform an act which should be performed by a member

Professional Standard

When an optometrist establishes a collaborative relationship with another RHP, that relationship must be in the best interests of the patient. A formal collaborative relationship will:

- have a verifiable agreement between collaborating professionals which outlines the various responsibilities, accountabilities and exchange of appropriate information for each person;
- ensure that patients fully understand the roles and responsibilities of the professionals involved and any associated fees;
- ensure that patients understand their options for care;

- have a mechanism for conflict resolution amongst all parties; and
- ensure the collaborating professionals adhere to any applicable standards of practice and conflict of interest regulations for each profession.

Clinical Guideline

Although all health professionals are required to maintain the standards of practice set by their own profession, optometrists entering into formal collaborative relationships should take all necessary steps to ensure that the other professionals involved are competent to perform the necessary procedures and services. This could include:

- ensuring that formal qualifications and provincial licensure exist;
- jointly participating in training/education activities;
- developing a joint quality assurance process; and
- regularly reviewing and revising the collaborative agreement.

Conflict of Interest and Fee Issues

When health professionals collaborate, a potential for various conflicts of interest will develop. These include:

- inappropriate referrals (for example referral to your collaborating professional when another RHP would be more appropriate); and
- fee sharing and/or referral fees.

Optometrists should ensure that any potential conflicts of interest are minimized by ensuring that patients fully understand the roles, responsibilities and fees for each professional.

Responsibility

In a collaborative relationship, the professionals providing care share joint responsibility for the assessments and care provided. The formal collaborative agreement will outline this, but members should ensure that all parties involved have a complete understanding. Although the collaborative agreement would not necessarily be in writing, it should be verifiable to a third party if the question arose. It is expected that collaborating professionals will agree on a process for resolving patient problems. If any inconsistency or irregularity in clinical findings and/or care arise, it is the responsibility of all the professionals involved to ensure that appropriate clinical investigations and treatments are performed, however the prescribing professional should take the leading role in these steps.

First published: May 2009



5. Documentation

5.1 The Patient Health Record

Description

The patient health record, or clinical record, provides comprehensive documentation of the patient's health and oculo-visual history. An optometrist maintains the information contained within the record in trust, and in compliance with Ontario's *Personal Health Information Protection Act*.

Regulatory Standard

The optometrist shall take all reasonable steps necessary (including verification at reasonable intervals) to ensure that records in relation to his or her practice are kept in accordance with the regulations.

The regulations guiding record keeping are contained in O.Reg.119/94, Part IV, s. 7 – 12 and include the following provisions:

An optometrist must keep:

1. A daily appointment record that sets out the name of each patient whom the optometrist examines or treats or to whom the optometrist provides any service.
2. A financial record for each patient. This record must include the optometrist's fees for services and any commercial laboratory costs charged to the member.
3. A patient health record for each patient which must include the following:
 - the name and address of the patient;
 - the name of the optometrist who provided the service;
 - the date of each visit of the patient;
 - the date of every entry in the record;
 - the name and address of any referring health professional;
 - the patient's health and oculo-visual history;
 - the clinical procedures used;
 - the clinical findings obtained;
 - the diagnosis, when possible;
 - every order made by the optometrist for examinations, tests, consultations or treatments to be performed by any other person;
 - particulars of every *referral* (OPR 4.5) to or from another health professional;
 - information about every *delegation* (OPR 4.3) of a controlled act within the meaning of subsection 27(2) of the *Regulated Health Professions Act* delegated by the optometrist;

- information about a procedure that was commenced but not completed, including reasons for non-completion; and
- a copy of every written consent to treatment.

The patient health record shall also:

- be dated and include patient identification information on each part;
- include a date for each entry and identify the person making the entry; and
- be retained for at least 10 years following the patient's last visit or 10 years after the patient became or would have become 18 years old.
- An optometrist using computer, electronic or other equipment for recording, storing and retrieval of records shall:
- have ancillary equipment readily available for the making of hard copies of the record at no expense to an authorized investigator, inspector or assessor of the College; and
- use equipment or software that allows no amendment, correction, addition or deletion to be made to any record that obliterates the original record or does not show the date of the change.

Access to a Patient Health Record

An optometrist must restrict access to a patient health record and is not permitted to give a copy of a document or any information from a patient health record to any person except as required by law or regulation.

An optometrist shall provide copies from a patient health record for which the optometrist has primary responsibility to any of the following persons on request:

- the patient;
- an authorized personal representative of the patient;
- a deceased patient's legal representative; or
- an incapacitated patient's representative as outlined in O.Reg. 119/94 Part IV 11.(2)4.i-v.

Ready access to the patient record shall be provided to an authorized investigator, inspector, or assessor of the College.

An optometrist may, for the purpose of providing health care, allow a health professional to examine the health record or give a health professional a copy of a document or any information from the record.

An optometrist may refuse to provide copies from a patient health record until he or she is paid a reasonable fee.

Professional Standard

A legible and complete optometric record serves to assist in the provision of care to a patient. The record also has a purpose in meeting professional regulatory requirements, and shall be available for use in Complaints, Discipline, Quality Assurance and other legal applications.

In addition to the regulatory requirements, the College expects that the patient health record shall also:

- include the proposal for care and advice offered to the patient;
- include a description of the care rendered and recommendations for ongoing care;
- allow easy identification and location of all documentation related to the provision of care to the patient, including professional correspondence, laboratory invoices, billing information, and fees charged;
- indicate deviations from usual care due to patient refusal or inability to cooperate; and
- make specific notation in the event that a test was performed or a question asked and the result was negative or normal.

Relocation of a Patient Health Record

Relocation of a clinical record requires that the optometrist entrusted with the maintenance of the record make a reasonable attempt to inform the patient of the intention to relocate the record. The optometrist is expected to comply with any direction of the patient to have that record maintained by another optometrist.

Clinical Guideline

Reliable records allow the optometrist to deliver quality patient care, as well as providing a documentation of patient interactions (i.e. administrative, clinical, correspondence and dispensing). They are also legal documents and the optometrist would want to ensure their authenticity for his or her own legal protection.

The use of computerized records has brought several regulatory requirements with respect to those files.

When using electronic records the following requirements must be followed:

- a) the record keeping system must provide ready access to the records by an authorized investigator, inspector or assessor of the College, or the patient or the patient's representative;
- b) ancillary equipment must be readily available for the making of hard copies of the record at no expense to an authorized investigator, inspector or assessor of the College;
- c) the equipment or software being used is such that no amendment, correction, addition or deletion can be made to any record which obliterates the original record or does not show the date of the change; and

d) reliable backup systems are in place and are used on a regular basis.

Hardware and software provisions for data protection are often part of the manufacturer's purchase options. Such protection varies as follows:

- the safety of the hardware from lightning strikes, hydro brownouts, water damage or theft;
- restrictions to access through passwords, the positioning of terminals to restrict the observation of sensitive data by unauthorized people (i.e. the data terminal at the front desk being seen by other patients standing there), and read-only format of data for the protection of its original content;
- back-up of files on removable media, allowing data recovery should a catastrophic system failure occur; and
- ensuring the patient's privacy of personal information through the maintenance and transfer of data in compliance with Ontario's *Personal Health Information Protection Act*.

As new software technologies occur, the sophistication of programming allows for enhancements with the ease of use of the programs offered to the optometrist.

(Sept. 2006)

5.2 The Prescription

Description

A prescription is a therapeutic directive between an optometrist and a patient. A prescription is based upon the diagnosis and analysis of all available clinical information obtained from an optometric examination(s). An optometrist may issue two distinct types of prescriptions: **optical prescriptions**, which when combined with further appliance-specific information, enable the patient to obtain eyeglasses, contact lenses or sub-normal vision devices and **prescriptions for drugs**, which specify topical or oral drugs used to treat ocular disease.

Regulatory Standard

The *Optometry Act, 1991(as amended 2007)* lists four authorized acts that can be performed by an optometrist subject to the terms, conditions and limitations on his or her certificate of registration. Two of those acts are:

- Prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eyeglasses. (1991, c. 35, s. 4".)
- Prescribing drugs designated in the regulations

The Professional Misconduct Regulation (O. Reg. 859/93 under the *Optometry Act, 1991*) includes the following acts of professional misconduct:

14. Failing to make available to a patient who requests one a written, signed and dated prescription for a subnormal vision device, contact lenses or eyeglasses.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

The Designated Drugs and Standards of Practice Regulation, O.Reg. 112/11 (made under the *Optometry Act, 1991*) describes the following conditions under which an optometrist may prescribe drugs:

Designated Drugs and Standards of Practice

Drugs that may be prescribed

1. For the purposes of paragraph 2.1 of section 4 of the Act, and subject to sections 2, 3 and 4 and Part II of this Regulation, a member may prescribe a drug set out under a category and sub-category heading in Schedule 1.

Limitation

2. Where a limitation or a route of administration is indicated in the sub-category heading set out in Schedule 1, a member shall only prescribe a drug listed under that sub-category in compliance with the limitation and in accordance with the route of administration specified.

Training required

3. No member may prescribe any drug unless he or she has successfully completed the relevant training in pharmacology that has been approved by the Council.

Recording

4. Every time a member prescribes a drug the member shall record the following in the patient's health record as that record is required to be kept under section 10 of Ontario Regulation 119/94 (General) made under the Act:
 1. Details of the prescription, including the drug prescribed, dosage and route of administration.
 2. Details of the counselling provided by the member to or on behalf of the patient respecting the use of the drug prescribed.

Non-prescription drugs

5. In the course of engaging in the practice of optometry, a member may prescribe any drug that may lawfully be purchased or acquired without a prescription.

Professional Standard

An optometrist issues a prescription only after establishing a professional relationship with the patient, completing an appropriate examination and obtaining a full understanding of the relevant aspects of the patient's needs, ocular health, refractive status and/or binocular condition (**OPR 2.1**). The prescribed therapy must be within the scope of practice of the optometrist and in the patient's best interest. An optometrist is responsible to counsel a patient in the use of any prescribed therapy and required follow-up. The prescription and appropriate counselling must be documented in the patient record (**OPR 5.1**). In the event that a patient experiences an adverse or unexpected response to the prescribed therapy, an optometrist will provide additional diagnostic and/or counselling services and, if required, make appropriate modifications to the management plan.

All prescriptions must contain information that:

- Clearly identifies the prescriber including name (with the optometrist's degree and profession), address, telephone number, and signature;
- Clearly specifies the identity of the patient; and
- Specifies the date prescribed.

If an optometrist determines that a prescribed therapy is required, a prescription will be issued as part of the assessment without additional charges, regardless of whether the examination is an insured or uninsured service. Charges for additional copies of the prescription are at the discretion of the optometrist.

Patients have the right to fill their prescriptions at the dispensary or pharmacy of their choice.

An optical prescription must also contain information that:

- Is used by a dispenser to fabricate eyeglasses, contact lenses or a subnormal vision device that will provide the required vision correction (**OPR 6.3**) for the patient.

If an optometrist specifies an expiry date as part of a prescription, information must be communicated to the patient so it is understood why it is not appropriate to fill the prescription after the specified date.

When a member has performed the necessary services to prescribe a specific appliance, the parameters of that appliance must be provided to the patient upon request. Note: A member may withhold this information pending payment for the related service.

A prescription for drugs must also contain:

- The drug name, dose, dose form;
- Directions to the pharmacist such as quantity to be dispensed, refills allowed and an indication if **no** substitutions are permitted;
- Directions to the patient
- The optometrist's license (registration) number and **original** signature.

To provide timely care, it may be necessary to fax a prescription for drugs to a pharmacy. This fax must contain appropriate information verifying that it originates at the prescribing optometrist's office.

When it is necessary to verbally communicate a prescription for drugs to a pharmacy, the details must be fully documented in the patient record, including the name of the pharmacy and any staff members assisting in the call.

Clinical Guideline

It may be advantageous for an optometrist to include additional information on the prescription including fax and email information, office hours, etc.

Optometrists should consider retaining a copy of every issued prescription with the patient health record (**OPR 5.1**).

Optical Prescriptions:

Spectacle Prescriptions

The spectacle prescription should include all items, which are necessary for the preparation of the spectacles. The sphere, cylinder and axis are essential to most spectacle prescriptions. Other elements are essential in some cases, for example, reading addition, prismatic power, bicentric prism, or vertex distance of the refraction.

Contact Lens Prescriptions

The contact lens prescription should include those items necessary for the preparation of contact lenses. These may include base curve, diameter and power.

Clinical justification should exist whenever a prescription contains appliance-specific information.

Prescriptions for drugs:

Clinical justification should exist when an optometrist indicates “no substitutions” for a prescribed medication.

Prescription forms with pre-printed lists of medications should generally be avoided to reduce the possibility of alteration by the patient.

The optometrist should consider using clear, modern language to avoid the potential for errors and misinterpretation often found with short-forms and outdated Latin abbreviations.

Members should consider reporting medications prescribed for patients to their primary health care provider to enhance the provision and coordination of care.

Members should consider including, where appropriate, a printed recommendation to discard the unused portion of the medication once the treatment is completed.

First Published: September 2007 Revised: April 2011

6. General Procedures

6.1 Anterior Segment Examination

Description

The anterior segment consists of the front third of the eye, including the structures in front of the vitreous humour such as the cornea, iris, ciliary body and lens.

The anterior segment examination consists of a thorough assessment of these structures to facilitate the diagnosis of diseases, disorders and dysfunctions of the eye and vision system. Information obtained from an anterior segment examination is part of the *required clinical information (OPR 4.2)*.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the Optometry Act](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Optometrists must be proficient in and equipped for examining the anterior segment. The equipment customarily used for the assessment is the slit-lamp biomicroscope.

A complete anterior segment examination must include an inspection of the following anatomical areas:

- lids, lashes and adnexal structures;
- conjunctiva and sclera;
- cornea and tear film;
- anterior chamber and angle;
- iris; and
- crystalline lens.

All patients will receive an anterior segment examination as a part of initial and ongoing optometric care. Emphasis is given to the evaluation of the anterior chamber angle prior to pupillary dilation and in patients with diagnosed or suspected glaucoma. The optometrist's decision regarding the frequency and

extent of the examination and the specific techniques utilized will be influenced by a patient's signs, symptoms and risk factors.

An anterior segment examination is an essential component of all *contact lens assessments* (OPR 6.5).

Clinical Guideline

Gonioscopy is the preferred technique when a detailed assessment of the anterior chamber angle is required. Additional technologies and techniques are available for specialized assessment, including corneal topography, specular microscopy, optical coherence tomography and ultrasound biomicroscopy. Vital dyes and appropriate filters are often helpful in diagnosing diseases and disorders affecting the ocular surface.

American Optometric Association (www.aoa.org) documents relevant to this topic include:

- Care of the Patient with Open Angle Glaucoma (CPG 9); and
- Care of the Patient with Ocular Surface Disorders (CPG 10).

(Jan. 2007)

6.2 Ocular Fundus Examination

Description

An ocular fundus examination aids in the diagnosis of diseases, disorders, and dysfunctions of the eye and vision system. It is a procedure to provide *required clinical information* (OPR 4.2).

Regulatory Standard

The Professional Misconduct Regulation (Regulation 859/93 under the *Optometry Act*) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Optometrists must be proficient in, and *equipped for* (OPR 4.1), various methods of examining the ocular fundus, including both direct and indirect ophthalmoscopes.

An optometrist's decision about the frequency of examination, extent of view and methods of examination of the ocular fundus, including the use of pupillary dilation, will be influenced by a patient's signs, symptoms and risk factors.

Pharmacologic Dilation

Pharmacologic dilation (OPR 4.4) of the pupil is generally required for a thorough evaluation of the ocular media and posterior segment. The results of the initial dilated fundus examination usually indicate the appropriate timing for subsequent pupillary dilation. Dilation can facilitate examination of the anterior segment structures when certain conditions are present or suspected.

The following lists some of the situations/patient symptoms that indicate dilation is required (unless contraindicated) with the informed consent of the patient. These situations/patient symptoms include but are not limited to:

- flashes of light or photopsia;
- onset of or a change in number or size of floaters;
- unexplained or sudden vision change or loss, or onset of metamorphopsia;
- medication or systemic disease that may affect ocular tissues;
- a history of significant ocular trauma, or ocular surgery that increases risk to the posterior segment;

- a history of moderate to high axial myopia;
- an increased risk of peripheral retinal disease exists;
- a better appreciation of the nature of a fundus anomaly is required;
- the ocular fundus is not clearly visible through an undilated pupil;
- the size of a fundus anomaly necessitates an increased field of view for its interpretation;
- a disease of the ciliary body is suspected; and/or
- disorders of the vitreous.

Clinical Guideline

In general, patients should receive a dilated fundus examination (DFE) upon their initial presentation to a practitioner. DFE should also be performed periodically thereafter as circumstances warrant.

Fundus Examination Procedures

METHOD	CHARACTERISTICS
1 Direct Ophthalmoscopy	high magnification small field of view
2 Binocular Indirect Ophthalmoscopy	low magnification large field of view scleral indentation view
3 Monocular Indirect Ophthalmoscopy	moderate magnification moderate field of view
4 Slit Lamp Biomicroscopy (slit lamp photography)	high magnification very bright light source
5 Fundus Camera View and Photography	moderate magnification moderate field of view wide range of filters and recording media colour or black and white film or digital recording
6 New Technology Mapping Systems	retinal tomography (i.e. Heidelberg Retinal Tomography) optical coherence tomography (i.e. Zeiss OCT Stratus) scanning laser ophthalmoscope confocal scanning laser polarimeter

(Sept. 2006)

6.3 Refractive Assessment and Prescribing

Description

Assessing the patient's refractive error and, where required, prescribing (OPR 5.2) an optical correction is an integral part of optometric care. Assessment methods include objective and subjective techniques.

Regulatory Standard

The Professional Misconduct Regulation (Regulation 859/93 under the Optometry Act) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
14. Failing to make available to a patient who requests one a written, signed and dated prescription for a subnormal vision device, contact lenses or eyeglasses.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

The process of obtaining required clinical information (OPR 4.2) includes determination of the refractive status and best-corrected visual acuities. When possible, objective and subjective refraction techniques are used to assess the refractive status of the eye, at the initial visit and as clinically indicated thereafter. Cycloplegic refraction is employed when clinically necessary. (OPR 7.6)

Refractive assessment alone does not provide sufficient information to allow an optometrist to issue an appropriate prescription for vision correction. The effects of ocular and systemic health conditions, binocular vision status and the occupational and avocational visual environment and demands must also be considered.

The College standard on delegation and assignment (OPR 4.3) and collaboration (OPR 4.8) must be followed when refractive data is obtained from a person to whom the procedure has been assigned, including another regulated health professional (RHP). Specifically, there must be direct supervision of the subjective refractive assessment when this procedure is assigned.

Clinical Guideline

Refraction Techniques

Refraction techniques fall into two broad categories. Objective techniques generally require no decision-making by the patient and include:

- Retinoscopy
- Auto-refraction
- Wave-front assessment

Subjective techniques depend on responses from the patient and may include:

- Trial frame methods
- Phoropter methods
- Auto-refractor with subjective capability

New and advanced techniques for the assessment of the refractive status of the eye and vision system continue to be developed. It is recommended that optometrists maintain current knowledge of new technologies.

Prescribing for Vision Correction

Although the objective and subjective refractive results are important in formulating a prescription for vision correction, the optometrist should consider a number of other factors prior to issuing the prescription including:

- Ocular health: A number of ocular health conditions, such as cataract formation (OPR 7.3), may affect the refractive error. These may cause temporary or permanent refractive changes.
- Systemic health: Some systemic health conditions may influence the refractive error by circulatory changes and/or osmotic balance of the eye and other parts of the vision system. A common example of this is diabetes (OPR 7.4).
- Binocular vision: Binocular vision anomalies, such as accommodative, or convergence dysfunctions or anisometropia, may affect the final prescription. (OPR 6.7)
- Occupational and avocational visual environment and demands: Many occupations or avocations have specific visual demands that require patients to view certain working distances on a regular basis or assume certain postures posing specific optical requirements. For example, a computer operator requires specific optical correction for viewing the computer monitor.

Collaboration with another Regulated Health Professional (RHP):

The results of a refractive examination obtained from another RHP may also be considered when formulating an appropriate prescription for vision correction. All collaboration with another RHP must comply with policies outlined in the College documents on *delegation and assignment* (OPR 4.3) and *collaboration* (OPR 4.8). As the optometrist maintains the ultimate responsibility for supervised procedures and the final *prescription* (OPR 5.2) for vision correction, it is imperative that persons performing these tasks be appropriately trained. In all cases, the responsibility for the performance of the procedures and the efficacy of the prescription remains with the optometrist.

First Published: May 2009



6.4 Spectacle Therapy

Description

Optometrists are authorized to dispense spectacles for the treatment of disorders of refraction and/or sensory and oculomotor disorders and dysfunctions of the eye and vision system. The patient must present a valid prescription written by an optometrist or physician.

Regulatory Standard

The *Optometry Act* (1991) authorizes optometrists to perform the following controlled act:

- Prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eye glasses (1991, c.35,s.4).

The Professional Misconduct Regulation (O.Reg 859/93 under the *Optometry Act*, 1991) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which consent is required by law, without such a consent.
11. Making a misrepresentation with respect to a remedy, treatment or device.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
14. Failing to make available to a patient who requests one a written, signed and dated prescription for a subnormal vision device, contact lenses or eyeglasses.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.
33. Charging fees that are excessive or unreasonable in relation to the services performed.
34. Charging a fee for a service that exceeds the fee set out in the schedule of fees published by the Ontario Association of Optometrists at the time the service was rendered without informing the patient, before the service is performed, of the excess amount that will be charged.
35. Failing to issue a statement or receipt to a patient or to a third party responsible for the payment of the account of a patient.
36. Issuing a statement or receipt which does not,
 - i. itemize the services provided and the fees charged,
 - ii. describe the ophthalmic appliances utilized by the member in the performance of the services, or

- iii. set out the commercial laboratory cost incurred by the member in the provision of the services.
37. Charging or receiving payment for contact lenses, a subnormal vision device or eyeglasses in excess of the commercial laboratory cost incurred by the member in the provision of the service.
 40. Accepting payment before performing an optometric service that is not an insured service within the meaning of the Health Insurance Act, unless the patient is informed of his or her right to refuse to make payment before the service is performed, and the patient consents to make the payment in advance. This does not apply to the payment of a commercial laboratory fee to be incurred by a member in connection with the service.
 43. Displaying or permitting the display of ophthalmic appliances that may be seen from the exterior of the premises in which a member is engaged in the practice of optometry.

Professional Standard

The provision of spectacle therapy involves:

- Reviewing with the patient any relevant environmental, occupational, avocational, and/or physical factors affecting spectacle wear
- Reviewing the details of the prescription
- Advising the patient regarding appropriate ophthalmic materials
- Taking appropriate measurements (including but not limited to interpupillary distance and segment height) to ensure proper function of the spectacles
- Arranging for the fabrication of the spectacles
- Verifying the accuracy of the completed spectacles to ensure that they meet required tolerances
- Fitting or adjusting the spectacles to the patient
- Counselling the patient on aspects of spectacle wear including, but not limited to: the use, expectations, limitations, customary adaptation period and maintenance requirements of the spectacles

The principle of informed consent applies to spectacle therapy with respect to ophthalmic materials, costs and fees.

Patients experiencing unexpected difficulty adapting to new spectacles should be counselled to seek re-examination by the prescriber to assess the appropriateness of the prescription. Optometrists dispensing appliances based on a prescription from another practitioner are expected to ensure that this has been filled appropriately, however they are not responsible for the efficacy or accuracy of that practitioner's prescription.

Clinical Guideline

In order to advise patients of products appropriate for their specific needs, optometrists are encouraged to maintain up-to-date knowledge with respect to advances in optical products including, but not limited to, lens designs, spectacle lens materials, coatings, tints and frames. Consideration of additional factors may be made in special circumstances:

1. High Refractive Error:

- a. Lens materials with higher refractive indices and/or aspheric designs may be recommended for prescriptions indicating higher refractive error.
- b. A specific size or shape of frame may be selected to better support higher power prescription lenses.
- c. Additional specific measurements may be taken to ensure the effectiveness of the prescription (including but not limited to monocular interpupillary distances, pantoscopic tilt, optical centre height and vertex distance).

2. Presbyopia:

- a. Determination of multifocal fitting height may require consideration of specific patient characteristics, such as stature, posture, vocation and avocation.
- b. A specific progressive-addition lens design may be recommended for an individual patient to reduce adaptation difficulties and/or maximize visual performance.
- c. Specialty multifocal lenses, including computer progressive-addition lenses, may be recommended for patients with extensive intermediate and near vision demands.
- d. Specialty vocational lenses may be considered where patients have unique or non-standard vision tasks.

3. Anisometropia:

- a. Special consideration should be given to the effect of base curve and thickness of lenses in affecting the patient's adaptation to and visual performance with spectacles. Manipulation of such parameters may be made to optimize the effectiveness of the prescription.
- b. Special consideration should be given to vertical prismatic imbalance. Alternative lens designs, such as bicentric grind, may be recommended to the patient.
- c. Special consideration should be given to cost and/or cosmetic appearance when choosing the power and optical parameters of a balance lens.

4. Accommodative and Binocular Vision Disorders: (OPR 6.7)

- a. The multifocal style and height prescribed for young children may be altered from standard practices, to maximize the effectiveness of the prescription.
- b. The use of high index lens materials and/or Fresnel prisms may be considered for prism prescriptions.

5. Low Vision Aids: (OPR 6.6)

- a. Spectacle mounted low vision devices, including microscopes, telemicroscopes and telescopes may be provided.
- b. The use of Fresnel prisms and lenses may be considered for special prescriptions.
- c. A specific size or shape of frame may be selected to adequately support the low vision aid.
- d. Adequate counselling and training in the use of the spectacles should be provided to the low vision patient.

6. Safety Requirements:

- a. Occupational safety lenses and frames should meet Canadian Standards Association (CSA) Z94.3 standards.
- b. Sports spectacles and goggles should meet CSA Z94.3 standards.
- c. Impact resistant lenses should be utilized whenever possible. Special consideration should be given to the use of highly impact resistant materials (such as polycarbonate) for children and monocular patients.

7. Other:

- a. Custom frames may be obtained for patients with special needs and/or facial deformities.
- b. A ptosis crutch may be fitted to a spectacle frame to provide support for a ptotic eyelid.

First published: May 2009

6.5 Contact Lens Therapy

Description

Optometrists are authorized to prescribe and dispense contact lenses. The provision of this service to patients involves an initial assessment to determine suitability of the patient for contact lens therapy, a determination of the parameters of a contact lens appropriate for that patient, and ongoing monitoring of the efficacy of treatment.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
15. Dispensing to a patient a contact lens, other than for diagnostic or emergency purposes, that the member knows or should know is not new.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Initial Contact Lens Fitting

Prior to contact lens fitting, the optometrist obtains *required clinical information* ([OPR 4.2](#)) to determine the suitability of the patient for contact lens wear. Special emphasis is given to the analysis of:

- the health of the cornea, conjunctiva, lids, tarsal and bulbar conjunctiva, and the integrity of the tear layer;
- corneal curvature;
- refractive status and visual acuity;
- the effects that contact lens wear may have on the function of the accommodative, oculo-motor and sensory systems; and
- relevant environmental, occupational, avocational, emotional and systemic health factors affecting contact lens wear.

To allow the patient to make an informed decision about proceeding with treatment, patients are counselled on the advantages, risks, limitations, and costs of contact lens wear and on the prognosis for successful treatment.

In fitting contact lenses a practitioner will determine, by diagnostic fitting or calculation, lenses that are appropriate for the patient. The initial lenses are evaluated on the patient's eyes and subsequent modifications of the lens parameters are made as required.

Instructions are provided to the patient with respect to:

- hygiene;
- lens insertion and removal;
- use of specific lens care products;
- recommended wearing times;
- normal and abnormal adaptive symptoms;
- contraindications to lens use;
- progress evaluations; and
- emergency care.

The patient is examined during the adaptation period to assess lens performance, adaptation and compliance.

Continuing Care

The optometrist provides continuing care to the established contact lens patient. In providing continuing care, the optometrist:

- Maintains a history concerning:
 - the specifications, age and wearing schedule of current contact lenses;
 - the current lens care regime;
 - any adverse reactions associated with contact lens wear; and
 - any health or medication changes.

- Assesses the patient to determine if the patient is achieving:
 - acceptable lens appearance and fit;
 - satisfactory wearing time;
 - acceptable comfort with lenses in place;
 - acceptable corneal clarity and integrity;
 - stable corneal curvature;
 - acceptable conjunctival and lid appearance;
 - acceptable tear characteristics;
 - acceptable over-refraction for best visual acuity;
 - acceptable spectacle acuity; and
 - compliance with recommendations on lens handling, lens care, lens replacement and wearing times.
 - Identifies any problems and counsels the patient as necessary.
 - Provides and implements a management plan for any problems identified, making recommendations for further care.

Replacement Contact Lens Services

When providing replacement contact lens services, the optometrist:

- determines the currency of clinical information and provides diagnostic services as required;
- determines the need for alteration of previous lens specifications and makes adjustments accordingly;
- advises the patient as to the need for and extent of continuing care; and
- provides follow-up services as needed.

Clinical Guideline

Frequency

Patients using contact lenses generally require an annual examination. This is particularly important for patients on a continuous wear schedule.

Consent

The optometrist should obtain informed consent from all patients electing to wear contact lenses. In particular, the optometrist should obtain written consent from patients electing to use extended or continuous wear lenses.

Instrumentation

In addition to the normal complement of *required clinical equipment (OPR 4.1)*, the following may be helpful in contact lens practice:

- instrumentation for the verification of contact lens parameters; and/or
- instrumentation to assess corneal topography and thickness.

Special considerations for Continuous Wear

Patients using contact lenses on a continuous wear schedule require:

- more frequent follow-up examinations;
- counselling regarding the increased risk of complications and precautionary measures for avoiding them, particularly microbial infection; and
- access to emergency care.

Management of Adverse Outcomes

Although infrequent, adverse ocular complications may occur with contact lens wear. Treatment options may include:

- discontinuation of lens wear or modification of wearing schedule;
- modification of lens design, material or care system;
- appropriate topical ocular therapy; and/or
- referral ([OPR 4.5](#)) to another regulated health professional.

Optometrists should maintain current knowledge of contact lens therapy and are encouraged to consult peer-reviewed literature and professionally developed

guidelines (professionally developed guidelines would include clinical guidelines published by the American Optometric Association).

(Jan. 2007)

6.6 Low Vision Assessment and Therapy

Description

Patients are considered visually impaired when best-corrected vision is inadequate for an individual's daily needs. These patients may benefit from a low vision evaluation. This includes extended evaluation of visual function, review of ocular health and systemic health conditions that may impact visual function, treatment with various optical and/or non-optical low vision aids and/or rehabilitation strategies directed towards specific needs and demands, as well as counselling and education.

The need for a low vision evaluation will generally be determined as the result of specific clinical findings from an optometric examination (OPR 4.2). Other possible reasons for conducting a specific low vision evaluation include referral from another practitioner or direct referral from a patient or family member. Repeat or ongoing examinations may be required to determine the response to treatment or to monitor the status of patients with low vision.

Regulatory Standard

The Professional Misconduct Regulation (Regulation 859/93 under the Optometry Act) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
14. Failing to make available to a patient who requests one a written, signed and dated prescription for a subnormal vision device, contact lenses or eyeglasses.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.
27. Failing to make and maintain records as required by the regulations.
34. Charging a fee for a service that exceeds the fee set out in the schedule of fees published by the Ontario Association of Optometrists at the time the service was rendered without informing the patient, before the service is performed, of the excess amount that will be charged.

Professional Standard

A low vision examination generally will include the following components:

- A comprehensive patient history that explores specific visual concerns, risk factors, visual and ocular history, family ocular history, general health history, social history, medications, and vocational/educational/avocational requirements
- A review of the results of the patient's optometric examination, and re-assessment, as necessary, of visual acuity at distance and at near, refraction, binocular and oculomotor status, ocular health and the effectiveness of current spectacles and low vision devices
- Patient education regarding visual status, treatment options and prognosis.
- Management plan individualized for the patient's needs.
- Discussion and/or demonstration of potential optical, non-optical, and electronic aids and devices
- Appropriate follow-up, arranged as needed, to assess the effectiveness of treatment and to monitor the visual condition and needs.

Clinical Guideline

Specialized Testing and Considerations

Several specialized or non-standard test procedures may be utilized in a low vision evaluation:

1. Visual acuity
 - a. Distance visual acuity charts may include the Feinbloom, Bailey-Lovie, ETDRS and Lea Symbols charts
 - b. Near visual acuity charts may include the Lighthouse, ETDRS and MN Read near acuity charts
 - c. Specialized techniques, include preferential looking and visually evoked potentials,
 - d. The effect on visual acuity of variations in viewing posture, illumination and test distance may be explored
2. Refraction
 - a. Objective techniques such as radical retinoscopy, off-axis retinoscopy, and near retinoscopy
 - b. Subjective techniques such as trial frame refraction, just-noticeable-difference technique, hand-held Jackson crossed cylinder, stenopaic slit, and multiple pinhole
 - c. Refraction techniques may be performed at non-standard distances

3. Ocular Motility and Binocular Vision
 - a. Specific testing for ocular motility and binocular vision may be done to evaluate these aspects of vision
 - b. Low vision devices designed for monocular or binocular use, or for use in specific positions of gaze, according to binocular status
4. Visual fields
 - a. Automated perimetry
 - b. Goldmann perimetry
 - c. Tangent Screen
 - d. Amsler Grid
5. Supplemental tests
 - a. Contrast sensitivity testing
 - b. Glare testing
 - c. Colour vision testing
 - d. Electrodiagnostic testing: VEP, ERG, EOG
 - e. Micro-perimetry

Management

Management of low vision and severe visual impairment may involve the use of optical aids, electronic and computerized devices and non-optical techniques and training.

Optical and Electronic aids

- Spectacle lenses
- Tints, filters, lens coatings
- Hand magnifiers
- Stand magnifiers
- Microscopes
- Telescopes
- Telemicroscopes
- Prisms
- Mirrors
- Reverse telescopes and minus lenses
- Electronic devices

Complex optical devices may be prescribed, where indicated:

1. Spectacle mounted microscopes and telemicroscopes can enhance near vision
2. Spectacle mounted telescopes can enhance distance vision

3. Prisms, mirrors, reverse telescopes and minus lens systems may be used to expand peripheral visual fields
4. Biconvex aspheric lenses and achromatic doublets can reduce glare
5. Electronic devices such as CCTVs, adaptive computer hardware and software and head-mounted devices can be effective for vocational and educational needs
6. The use of lenses, prisms or occlusion can be designed for cases of nystagmus, strabismus, diplopia or substandard binocular vision

Low vision aids may be prescribed for binocular, biocular or monocular viewing.

Instructions and training for the proper use and maintenance of aids and devices is necessary.

Non-optical aids and devices

- Lighting, reading guides, large print materials, audio devices, etc. Rehabilitation services involves training the patient to adopt non-standard viewing practices such as:
 - Eccentric viewing
 - Vertical or diagonal scanning
 - Blur interpretation
 - Enhanced saccades and pursuits

Additional Services

Patients with low vision often benefit from the assistance of other health professionals and accordingly a referral for additional services may be indicated including:

1. Orientation and mobility training
2. Occupational therapy
3. Social and community services
4. Counselling
5. Genetic counseling
6. Surgical consultation

Additional Information and Reference

Care of the Patient with Visual Impairment (Low Vision Rehabilitation)

Prepared by the American Optometric Association Consensus Panel on Care of the Patient with Low Vision, revised 2007:

<http://www.aoa.org/documents/CPG-14.pdf>

First published: April 2011

6.7 Binocular Vision Assessment and Therapy

Description

Binocular vision is defined as the ability to maintain visual focus on an object with both eyes, creating a single visual image. Optometrists diagnose and treat both congenital and acquired disorders of binocular vision. Clinically, binocular vision is assessed within an optometric examination through investigation of the oculomotor and sensory systems. (OPR 4.2)

Regulatory Standard

The Professional Misconduct Regulation (Regulation 859/93 under the Optometry Act) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health related purpose in a situation in which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Investigation of the oculomotor and sensory systems is part of a complete optometric examination. The initial examination will yield enough information to reach a diagnosis or indicate the need for further specific examination to complete or refine the diagnosis. Optometrists must use appropriate examination techniques and instrumentation to reach a diagnosis and will inform patients of any recommended treatment options.

Binocular vision assessment includes:

- current oculomotor status
- accommodative function
- applicable sensory function
- use of cycloplegic agents (when indicated)
- consideration of etiology (congenital versus acquired disorders)

Management of binocular vision disorders must follow scientific and peer accepted methods and includes:

- optometric vision therapy (orthoptics)
- optical and prismatic corrections

- amblyopia therapy
- timely referral for surgical treatment or emergency care (when indicated)
- obtaining informed consent for treatment

Clinical Guideline

The scope of a binocular vision assessment/investigation will depend upon the clinical findings. The frequency of assessment will depend upon the clinical presentation. Many binocular conditions require only an initial diagnosis, followed by periodic re-examinations to ensure stability. Other conditions will require ongoing assessment to monitor changes or treatment progress.

Patient History

The patient history may include any or all of the following:

- visual demands of the patient
- presence or absence of signs or symptoms related to binocular vision dysfunction and their impact on the patient's daily activities
- a family history of binocular disorders
- pre and perinatal risk factors
- history of trauma or exposure to toxins
- previous medical, ocular or surgical treatments
- general medical status
- learning abilities
- gross and fine motor skills
- needs, goals and expectations of the patient (and their family, if applicable)

Testing Distances and Positions of Gaze

A baseline binocular vision assessment generally includes at least distance and nearpoint testing in primary gaze. Consideration should be given to the evaluation of the binocular status at various additional test distances and positions of gaze.

Instrumentation and Techniques

A variety of instruments and techniques may be used for binocular vision evaluation and treatment, including:

- phoropters
- ophthalmic lenses and prisms
- polarized and anaglyphic filter instruments including computer based methods
- various methods to assess comitance, retinal correspondence and the nature of monocular fixation (centred vs. eccentric), often involving the use of after images, entoptic phenomena, and/or comparison of objective vs. subjective measures of the angle of deviation
- stereoscopes
- major amblyoscopes

Assessment of Binocular Vision Disorders

Non-Strabismic Disorders

The characteristics of symptomatic or abnormal heterophorias, including magnitude and direction for various test distances and positions of gaze should be determined. Accommodative function and motor abilities, such as fusional vergence ranges and/or vergence facility, should be evaluated. The detection of any fixation disparity and measurement of associated phoria(s) may also be considered. An investigation and description of any associated sensory disorders or adaptations is also recommended.

Disorders of Ocular Motility

Non-comitant deviations and nystagmus should be fully described and, where possible, underlying causes determined. Any abnormal sensory or postural adaptations should be documented.

Disorders of Accommodation

Accommodative disorders and dysfunctions affecting one or both eyes should be fully examined and described. This would include amplitude, lag, and facility of accommodation.

Assessment of Strabismus

When strabismus is identified, optometrists should investigate and describe the following for various test distances and positions of gaze:

- magnitude
- direction
- frequency
- laterality

An investigation and description of any associated sensory disorders or adaptations is also appropriate.

Analysis and Treatment

An analysis of the clinical findings of a binocular vision assessment should include a description or diagnosis and may also include consideration of:

- ocular or systemic disease
- risk of development of amblyopia
- if known, the etiology of the binocular vision disorder (congenital or acquired)
- refractive error
- learning abilities
- patient needs
- prognosis
- referral (if indicated)

The treatment plan may include optometric treatment of binocular vision disorders using lenses and/or prisms and/or vision therapy (orthoptics) and should be based on evidenced-based clinical guidelines. The treatment plan may also include referral for specialized optometric investigation and/or treatment, or for medical and/or surgical treatment.

Optometrists should provide counseling with respect to:

- treatment options
- prognosis
- expected duration of treatment
- associated fees

Provision of such counseling should be recorded in the patient record. The patient record should also include the treatment and follow-up provided, monitoring of clinical data, progression of or changes to the treatment plan, and the fees charged.

Informed consent needs to be obtained before treatment.

Other Therapies

The College only supports the use of evidenced-based techniques and instrumentation that have the support of accepted, peer reviewed literature. Optometrists are expected to advise patients who inquire about non-conventional therapies of the lack of scientific support for these therapies, which are normally based on anecdotal evidence.

Additional Information

Additional information on this topic may be found on the American Optometric Association website, www.aoa.org:

- CPG-4—Care of the Patient with Amblyopia
- CPG-12—Care of the Patient with Strabismus
- CPG-18—Care of the Patient with Accommodation and Vergence Dysfunction

First published: April 2011

6.8 Visual Field Assessment

Description

Optometrists may perform an assessment of the field of vision as part of an evaluation of the oculo-sensory system. Assessment strategies used may be either screening or detailed in nature, utilizing manual or computer controlled equipment and can be done to assess the patient's central and/or peripheral field of vision. Visual field assessment is used in the diagnosis and monitoring of conditions of the eye and vision system including glaucoma, neurological disease and retinal disease, and to quantify visual function in patients with visual disabilities.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct.

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or health-related purpose in a situation in which a consent is required by law, without such consent
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice for the profession.

Professional Standard

The *required clinical information* ([OPR 4.2](#)) includes the results and analysis of visual field assessment when indicated by patient signs, symptoms or history. The nature of the signs, symptoms or history will determine the test strategy used and the frequency of re-assessment.

Indications for visual field assessment may include:

- glaucoma or risk factors for glaucoma;
- use of medications with potential neuro-retinal toxicity;
- some retinal diseases and abnormalities;
- unexplained photopsia or other visual disturbances;
- unexplained headaches;
- optic nerve disease and abnormalities;
- lesions of the optic chiasm;
- post-chiasmal lesions;

- cerebrovascular accident;
- eyelid anomalies affecting the visual field; and/or
- assessment of visual disability.

Visual field screening provides a rapid assessment of the sensitivity and/or extent of the visual field to determine if a more detailed evaluation of the visual field is required. Screening strategies include:

- confrontation methods;
- Amsler grid;
- tangent screen and arc perimeter methods; or
- automated techniques specifically designed for screening.

When a more detailed evaluation is required, it is appropriate to utilize advanced techniques, including:

- Goldmann perimetry (kinetic and/or static); or
- automated threshold perimetry.

If an optometrist does not have the required instrumentation, arrangements must be in place whereby the appropriate testing will be performed elsewhere in a timely fashion. Visual field assessment results and analysis comprise part of the *patient health record (OPR 5.1)* and must be retained. Appropriate communication of these results to the patient is expected when indicated.

Guideline

Frequency

The visual fields of some patients need to be re-assessed frequently, whereas others may require only periodic assessment. Generally, glaucoma patients are assessed at least once a year. Patients with macular pathology may be advised to self-monitor at home on a frequent basis using an Amsler grid.

Macular conditions

Testing of the central visual field is useful in assessing the status and progression of macular pathologies. Self-monitoring using an Amsler grid is often advisable. Threshold testing can also be performed if quantification of abnormalities is desired.

Glaucoma

Threshold perimetry of the central 24 to 30 degrees is usually indicated for the diagnosis and ongoing management of glaucoma. Serial testing to monitor for changes is an integral part of glaucoma diagnosis and management.

Peripheral Field Assessment

Peripheral field assessment may be indicated:

- to assess neurological conditions;
- to assess some peripheral retinal pathologies;
- to evaluate unexplained visual symptoms; and/or
- to fulfill reporting requirements.

Kinetic perimetry

Kinetic perimetry (e.g., Goldmann) can be used to quantify loss of peripheral fields or scotomas within the field. This technique is often useful for patients who have difficulty with the static methods of testing.

Computerized perimeters will typically archive results; however, optometrists should ensure that effective back-up methods are being utilized and/or hard copies are retained in the *patient health record* (OPR 5.1).

The optometrist should maintain current knowledge of the introduction of new techniques and equipment.

(Jun. 2007)



7. Specific Diseases, Disorders and Procedures

7.1 Age-related Macular Degeneration

Description

Age-related Macular Degeneration (AMD) is an acquired retinal disorder that affects central visual function. Nonexudative AMD, also known as “dry” AMD, results in a gradual, progressive loss of central visual functioning, whereas patients with exudative AMD, also known as “wet” AMD, notice a more profound and rapid decrease in central visual functioning.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

In addition to required clinical information, the evaluation of patients with retinal changes suggestive of AMD, or patients suspected of having AMD, includes:

- patient history of any symptoms associated with AMD; and
- ocular examination including the following:
 - measurement of best corrected monocular visual acuity, distance and near;
 - Amsler grid testing; and
 - ocular fundus examination ([OPR 6.2](#)), stereoscopic where possible, with pupillary dilation unless contraindicated.

The management of a patient with AMD includes:

- continued assessment for differential diagnosis;
- monitoring the patient at a frequency that is dependent on the risk of progression of the disease;
- educating patients to be aware of symptoms such as decreased vision, scotoma and dysmorphopsia by monocular assessment;
- instructing patients that an onset of new symptoms warrants a prompt return for assessment; and
- making a timely referral (OPR 4.5) for treatment assessment for patients suspected of having choroidal neovascularization (CNV).

In developing a treatment plan, consideration should be given to the patient's visual demands and abilities.

Clinical Guideline

The role of antioxidants in preventing or slowing the effects of AMD is currently being investigated. Nutritional considerations that may reduce the risk of development or progression of macular degeneration may be discussed with those at increased risk.

For patients with macular degeneration, examination with a fundus contact lens is useful in assessing risk of macular edema. Use of advanced imaging technologies may also be helpful in monitoring disease progression.

Some patients may be candidates for low vision rehabilitation including the use of specialized optical devices and training. These patients may benefit from a consultation with a practitioner who has advanced training or clinical experience in low vision. When extensive visual loss occurs, the optometrist should also consider referral for rehabilitation, occupational, vocational and independent living counselling services.

Management of patients with AMD may also include:

- home Amsler grid testing;
- education regarding current and emerging treatment options;
- nutritional supplementation; and/or
- risk counselling for relatives.

Research in the area of macular degeneration is advancing quickly and it is recommended that optometrists stay current with new treatments as they become available.

(Sept. 2006)

7.2 Patients with Glaucoma

Description

Glaucoma* is a clinical term referring to a spectrum of conditions resulting in damage to the optic nerve and progressive reduction in sensitivity within the field of vision. Patients with glaucoma or patients with significant risks of having glaucoma (hereafter referred to as “glaucoma suspects” for consistency with current professional literature) are commonly encountered in optometric practice. Early diagnosis and therapy may reduce the rate of progression of this disease.

When glaucoma develops without an identifiable cause, it is termed primary.¹ Primary open angle glaucoma is the most common form of this disease and may be managed by optometrists with therapeutic qualifications. Glaucoma with an identifiable cause is termed secondary.

Regulatory Standard

The *Optometry Act, 1991* states that in the course of engaging in the practice of optometry optometrists are authorized, subject to terms, conditions and limitations imposed on his or her certificate of registration, to perform the following controlled act:

2.1 Prescribing drugs designated in the regulations.

The Designated Drugs and Standards of Practice Regulation, O.Reg. 112/11 (made under the *Optometry Act, 1991*) describes the following conditions under which an optometrist may prescribe drugs for the treatment of glaucoma:

PART II

STANDARDS OF PRACTICE — GLAUCOMA

Prescribing of antiglaucoma agents

6. It is a standard of practice of the profession that in treating glaucoma a member may only prescribe a drug set out under the category of “Antiglaucoma Agents” in Schedule 1.

* Glaucoma is a clinical term referring to a variety of conditions with the common feature of an optic neuropathy (i.e. glaucomatous optic neuropathy [GON]) characterized by a distinctive loss of retinal nerve fibres and optic nerve changes. GON can develop under a number of circumstances with varying contributions by several known and as yet unidentified risk factors. The clinical term glaucoma is sometimes used when 1 risk factor, intraocular pressure (IOP) is very extreme and GON is impending but not yet present (i.e. acute glaucoma). Glaucoma is often pluralized to reflect the variety of clinical presentations of this optic neuropathy. (Canadian Ophthalmological Society)².

Open-angle glaucoma

7. (1) Subject to subsection (2) and to section 8, it is a standard of practice of the profession that a member may only treat a patient with glaucoma where the patient has primary open-angle glaucoma the treatment of which is not complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment.
- (2) It is a standard of practice of the profession that a member may only treat a patient having open-angle glaucoma, the treatment of which is complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment, in collaboration with a physician with whom the member has established a co-management model of care for that patient and who is,
- (a) certified by the Royal College of Physicians and Surgeons of Canada as a specialist in ophthalmology; or
 - (b) formally recognized in writing by the College of Physicians and Surgeons of Ontario as a specialist in ophthalmology.

Referral to physician or hospital

8. (1) Subject to subsections (2) and (3), it is a standard of practice of the profession that a member shall immediately refer a patient having a form of glaucoma other than primary open angle glaucoma to a physician or to a hospital.
- (2) It is a standard of practice of the profession that a member may initiate treatment for a patient having angle-closure glaucoma only in an emergency and where no physician is available to treat the patient.
- (3) It is a standard of practice of the profession that a member shall immediately refer any patient being treated in accordance with subsection (2) to a physician or hospital once the emergency no longer exists or once a physician becomes available, whichever comes first.
- (4) In this section, "hospital" means a hospital within the meaning of the Public Hospitals Act.

The Professional Misconduct Regulation (Regulation 859/93 under the *Optometry Act*) includes the following acts of professional misconduct:

- 3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
- 12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.

13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Optometrists must be knowledgeable and competent in the diagnosis and management of glaucoma.

The examination of patients with either glaucoma, or a suspicion of developing glaucoma, must include an appropriate assessment of any patient-specific risk factors. The core considerations for the examination of glaucoma include:

- case history
- measurement of the intraocular pressure
- evaluation and description of the optic nerve head
- biomicroscopy examination of the anterior segment and anterior chamber angle (OPR 6.1)
- gonioscopy, when clinically indicated
- investigation of threshold visual fields (OPR 6.8), when clinically indicated; and
- measurement of central corneal thickness, when clinically indicated

Members are expected to use instrumentation and techniques consistent with current professional standards of practice.

Management Options

For patients with glaucoma or glaucoma suspects, options include:

1. follow-up examinations at suitable intervals
2. drug therapy when indicated:
 - a. by referral to an ophthalmologist,
 - b. by an optometrist with authority to prescribe drugs for the treatment of primary open angle glaucoma
 - c. by an optometrist with authority to prescribe drugs in collaboration (OPR 4.8) with an ophthalmologist for the treatment of primary open angle glaucoma when complicated by a concurrent medical condition or potentially interacting pharmacological treatment;
 - d. by referral to a physician or hospital, for secondary glaucomas
 - e. the immediate application of drugs in an emergency situation, such as angle-closure glaucoma, where no physician is available, then, immediately refer the patient to a physician or hospital once the emergency no longer exists or once a physician becomes available, whichever comes first.

Optometrists must discuss the appropriate option(s) with the patient and obtain informed consent.

The management plan must be clearly documented in the patient health record (OPR 5.1)

In summary:

Optometrists with authority to prescribe drugs are required to refer patients with primary open angle glaucoma to an ophthalmologist if the treatment is complicated by either a concurrent medical condition or a potentially interacting pharmacological treatment. Treatment may be provided in collaboration with an ophthalmologist with whom the member has established a co-management model of care for that patient.

Optometrists are required to refer patients with secondary glaucoma to a physician or hospital.

Clinical Guideline

Glaucoma Examination

The need for and extent of a glaucoma investigation will generally be determined by the identification of patient specific risk factors and/or as the result of specific clinical findings from an optometric examination. Other indications for conducting a glaucoma examination include referral from another practitioner or assessment of a patient currently being treated for the condition. Multiple examinations may be required to confirm a diagnosis or monitor patients at risk of developing glaucoma.

Frequency

The frequency of glaucoma examinations depends upon the patient's clinical presentation, risk factors and the optometrist's professional judgment. Recommendations from accepted clinical guidelines^{1,2} and current professional literature should be used as a guide. For example, the Canadian Ophthalmological Society (COS)² has the following recommendations;

Recommended clinical assessment intervals for stable chronic glaucomas.	
Glaucoma Suspects	1 – 2 Years
Early Glaucoma	At least every 12 months
Moderate Glaucoma	At least every 6 months
Advanced Glaucoma	At least every 4 months

Evaluation of Patients with Glaucoma or Glaucoma Suspects

Generally, a comprehensive glaucoma evaluation would include consideration of the following:

1. History

- family history of glaucoma
- demographics, including race, age, sex
- medical status and history, including medications, and
- ocular history, including refractive error and previous corneal surgery and/or trauma

2. Measurement of Intraocular Pressure

Intraocular pressure should be measured using a reliable, calibrated and disinfected instrument. At this time, the Goldmann applanation tonometer is commonly used and appears to be the most precise when compared to other methods².

Consideration should be given to recording relevant factors, such as:

- the effect of pupillary dilation
- time of day and diurnal variations
- additional significant clinical features, such as blepharospasm
- previous corneal surgery,
- existing corneal disease, scarring or dystrophy
- high corneal toricity
- instrument used

3. Evaluation of the Optic Nerve

The optic nerve head should be examined stereoscopically when possible, using a technique that provides sufficient resolution and magnification to accurately assess the following:

- cup/disc ratio
- colour
- depth of cupping
- visibility of lamina cribrosa
- neuroretinal rim appearance
- presence of peripapillary atrophy
- overall size of disc
- presence of disc hemorrhages

This evaluation will generally require pupillary dilation.

4. Analysis of the Visual Field

The visual field should be measured using an instrument that has thresholding capabilities. Frequency of testing is individualized for each patient and is based on risk factors and previous findings. (OPR 6.8)

5. Evaluation of the Anterior Segment and Angle (OPR 6.1)

The anterior segment should be evaluated initially and periodically as indicated for risk factors such as pseudoexfoliation, pigment dispersion, iris transillumination defects, and narrow or anomalous anterior chamber angles. Biomicroscopy and gonioscopy are generally the preferred methods of examination.

6. Measurement of the Corneal Thickness (Pachymetry)

Corneal thickness is an independent risk factor for the development of glaucoma⁴. Corneal thickness should be measured using a reliable, calibrated and disinfected instrument and recorded.

Risk factors are assessed at subsequent visits as clinically indicated.

Additional Considerations**1. Specialized Visual Field Testing and Analysis**

Specialized forms of visual field testing, such as frequency doubling or blue-yellow perimetry, may be useful in detecting visual field loss at an earlier stage. Analysis software programs may also be helpful, particularly in identifying and assessing changes in the visual fields over time.

2. Imaging of the Optic Nerve and/or the Nerve Fiber Layer

Imaging and computer-assisted evaluation of the optic nerve and nerve fiber layer may aid in early diagnosis, analysis of progression and management of glaucoma. Examples include fundus photography, optical coherence tomography (e.g. OCT), retinal tomography (e.g. HRT), and laser polarimetry (e.g. GDx).

3. Exploration of other influential factors, such as blood pressure, cardiovascular health, high myopia, migraines, blood transfusions.**Treatment****General considerations**

The therapeutic management of primary open angle glaucoma² is within the scope of practice of optometrists with therapeutic qualifications (OPR 4.4). The treatment should adhere to accepted clinical guidelines and current literature. Comprehensive guidelines are available from: the Canadian Ophthalmological Society², the American Optometric Association¹, American Academy of Ophthalmology⁷ and the European Glaucoma Society⁸. Consideration should be given to:

- severity and rate of progression of the disease
- pre-treatment intraocular pressure and diurnal influence
- target intraocular pressure
- barriers to compliance and appropriate administration of treatment (i.e. dexterity, cognition, finances)
- the age and systemic health status of the patient
- known drug sensitivities, allergies or interactions

Collaboration and Shared Care (OPR 4.8)

There will be situations where the patient's best interests are served by a collaborative relationship between the optometrist and other consultants (i.e. another optometrist, physician, pharmacist, etc). The recording of information exchanged among all parties in a collaborative care relationship is crucial. Each party, including the patient, should understand the responsibilities and expectations in the collaborative relationship.

Drug Therapy

Open Angle Glaucoma

Treatment considerations for patients with glaucoma are constantly evolving. It is beyond the scope of this guideline to discuss all considerations; however treatment must be based on current clinical guidelines and research. The table below outlines the major classes, examples, generic names, indications and contraindications of glaucoma medications:

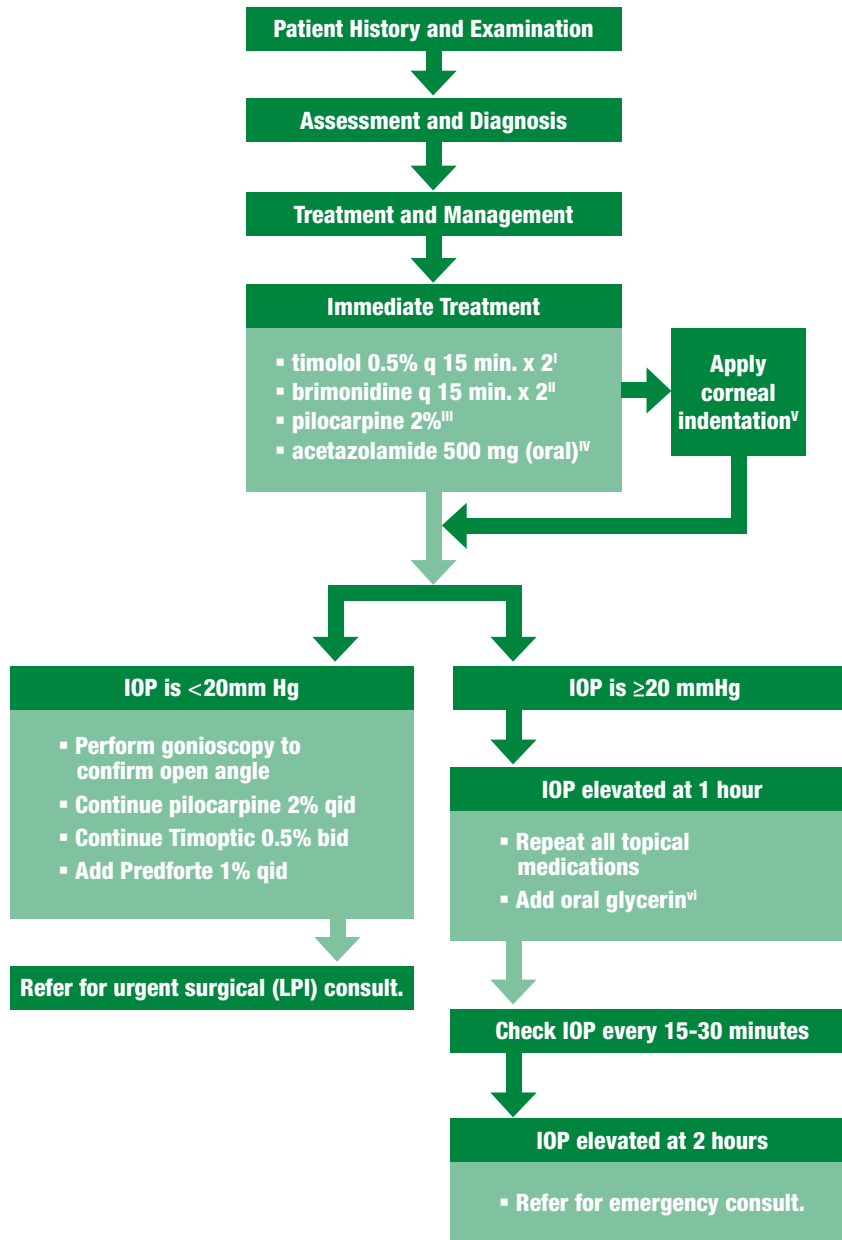
Anti-Glaucoma Medication	Trade Name	Generic Name	Conc.(%)	Indications	Contraindications ²	
Miotics	Isopto-Carpine (& Pilopine HS 4% Gel)	pilocarpine	1, 2, 4	Primary/Chronic Open Angle Glaucoma (POAG/COAG) Angle Closure Glaucoma (ACG)	Miosis, RD, ocular inflammation, neovascular glaucoma, cataracts	
	Carbachol	carbachol	1.5, 3		Known sensitivity to any component	
Adrenergic Agonists	lopidine	apraclonidine	0.5		COPD, bradycardia, tachyphylaxis	
	Alphagan P	brimonidine	0.1, 0.15			
Beta-Blockers	Timoptic & XE	timolol maleate	0.25, 0.5			Sulfa allergies, Sickle cell disease, renal stones, aplastic anemia
	Betagan	levobunolol	0.25, 0.5			
	Betoptic S	betaxolol	0.25			
CAI's	Trusopt	dorzolamide	2			Known sensitivity to any component, ocular inflammation
	Azopt	brinzolamide	1			
	Diamox ¹	acetazolamide	125, 250, 500 mg			
	Neptazane ¹	methazolamide	25, 50 mg			
Prostaglandins	Xalatan	latanoprost	0.005	As above		
	Travatan	travoprost	0.004			
	Lumigan	bimatoprost	0.03			
Combos	Combigan	brimonidine + timolol				
	DuoTrav	travoprost + timolol				
	Xalacom	latanoprost + timolol				
	Cosopt	dorzolamide + timolol				

¹ Oral glaucoma agents for emergency treatment of angle closure glaucoma only.
² Only significant contraindications are shown on the table. Consult formal drug information for complete listings. Some contraindications are absolute and others are relative. Members must use clinical judgment to assess the risk/benefit of using a drug when a contraindication is present.

Angle Closure Glaucoma

- An attack of angle closure glaucoma is an ocular emergency. A timely referral to a physician or hospital must be made. When it is in the patient's best interest, optometrists should initiate emergency treatment for these patients within their clinical practices using appropriate therapy.
- The following Primary Angle Closure Glaucoma Treatment Flow Chart describes a general management plan of a patient with acute angle closure glaucoma in such an emergency situation.

Primary ACG Treatment Flow Chart

**Notes:**

* All treatment is topical unless otherwise indicated.

i Use betaxolol 0.25% if patient has COPD.

ii Alternatively, apraclonidine 1% could be used

iii Use every 15 – 60 minutes up to a total of 2 – 4 doses; if IOP is > 40mm Hg, iris sphincter muscle may be ischemic, so Pilocarpine may not cause miosis until IOP is reduced below this level by other drugs.

iv Use two 250 mg tablets; avoid if patient has sulpha allergy; if patient has a kidney condition, use 100 mg Neptazane; if nauseated; consider IV Diamox. (if hospitalization available)

v Corneal Indentation in the Early Management of Acute Angle Closure;
K. Masselos, A. Bank, I. Francis, F. Stapelton; August 12, 2008

vi Dosage 1.5 ml/kg body weight; serve over ice; if nauseated, consider IV Mannitol (if hospitalization available).

References and Additional Information

1. American Optometric Association Clinical Practice Guidelines
Care of the Patient with Open Angle Glaucoma
Care of the Patient with Angle Closure Glaucoma
(<http://www.aoa.org/x4813.xml>)
2. Canadian Ophthalmological Society Evidence Based Clinical Practice Guidelines for the Management of Glaucoma in Adult Eyes.
Can J of Ophthalmol – Vol. 44, Suppl. I, 2009
3. College of Optometrists of Ontario: Guideline for the Use of Drugs by Optometrists (OPR 4.4)
4. Ocular Hypertension Treatment Study (OHTS), National Eye Institute, Initial results June 13, 2002.
<http://www.nei.nih.gov/glaucomaeyedrops/>
5. Corneal Indentation in the Early Management of Acute Angle Closure;
K. Masselos, A. Bank, I. Francis, F. Stapelton;
August 12, 2008.
6. The Canadian Glaucoma Strategy (Draft): R.P. LeBlanc CM, MD, FRCSC,
Department of Ophthalmology and Visual Sciences, Dalhousie University,
Halifax N.S.
7. American Academy of Ophthalmology : Preferred Practice Pattern: Primary Open Angle Glaucoma Suspect. 2005; San Francisco <http://www.aaopt.org/>
8. Terminology and guidelines for Glaucoma: European Glaucoma Society.

First published: March 2011

7.3 Patients with Cataract

Description

The practice of optometry includes the diagnosis, care and, when appropriate, referral of patients with cataract. Optometrists also work in collaborative arrangements (OPR 4.8) providing preoperative and postoperative care to patients requiring cataract surgery.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
8. Practising the profession while the member is in a conflict of interest.
10. Failing to reveal the exact nature of a secret remedy or treatment used by the member following a patient's request to do so.
11. Making a misrepresentation with respect to a remedy, treatment or device.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.
19. Performing a controlled act which has not been delegated to the member in accordance with the regulations.
25. Causing or permitting, directly or indirectly, a publication through any medium of communications that has a relation to or a bearing on a member's practice that,
 - iii. refers to any services that the member does not provide
 - ix. is part of any communication, advertisement, listing, promotion or offering of any product or service by a non-member

The Drug and Pharmacies Regulation Act (R.R.O. 1990, Reg. 550) includes the following conflict of interest provisions:

26. (4) It is a conflict of interest for a member to,
 - (a) share fees with any person who has referred a patient or receive fees from a person to whom the member has referred a patient or to engage in any form of fee sharing, rebates or other indirect remuneration

Effective Date: June 2010

Professional Standard

When providing care to patients with cataract, optometrists will:

- have the required knowledge, skill and judgement to diagnose and appropriately manage patients with cataract;
- utilize appropriate instrumentation and techniques to diagnose cataract and identify any ocular or systemic conditions that may complicate the surgical procedure or limit the postsurgical visual outcome. As a minimum, these techniques would include the taking of a thorough ocular and systemic history as well as refraction, slit lamp examination and funduscopy examination;
- counsel patients regarding their visual status and recommend surgical referral when appropriate;
- arrange referral (OPR 4.5) as required;
- disclose to patients any financial interest in a surgical centre to which patients are referred;
- comply with the College standards on collaboration/shared care when providing preoperative and/or postoperative care to patients (OPR 4.8); and
- comply with College standards on delegation when performing a controlled act that is outside the scope of practice of optometry (OPR 4.3).

Clinical Guideline

Optometrists should maintain current knowledge about cataract surgery in order to have a general discussion with the patient about treatment options.

Diagnosis

When diagnosing cataract, the patient history will be helpful and may include symptoms such as blurred vision, increased glare and haloes. Refractive shift may be a clinical indication of cataract. Ocular health investigation, including biomicroscopy (OPR 6.1) and ophthalmoscopy (OPR 6.2) with pupillary dilation, will aid diagnosis and guide treatment options.

Patient Counselling

Counselling enables patients to make informed decisions about their status and treatment options. Counselling is based upon an appropriate case history, clinical examination and analysis of visual demands.

Presurgical counselling should include, but is not limited to:

- general information including a description of the procedure, expected outcomes, normal healing course, and expected postoperative care schedule and procedures;
- benefits including potential improvement in visual acuity;
- potential risks including possible surgical and healing complications, changes in optical quality and potential adaptation problems associated with postsurgical status;

- provider options such as available surgical facilities and surgeons, as well as those qualified to provide preoperative and/or postoperative care;
- practitioner responsibilities so patients are informed of who will provide each aspect of their care; and
- details of any referral (**OPR 4.5**) to a cataract surgeon.

Counseling may also include additional information such as A-scan technologies, intraocular lens (IOL) options and associated refractive surgical procedures.

If a referral for surgical treatment is indicated, optometrists should ensure appropriate informed consent is obtained.

Postoperative Care Considerations

Optometrists often provide continuing care of patients following cataract surgery and may tailor the continuing care regimen to the needs of the individual patient.

A typical examination schedule for an asymptomatic patient after uncomplicated surgery may be as follows:

- first day following surgery;
- one week following surgery;
- one month following surgery; and
- thereafter as required.

During follow-up care, the following procedures are typically performed:

- measurement of visual acuity;
- measurement of intraocular pressure; and
- slit-lamp biomicroscopy.

The ocular fundus is typically examined with pupillary dilation at one to three months following surgery. This may be necessary sooner if adverse symptoms arise. A stable refraction can generally be obtained at 4-6 weeks following surgery.

Other Considerations

- Any unusual findings or complications should prompt optometrists to adjust their examination schedules and consider consulting with the surgeon about the management of the patient.
- Optometrists should arrange for emergency care for any urgent or emergent complications that arise.
- Optometrists should ensure that the patient understands how to access emergency care.
- The surgeon will generally provide required pharmaceuticals and/or prescriptions, as well as a schedule for medication use for an uneventful postoperative course. It is advisable to review this schedule with the patient at the postoperative visits in order to ensure proper understanding and compliance with the appropriate regime.

Effective Date: June 2010

- Some portions of the peri-operative care and services associated with cataract surgery may not qualify as insured services under the Ontario Health Insurance Plan and therefore optometrists may charge for these services. The fees are to be established by the individual optometrist, not by the surgical center or any third party. Optometrists should ensure that patients are fully informed of the details of the services and any associated fees.

Reminder Regarding Conflicts of Interest

Optometrists who share fees, accept rebates or receive other indirect remuneration or benefits as a result of surgical referral are at risk of allegations of professional misconduct.

First published: June 2010

7.4 Patients with Diabetes

Description

Diabetes mellitus (DM) is a very common systemic condition that can have numerous ocular manifestations. While diabetic retinopathy poses the greatest long-term threat to vision for most patients, the practitioner should also be alert to the development of many other possible complications ranging from transient fluctuations in refractive error and dysfunctions of accommodation and colour vision, to abnormalities in the cornea, iris, lens, vitreous, and optic nerve. Also, oculomotor anomalies may arise from neuropathies affecting the third, fourth or sixth cranial nerves.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Due to the high prevalence of ocular manifestations of diabetes and the increasing incidence of retinopathy as the duration of the disease increases, all patients with diabetes require periodic assessment of the eye and vision system. The patient is advised as to the appropriate frequency of such assessments which depends on factors such as the duration of the disease, the nature of the condition (e.g. Type I versus Type II), the quality of blood glucose control and the clinical findings. The normal complement of required clinical information is updated regularly with particular emphasis on a detailed case history and a thorough *ocular fundus examination* ([OPR 6.2](#)) with dilated pupils. Any abnormalities found are carefully documented in the patient's record.

Referral ([OPR 4.5](#)) to an appropriate healthcare professional is required when indicated.

Clinical Guideline

Quality care of a patient with diabetes starts with a meticulous and comprehensive case history. The patient history should elicit any visual symptoms such as blurred, distorted or fluctuating vision, diplopia, flashes/floaters, etc., particularly if they are of recent onset. (Note that a recent onset of such symptoms in a patient who denies a previous diagnosis of diabetes may arouse a suspicion of undiagnosed DM and trigger a *referral* (OPR 4.5) to a physician for appropriate medical testing).

The patient's medical history should be explored to determine the type and duration of the DM, and the patient's management regime should be reviewed, noting:

- any oral medications taken;
- insulin type and usual dosage, where applicable;
- frequency and usual results of blood glucose self-monitoring; and/or
- recent laboratory values for HbA1c (if available).

This information provides valuable insight into patient compliance with therapeutic regimens and control of the DM, which may affect the development of ocular complications. It is also useful to determine if any history of non-ocular complications of DM such as neuropathy or nephropathy exists. The name of the patient's primary care physician should be noted in the record to facilitate communication and coordination of the patient's care.

In addition to the normal complement of *required clinical information* (OPR 4.2) to be obtained on each patient, certain supplementary procedures may be useful in some cases, depending on clinical findings. Such procedures may include:

- blood pressure measurement;
- colour vision assessment;
- contrast sensitivity testing;
- fundus photography (or other ocular imaging procedures);
- gonioscopy; and/or
- macular function assessment (e.g. Amsler grid testing).

Integral to the ocular examination of every patient with diabetes is the detection and assessment of retinopathy by means of a thorough *ocular fundus examination* (OPR 6.2) with dilated pupils, preferably employing stereoscopic techniques wherever possible. The practitioner should be familiar with the classification and current management standards for the various stages of diabetic retinopathy. Studies¹ have demonstrated that optimal control of blood glucose combined with timely intervention for treatments such as focal or panretinal laser photocoagulation or vitrectomy (if necessary) can significantly reduce the risk of visual loss or delay its onset. The practitioner may refer to the American Optometric Association Clinical Practice Guideline, Care of the Patient with Diabetes Mellitus, for a detailed outline of these studies and their implications².

As a general guideline, the presence of any of the following findings should lead the optometrist to refer the patient to an ophthalmologist skilled in treating diseases of the retina:

- moderate to severe non-proliferative diabetic retinopathy (NPDR);
- any proliferative diabetic retinopathy (PDR);
- clinically significant macular edema;
- neovascularization of the iris; or
- any unexplained vision loss.

Loss of Vision

In spite of the treatment interventions available, some patients with diabetes will inevitably experience a permanent loss of visual acuity or functional vision. These patients may benefit from a specialized low vision consultation in which various optical or non-optical aids or other devices may be considered to assist with the independent performance of routine daily tasks. In addition, referral for orientation and mobility training, occupational/vocational consultation, or psychosocial counselling may help some patients to achieve more fulfilling, self-sustaining lifestyles.

Coordination of Care

In view of the multidisciplinary nature of diabetes management, appropriate communication with the patient's primary care physician and any other referral consultants is critical for the proper coordination of the patient's care. It is always beneficial to send written letters or reports to the patient's diabetes management team and to keep copies of such documentation in the patient's record, even in cases where ocular complications have not yet developed. Also, patients should be reminded of the importance of maintaining optimal glycemic control at all times, and should be encouraged to maintain contact with their physician on a regular basis to ensure that vital systemic health indicators such as blood pressure, kidney function, etc., are monitored at appropriate intervals.

(Jan. 2007)



7.5 Patients with Hypertension

Description

Hypertension is a common and insidious systemic condition that frequently affects the ocular fundus, particularly the retinal vasculature. While the most common ocular manifestations of hypertension are usually asymptomatic and do not pose an immediate threat to vision, these findings may indicate a need for systemic medical assessment and intervention in the interest of maintaining the patient's general health. The need for such intervention may be urgent in some circumstances¹. The optometrist should also recognize that poorly controlled hypertension may contribute to the development of potentially sight-threatening complications within the visual system. These include vascular occlusions and obstructions, hemorrhages, retinal edema and neovascularization, optic neuropathies, and oculomotor anomalies arising from neuropathies affecting the third, fourth or sixth cranial nerves².

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Due to the high prevalence of ocular manifestations of hypertension, all patients with hypertension require periodic assessment of the eye and vision system. The frequency of such assessments depends on factors such as the history and status of the condition, the clinical findings and the presence of other cardiovascular risk factors such as diabetes^{2,3}. The normal complement of *required clinical information* ([OPR 4.2](#)) is updated regularly with particular emphasis on a detailed case history and a thorough *ocular fundus examination* ([OPR 6.2](#)). Any abnormalities found are carefully documented and the patient's primary healthcare practitioner is advised of any findings that may pose a threat to the patient's ocular or systemic health. This is particularly urgent if swelling of the optic nerve head (suggestive of malignant hypertension) is discovered^{1,2}.

Clinical Guideline

Since hypertension tends to be an insidious and asymptomatic condition, even when poorly controlled, the presence or absence of specific symptoms in the case history rarely provides much insight regarding the patient's risk profile. However, the patient's medical history should be explored to determine if a history of hypertension exists and, if so, the duration of the condition and the presence of any complications or other cardiovascular disease³. The patient's management regime should be reviewed, noting:

- any medications taken, with dosages where applicable;
- frequency and usual results of blood pressure monitoring; and/or
- any history of other medical interventions, diagnostic procedures or ongoing monitoring related to cardiovascular disease.

The name of the patient's primary healthcare practitioner should be noted in the record to facilitate communication and coordination of the patient's care.

In addition to the normal complement of required clinical information to be obtained for each patient, certain supplementary procedures may be useful in some cases, depending on clinical findings. Such procedures may include:

- blood pressure measurement;
- visual field assessment; and/or
- fundus photography (or other ocular imaging procedures).

The most critical issue in the ocular examination of a patient with hypertension is the detection and assessment of retinopathy by means of a thorough ocular fundus examination, preferably employing stereoscopic techniques through dilated pupils wherever possible. The practitioner should be familiar with the fundus signs that are characteristic of hypertensive and arteriolarsclerotic retinopathy, which may include:

- i. anomalies in retinal vessel calibre;
- ii. changes in the appearance of arteriovenous crossings;
- iii. hemorrhages, exudates or cotton-wool spots;
- iv. retinal edema; and/or
- v. edema of the optic nerve head¹.

Similarly, the practitioner should be aware of other signs and symptoms that may arise from vascular complications affecting the eye and vision system secondary to hypertension. To this end, any anomalies in best-corrected visual acuity, visual fields, ocular motility, pupil reflexes, colour vision and/or contrast sensitivity that could be caused by hypertensive vascular changes should be carefully assessed and documented. The practitioner should make appropriate *referrals* (OPR 4.5) as required^{1,3}.

Coordination of Care

It is always beneficial, when positive signs exist, to send written letters or reports to relevant members of the patient's healthcare team and to keep copies of such documentation in the patient's record³. Also, patients should be reminded of the importance of continued compliance with their primary healthcare practitioner's recommendations regarding optimal blood pressure control and lifestyle modifications, and should be encouraged to maintain contact with this practitioner on a regular basis to ensure that vital systemic health indicators such as blood pressure, lipid profile, kidney function, etc., are monitored at appropriate intervals.

(Apr. 2007)

¹ Rhee, DJ, Pyfer, MF, eds. The Wills Eye Manual. 3rd ed., pp 340-341. Philadelphia: Lippincott, 1999.

² Kanski, JJ. Clinical Ophthalmology. 5th ed., pp 468-470. Philadelphia: Butterworth-Heinemann, 1999.

³ American Optometric Association Clinical Practice Guidelines: www.aoa.org/x4813.xml
Comprehensive Adult Eye and Vision Examination (CPG 1)



7.6 Cycloplegic Refraction

Description

Objective and subjective refraction done under cycloplegia can provide useful information in situations where sustained accommodative effort is suspected to be contributing to symptoms or obscuring a full diagnosis of the clinical problem.

Regulatory Standard

The Professional Misconduct Regulation (**Regulation 859/93 under the *Optometry Act***) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

A member's decision to perform a cycloplegic refraction will be influenced by the patient's:

- age;
- signs;
- symptoms; and
- risk factors.

Cycloplegic refraction is indicated in children and young adults with suspected amblyopia, unexplained reduced visual acuity, or those who are at risk of developing amblyopia secondary to accommodative esotropia or asymmetric refractive error. Cycloplegic refraction is repeated when clinically indicated.

When *using cycloplegic agents (OPR 4.4)*, optometrists will:

- be familiar with the properties of any cycloplegic agents they use;
- counsel the patient appropriately regarding the expected effects and anticipated duration of action of the agent; and
- consider the presence of any significant contraindications to the use of a cycloplegic agent prior to instillation (e.g., narrow anterior chamber angle, past history of angle closure attacks or other adverse reactions or hypersensitivities to similar agents, etc.).

Clinical Guidelines

Situations in which the optometrist would consider performing a cycloplegic refraction include the following:

- hyperopic children and young adults on their first visit, particularly if associated with an eso deviation;
- children and young adults presenting with a strabismus on their first visit, particularly if the direction of the deviation is esotropia;
- patients whose symptoms are suspected to be arising from accommodative spasm (i.e., latent hyperopia, pseudomyopia);
- patients who appear to have a subnormal amplitude of accommodation for their age, or who have other signs or symptoms suggestive of accommodative dysfunction;
- patients in whom standard non-cycloplegic refractive techniques are not possible or who appear to give unreliable or inconsistent results due to inaccurate fixation, poor co-operation, misunderstanding of test procedure, etc.; and
- patients who are planning to undergo a surgical procedure that is intended to permanently alter their refractive error.

The specific cycloplegic agent to use in each case should be selected with the goal of providing adequately deep suppression of accommodation while at the same time minimizing the length of time that the patient will be inconvenienced by blur or excessive photophobia.

The agent selected and specific dosage will be influenced primarily by the age of the patient and secondarily by the degree of iris pigmentation. Patients with darker irides often require a more potent cycloplegic agent or a higher dosage than patients with lighter irides (e.g., two drops separated by a five minute time interval rather than a single drop in each eye).

Cyclopentolate hydrochloride (0.5% and 1% drops) is the most widely used cycloplegic agent available at this time. It provides the best compromise between efficacy and duration of action¹, with one to two drops of 1% solution producing adequate cycloplegia within 25-30 minutes of instillation and lasting 3-24 hours in the majority of cases².

Atropine (0.5% and 1% concentrations in ointment and drop form, respectively) is advocated by some authorities for the purpose of producing maximal cycloplegia in very young children, but it usually requires administration of the drug up to 3 days before the refraction and its effects are excessively long-lasting¹.

Tropicamide (0.5% and 1% drops) may also be effective for use in adult patients, offering a rapid onset of action (20-30 minutes) and a short duration (30 minutes to 4 hours)¹; however it may not provide a reliable degree and consistency of cycloplegia, especially in patients with dark irides and significant hyperopia¹.

The practitioner needs to exercise considerable clinical judgment in interpreting the refractive findings obtained under cycloplegia and prescribing an appropriate refractive correction. The final prescription decision will depend on:

- a comparison of the cycloplegic versus non-cycloplegic refractive findings;
- the patient's age;
- the patient's symptoms;
- the degree of hyperopia and/or esophoria; and
- the presence or absence of strabismus.

(Apr. 2007)

¹ American Optometric Association Clinical Practice Guidelines: CPG 16 Care of the Patient with Hyperopia

² Bartlett et al. Ophthalmic Drug Facts. St. Louis: Lippincott, 1989:22-27



7.7 Dilation and Irrigation of the Naso-Lacrimal Ducts

Description

Dilation and irrigation of the naso-lacrimal ducts may be used as diagnostic or treatment procedures. These procedures temporarily enlarge the punctal opening to the canaliculi for insertion of occlusion devices and/or the irrigation of material from the canaliculi and the naso-lacrimal ducts and/or to maintain complete patency of the system.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

Members providing this service must be competent in performing this technique and have a thorough understanding of the anatomical features and fluid dynamics of the lacrimal system to determine the location of an obstruction.

- Dilation and irrigation of the naso-lacrimal ducts will follow a diagnostic process to determine if the procedure is warranted.
- Appropriate infection controls must be used.

Clinical Guideline

Signs and symptoms consistent with hyperlacrimation are determined by the patient history and slit lamp examination. Tests such as the fluorescein dye disappearance test for lacrimal outflow deficiency can be helpful in confirming the diagnosis of epiphora.

In dry eye conditions, knowing the patency of the drainage system is essential if hyperlacrimation is present.

(Sep. 2006)



7.8 Refractive Surgery

Description

The term Refractive Surgery (RS) is a general term for the various forms of surgery used to correct refractive errors of the eye. This includes techniques that use lasers and other forms of electromagnetic energy, implantable lenses and devices and conventional incision techniques. Optometrists provide preoperative and postoperative care to RS patients both in the optometrist's office and within surgical centres.

Refractive surgery is one of the situations in which optometrists often participate in a shared care relationship with another healthcare practitioner. Shared care arrangements are intended to assist in the delivery of effective, high quality patient care. This standard and guideline addresses the sharing of responsibilities, the communication of patient information and the financial arrangements within shared care situations.

Regulatory Standard

The Professional Misconduct Regulation (**Regulation 859/93 under the *Optometry Act***) includes the following acts of professional misconduct:

3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation in which a consent is required by law, without such a consent.
8. Practicing the profession while the member is in a conflict of interest.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.
25. Causing or permitting, directly or indirectly, a publication through any medium of communications that has a relation to or a bearing on a member's practice that,
 - iii. refers to any services that the member does not provide,
 - vi. refers to a particular drug or particular brand of product or equipment used to provide optometric service, or
 - ix. is part of any communication, advertisement, listing, promotion or offering of any product or service by a non-member.

The *Drug and Pharmacies Regulation Act* includes the following conflict of interest provisions:

- A member shall not engage in the practice of optometry where the member has a conflict of interest. (**R.R.O. 1990, Reg. 550, s. 26 (2)**)

- It is a conflict of interest for a member to,
 - (a) share fees with any person who has referred a patient or receive fees from a person to whom the member has referred a patient or to engage in any form of fee sharing, rebates or other indirect remuneration.
- (R.R.O. 1990, Reg. 550, s. 26 (4))

Professional Standard

Optometrists providing care to RS patients will:

- maintain current knowledge of surgical procedures and competence in delivering the various types of preoperative and postoperative procedures in which they participate;
- inform patients of the various risks and benefits of the procedure, their options for care providers and all associated fees; and
- disclose to patients any financial interest in a surgical centre to which the optometrist refers the patient and with which the optometrist shares care.

Clinical Guideline

All optometrists should possess a reasonable degree of knowledge about RS in order to discuss treatment options with patients in general terms.

The following guidelines apply to members providing preoperative and postoperative RS care.

Counselling

The purpose of counselling is to enable the patient to make informed decisions about treatment options. Counselling is based upon an appropriate case history and clinical examination. In the case of RS, the optometrist shares this responsibility with the surgeon. The optometrist should ensure that appropriate informed consent is documented.

Pre-RS counselling should include:

- general information including a description of the procedure, expected outcomes, normal healing course and expected postoperative care schedule and procedures;
- potential benefits including potential reduction or elimination of refractive error and need for corrective lenses;
- potential risks and complications including potential surgical complications, healing complications, optical problems associated with over or under correction, and potential adaptation problems associated with post-surgical status;
- provider options such as available surgical facilities and qualified surgeons, as well as those qualified to provide preoperative and/or postoperative care;
- practitioner responsibilities so the patient is aware of which practitioner is providing which aspects of the RS care; and

- *referral (OPR 4.5)*, which usually includes one referral to a qualified and experienced ophthalmic surgeon by the optometrist for consultation and surgery, and a second referral to the optometrist by the ophthalmic surgeon for postoperative care. Optometrists are expected to provide the surgeon with relevant history and clinical findings.

Postoperative Care Considerations

The postoperative care regimen depends upon the surgical procedure and any complications involved.

- In a shared care environment, the results of postoperative assessments are communicated to the surgeon.
- Any urgent or emergent complications that arise require the optometrist to contact the surgeon immediately.
- Optometrists are to ensure that the RS patient has continuous access to emergency care.
- The surgeon will generally provide required pharmaceuticals as well as a schedule for medication use for an uneventful postoperative course. When changes in the drug regimen appear necessary, these should only be made upon the order of the prescriber.

Conflicts of Interest Related to RS

The optometrist must collect the fees for the provision of his or her services in preoperative and postoperative care. The optometrist should ensure that the patient is fully informed of the details of the services.

A member who accepts reimbursement from a surgical centre is at risk of allegations of professional misconduct, in particular for fee sharing, accepting rebates or receiving other indirect remuneration.

(Sept 2006)



7.9 Visual Perception/Learning Disabilities

Description

The assessment and management of disorders of visual perception and learning disabilities is complex and frequently requires the involvement of a number of professional disciplines. The optometrist acts as a member of a multidisciplinary team that may include one or more of the following professionals:

- educator;
- psychologist;
- physician;
- occupational therapist;
- audiologist; and/or
- speech pathologist.

Regulatory Standard

The Professional Misconduct Regulation ([Regulation 859/93 under the *Optometry Act*](#)) includes the following acts of professional misconduct:

2. Exceeding the scope of practice of the profession.
3. Doing anything to a patient for a therapeutic, preventative, palliative, diagnostic, cosmetic or other health-related purpose in a situation which a consent is required by law, without such a consent.
11. Making a misrepresentation with respect to a remedy, treatment or device.
12. Treating or attempting to treat an eye or vision system condition which the member recognizes or should recognize as being beyond his or her experience or competence.
13. Failing to refer a patient to a regulated health professional when the member recognizes or should recognize a condition of the eye or vision system that appears to require such referral and examination.
16. Recommending or providing unnecessary diagnostic or treatment services.
17. Failing to maintain the standards of practice of the profession.

Professional Standard

As part of the team dealing with the patient with a learning difficulty, the optometrist accepts the responsibility for providing consultation and advice regarding further investigation, as appropriate under the circumstances.

Clinical Guideline

Optometrists are often the first professionals to see children with reading or learning problems. An optometric examination to detect, diagnose and treat visual disorders and ocular disease is an appropriate step in the management of individuals with learning difficulties. Although vision problems may be associated with learning difficulties, they are rarely the sole factor.

The clinical practices in this field are ever changing and the optometrist should stay current with these changes. Optometrists may use current techniques to offer a “conventional” diagnosis and treatment plan, and be aware of any limitations with “alternative” plans less accepted in the field.

Additional information on this topic is available on the American Optometric Association website (www.aoa.org) and includes the following clinical practice guideline: Care of the Patient with Learning Related Vision Problems (CPG 20).

(Sept. 2006)

College of Optometrists of Ontario

1867 Yonge Street, Suite 901
Toronto, ON M4S 1Y5

Tel: 416.962.4071

Toll Free: 888.825.2554

Fax: 416.962.4073

