

Competency-Based Performance Standards

for the

Canadian Standard Assessment in Optometry



2005

A Report of the Working Group of the Competence Committee
of Canadian Examiners in Optometry

Prepared by

Nancy Winslade, B.Sc.Pharm., Pharm.D., M.H.P.E.

COMPETENCY-BASED PERFORMANCE STANDARDS FOR THE CSAO

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INTRODUCTION

The following Competency-Based Performance Standards (CBPS) were developed by the Canadian Examiners in Optometry (CEO) Competence Committee and the CBPS Working Group; a group of practising optometrists from across Canada (see Appendix I: CBPS Working Group Members for membership). This Working Group was established in October 2003 as part of CEO's Continuing Quality Improvement (CQI) program for the Canadian Standard Assessment in Optometry (CSAO). The specific mandate of the Working Group was to:

- describe the minimum quality of practice required to provide safe and effective optometric care in Canada by describing CBPS, and;
- revise the Competency Statements upon which the current CSAO is based to be consistent with these CBPS.

The Competency-Based Performance Standards have been sent for review to all provincial regulatory authorities in optometry, and national and international stakeholders. Initial versions have also been reviewed in detail by CEO Committees and Focus Groups. Comments received from these reviewers have been carefully considered and incorporated where consistent with the mandate of the Working Group and the goal of CEO. The most consistent recommendation from national stakeholders was to clarify that, since the CBPS will form the basis for the CSAO, they are minimum requirements for practice. Although it is recognized that individual practitioners and the profession as a whole aspire to practice at a level higher than the minimum, for qualification purposes candidates must be assessed on their ability to meet minimum practice requirements. CEO's description of ideal practice may be found in the document *Quality Optometry Practice*.

BACKGROUND

In 2001, CEO implemented a Continuing Quality Improvement (CQI) program for the Canadian Standard Assessment in Optometry (CSAO). The goal of the program is to ensure that the CSAO assesses candidates on all competencies required to provide safe and effective optometric care in Canada. The general phases in this CQI program began with a review of CEO's description of optometric competence, followed by the creation of more direct linkages between the topics assessed in the CSAO and the competencies required of Canadian optometrists. The last phase in the continuing cycle will be the revision of the CSAO to ensure that all required competencies are assessed.

Prior to 2001, CEO's description of optometric competence had been a combination of specific, detailed knowledge, skills and judgement that was published in a syllabus to the CSAO. This syllabus formed the basis of the CSAO and clearly described the range of topics assessed. Less obvious, however, was the link between each detailed item of knowledge, skill or judgement and the daily activities required of practising optometrists. Demonstration of such a link strengthens the validity of the examination process and makes it consistent with professional qualifying examinations of other health professions¹. To create such a link required the Competence Committee to first identify the competencies required of optometrists to provide safe and effective optometric care in Canada. The process followed by the Competence Committee when identifying these core competencies was based on recommendations of the Department of Employment, Education and Training, and the Australian National Office of Overseas Skills Recognition. This group has published a series of papers on the benefits and challenges of developing competency-based standards in the professions and using these standards for assessment of competence of health professionals^{2,3,4,5}. A number of professions have adopted the processes and formats recommended by the Australians, including the profession of pharmacy in Canada^{6,7,8}. The Optometrists Association of Australia⁹ has also adopted a similar format when describing the requirements of Australian Optometrists. Finally, the Competence Committee also referenced work from the World Health Organization (WHO) that evaluated similarities among the key roles of health professionals in developed and developing countries¹⁰. The WHO completed a survey in the late 1980's to identify the functions of nurses and physicians in different countries throughout the world. Their analysis of results documented that the same professional functions were identified in practically every case, emphasizing that health care professionals had common roles including those beyond providing direct patient care. The professional functions identified by the WHO were to:

- Provide treatment
- Provide preventative care
- Plan policies, activities and services (management)
- Participate in the health education of the population
- Collaborate with other services in the interests of overall development
- Train health personnel
- Participate in research

Following the above processes and work, the Competence Committee identified four main professional roles required of Canadian optometrists to provide safe and effective care. These roles related to providing eye and vision care, collaborating with/referring to health care providers, managing a practice and educating. Each of these roles was further described in terms specific to the profession of optometry via a short description of the role (termed a *competency unit*) and by articulating the key steps required to fulfill the role (termed *competency elements*)(see Glossary). The committee also identified a number of general abilities that are required to fulfill the professional competencies (Appendix II: General Attributes of Professional Optometry Competencies). These abilities underlie professional, thoughtful, ethical performance of the professional competencies and are consistent with the public's expectations for quality health care. These professional roles, units, elements and general abilities were accepted by the Board of Directors of Canadian Examiners in Optometry in 2002.

The next step necessary was to describe the minimum level of performance expected of optometrists and the contexts in which competency was required (i.e. stating how well each optometrist must be able to perform each competency element and with what types of patients or in what situations they should be able to perform)². This step is critical to ensure clarity and understanding of the competencies. If only the competency units and elements are developed, then stakeholders can have differing interpretations as to what is expected of

practitioners. For example, students can read the competency units and believe one level of performance is expected while examiners may have a higher, or lower, performance expectation. The contexts are equally as important as these provide students and new graduates with a clear understanding of the range of problems they will be expected to manage in practice. In turn, candidates can be clear that the CSAO will assess them on similar types of problems. Although many optometrists may be capable of managing situations that fall beyond the contexts listed, the CBPS must provide a description of minimum requirements for safe and effective care. Without this, candidates will be unclear as to the range of topics and situations upon which they will be assessed. For these reasons it is critical that the competencies fully describe, in a clear and concise manner, the minimum contexts in which competence is expected and completely state the minimum level of performance required of practitioners.

To articulate these complete competencies, the Competence Committee established the CBPS Working Group. To maintain consistency with ongoing international work in optometry, the terminology used by the Working Group was adopted from a framework developed by the World Council of Optometry and the Association of Regulatory Boards of Optometry. In turn, this framework was based on the publication of the Optometrists Association of Australia⁹.

The results of the CBPS Working Group were accepted by the Board of the CEO in September 2004. The following document provides version 1.2 of the complete CBPS, which contains slight modifications to facilitate clarity of the original CBPS. The following document provides the results of the Working Group's deliberations.

PREFACE

In describing the professional responsibilities of optometrists it is necessary to divide daily tasks into more or less discreet activities. It is emphasized, however, that there is substantial overlap among the competency units. For example, an optometrist may accept a referral from an ophthalmologist as part of the competency on working in collaboration with the health care team (Role/Competency Unit 2) and then switch to providing primary eye and vision care (Role/Competency Unit 1). The separation among the competency units is meant to facilitate the complete description of professional responsibilities and is not meant to imply that the roles are completed as independent, separate activities.

In a comparable manner, the breakdown of each professional competency unit into separate competency elements is meant to facilitate a description of optometrists' responsibilities. It should not be interpreted that the competency elements are completed sequentially. For example, it is clear that optometrists do not complete the entire history and physical examination before thinking about differential diagnoses: the interpretation of information and findings is concomitant with the taking of a history and performance of examinations.

As stated above, when describing the competencies, elements and level of performance, terminology from the Optometrists Association of Australia was adopted (see Glossary). Accordingly, it is emphasized that the performance criteria are required: this means that optometrists must complete each of the performance criteria in the required situations. Although each performance criterion could begin with an adverb (such as *consistently or routinely*) or with a disclaimer (such as *where possible* or *where necessary*), this was not done as it led to a more cumbersome document. Instead it is made clear in this preface that each performance criterion must be completed when necessary and possible. Regarding the performance indicators listed after each performance criterion, these indicators are examples only. They are included to provide numerous practical examples of specific behaviours that optometrists could demonstrate as evidence of successful fulfillment of each required performance criterion.

Regarding the critical issue of jurisprudence, it is presumed that all of the activities described in the following CBPS document will be performed in accordance with relevant federal, provincial and territorial legislation, and regulatory authority regulations, policies and by-laws. This presumption acknowledges that provinces differ in the restricted acts that optometrists are authorized to perform. Competence assessment, however, must evaluate competence in the performance of all activities identified as critical to safe and effective optometric care and not only those that an optometrist may select, or be authorized, to provide in his/her practice.

GLOSSARY

| | |
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| Competency | The ability to perform the activities within an occupation to the standard expected in practice (modified from reference 3). |
| Competency Element | A subdivision of a Competency Unit that is observable in the workplace (adapted from references 3 and 9). |
| Competency Unit | A description of a major role of the profession. |
| Comprehensive Eye and Vision Care | Includes refraction and dispensing, detection/diagnosis and management of disease in the eye, rehabilitation of conditions of the visual system ¹¹ , and assessment and treatment of oculo-motor and sensory problems. |
| Contexts | A statement describing the circumstances in which optometrists must be able to perform each professional competency unit: for example, the types of patients or situations they should be able to perform. |
| Performance Criteria | Evaluative statements that specify the required level of performance for each Competency Element ¹² . <i>“Performance criteria can be used by an assessor to determine whether a person performs to the level required for the profession”⁹.</i> |
| Performance Indicators | Measurable and observable features for each performance criterion that can assist in determining whether a performance criterion is achieved ¹² . <i>Performance indicators are examples only and do not represent an exhaustive list.</i> |
| Professional Knowledge | The knowledge base associated with a specific profession. Such a professional knowledge is developed via an integration of evidence (current literature) with patient care experience ^{13,14} . As used in the following document it is implied that professional knowledge is accurate, evidence-based and at the required breadth, depth and complexity. |
| Evidence-based Optometry | The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of EBO means integrating individual clinical expertise with the best available external clinical evidence from systematic research (definition for evidence-based medicine from reference 15, with substitution of optometry for medicine). |
| Role | A distinct area of practice within a profession ³ . |

SHORT FORMS & ABBREVIATIONS

| | |
|-------------|---|
| ARBO | Association of Regulatory Boards of Optometry (USA) |
| CBPS | Competency Based Performance Standards |
| CEO | Canadian Examiners in Optometry |
| CSAO | Canadian Standard Assessment in Optometry (required assessment to be registered as an Optometrist in most Canadian provinces) |
| CQI | Continuous Quality Improvement |
| WCO | World Council of Optometry |

SUMMARY OF PROFESSIONAL COMPETENCIES REQUIRED OF CANADIAN OPTOMETRISTS

Role 1: Provide Comprehensive Eye and Vision Care

Competency Unit: Optometrists meet their patients' eye and vision care related needs with the objectives of achieving appropriate outcomes and maintaining or improving their patients' quality of life.

Role 2: Collaborate

Competency Unit: Optometrists support an integrated healthcare system by collaborating with other healthcare professionals and service providers to facilitate the management of the overall health needs, and to encourage the well-being of their patients.

Role 3: Manage

Competency Unit: Optometrists apply management skills to optimize the care of their patients and make efficient use of health resources.

Role 4: Educate

Competency Unit: Optometrists provide education with the goal of encouraging appropriate, effective, comprehensive eye and vision care.

PROFESSIONAL COMPETENCY-BASED PERFORMANCE STANDARDS FOR OPTOMETRY IN CANADA

ROLE 1: PROVIDE COMPREHENSIVE EYE AND VISION CARE

Competency Unit: Optometrists meet patients' eye and vision care-related needs with the objectives of achieving appropriate outcomes and maintaining or improving patients' quality of life.

Competency Performance Contexts: Optometrists ensure that patients have access to the care required to address their eye and vision-care related needs. This means that:

- optometrists *possess*ⁱ the functional knowledge and skills required to manage patients with common or *critical*ⁱⁱ optometric needs and presenting common ethical or communication challenges;
- optometrists may consult other health care providers or resources when managing patients with uncommon or complex optometric needs and/or presenting complex ethical or communication challengesⁱⁱⁱ, and;
- optometrists refer patients to other optometrists, ophthalmologists or family physicians^{iv} for care of eye and vision care-related needs that require specialized management or that fall beyond the legally authorized scope of practice of the optometrist.

1.1. Competency Element: Optometrists develop and maintain a professional relationship with patients throughout patients' visits

1.1.1. Required Performance Criteria: Creation of an environment of professionalism, confidence and trust

Performance Indicators: Maintenance of patient confidentiality and privacy; creation of an appropriate atmosphere that allows the patient to be comfortable revealing relevant personal or sensitive history (e.g. psychotropic drug use)

1.1.2. Required Performance Criteria: Clear establishment of the roles and responsibilities of the optometrist and patient when managing eye care and vision issues

Performance Indicators: Explanation of the expected duration of visit and range of tests that might be completed; differentiation of the roles of optometrists, ophthalmologists and opticians; encouragement of the patient to ask relevant questions during examination

1.1.3. Required Performance Criteria: Demonstration that the patient's best interests are a priority

Performance Indicators: Determination of the patient's perception as to the importance of his/her eye and vision concerns; application of the principles of patient-centered practice; obtaining of informed consent for treatment; acknowledgment of the patient's right to refuse tests or treatment; recognition and avoidance of situations of real and perceived conflict of interest

1.1.4. Required Performance Criteria: Acceptance of responsibility for professional actions

Performance Indicators: Management of patient complaints in a professional manner according to regulations and good clinical practice; acknowledgment of errors; management of errors in an appropriate and timely manner

ⁱ "Possess" means that the optometrist's professional knowledge includes the required information and that the optometrist can access and apply this knowledge as required; it also means that the optometrist is able to perform all required skills.

ⁱⁱ "Common or critical" reflects the fact that some eye or vision care problems are uncommon but, if not diagnosed and managed appropriately, can result in significant patient morbidity or mortality; For example, a finding of bilateral papilledema.

ⁱⁱⁱ For example, management of severely handicapped patients.

^{iv} At a minimum, all optometrists must be able to refer appropriately to these three health care professionals. Although many optometrists will be able to refer appropriately to a broader range of health care professionals, these three are considered the minimum required for safe and effective optometric care.

1.1.5. Required Performance Criteria: Presentation of a professional appearance consistent with accepted local expectations

Performance Indicators: Attention to appropriate and professional dress, hygiene and language

1.1.6. Required Performance Criteria: Effective use of interpersonal skills to overcome common challenges to communication

Performance Indicators: Use of appropriate communication skills, including verbal and non-verbal skills, that are consistent with the patient's age, physical, emotional, intellectual and cultural background; frequent review to clarify and/or confirm information; use of guiding questions and summarization to facilitate discussion with poor historians; use of patient friendly language

1.2. Competency Element: Optometrists establish the reason(s) for patients' visits

1.2.1. Required Performance Criteria: Obtaining of a clear understanding of the patient's primary reason for the visit including perceived needs, concerns, questions and/or chief complaint

Performance Indicators: Use of clarifying questions to ascertain underlying reasons for the patient's visit; confirmation of reasons for visit through review of patient's history; administration of patient questionnaires that assist in determining the reason for the appointment

1.2.2. Required Performance Criteria: Confirming or clarifying of the patient's reason for referral from another health care provider

Performance Indicators: Interview of the patient to determine status of recent ocular surgery; determination of need for follow-up care; determination of recent diagnoses by the family physician; discussion of referral notes provided by the patient; determination of patient's understanding of the reasons for referral

1.3. Competency Element: Optometrists complete a history to enable the diagnosis of patients' eye and vision care problems

1.3.1. Required Performance Criteria: Effective attainment of the critical information necessary to address the patient's reason(s) for visit including:

- Details of symptoms (onset, frequency, duration, severity, location, precipitating factors);
- Relevant ocular/vision, family, medical and social history, and risk factors, and;
- Patient expectations for results

Performance Indicators: Use of professional knowledge of common eye and vision care problems to identify critical information; appropriate expansion of signs and/or symptoms identified during history

1.3.2. Required Performance Criteria: Effective attainment of critical additional information necessary to accurately diagnose additional eye and vision care problems for which the patient is at risk (but that were not part of the patient's chief complaint)

Performance Indicators: Use of knowledge of epidemiology, ocular and medical risk factors for common eye and vision care problems to determine the patient's risk

1.3.3. Required Performance Criteria: Use of appropriate questioning techniques to elicit required information in a systematic, yet flexible, way¹⁶.

Performance Indicators: Adjustment of questioning based on a patient's ability and understanding; focusing of history taking and avoidance of unnecessary questioning; obtaining information within reasonable time constraints; limitation of history taking to information that is relevant to the provision of optometric care

1.3.4. Required Performance Criteria: With the patient's consent, contacting of care givers or health care providers to obtain relevant information

Performance Indicators: Application of professional knowledge to accurately determine when additional information is necessary; contacting of a young patient's mother to obtain detailed history of symptoms; contacting of an appropriate health care practitioner for additional information on medications/doses used by a patient

1.3.5. Required Performance Criteria: Effective attainment of the information necessary to establish the patient's vocational and avocational visual needs

Performance Indicators: Clarification if occupation requires specific visual demands; determination if need for eye protectors for sports or work; determination of occupational prescriptions for pilots or computer workers; determination of children's school performance; determination of a patient's working distances in vocational and avocational environment

1.3.6. Required Performance Criteria: Synthesis of information to develop an accurate, reasonable list of possible diagnoses of the patient's chief complaint and/or additional eye and vision care conditions

Performance Indicators: Application of professional knowledge of common eye and vision care problems to develop possible diagnoses; rationalization of possible diagnoses with accurate explanations supported by current, relevant literature and by experience; rank probability of specific diagnoses

1.4. Competency Element: Optometrists assess the oculo-visual status of patients to identify any eye and vision care problems

1.4.1. Required Performance Criteria: Completion of a patient-specific examination based on the optometrist's list of possible diagnoses

Performance Indicators: Use of professional knowledge to identify assessments/tests critical to the diagnosis of the patient's eye and vision care conditions; determination of appropriate screening tests to complete prior to more in-depth testing; consideration of time constraints when developing the examination plan; incorporation of patient specific issues such as discomfort, patient abilities, and finances into the patient specific examination

1.4.2. Required Performance Criteria: Accurate assessment of the following in individual patients with appropriate attention to hygiene and infection control^v:

- Refractive status
- Ocular health status
- Binocular status
- Sensory status

Performance Indicators: Proficient use of equipment and techniques standard to the profession, including, but not limited to:

- Lensometry, keratometry, objective and subjective measurement of refractive status, interpupillary distance, add determination.
- Biomicroscopy, tonometry, gonioscopy, direct and indirect ophthalmoscopy, fundus biomicroscopy, pharmacologic dilation.
- Measurement of ocular motility & alignment, convergence & accommodative amplitude & facility, stereopsis and phorias at distance & near (cover tests, near point of convergence, push-up amplitude of accommodation, the use of a Maddox rod for vertical phoria screening, Broad H, saccades and pursuits, sensory integration, vergence reserves, AC/A ratio).
- Visual acuity at distance and near with and without correction, colour vision testing, pupillary responses evaluation (pupillary function testing), visual field testing (confrontation visual fields, automated visual field testing).

^v All optometrists must be able to accurately perform these assessments. The performance criterion of determining when it is necessary to complete each assessment/test is dealt with above.

1.4.3. Required Performance Criteria: Accurate identification of tests that are contraindicated in patients with specific conditions

Performance Indicators: Recognition of the contraindication of applanation tonometry in a patient with a compromised cornea; recognition of the contraindication to dilate a patient with previously identified plateau iris syndrome

1.4.4. Required Performance Criteria: Modification of original patient-specific examination plan based on results obtained

Performance Indicators: Use of professional knowledge to determine the significance of test results and to rationalize proposed changes in the examination plan based on initial findings such as: completing a more detailed evaluation when tonometry readings are elevated, using an Amsler Grid test for patients with macular degeneration/drusen; performance of visual field testing in a patient with risk factors for glaucoma

1.4.5. Required Performance Criteria: Recognition when the patient/patient's eye and vision care problems require special testing and/or equipment offered by other optometrists

Performance Indicators: Identification of a patient who should be referred to another optometrist for perceptual testing or visual field testing

1.4.6. Required Performance Criteria: Recognition of patients with ocular findings indicating conditions which require management by another health care professional

Performance Indicators: Use of professional knowledge to identify that a patient requires surgical management of cataracts or correction of strabismus; identify patients requiring refractive laser surgery

1.4.7. Required Performance Criteria: Acceptance of the patient's right to refuse testing despite effective explanation of the risks of refusal for a recommended examination/test/procedure

Performance Indicators: Explanation of the need for dilation in a patient with diabetes and the diagnostic limitations if dilation is not completed; explanation that refusal of cataract treatment along with continued decline of visual acuity may result in the loss of driving privileges; explanation of the risk of retinal detachment to a patient with the recent onset of floaters who is refusing a dilated fundus exam

1.4.8. Required Performance Criteria: Development of patient-specific examinations that are cost-effective

Performance Indicators: Completion of visual field analysis only when specifically indicated; obtaining of consent from a patient for extra fees charged for specific procedures such as fundus photography or visual fields

1.5. Competency Element: Optometrists refer patients for care or special testing required to manage their eye or vision care problems

1.5.1. Required Performance Criteria: Referral to optometrists providing specialized services

Performance Indicators: Explain equipment needed to perform, for example, visual field testing, pachymetry and topography prior to referral for refractive surgery, specialty contact lens fitting (keratoconus); provide contact numbers and referral notes to patient

1.5.2. Required Performance Criteria: Referral to family physicians or ophthalmologists for management of eye or vision-care problems beyond the scope of practice of optometrists

Performance Indicators: Explain the basic roles and responsibilities of optometrists, ophthalmologists and family physicians related to eye and vision-care problems; provide referral notes to patient; contact physician or ophthalmologist to organize an appointment

1.5.3. Required Performance Criteria: Making of responsible choices for utilization of health care

resources

Performance Indicators: Recognize when urgent referral is needed (for example, treatment for post surgical complications such as endophthalmitis, hemorrhaging, cystoid macular edema)

1.5.4. Required Performance Criteria: Maintenance of a network of optometrists and ophthalmologists for referral purposes

Performance Indicators: Keeping a well documented list of names, addresses, fax, pager and telephone numbers of key optometrists and ophthalmologists to use when needed according to specialties; maintain good communication with those colleagues with referral and follow-up letters

1.5.5. Required Performance Criteria: Utilization of a system for referral to optometrists and ophthalmologists

Performance Indicators: Documentation that the patient has been referred; providing of patient or care provider with referral notes

1.6. Competency Element: Optometrists diagnose patients' eye and vision conditions

1.6.1. Required Performance Criteria: Synthesis of information being obtained during 1.2, 1.3 and 1.4 to accurately diagnose the patient's eye and vision care problems

Performance Indicators: Rationalization of differential diagnosis using evidence-based decision-making (professional experience supported by current, relevant literature and/or guidelines); explanation of the pathophysiology underlying the specific diagnosis; explanation of the process followed in developing a differential diagnosis; explanation as to the support of a specific diagnosis with specific test results; explanation as to why specific test results rule out or lower the probability of specific diagnoses

1.6.2. Required Performance Criteria: Synthesis of information being obtained during 1.2, 1.3 and 1.4 to accurately assess the patient's risk for the development of common eye and vision care problems

Performance Indicators: Integration of information from family history and optic nerve examination to determine the patient's risk for development of glaucoma

1.7. Competency Element: Optometrists develop, recommend and implement patient management plans

1.7.1. Required Performance Criteria: Inclusion of recommendations for treatments that are current and accurate

Performance Indicators: Use of professional knowledge to determine which therapeutic and management options should be considered for a specific situation; recommendation of treatment based on current optometric clinical guidelines; avoidance of therapeutic techniques that are contraindicated in specific patients

1.7.2. Required Performance Criteria: Inclusion of the patient's desired outcomes, concerns and abilities during development of an individualized management plan

Performance Indicators: Consideration of the patient's desires for progressive lenses versus multiple pairs of glasses when making recommendations; consideration of the patient's age and ability to comply when developing a plan for visual training tasks; consideration of an advanced Alzheimer patient's expected improvement in QoL when developing recommendations for cataract surgery

1.7.3. Required Performance Criteria: Discussion of findings, differential diagnosis, treatment/management/preventative options and associated possible outcomes with the patient to facilitate understanding and acceptance

Performance Indicators: Description of limitations of the patient's expectations with compassion; allowance and support of patient's decisions that are contrary to recommendations; avoidance of value judgements on patient choices; clarification with the patient that cataract surgery should give normal vision unless complications occur or a retinal problem compromises results; explanation of the

surgical and spectacle treatment options for children with strabismus

1.7.4. Required Performance Criteria: Use of appropriate communication skills to facilitate the patient's understanding and acceptance of diagnoses, management plans and potential outcomes

Performance Indicators: Frequent summarization to clarify information; minimal use of jargon; use of layperson terms; attentive listening to the patient's questions; asking of the patient to summarize key information; maintenance of an awareness of time frames available; provision of written instructions to the patient; provision of brochures or information pamphlets to the patient

1.7.5. Required Performance Criteria: Employment of the principles of informed consent when developing and implementing a management plan

Performance Indicators: Obtaining of informed consent when required (e.g. for diagnostic or therapeutic procedures); recognition when formal informed consent/expressed consent is not required; obtaining of permission for referrals to other health care providers

1.7.6. Required Performance Criteria: Development of patient-specific management plans that are cost-effective and efficient

Performance Indicators: Consideration of artificial tears before permanent punctal plug insertion for dry eye treatment; consideration of the patient's ability to pay and insurance coverage when discussing changes in spectacles; consideration of the patient's ability to comply with a vision therapy exercise program before recommending; comparison of costs of glasses and contact lenses as primary treatment of a refractive problem; inclusion of costs when discussing daily disposable contact lenses versus monthly disposables

1.7.7. Required Performance Criteria: Accurate and appropriate prescription of vision enhancing and corrective devices including spectacles, contact lenses, low vision aids and protective eye wear

Performance Indicators: Use of professional knowledge to determine a specific form of vision enhancing or corrective device; transforming of findings from the patient's assessment into an accurate prescription; consideration of patient needs and desires, and environmental and vocational factors, when prescribing

1.7.8. Required Performance Criteria: Accurate and appropriate dispensing and/or provision of vision enhancing and corrective devices including spectacles, contact lenses, low vision aids, binocular vision therapy and protective eye wear

Performance Indicators: Assistance of patients in selecting frames that are appropriate for their vision and lifestyle needs; ordering and fitting of lenses in accordance with accepted standards; adjusting of spectacles appropriately; providing of binocular vision therapy procedures; verifying that spectacles are made according to prescription; educating of patients to safely manage their contact lenses; advising of patients on adaptation to devices

1.7.9. Required Performance Criteria: Accurate performance of therapeutic techniques^{vi}

Performance Indicators: Performing of, for example, epilation of eyelashes, dilation and irrigation of the lacrimal system, ocular lavage, foreign body removal, bandage contact lens insertion

1.7.10. Required Performance Criteria: Appropriate and accurate prescription of pharmacological treatments^{vii}

Performance Indicators: Application of professional knowledge to select appropriate pharmacological treatment; consideration of patient allergies; consideration of drug costs and convenience; accurately writing of prescriptions; educating of patients on expected effects, side

^{vi} All optometrists must be able to accurately perform therapeutic techniques required to manage common or critical optometric problems (as per the context statements at the beginning of this competency). The performance criterion of determining when it is necessary to perform each technique is addressed above.

^{vii} Assessment of optometrists must ensure that each practitioner is competent to perform this restricted act even if (s)he is not authorized to prescribe in the province in which (s)he intends to practice.

effects and proper administration of medications

1.7.11. Required Performance Criteria: Accurate performance of pre- and post- operative care for patients requiring co-management

Performance Indicators: Use of professional knowledge to counsel patients on eligibility for laser surgery and benefits of different technologies (e.g. wavefront laser); performance of complete post-operative refraction with V.A., keratometry, biomicroscopy to evaluate the cornea and scheduling of follow-up visits according to standards; recommendation of sun protection following surgery; explanation of expected healing schedules

1.7.12. Required Performance Criteria: Consultation with appropriate health care professionals when developing or implementing the patient's management plan

Performance Indicators: Consultation with the patient's pharmacist to review cross-allergenicity of antibiotic eye drops; consultation with pharmacist or family physician regarding adverse interactions with current medications and recommendation of vitamins for macular degeneration; consultation with family physician to ensure that a patient's diabetes is controlled before prescribing a change in glasses

1.7.13. Required Performance Criteria: Provision of education/information necessary for appropriate management of eye or vision care conditions

Performance Indicators: Review of non-pharmacological measures, such as eye washing; warning of potential for cross infection or infection of family members; provision of advice on eye protection required in the workplace; recommendation of lighting for use in the workplace or home; provision of pre-operative advice to patients being referred for surgery; provision of information to patients about financial support services for eye-care and vision appliances; provision of information about services for vision impaired; education of patients about indications, risks, complications and expectations of laser vision correction

1.8. Competency Element: Optometrists provide the follow-up care required to manage patients' eye and vision care problems

1.8.1. Required Performance Criteria: Explanation of the reason/timing of follow-up by discussion of expected desired and possible adverse effects of the treatment prescribed and their normal time frames for occurrence

Performance Indicators: Use of professional knowledge to list expected outcomes of treatment and time frames; use of pharmacology and therapeutics knowledge to identify potential side effects and time frames for a given patient; confirmation of information provided by ophthalmologist regarding expected post-surgical outcomes; explanation of expected time for adaptation to a new spectacle prescription; explanation of the expected benefits and challenges of progressive lenses to a first time wearer

1.8.2. Required Performance Criteria: Ensuring that the patient is clear on what actions (s)he should take should the desired effects not occur or undesired effects develop

Performance Indicators: Discussion of the patient's responsibility for monitoring of eye or vision care problem; ensuring that after hours treatment is available; ensuring that call-backs are made as necessary

1.8.3. Required Performance Criteria: Scheduling of required follow-up and provision of professional services to the patient until the services are no longer required

Performance Indicators: Application of professional knowledge of disease treatment and/or resolution to identify time frames for required follow-up; establishment of routine recall schedules

1.8.4. Required Performance Criteria: Modification of the patient's management plans according to his/her response to treatment

Performance Indicators: Increasing of frequency of recalls for a patient experiencing post-surgical

complications; changing of the type of glaucoma medication being used if the desired pressure is not being attained or the condition is progressing; reassessment of refraction for the patient with continued complaints of blurred vision with new glasses

1.9. Competency Element: Optometrists manage patient-specific, confidential information

1.9.1. Required Performance Criteria: Documentation of all information that is relevant to patient care and outcomes

Performance Indicators: Use professional knowledge to determine relevant information requiring documentation such as history, exam, findings, diagnoses, therapeutic and monitoring plans, referrals and follow-up

1.9.2. Required Performance Criteria: Documentation of all relevant information in a format that is useable by the optometrist and his/her colleagues

Performance Indicators: Ensuring that documentation is legible, secure, accessible, permanent and understandable; ensure that documentation is completed in a timely manner to ensure accessibility

1.9.3. Required Performance Criteria: Provision of follow-up to referring health care providers

Performance Indicators: Provision of monitoring results to a physician referring a patient taking chloroquine

1.9.4. Required Performance Criteria: Complete assessments and documentation required to certify patients for designated occupations or tasks

Performance Indicators: Use professional knowledge of the required vision standards to determine if patients require certification (e.g. Ministry of Transportation); fulfill assessments as required for employed with , for example, RCMP, Merchant Marine Master and Mate Certificates, Canadian Forces and Aircrew Personnel, Railway Workers & Civil Aviation

1.9.5. Required Performance Criteria: Ensure release of confidential information only with the consent of the patient or when required by law

Performance Indicators: Ensuring that the patient has consented to the release of diagnostic information; advising of the patient on mandatory reporting requirements

ROLE 2: COLLABORATE

Competency Unit: Optometrists support an integrated health care system by collaborating with other health care professionals and service providers to facilitate the management of the overall health needs, and to encourage the well-being, of patients

Competency Performance Contexts: Optometrists facilitate their patients' access to the care required to address their overall health and well being. This means that:

- optometrists possess the functional knowledge required to refer patients appropriately to family physicians or ophthalmologists^{viii} for management of common or critical *systemic* diseases^{ix};
- optometrists possess the functional knowledge required to appropriately recommend patients seek management of common health problems that fall within the legal scope of practice of dentists, dieticians or pharmacists^{viii};
- optometrists possess sufficient knowledge to recommend appropriate sources of support^x for patients experiencing common difficulties in daily living^{xi}

2.1. Competency Element: Optometrists recognize and assess the potential significance of patients' signs, symptoms and complaints related to non-ocular issues

2.1.1. Required Performance Criteria: Recognition of ocular signs and symptoms, non-ocular symptoms, and risk factors encountered during history and examination that relate to common, health problems requiring management by other health care professionals

Performance Indicators: Use of health professional knowledge to recognize that the patient mentioning the recent onset of chest pain with exercise may be experiencing symptoms of cardiovascular disease; use of specialized knowledge to accurately identify ocular signs and symptoms associated with, for example, diabetes

2.1.2. Required Performance Criteria: Recognition of signs and symptoms (ocular and non-ocular) associated with common medical emergencies

Performance Indicators: Use of health professional knowledge to recognize that, for example, photophobia, headache and fever may be associated with meningitis; that slurred speech and hemiplegia may be symptoms of ongoing cerebral vascular events

2.1.3. Required Performance Criteria: Recognition of problems with activities of daily living as being important to patients' well-being

Performance Indicators: Use of professional concern for health and well-being when listening to the patient's comments on transportation difficulties since losing their right to drive; recognizing the significance of patient's comments about coping since the death of his spouse

2.2. Competency Element: Optometrists refer patients for diagnostic services, treatment or preventative management of non-ocular health problems

2.2.1. Required Performance Criteria: Referral for medical care of non-ocular medical problems

Performance Indicators: Refer a patient for follow-up with his family physician for diabetes control; refer a patient to an ophthalmologist for management of optic neuritis secondary to MS

^{viii} At a minimum, all optometrists must be able to refer appropriately to these health care professionals. Although some optometrists may be competent to refer appropriately to a broader range of specialists or health care professionals, these listed are considered the minimum required for safe and effective optometric care.

^{ix} Including, for example, signs and symptoms of diabetes mellitus, hypertension, arthritis, stroke, cardiac disease, rosacea.

^x Optometrists are not expected to possess knowledge of specific community resources: they must know only that such services/resources may exist and that information can be obtained from community resource centres or local government.

^{xi} Difficulties with, for example, transportation, activities of daily living, emotional, spiritual needs.

2.2.2. Required Performance Criteria: Making of responsible choices for utilization of health care resources

Performance Indicators: Recognition of when the patient needs referral to an emergency ward versus waiting for an appointment with a family physician; recognition of when the patient needs a general work-up by a family physician rather than direct referral to a specialist

2.2.3. Required Performance Criteria: Suggestion of follow-up with appropriate primary health care professionals^{xii} available to assist the patient with his/her non-ocular health problems

Performance Indicators: Suggestion that local pharmacists can explain side effects of systemic medications; discussion as to how dieticians can help with weight loss programs

2.2.4. Required Performance Criteria: In conjunction with the patient, selection of the appropriate health care professional for patient referral

Performance Indicators: Exercise of sensitivity to the patient's preferences and health care beliefs; use of professional knowledge when recommending a health care professional

2.2.5. Required Performance Criteria: Maintenance of a system for referral to other health care professionals

Performance Indicators: Documentation that the patient has been advised to seek additional care from a specific type of health professional (e.g. family physician or dentist) or a specific health care professional (e.g. Dr. X); providing of patient or care provider with referral notes

2.3. Competency Element: Optometrists provide information to facilitate management of patients' overall health needs and well-being

2.3.1. Required Performance Criteria: Provision of accurate, general information on maintaining and promoting health

Performance Indicators: Explanation of the relationship between smoking and health risks; provision of positive reinforcement for the patient in a planned weight loss program; encouragement of regular health assessments/physical examinations

2.3.2. Required Performance Criteria: Utilization of knowledge of social support services generally available within typical communities

Performance Indicators: Familiarization with role and availability/accessibility of, for example, social workers, clergy, occupational therapy, psychologists, welfare systems, Meals on Wheels, Transportation Assistance programmes, veteran affairs, Canadian Diabetes Association, MS Society

2.3.3. Required Performance Criteria: Discussion with the patient of the potential availability of relevant support services

Performance Indicators: Use of appropriate communication skills to provide information regarding assistance for difficulties of activities of daily living; recognition of professional limits regarding advice; respect for the patient's right to refuse referrals to these services

2.3.4. Required Performance Criteria: Provision to the patient of advice as to how to obtain additional information on support/support service providers

Performance Indicators: Provision of telephone numbers for social services, community health centres or local governments

2.3.5. Required Performance Criteria: Supporting of the professional obligation to report situations of suspected child abuse

^{xii} As per context statement above, at a minimum optometrists must possess knowledge of roles/ responsibilities of dentists, pharmacists and dieticians.

Performance Indicators: Sensitively and confidentially, discussing of suspected situations of child abuse with appropriate colleagues; contacting of local Child Welfare/Protection agencies to obtain advice

2.4. Competency Element: Optometrists act as a resource to other health care providers regarding oculo-visual aspects of health and well being

2.4.1. Required Performance Criteria: Provision of information to allied health care providers regarding eye and vision care

Performance Indicators: Provision of advice to public health nurses on conducting vision screening; provision of information to a family physician regarding eye and vision care monitoring required for patients taking chloroquine

ROLE 3: MANAGE

Competency Unit: Optometrists apply management skills to optimize the care of patients and make efficient use of health resources

Competency Performance Contexts: Optometrists manage their individual practice to ensure that their patients are provided the care, services and products required to meet their optometric needs. Optometrists ensure that all staff for whom they are directly responsible practice in accordance with these same requirements

3.1. Competency Element: Optometrists utilize business practices that ensure the appropriate provision of care to patients

3.1.1. Required Performance Criteria: Ensuring of the availability of required resources

Performance Indicators: Ensuring that necessary equipment is available and in good working order; calibrating of instruments; ensuring that there is the necessary number of adequately trained staff members; ensuring of sufficient and adequately designed space; ensuring of efficient management of stock

3.1.2. Required Performance Criteria: Ensuring that an appointment system is in place that is consistent with their experience and practice patterns

Performance Indicators: Scheduling of fewer patients if inexperienced; ensuring of a management plan for patients with potentially urgent needs; allowance of adequate time for documentation

3.1.3. Required Performance Criteria: Ensuring the safety of the workplace

Performance Indicators: Ensuring of cleanliness and hygiene of work environment; ensuring that staff is trained on workplace hazards and their management

3.1.4. Required Performance Criteria: Management of workflow within their individual practice

Performance Indicators: Ensuring of an efficient flow in service provision; ensuring of privacy when collecting data; determination of appropriate staff for completion of pre-testing, booking follow-ups, etc; education of support personnel on time requirements for specific testing or procedures; ensuring of an appropriate filing system for patient charts; ensuring of a proper system of patient confidentiality and privacy

3.2. Competency Element: Optometrists utilize financial management practices that ensure the appropriate provision of care to patients

3.2.1. Required Performance Criteria: Ensuring that legal accounting and/or bookkeeping systems are in place

Performance Indicators: Advising of patients of payment options (cash, credit and debit cards); informing of patients of required deposits; provision of detailed receipts to patients and explanation of them; ensuring that all billing is accurate and complete; provision of appropriate account statements; ensuring of proper accounts receivable (patients) and payable (suppliers) management; ensuring of appropriate documentation of fees in patients' charts

3.2.2. Required Performance Criteria: Ensuring that the fee structure is appropriate

Performance Indicators: Ensuring of adherence to provincial billing rules; ensuring that fees are based on current market conditions and are not excessive in relation to services provided; ensuring that a detailed fee schedule is available; maintenance of a fee structure in accordance with the association's fee schedule; informing patients in advance of any charges for service(s)

3.3. Competency Element: Optometrists maintain an effective system for triaging patients according to symptoms and needs

3.3.1. Required Performance Criteria: Use of professional knowledge and consideration of costs/efficiency to establish responsible triage policies for patients

Performance Indicators: Establishment of policies that direct staff on the urgency of the situation, who can best address the patient's concerns and whether consultation is required prior to triaging a patient

3.3.2. Required Performance Criteria: Supervision of support personnel to ensure the adherence to the established triage policies

Performance Indicators: Utilization of leadership, interpersonal and communication skills to provide staff training on triage policies and their rationale; support of personnel in continuing education efforts related to triage; ensuring that support staff recognize limitations in knowledge/skill; emphasis that unusual cases may require discussion prior to triage

3.4. Competency Element: Optometrists ensure that functions they delegate to support personnel under their direct supervision are performed to accepted standards

3.4.1. Required Performance Criteria: Supervision of personnel working under their direct authority to ensure competent performance of delegated functions

Performance Indicators: Ensuring that written job descriptions are available for all staff positions; employment of a system to evaluate staff performance relative to job descriptions and associated guidelines; use of a regular system for checking quality of staff performance of delegated functions

3.4.2. Required Performance Criteria: Ensuring that delegation is appropriate for the capability/training of personnel, including capabilities related to interpersonal skills and communication

Performance Indicators: Ensuring that staff has received appropriate training; implementation of training to update personnel on changes in procedures/technology; ensuring that delegation is consistent with laws/regulations for the profession

3.4.3. Required Performance Criteria: Identification of and the addressing of systematic problems in the quality of performance of delegated functions

Performance Indicators: Rectification of situations where support staff are providing patients with interpretation of results of discreet, delegated tests; provision of additional one-on-one training to support staff on correct adjustments of spectacles

3.5. Competency Element: Optometrists use accepted, ethical strategies when determining and/or promoting the care and professional services provided by their practice

3.5.1. Required Performance Criteria: Ensuring of confidentiality of individual patient's information when analyzing the needs of their patient population

Performance Indicators: No release of individual patient information to marketing consultants for analysis; no discussion of patients' medical/ocular history outside of exam room without express consent of patients

3.5.2. Required Performance Criteria: Ensuring that marketing information provided is truthful and professional

Performance Indicators: Provision of information to clients that your practice offers orthokeratology or retinal photography; information does not claim superiority over other health care professionals

3.5.3. Required Performance Criteria: Use of ethical, acceptable systems if/when encouraging individual patients to continue coming to his/her practice

Performance Indicators: Provision of information on new diagnostic services and/or treatments as they become available to patients; encouragement of parents to bring at risk children for assessment at a very young age

ROLE 4: EDUCATE

Competency Unit: Optometrists provide education with the goal of encouraging appropriate, effective, comprehensive eye and vision care

Competency Performance Contexts: Optometrists educate health care professionals and students on the roles and responsibilities of optometrists within the Canadian health care system^{xiii}

4.1. Competency Element: Optometrists promote the understanding of the roles and responsibilities of the optometrist within the health care community

4.1.1. Required Performance Criteria: Provision of accurate information regarding the role and responsibilities of the optometrist

Performance Indicators: Appropriate responding to questions from allied health care professionals; allowance of a student in another health profession to shadow the optometrist for a day; acting as an information source to students; agreeing to answer questions

4.2. Competency Element: Optometrists maintain an involvement in the education of optometry students and/or interns

4.2.1. Required Performance Criteria: Supporting of the instruction of optometry students/interns when feasible

Performance Indicators: Agreeing to hire a student of optometry for summer assistance; discussion of the profession with students interested in optometry; where feasible, the hiring of optometry interns; allowing of job shadowing

^{xiii} Education of individual patients as part of providing comprehensive eye and vision care is addressed in Role/Competency Unit 1

APPENDIX I: CBPS WORKING GROUP MEMBERS

| | |
|---------------------|---|
| Garry Best, OD | <i>Solo Practitioner, Newfoundland</i> |
| Mireille Hardy, OD | <i>Representative of the University of Montreal</i> |
| Bernard Cyr, OD | <i>Group Practitioner, New Brunswick</i> |
| Gerry Day, OD | <i>Solo Practitioner, Ontario</i> |
| Kim Elcheshen, OD | <i>Group Practitioner, Manitoba</i> |
| Nina Gill, OD | <i>Group Practitioner, British Columbia</i> |
| Patty Hrynchak, OD | <i>Representative of the University of Waterloo</i> |
| Lester Jinks, OD | <i>Solo Practitioner, Prince Edward Island</i> |
| Peter Karwatsky, OD | <i>Group Practitioner, Quebec</i> |
| Reid MacDuff, OD | <i>Solo Practitioner, Nova Scotia</i> |
| Beverly Orr, OD | <i>Group Practitioner, Saskatchewan</i> |
| Neepun Sharma, OD | <i>CAO Representative & Group Practitioner, Alberta</i> |
| Alan Ulsifer, OD | <i>Group Practitioner, Alberta</i> |

Competence Committee Co-Chairs

| | |
|------------------|--|
| Ralph Chou, OD | <i>University of Waterloo</i> |
| Tim Winslade, OD | <i>Group Practitioner, Nova Scotia</i> |

CEO Staff

| | |
|---|---|
| J. Martin McDowell, OD | <i>Executive Director, Canadian Examiners in Optometry</i> |
| Cathy Beland | <i>Administrative Assistant, Canadian Examiners in Optometry</i> |
| Nancy Winslade, BScPHm, PharmD, MHPE | <i>External Consultant to the Competence Committee of Canadian Examiners in Optometry</i> |

APPENDIX II: GENERAL ATTRIBUTES OF PROFESSIONAL OPTOMETRY COMPETENCIES ^{xiv 17}

KNOWLEDGE, REASONING AND SKILLS

Optometrists have knowledge and comprehension of the core information associated with their profession. They are able to make evidence-based decisions during daily practice and to apply their knowledge to appropriately perform required professional skills.

PLANNING AND IMPLEMENTATION

Optometrists have effective planning and implementation abilities including time management, resource management, delegation skills and organizational skills. Optometrists have the necessary skills to plan and implement change, to understand and consider the human reaction to change, and to recognize when change is required for fulfillment of professional and societal responsibilities.

COMMUNICATION

Optometrists have effective communication skills, including the ability to effectively use and respond to written, verbal and non-verbal communications.

VALUES AND ETHICS

Optometrists are able to apply ethical principles in professional and social contexts. They will have developed a behaviour that both recognizes and respects cultural and personal variability in values, communication and life styles. Optometrists will apply ethical principles when decision-making and will take responsibility for outcomes associated with their decisions.

SELF-DIRECTED LEARNING

Optometrists have self-directed learning capabilities in order to maintain and advance their practice and professional role in society. They will be able to effectively self assess and use feedback from others to identify their learning needs and to satisfy these needs on an ongoing basis.

^{xiv} These general attributes have been adapted, with permission, from those developed by the Association of Faculties of Pharmacy of Canada⁶, based on work from the American Association of Colleges of Pharmacy¹⁷.

REFERENCES

- ¹ *Qualifying Examination Blueprint (2003)*. Pharmacy Examining Board of Canada. www.pebc.ca
- ² *Gonczi A, Hager P, Oliver L (1990). Establishing Competency based Standards in the Professions. National Office of Overseas Skills Recognition. Research Paper No. 1. Australian Government Publishing Service, Canberra.*
- ³ *Heywood, L, Gonczi, A. and Hager, P (1992). A guide to development of competency based standards for professions, Research paper No. 7. Canberra, Australia: Australian Government Publishing Service.*
- ⁴ *Masters GN, McCurry D (1990). Competency based Assessment in the Professions. National Office of Overseas Skills Recognition. Research Paper No. 2. Australian Government Publishing Service, Canberra.*
- ⁵ *Gonczi A, Hager P, Athanasou J (1993). The Development of Competency based Assessment Strategies for the Professions. National Office of Overseas Skills Recognition. Research Paper No. 8. Australian Government Publishing Service, Canberra.*
- ⁶ *Association of Faculties of Pharmacy of Canada (1997). Outcomes for a Baccalaureate in Pharmacy Graduate in Canada.*
- ⁷ *Ontario College of Pharmacists (1995). Analysis of Competencies Required of Newly-Registered Pharmacists: Report from the Structured Practical Training Working Group. Ontario College of Pharmacists, Toronto, Ontario.*
- ⁸ *National Association of Pharmacy Regulatory Authorities (2002). Model Standards of Practice for Canadian Pharmacists – first revision. Ottawa, Ontario. www.napra.org.*
- ⁹ *Kiely, P.M., Chakman, J., Horton, P. (2000). Optometric therapeutic competency standards 2000. Clinical and Experimental Optometry, 83(6), 300-14.*
- ¹⁰ *Guilbert, J.J. 1992. Educational Handbook for Health Personnel. World Health Organization: Geneva.*
- ¹¹ *World Council of Optometry Statement of the Concept of Optometry (1993).*
- ¹² *NTB National Competency Standards Policies and Guidelines. (1991). National Training Board. Australian Government Publishing Service, Canberra.*
- ¹³ *Schmidt, H., Norman, G. & Boshuizen, H. (1990). A cognitive perspective on medical expertise: theory and implications. Academic Medicine, 65; 611-21.*
- ¹⁴ *Regehr, G. & Norman, G.R. (1996). Issues in cognitive psychology: implications for professional education. Academic Medicine, 71(9), 988-1001.*
- ¹⁵ *Centre for Evidence-Based Medicine, University Health Network, Mt. Sinai Hospital (Toronto). (2004). Glossary of evidence-based medicine terms. <http://www.cebm.utoronto.ca/glossary/>.*
- ¹⁶ *Silverman, J., Kurtz, A., Draper, J. (1998). Skills for Communicating with Patients. Abingdon, UK: Radcliffe Medical Press.*
- ¹⁷ *Chalmers, R.K., Grotperter, J.J., Hollenbeck, R.G., Nickman, N.A., Wincor, M.Z., Loacker, G., Meyer, S.M. (1992). Ability-based outcome goals for the professional curriculum: a report of the Focus Group on Liberalization of the Professional Curriculum. American Journal of Pharmaceutical Education, 56, 304-9.*