**American Academy of Optometry**

**Low Vision Section**

**Clinical Low Vision Diplomate Program**

**CANDIDATE'S GUIDE**

(Revised March, 2022)

Diplomate status in the Low Vision Section of the American Academy of Optometry is recognition of academic and practical achievement by Academy Fellows in the assessment and management of the rehabilitation needs of persons with impaired vision. The objectives of the Clinical Low Vision Diplomate Program are to develop and maintain a core group of Fellows who have demonstrated broad expertise in the care of the visually impaired.

This section also welcomes Fellows who have expertise in low vision but who are primarily researchers to become candidates for the Research Low Vision Diplomate Program. A copy of the Research Low Vision Diplomate Program Candidate's Guide is available from the current program chairperson or the AAO website. (See officer listings at the end of this guide or on the Academy website.)

Participation in the Clinical Low Vision Diplomate Program can provide a rewarding learning experience and a satisfying recognition of competency. Additionally, it offers opportunities to meet colleagues from many parts of the country and world who share mutual interests and concerns and with whom collaboration can be conducted with great confidence. Clinical Low Vision Diplomates work and practice in a wide range of settings, including private practices, schools and colleges of optometry, hospitals, and rehabilitation agencies.

After successfully completing the program, Diplomates are expected to stay abreast of new developments and remain engaged in the field, including acceptance of responsibilities and leadership in lecturing, writing, and teaching within the Academy and within its Low Vision Section. Diplomates are expected to participate in Annual

Academy Meetings and must renew their qualifications every five years by documenting continued activity in low vision rehabilitation as a way to help ensure that status as a

Clinical Low Vision Diplomate always reflects a high standard of expertise.

The Low Vision Section encourages all Fellows of the Academy with interest and expertise in low vision rehabilitation to become applicants to the Clinical Low Vision Diplomate Program. This guide can be found at the AAO website: https://www.aaopt.org/membership/sections-sigs/fellows-sections/fellows-sections-lowvision/fellows-sections-lowvision-diplomate

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*This guide supersedes all previous editions and is subject to change by consensus of the Low Vision Diplomate Executive Committee and approval of the Board of Directors of the American Academy of Optometry.*

**I. Requirements for Becoming a Candidate for Diplomate Status**

There are specific eligibility requirements for Fellows who wish to become Candidates for the Clinical Low Vision Diplomate Program. Potential candidates should carefully review their own credentials before applying to this Diplomate Program to determine if additional experience should precede application.

**Eligibility:**

1. Fellowship in the American Academy of Optometry is required.

2. Significant involvement in clinical low vision care is required and must be documented on the online Application (must complete Direct Patient Care & Clinical Teaching). Specifically, applicants must use the following point system to document at least five points worth of low vision clinical exposure, over a five year period, with no more than four points occurring in any one year:

Direct patient care: one point per half day per week for one year

Clinical teaching: one point per half day per week for one year for clinical teaching of students or residents in a recognized institution or externship

3. Significant engagement in professional activities related to low vision rehabilitation is recommended and must be documented in the Curriculum Vitae submitted. To become a Candidate, applicants must have participated in at least two of the following low vision activities: publication, teaching, public presentations, community service, professional service, and residency training. Substantial deficiencies may indicate that further experience is required or may simply highlight areas for growth in the candidacy process.

4. Submission of a current curriculum vitae is required. This document should include specific activities relevant to the above eligibility criteria.

5. Applications are submitted online and accessed through the Academy website at: https://www.aaopt.org/membership/sections-sigs/fellows-sections/fellows-sections-lowvision/fellows-sections-lowvision-diplomate. Payment of an application fee of $100.00 must be submitted once the application is approved. Once accepted as a candidate, this fee is nonrefundable.

6. Letter of Recommendation from a Low Vision Diplomate wither clinic or research. **Application Deadline:** Applications can be submitted at any time, but should be submitted by **June** **1** if the applicant seeks to sit for any examinations at the annual Academy meeting which occurs in the fall of that year.

**II. Overview of Diplomate Program**

Once an application is accepted, the Candidate must complete the following five requirements to achieve Diplomate status:

a) Case Reports (five)

b) Written Examination

c) Ocular Disease Examination d) Practical Examination

e) Oral Examination

Case reports are submitted to the current Case Reports Chairperson, while

examinations are completed at the annual Academy Meeting, usually during the first two days of the meeting.

**Eligibility for Examinations:** There are pre-requisites for three of the four examinations, as listed below.

|  |  |
| --- | --- |
| **Examination** | **Pre-requisite** |
| Written | None |
| Ocular Disease | One (1) accepted case report |
| Practical | Three (3) accepted case reports |
| Oral | Five (5) accepted case reports |

**Candidacy period:** A Candidate is expected to complete all portions of the examination process by the fifth consecutive Academy meeting following acceptance into the program. At each Annual Meeting during this period, candidates may choose to take some or all of the parts of the examination for which they have become eligible. Candidates are encouraged to schedule their examinations over two or more years.

Candidates who have not completed requirements for Diplomate status within the requisite five-year period can apply for an automatic two year extension using the same procedures as new applicants. There will be a fee equal to that of new applicants to the Diplomate Program payable to the American Academy of Optometry. If requirements are not completed by the end of that two-year extension, individuals must re-apply and start the Diplomate process again from the beginning.

**Preparation for Case Reports and Examinations:** Details are provided about Case Reports and each of the examinations within this guide. Additionally, Candidates are assigned a mentor who provides further guidance. Direct contact with the Diplomate assigned to chair the Case Reports process or any of the four examinations allows for further instructions and guidance. Contact information for these individuals are located on the academy website. <https://www.aaopt.org/membership/sections-sigs/fellows-sections/fellows-sections-lowvision>.

Attendance at the Diplomate Prep course, low vision lectures, workshops, paper and poster sessions, symposia, and section meetings at the Annual Academy meeting is encouraged as useful additional preparation.

**Feedback on Progress toward Diplomate Status:** Candidates who take one or more examinations for Diplomate status during a given year will meet with the chair of that examination at the Annual Meeting to review performance and provide feedback. Candidates are also encouraged to work closely with their assigned mentors to assist them in areas that have been identified as needing additional study.

**Awarding of Diplomate in Clinical Low Vision: The Diplomate Executive Committee will make the final recommendation regarding an applicant for the Low Vision Clinical Diplomate after successful completion of all examinations and acceptance of all case reports. Names of approved nominees are forwarded to the Board of Directors of the American Academy of Optometry. Approved nominees are expected to attend the Annual Banquet at which they are officially introduced as new Clinical Low Vision Diplomates.**

**Renewal of Clinical Diplomate Status:** Diplomates are expected to document active and current involvement in low vision. Accordingly, Clinical Diplomates are expected to renew their status every five years, in years ending in "5" or "0". (The first renewal may be more than five years after completion of the program.) There are specific criteria assigning points for clinical and other activities. Diplomates must generate 25 points each five years. At least five points must be for clinical involvement, with at least one point in at least three of the five years. Details can be found on the Low Vision Section web page: <https://www.aaopt.org/membership/fellows-diplomate/fellows-diplomate_renewal>

 **III. Case Reports**

**Eligibility:** All Candidates are eligible to submit case reports.

**Purpose:** The purpose of the case reports requirements is not only to demonstrate knowledge in low vision rehabilitation, but also to demonstrate skills in communicating that expertise. Case reports inform the Diplomate Committee of a candidate’s mode of practice and guides design of that candidate’s subsequent Oral Examination. Successful preparation of reports requires considerable investment of time and effort,

and is the only part of the Diplomate examination process that does not take place at the

Annual Academy Meeting.

**Number and Types of Case Reports:** A total of five case reports are required involving comprehensive low vision rehabilitation care of patients with visual impairment.. These cases must meet specific topical requirements, as described below.

The number of required case reports can be reduced by up to 2 for candidates with qualifying publications, as described in “Published Articles Submitted In lieu of Case Reports” near the end of this section.

**Topical Requirements for Case Reports:**

Candidates are required to submit one case report in each of the following four categories:

1. retinal condition with central scotoma (i.e. age related macular degeneration)

2. diabetic retinopathy

3. oculocutaneous or ocular albinism

4. condition (i.e. retinitis pigmentosa or glaucoma) with resultant major peripheral visual field loss

Candidates must choose one additional category for the fifth case report:

1. homonymous hemianopia

2. multiple handicapped with low vision

3. pediatric (under age 16) with low vision

4. traumatic brain injury

Additionally, the following must be including in any one of the case reports:

1. fitting of a spectacle mounted telescope system

2. Assistive technology

3. psychologic assessment and impact on rehabilitation of the case

Two or more requirements can be met with a single case, such as with a child with albinism who is fitted with a spectacle mounted telescope. This does not, however, reduce the number of required case reports.

Cases should be selected that allow candidates to demonstrate their skills and expertise. Reports which describe solutions to interesting problems or involve difficult situations are generally preferred to reports in which care progresses predictably and smoothly. Additionally, cases which include follow-up care are preferred.

Questions about the appropriateness of a case or about meeting the topical requirements should be directed to the Case Reports Chairperson.

**Initial Case Report Submission:** The initial submission should be just one (1) case report and cannot be a publication submitted in lieu of a case report. This allows an initial case to be reviewed and returned to the candidate before work on subsequent cases begins. By waiting for the review of the initial case report, comments from referees can guide any required revisions and can help the candidate most successfully approach subsequent cases. Therefore, it is critical that candidates NOT send multiple cases reports as the initial submission. An example of a case report can be found on the Low Vision Diplomate Section website or by contacting the case report Chair.

**Eligibility for Other Examinations:** The number of case reports accepted determines eligibility for taking Diplomate examinations during the annual Academy meeting, as indicated below:

|  |  |
| --- | --- |
| **Examination** | **Pre-requisite** |
| Written | None |
| Ocular Disease | One (1) accepted case report |
| Practical | Three (3) accepted case reports |
| Oral | Five (5) accepted case reports |

**Timing and Deadlines:** Although case reports may be submitted at any time of year, the submission deadline to become eligible for examinations at an upcoming annual Academy meeting will coincide with the Academy’s scientific poster submission date with acceptance of case reports by two (2) month prior to the start of that meeting. Submission deadline will therefore alternate between 5 pm EST April 30 and 5pm EST May 31st to coincide with the alternating Academy meeting dates. Case Reports must be marked as accepted and candidates must declare their intentions to sit for examinations two (2) months prior to the start of the upcoming meeting. It is, therefore, recommended to have revisions back to the reviewers as soon as possible with a minimum of at least two (2) weeks before the acceptance deadline to guard against ineligibility within the calendar year. Please note this is not a guarantee the submitted case report will be accepted by the deadline.

If submitting at or just before the submission deadline, candidates can expect no more than three (3) case reports to be reviewed in time to establish eligibility for examinations at that meeting. To allow adequate review, no more than three (3) case reports should be submitted at or near this deadline. Acceptance cannot be guaranteed even when the case report(s) are submitted by the submission deadline as review and revision turnaround vary per candidate. It is not uncommon for a case to take between 2-4 months or longer to go from initial submission to final acceptance. Plan your case report submissions accordingly.

**Format and Submission Procedures for Case Reports**: Two documents are required: A cover letter and the case report itself. Information about the identity of the author should appear only in the cover letter. The cover letter should identify the author/candidate and tell what kind of case report is being written.

Case reports should include a Title Page as the first page of the report. It is critical that identifying information about the candidate is not included in the title page or the rest of the report. This is necessary to allow reviewers to be masked to candidate identity. Therefore, the title page (or case report, itself) must not include any identifying information such as candidate name, address, affiliations, or state of practice. The case report should be double-spaced with 1.5 inch margins. Lines should be numbered consecutively throughout the document (not restarting numbering on each page). Line numbering on the title page is optional, but all pages of the case report proper should include line numbering. Pages should be numbered, as well. The document should then be saved as a PDF to facilitate review. If candidates are unfamiliar with these features in their word processing programs, they may seek guidance from the Case Reports Chairperson or his/her mentor.

The cover letter and case report should be saved as separate files. Each case report and cover letter is to be submitted electronically as an e-mail attachment to the Case Reports Chairperson.

Please upload your work to <https://diplomate.aaopt.org/> and include the topical requirements you are attempting to satisfy with the chosen case report in the description box (i.e., one of the four core categories, a wildcard category, and potentially featured expertise criteria).

|  |
| --- |
| **Current Submission Example** |
| **Status**In Review |
| **Document**: \***Current File**: Case Topic #3 - Albinism Bioptic Telescopes V3.docx **Upload New File**:**CHOOSE FILE** |
| **Description**This case is attempting to satisfy the core requirement of OCA oculocutaneous or ocular albinism and the expertise criterion of BTS fitting of a spectacle mounted telescope system. **SUBMIT** |

Please send a follow up email to the case report chair notifying them that you have attempted to submit a case report to the portal to confirm that the submission was properly uploaded and received.

**Review of Case Reports:** Case reports are sent to at least two referees for review. Candidate identity must be masked, highlighting the importance for Candidates to avoid including any identifying information within their reports. The identity of referees is also masked from Candidates. Final decisions are made by the Case Reports Chair.

Some tips for revisions:

* It is recommended to compile feedback received from reviewers into your word processor and answer each comment using a font style emphasis of your choosing (bold or blue or green, perhaps).
* Please make any necessary modifications to your original case report text as recommended by the reviewers using your emphasis font.
* Finally, insert a new section break into your document and paste your compiled "Response to Reviewers" (if applicable) at the top of your revised case report (i.e., before the title page)
* Restart your continuous line numbering after your title page by selecting the option to restart numbering after each section.
* Submit this two-section composite revised document to the diplomate portal for second review when you are able.
* Avoid putting your name or identifying information in the response or *document filename itself*!

**General Writing Guidelines for Case Reports:**

 Explain all procedures, decisions, and impressions in detail without assuming that the reader knows what the candidate was thinking. The required level of detail is such that successful case reports are often at least twenty (20) pages in length.

● Insert appropriate literature citations in a format of your choosing to support methodologies or assertions

 Use clear, concise language.

 Avoid extraneous information.

 Proofread carefully for spelling, grammar, and typing errors.

 Avoid abbreviations and terminology that readers with different optometric low vision backgrounds might not understand.

 Avoid revealing candidate identity by avoiding mention of candidate name, practice name, institutional affiliations, state of practice, etc.

 Avoid revealing patient identity by using a pseudonym or fictitious initials.

**Specific Content Guidelines for Case Reports:**

1) Patient identification: pseudonym or fictitious initials, age, gender, and present or former occupation.

2) History

3) Examination

a) Visual status

i) Acuities

ii) Refractive error

iii) Reading performance

iv) Ocular motility and binocularity

v) Visual fields

vi) Other relevant visual functions, such as contrast sensitivity, color vision, response to high and low light levels, as indicated

b) Ocular status (including but not limited to)

i) Anterior segment

ii) Posterior segment

iii) Intraocular pressures

iv) Other relevant aspects of ocular status

v) Other specific diagnostic procedures, such as electrophysiology testing, as indicated

c) Selection and evaluation of low vision devices

 i) Discuss the range of available options.

ii) Indicate how general categories of options were selected for testing.

iii) Explain why specific low vision devices were selected for testing.

iv) Provide specific performance information for options tested.

v) Describe how patient performance was evaluated.

4) Impressions

a) Visual status

b) Ocular diagnosis and prognosis

c) Visual requirements, goals, and objectives

d) Special considerations for rehabilitation (e.g., patient age, cognitive status,

adjustment to vision loss, expectations and motivation, and availability of technology and support)

e) Consideration of patient management options (e.g., vision enhancement with optical, video, or electronic systems, vision substitution strategies, training,

support, referral, etc.)

5) Patient management plan

a) Recommend or prescribe glasses, devices, or other equipment

i) Specific items

ii) Rationale(s), including advantages and disadvantages

 b) Recommended training or services

i) Specific items

ii) Rationale(s), including advantages and disadvantages

 c) Counseling of the patient and any relevant caregivers

d) Response of patient and any relevant caregivers to counseling and to plan

e) Coordination of care with other care providers

6) Follow-up, return visits, and other subsequent contacts

 a) Outcome of patient management plan

b) Modification of patient management plan

7) Discussion, summary, conclusions: A general discussion of why you managed the patient as you did, what problems you encountered, problems you might have expected but did not encounter, and how you might have approached things differently if other resources had been available you.

8) References list demonstrating evidence basis for clinical practice pattern in case report

**Publications Submitted in Lieu of Case Reports:** After having at least one (1) case report marked as accepted, Candidates may request that a published article, paper, or book chapter be considered for acceptance in lieu of a case report, with a maximum of two such substitutions permitted. The publication cover letter must list the candidate contributions to the work, have appeared in an accepted journal or monograph (see list below), and relate to low vision rehabilitation.

Candidates wishing to have a publication considered must submit a cover letter and PDF file of the document to the Case Reports Chairperson. It will then be sent to a team of referees who will determine its acceptability as a substitute for a case report. If accepted, it will be specified as to which case report(s) criteria it may replace, with publications substituting for case reports on similar topics, whenever possible.

**Approved Publications** (source American Academy of Optometry website accessed 11/2021):

|  |  |
| --- | --- |
| *Acta Ophthalmologica*  | *Journal of Neuro-Ophthalmology*  |
| *American Journal of Ophthalmology*  | *Journal of Ocular Pharmacology and Therapeutics*  |
| *Annals of Ophthalmology*  | *Journal of Pediatric Ophthalmology & Strabismus*  |
| *Archives of Ophthalmology*  | *Journal of Refractive Surgery*  |
| *Arquivos Brasileiros de Oftalmologia*  | *Journal of Vision*  |
| *BMC Ophthalmology*  | *Klin Monatsbl Augenheilkd*  |
| *British Journal of Ophthalmology*  | *Molecular Vision*  |
| *Canadian Journal of Ophthalmology*  | *Neuro-Ophthalmology*  |
| *Canadian Journal of Optometry*  | *Ocular Immunology and Inflammation*  |
| *Clinical & Experimental Ophthalmology*  | *Ocular Surface*  |
| *Clinical and Experimental Optometry*  | *Ophthalmic and Physiologic Optics*  |
| *Contact Lens and Anterior Eye*  | *Ophthalmic Epidemiology*  |
| *Cornea*  | *Ophthalmic Genetics*  |
| *Current Eye Research*  | *Ophthalmic Plastic & Reconstructive Surgery*  |
| *Current Opinion in Ophthalmology*  | *Ophthalmic Research*  |
| *Cutaneous and Ocular Toxicology*  | *Ophthalmic Surgery, Lasers & Imaging*  |
| *Documenta Ophthalmologica*  | *Ophthalmologe*  |
| *European Journal of Ophthalmology*  | *Ophthalmologica*  |
| *Experimental Eye Research*  | *Ophthalmology*  |
| *Eye*  | *Optometric Education*  |
| *Eye & Contact Lens*  | *Optometry*  |
| *French Journal of Ophthalmology*  | *Optometry & Vision Development*  |
| *Gerentologist*  | *Optometry and Vision Science*  |
| *Graefes Archive for Clinical and Experimental Ophthalmology*  | *Optometry & Visual Performance*  |
| *Indian Journal of Ophthalmology*  | *Progress in Retina and Eye Research*  |
| *International Ophthalmology*  | *Retina, the Journal of Retinal and Vitreous Diseases*  |
| *Investigative Ophthalmology and Visual Science*  | *Review of Optometry*  |
| *Iranian Journal of Ophthalmology*  | *Revista Brasileira de Oftalmologia*  |
| *Japanese Journal of Ophthalmology*  | *Spektrum Augenheilkd*  |
| *Journal of AAPOS*  | *Survey of Ophthalmology*  |
| *Journal of American Geriatrics Society*  | *Vision Research*  |
| *Journal of Behavioral Optometry*  | *Visual Neuroscience*  |
| *Journal of Cataract and Refractive Surgery*  | *Vision Development and Rehabilitation*  |
| *Journal of Glaucoma*  |

**Questions and Concerns:** Questions concerning the submission and review of Case Reports should be directed to the Case Reports Chairperson or to the Chairperson of the Low Vision Diplomate Executive Committee.

**IV. Written Examination**

**Eligibility:** Candidates may take the written exam without any case reports being accepted.

**Purpose:** The written examination is designed to test and evaluate knowledge of all aspects of low vision rehabilitation patient care and management.

**Format:** This examination is administered at Annual Academy Meetings. It consists of fifty (50) multiple-choice items which evaluate knowledge in the six topic areas listed below, and five (5) essay items selected from nine (9) topics which evaluate analytic and management skills related to a specific low vision topic. Both the multiple-choice exam and the essay portion relate to the categories below. This is a closed book examination. No cell phones or other reference materials are allowed. Non-programmable calculators are allowed.

**Timing:** Three hours is typically allotted for this examination.

**Content:** The scope of this examination includes epidemiology, clinical presentations, examination procedures, diagnosis, prognosis, and management of low vision, and optical and non-optical, electronic and assistive technology low vision devices and referrals for appropriate resources and therapy.

Category I: Epidemiology and definitions related to visual impairment; and case history.

Category II: Observation and recognition of clinical signs of low vision; and examination techniques and procedures for the low vision patient including:

• measurement and notation of different methods of visual acuity testing

• objective and subjective refraction

• determination of the magnification needs of the patient

• determining the status of binocular vision

• measurement of the visual fields

• selection and demonstration of distance and near devices

• selection and demonstration of assistive technology

• assessment of the characteristics of printed materials and reading skills

• assessment of glare sensitivity and the effects of illumination

• contrast sensitivity testing, measurements and interpretation

Category III: Diagnosis, prognosis, counseling, coordination of care and management of the low vision patient including:

• prescribing of optical, non-optical electronic and assistive technology devices for distance intermediate and near viewing

• assessment of personal, social, vocational, avocational, and psychosocial patient needs

• assessment of disability status in the US and counseling on related benefits

• referral for non-optometric rehabilitation services

• follow-up care

Category IV: Telescopes including:

• magnification principles and characteristics of telescopes for distance intermediate and near, including field of view and image brightness

• vergence amplification

• fitting of bioptic telescopes and telemicroscopes

• verification of a telescope

• training patients in the use and care of telescopes

Category V: Microscopes, loupes, hand held and stand magnifiers including:

• magnification principles and optical characteristics

• effect of accommodation when using microscopes, loupes, hand held and stand magnifiers

• prescribing and fitting principles

• verification methods

• training patients in the use and care of microscopes, loupes, hand held and stand

magnifiers

Category VI: Other optical and non-optical devices including:

• optical principles and characteristics of visual field enhancement devices, contrast enhancement and glare control devices

• fitting of visual field enhancement

• types and uses of non-optical devices

• training patients in the use and care of visual field enhancement, glare control, and non-optical devices

Category VII: Assistive technology

• evaluation of patient for appropriate and available assistive technology

• interaction between assistive technology and optical magnification

• training patients in the use of assistive technology

**Scoring:** A score of 75% or better is required to successfully complete the written exam.

Equipment: Candidates are required to should bring their own non-programmable calculators. Smart phones and smart watches are not allowed as calculators. Candidates should also bring pen/pencil.

**Questions:** Questions concerning the administration of the Written Examination should be directed to Written Examination Chair.

**V. Ocular Disease Examination**

**Purpose:** The purpose of the AAO Low Vision Diplomate Ocular Disease Examination is to assess a candidate’s knowledge and clinical decision-making related to ocular diseases and disorders of the visual system that are important in low vision practice.

**Format:** This is a closed-book/closed-notes examination. The format of questions will be multiple choice, fill-in-the-blanks, short answer, and short essay.

Section I of the exam will be identification of ocular diseases presented in color images. One (1) minute is allotted for the identification of each image. There are approximately 25 color images which may include images of procedures such as FA, or OCT.

Section II of the exam involves multiple-choice questions about specific disorders.

Section III requires management of three (3) specific low vision cases. Answers are in the form of short answers or short essay.

**Timing:** Two hours are allotted for this examination.

**Scoring:** A score of 75% on each section is required for successful completion of the

Ocular Disease Examination.

**Equipment**: Candidates are required to bring their own nonprogrammable calculators. Smart phones and smart watches are not allowed as calculators. Candidates should also bring pens/pencils.

**Content:** A wide range of disorders may be covered by the examination. The following list is offered as a guide reflecting the main focus of the examination. Not all disorders listed will be on the examination and disorders not listed may be on the examination.

Achromatopsia

Age related macular degeneration

Age related maculopathy

Angioid streaks

Aniridia

Anterior ischemic optic neuropathy

Best disease

Branch vein occlusion

Cataract

Choroidal rupture with commotio retina

Choroideremia

Coloboma

Congenital cataract

Diabetic retinopathy

Epiretinal membrane

Glaucoma

Juvenile macular dystrophies

Macular holes

Marfan syndrome myopic maculopathy

Nystagmus (congenital) ocular albinism

Ocular histoplasmosis oculocutaneous

Albinism

Optic atrophy

Optic nerve hypoplasia retinal artery

Occlusions

Retinal detachment

Retinal vein occlusions

Retinitis pigmentosa

Retinopathy of prematurity

Rubeosis irides stroke toxoplasmosis

Herpes Simplex

Herpes Zoster

Optic Disc drusen

Retinal holes/tears

Secondary Glaucomas/risk factors:

Pseudoexfoliation syndrome,

Pigmentary dispersion syndrome

**Aspects of Disorders Covered on Examination: A. Diagnosis**

Know key clinical findings and any non-standard clinical tests required to make the diagnosis.

Know key differential diagnoses and associated systemic conditions, if any.

Know basics of the underlying pathogenesis.

**B. Recognition of Major Sub-types**

Know major clinical sub-types of certain disorders, including features such as eligibility for treatment, prognosis, visual consequences, hereditability, and systemic complications.

Example: Know important sub-types for disorders such as diabetic retinopathy, age related macular degeneration, and oculocutaneous albinism.

**C. Medical and Surgical Treatment**

Know main current medical and surgical treatments for each disorder and its main sub-types.

Know basic eligibility criteria and procedures involved in these treatments.

**D. Disease Course with Treatment**

Know expected outcomes with various treatments by disorder.

**E. Natural History without Treatment**

Know expected outcomes without treatment by disorder.

**F. Visual Consequences**

Know range of clinically measurable vision deficits associated with specific disorders.

**G. Distinguishing Aspects of Low Vision Rehabilitation**

Know specific rehabilitation goals or management options and issues in co- management and patient counseling which are particularly likely to be of value in a given disorder based on the disease course, natural history, visual consequences, and state of the art in low vision management. Quantitative answers, i.e., calculation of magnification, may be required.

Certain rehabilitation professionals (OT's, O&M instructors) may also be necessary to include in rehabilitation as a patient's visual condition changes. Know which professionals may be important to assist a patient adapt to his or her vision loss as well as what basic components of that professional's approach and expertise will do in assisting the patient adapt.

**Image Recognition:**

The images presented will include images of anterior and posterior segments, and may include images of fluorescein angiograms, visual field test results, OCT, or other clinical tests.

The images presented are intended to determine whether the candidate can recognize key distinguishing features of a photographic/digital image and can select the most likely ocular diagnosis. For example, what features would allow one to differentiate maculopathy caused by ocular histoplasmosis from maculopathy caused by exudative age-related maculopathy or toxoplasmosis?

Since a photographic image of an eye generally contains less information than is available when examining an actual patient, supplemental information will accompany some images, when necessary.

Clinical experience with ocular examination, understanding of clinical presentations of various disorders, and review of published photographs would be expected to be useful in preparing candidates for this section.

**Disease Management Topics:**

Candidates should be familiar with the results and clinical implications of certain important clinical trials including:

DRS (Diabetic Retinopathy Study)

ETDRS (Early Treatment Diabetic Retinopathy Study) DRVS (Diabetic Retinopathy Vitrectomy Study)

RESTORE

AREDS (Age-Related Eye Disease Study)

AREDS 2

MARINA, CATT

Randomized Trial of Vitamin A and E Supplementation for Retinitis Pigmentosa

Randomized Trial of DHA Supplementation for Retinitis Pigmentosa

The Status of RPE65 Gene Therapy Trials: Safety and Efficacy

**Review of Ocular Disorders and Implications for Low Vision Care:**

The following sources have information that may be useful for candidates in preparing for this examination.

The Lighthouse handbook on vision impairment and vision rehabilitation. (2000). New York: Oxford University Press.

Brilliant, R. Essentials of low vision practice. (1999) Woburn, Massachusetts. Butterworth-Heinemann.

Alexander, L., Primary care of the posterior segment. (3rd edition) (2002) New

York: McGraw Hill.

Nowakowski, R. Primary low vision care. (1994) East Norwalk, Connecticut. Appleton and Lange.

Jose, R. Understanding low vision. (1983) New York: American Foundation for the Blind.

Faye, E. Clinical low vision (2nd edition). (1976) Boston: Little, Brown.

https://ClinicalTrials.gov website

**Questions:** Questions concerning the Ocular Disease Examination should be directed to the Chair of the Ocular Disease Exam.

**VI. Practical Examination**

**Eligibility:** The candidate must have at least three case reports accepted to take the practical exam.

**Format:** This examination has two parts: 1) examination of a low vision patient and

2) verification of optical and electronic low vision devices. Both parts are usually administered in a clinical setting near to the site of the Annual Academy Meeting.

**Part 1. Examination of a Patient with visual impairment**

**Format and Procedures:** A patient will be examined by the candidate. Candidates are to obtain a case history and all objective and subjective data necessary to determine the disposition of the case. The primary focus is on the candidate’s approach to the patient's rehabilitation goals and visual capabilities and specifically to observe how you perform a low vision exam and think through the prescribing options that will address the goals of the patient.

Candidates will be observed throughout the examination by two or three proctors who are clinical low vision Diplomates**.** Throughout the examination, candidates are expected to narrate out loud all of their clinical procedures and thought processes. It is critical that candidates discuss out loud just what they are doing and why during the entire examination.

Proctors are most interested in the following:

1. Rapport established with the patient.

2. Tests performed and the skill displayed.

3. Knowledge of low vision devices/aids and why they were selected.

4. Data analysis and recommendations made.

**Timing:** Candidates have an initial 15 minutes to set up and prepare the exam room. They then have a maximum of one hour for the examination. In this limited time, they

are not expected to perform a complete examination. In the interest of time, proctors

may ask that some procedures be skipped and simply provide candidates with the data that would have been obtained.

The timing of the examination is as follows:

CASE HISTORY (What is major area of concern)

(Approximate time 15 minutes)

ACUITIES (Relate them to case history) (Approximate time 10 minutes)

SUBJECTIVE REFRACTION

(Approximate time 15 minutes)

OTHER TESTS (Indicate what you would do and why -- Data may be available)

MAGNIFICATION (Indicate devices of choice and why, indicate other devices that may be useful to the patient and why) (Approximate time 15 minutes)

TRAINING: (Demonstrate in-office training, indicate additional training needed and problems expected for this patient and your RX) (Approximate time 5 minutes)

END EXAM

DISCUSSION: (15 minutes is allowed for proctors to discuss with you any procedures or techniques used in your exam.)

CASE WRITE UP: (You will have 15 minutes to complete your impressions in the case, tentative diagnosis, tentative RX and possible problems in motivation and training that you might expect from this patient. PLEASE PRINT)

After the examination of the patient is complete, candidates then have fifteen minutes to write their final recommendations. These recommendations should include everything important to the rehabilitation of the patient.

**Equipment**: Most of the equipment needed to examine the patient will be provided, but candidates are welcome to bring their own equipment. Also, candidates who have preferred low vision devices or instruments may elect to supply them themselves. If a candidate would normally do a procedure and does not see the equipment to do it, he or she should mention it.

Candidates are required to bring their own nonprogrammable calculators. Smart phones are not allowed as calculators. Candidates should also bring pen/pencil.

Examination Form: An examination form will be provided to the candidate to document their findings and their rehabilitation plan for their patient.

**Part 2: Verification of Optical Devices:**

**Format and Procedures:** There are four sections to this test and a total allotted time of

30 minutes for completion.

Section 1 – Measure or calculate the following properties of an “unknown” fixed focus stand magnifier:

a) dioptric lens power

b) transverse magnification

c) image location

d) the equivalent power or equivalent viewing distance of the system for a 40 cm eye to image distance.

Candidates are provided with a close focus telescope, a tape measure

and a one (1) meter sized target.

Section 2- Measure or determine the following properties of an “unknown” telescope:

a) magnification

b) near focus range

c) type of system (i.e. Keplerian vs. Galilean)

Candidates are provided with a repeating (i.e. periodic) target, a millimeter

ruler, and metric tape measure.

Section 3-Determination of the equivalent power of a lens

Section 4-Determination of the equivalent power of a portable electronic

magnifier

**Timing:** 30 minutes to complete these tasks.

**Equipment:** Candidates are required to bring their own nonprogrammable calculators.

Smart phones are not allowed as calculators. Candidates should also bring pen/pencil, tape measure, PD stick.

**VII. Oral Examination**

**Eligibility:** The candidate must have five (5) case reports accepted and to have passed the written, disease and practical examinations to be eligible for the Oral Examination.

**Purpose:** This examination provides an opportunity for candidates to more fully reveal their particular approach to low vision work and the depth and breadth of a candidate’s knowledge and experience. A major objective is to assess the candidate’s understanding of core low vision principles. The interview also offers candidates the opportunity to justify methods and rationales.

**Equipment**: None

**Format:** In a congenial and professional atmosphere, the candidate will be asked questions, some theoretical and some practical. The questioning on a particular topic

will often start with a broad question (e.g., “Describe the procedures you generally use in refracting low vision patients”) and then, as the candidate responds, become more focused (such as, “Why do you do that?” “Do you always do it that way?” “Do you

control lighting?” “How?”).

The Chair will structure the interview to include questions to gain insight into strengths and weaknesses of the candidate as revealed in previous Diplomate examinations and Case Reports/accepted articles.

Questions demanding knowledge of details or computational skills will be kept to a minimum.

**Timing:** 45 to 60 minutes are typically allotted for the Oral Examination.

**Questions:** Questions concerning the administration of the Oral Examination should be directed to chair of the Oral Examination.