

**THE AMERICAN ACADEMY OF OPTOMETRY**

**SECTION ON CORNEA, CONTACT LENSES AND REFRACTIVE TECHNOLOGIES CLINICAL DIPLOMATE CANDIDATE’S GUIDE**

# CLINICAL CANDIDATE’S GUIDE

Diplomates of the Section on Cornea, Contact Lenses and Refractive Technologies are Fellows of the American Academy of Optometry who are recognized for their knowledge and expertise in cornea; contact lenses and/or refractive technology. Diplomates of the section have both a deep and broad base of knowledge in all phases of corneal anatomy and physiology with an emphasis on either clinical contact lens or refractive technology. For those who have expertise in cornea, contact lenses or refractive technology but do not provide patient care, please see the guidelines for the Research Diplomates of the section.

# Candidates’ Welcome

Welcome! We believe that the process of becoming a Diplomate is a rewarding one. Not only will you profit from the study, research, preparation and assembling of reports, but you will also achieve satisfaction and recognition in the validation of your mastery. You will meet colleagues from all parts of the world who share mutual interests, and to whom you may refer patients and discuss both clinical and research topics with confidence. After you have successfully completed this process, we hope you will remain curious about new advances in both contact lenses and refractive technologies and that you will accept new responsibilities and other leadership activities in lecturing, writing, and teaching within the section and among our colleagues. We encourage participation in the American Academy of Optometry Annual Meeting.

This guide contains the requirements and procedures for becoming a Clinical Diplomate in the Section on Cornea, Contact Lenses and Refractive Technologies of the American Academy of Optometry.

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*Please note that this guide supersedes all previous information and instructions.*

# Requirements for Becoming a Candidate

The following are a list of requirements for all candidates who are interested in becoming a Clinical Diplomate in the Cornea, Contact Lenses and Refractive Technologies Section:

1. Be a Fellow in good standing of the American Academy of Optometry (AAO).
2. Submit an application form online <http://www.aaopt.org/cclrt>indicating your desire to become a Diplomate of the Section.
	* The application can be initiated at any time and you will have **five years** to complete the requirements.
	* You will submit a current curriculum vitae during the application process.
	* There is an application fee of $100 (made payable to the AMERICAN ACADEMY OF OPTOMETRY).
	* You will submit a head and shoulders photograph of yourself.
	* You will need to identify which track/emphasis you are interested in pursuing:
3. Clinical Diplomate:
	1. Cornea and Contact Lenses (CL emphasis)
	2. Cornea and Refractive Technologies (RT emphasis)
4. Research (non-clinical) Diplomate (see research track guidelines)

# Overview of the Diplomate Process

After the acceptance of your application, you will have up to five years to complete the following four requirements to achieve Diplomate status:

1. Case reports (7)
2. Written examination
3. Practical examination
4. Oral examination

## Case Reports

Case reports are the only portion of the process that is not conducted **at** the American Academy of Optometry Annual Meeting. One case report must be submitted to and accepted by the Case Report Committee before the written or practical examinations can be taken.

## At the American Academy of Optometry Annual Meeting

There are many opportunities for participating with the Section during the annual American Academy of Optometry meeting. For example, attendance to Cornea, Contact Lens and Refractive Technology lectures, receptions, symposiums, posters and paper sessions is encouraged. Not only is it the time to

take examinations to progress in the process, but it is also where candidates will receive feedback from the Diplomate Award Committee and have the ability to meet with them and other mentors who can assist in the process. PLEASE confirm the dates and times of the events (below) with the Diplomate Award Committee PRIOR to making hotel and airline reservations to ensure full participation. Meeting times and locations will be also noted on the Academy Schedule and in the AAO meeting “App”.

## Diplomate Preparatory Course

A preparatory class is recommended as useful additional preparation for the process. It is also an opportunity to be introduced to other candidates as well as Diplomates in the leadership.

## Welcome Breakfast / Orientation Meeting

All prospective and active candidates should attend the Orientation Meeting. The members of the Diplomate Award Committee will help further acquaint you with the goals of the Section and with the requirements and procedures for achieving Diplomate recognition. It is also another opportunity to meet other Diplomate candidates and Diplomates. At this time, let the Diplomate Award Committee know your cell phone number so you can be efficiently contacted during the Annual Meeting.

## Written Examination

The written examination is offered once at each American Academy of Optometry meeting. Please inform the Diplomate Award Committee of your intentions of taking the examination.

## Practical Examination

The practical examination is offered once at each American Academy of Optometry meeting at an off-site location. Please inform the Diplomate Award Committee of your intentions of taking the examination.

## Oral Examination

The oral examination is conducted at the completion and passing of all of the case reports and the written and practical examinations. The oral examination will be scheduled by the Diplomate Award Committee.

## Awarding of Diplomate Status

Upon successful completion of the process, candidates are nominated for Diplomate status. The candidate will be expected to attend the CCLRT Section *Reception Honoring the New Diplomates* and the Academy’s *Recognition Gala and Awards Program*, at which you will be introduced as a new Diplomate.

## Application Re-Submission

All requirements must be completed within a five year period. Failure to satisfy the requirements during that period will necessitate a re-submission of an application including a non-refundable fee. It may also require retaking all parts of the examinations. Any and all parts of the examinations are encouraged to be taken as soon as possible in order to advance toward recognition as a Diplomate.

# Case Report Requirements and Writing Guide

## General Information

The goal of the case report requirement, like all portions of the Diplomate process, is for you, the candidate, to demonstrate and communicate your advanced competence in key areas of cornea, contact lens and refractive technology management and care.  To that end, it is important that you write this report in a manner that demonstrates to the reviewer your knowledge, skill and problem-solving acumen.  To that end, it is not necessary to include every test performed or every image taken.  However, it is not acceptable to include so little that the reviewer cannot ascertain whether a successful patient outcome was achieved by chance or true ability.  Cases that present a problem or challenge, describe a number of possible solutions to the challenge and then apply logical reasoning and good clinical judgment with the pathway taken are superb.  However, even better is a case in which a first-choice option is taken and the result is not what was anticipated and the candidate was required to rethink their original plan and formulate a new plan. The idea is to stay simple in description and go deep in self-analysis and evaluation. The case reports are the most arduous and time-consuming part of the examination process and are the only requirement not conducted at the Annual Academy Meeting.

All candidates are required to submit and have accepted **seven written case reports** in designated areas.

* There are three areas (see columns on the chart of page 8) from which case reports can be selected:
	+ **Cornea** (column A)
	+ **Contact Lenses** (column B)
	+ **Refractive Technologies** (column C)

### Cornea (column A)

* + The purpose of this section is the treatment of a corneal condition. If the patient happens to wear contact lenses, please discuss the contact lens as well but emphasis should be on the therapeutic treatment of the corneal condition.

### A Clinical Diplomate Candidate with an emphasis in Contact Lenses can select:

* + A minimum of 2 cases from Cornea (column A)
	+ A minimum of 4 cases from Contact Lenses (column B)
	+ Plus one case from any column
	+ ***Scleral lens cases may be used in a maximum of two of the seven total cases.***
	+ ***Soft contact lenses may be used in a maximum of two of the seven total cases.***
* **A Clinical Diplomate Candidate with an emphasis in Refractive Technologies** can select:
	+ A minimum of 2 cases from Cornea (column A)
	+ A minimum of 4 cases from Refractive Technology (column C)
	+ Plus one case from any column
* All patients reported on should have been followed for a **minimum of six months** unless otherwise indicated.
* **One unique case** can be used per candidate. The unique case must be accepted by the Case Report Committee for approval.
* **A maximum of two publications** in a peer-reviewed indexed journal may substitute for a case report.
	+ The indexed journal must appear in a searchable data base (i.e. MedLine, PubMed).
	+ The candidate must be first or corresponding author.
	+ The publication must be approved by Case Reports Committee.
	+ The publication must relate to the category in which the publication is being submitted.
		- For example: a publication on keratoconus may be substituted for case report #11, Lens fitting: Keratoconus or Pellucid: GP/Scleral/Specialty Soft or Hybrid lens(es)
	+ Consideration will be given to applicants pursuing the Clinical Diplomate Award who are no longer see patients or do not have files that might satisfy a specific case report requirement. In lieu of writing a case report, a topic will be assigned relating to that particular requirement.

## Case Report Submission

* After receiving confirmation of application acceptance from the Diplomate Award Committee Chair, submit the first case report to the Case Reports Committee along with the category that it fulfills.

### DO NOT SEND ALL 7 CASE REPORTS IN AT ONCE.

* Once the Case Reports Committee returns the first accepted report, begin work on the rest of the case reports.
* If it is returned for revision, revise the case report based off the comments and critique from the referees.
* In order to sit for an examination, the first (or last) case report (after deemed acceptable by the mentor) must be**submitted to the Case Report Chair at least 10 weeks prior to the start of the Annual Meeting.**
	+ Early submission is strongly encouraged to allow adequate time for revision. Revisions are frequently necessary and must then be regraded.

### Allow for, at minimum, four weeks for each grading cycle.

**Case Report Categories Chart**

|  |  |  |
| --- | --- | --- |
| **Column A****(2 cases minimum)** | **Column B****(4 cases minimum for CL Candidates)** | **Column C****(4 cases minimum for RT Candidates)** |
| **CORNEA CASES (patient does not need to be a CL wearer):** | **CONTACT LENS CASES** | **REFRACTIVE TECHNOLOGY CASES** |
| 1.Treatment/management of severe dry eye/lacrimal apparatus disease | 7.Corneal (<12mm) GP lens fitting: Refractive Error >= -8.00 | 15.Hyperopic LASIK case, discussing differences in strategy compared to myopic treatment |
| 2.Treatment/management of severe ocular allergy | 8.Corneal (<12mm) GP lens fitting: Refractive Error >= +3.00 | 16.Management of case that required retreating due to outcome/complications |
| 3.Treatment/management of corneal dystrophy, degeneration or ectasia | 9.Corneal (<12mm) GP lens fitting: Bitoric>= -3.00 cylinder/toricity | 17.Photorefractive Keratectomy (PRK) including strategy compared to LASIK |
| 4.Treatment/management of infectious corneal disease | 10.Rigid (any size) lens fitting: Front surface toric design | 18.Corneal Cross-Linking (CXL) case and/or Intracorneal Ring segments, including rationale |
| 5.Management of patient with systemic disease that includes corneal involvement | 11.Lens fitting: Keratoconus or Pellucid: GP/Scleral/Specialty Soft or Hybrid lens(es) | 19.Phakic intraocular implantation, including rationale vs. corneal-based procedure |
| 6.Treatment of cornea with Phototherapeutic Keratectomy (PTK) | 12.Lens fitting: Bifocal/multifocal | 20.Refractive lensectomy case (clear lens extraction). Include rationale for IOL model selected. |
|  | 13.Lens fitting: after Corneal Surgery | 21.Treatment/management of refractive surgery patient who experienced complications |
|  |  14.Myopia Control: Pharmacological, Orthokeratology or other contact lens | 22.Treatment/management of refractive surgery patient who with systemic disease implications |
|  | 25. Lens fitting of an irregular cornea (not KC or surgery induced): GP/scleral/specialty soft or hybrid lenses. | 23.Pre and Postoperative management of a patient receiving a toric or multifocal IOL after cataract removal. Include rationale for IOL model selected. |
| 24. Unique case-must be approved by Case Report Committee |

\*2 scleral lens cases maximum

\*2 soft contact lens cases maximum

\*2 peer reviewed indexed publication substitution maximum (to be approved by Diplomate Award Committee member(s))

## Case Report Category Updates

From time to time, the Section Executive Committee will make changes to specific case report category requirements. You will be required to satisfy the new category requirement(s) if you have not previously done so. An exception will be made if the committee is aware that you are currently working on a case report to satisfy that particular category, or if you have previously submitted a report to satisfy that particular category and are preparing that report for resubmission.

## Case Report Format

* 1. Case reports should be submitted double-spaced using Microsoft Word, with pages numbered. Use of line numbering is encouraged to make it easier for referees to identify specific items for review or comment. Graphic images should be attached as jpeg files or embedding in the case report document. Use image compression or reduce the size and/or resolution of images submitted as possible before embedding in your document. Contact the Case Reports Committee if you are unfamiliar with file compression techniques. **Total file should not exceed 2MB.**
	2. Your name and address should appear in the body of the submission email only, but NOT in the case report. The cover page of the case report should include:
		1. Your Candidate ID number: This is assigned upon starting the Diplomate process.
		2. The case report category that you are intending to fulfill. (For example: Case Report #1: Category #13 (Column B) Lens fitting after Corneal Surgery).
	3. The Case Report Committee will assign each report a coded number and will forward the reports to two referees who are Diplomates in the Section. This requirement will ensure that the eliminating any potential bias. Avoid references to institutions that may identify you personally.
	4. The purpose of the case report is to not only demonstrate topic expertise but also to successfully communicate this expertise. Do not assume that the readers know what you are thinking. *Explain everything in detail, including your thought processes,* especially with regards to diagnosis and treatment. If a test was not reported, it is assumed that it was not done. Reports that solve problems and deal with difficult clinical situations are more highly regarded and acceptable than mundane reports where all the clinical findings are perfect.
	5. Record data in a manner that is easily understood by everyone. It is acceptable to record findings as "normal,” if those findings have no bearing on the case being discussed. For instance, if the candidate is describing the appearance of the cornea after contact lens wear, “normal” is simply not sufficient. Readers from a different background as yours may not understand your "shorthand" or conventions so please stay with standard optometric abbreviations. If unsure, it is recommended to avoid abbreviations completely.

Do not record extraneous information. (For example, if you did not perform a dilated fundus examination at a 1 week contact lens follow-up, please do not include this information.)

* 1. Tables are encouraged to make the paper more easily readable.
	2. Write in a clear, concise manner. **PLEASE PROOFREAD YOUR REPORTS CAREFULLY** and use spell check. Approach the case reports as if they to be submitted for publication in a peer- reviewed scholarly journal.
	3. If English is not your native language, consider having a native English speaker who has an understanding of optometry to help proof read the paper especially for grammar and syntax.

# Case Report Submission Progress

CASE REPORT PROGRESS IS REQUIRED BEFORE PROCEEDING TO THE EXAMINATIONS.

At least one case report (not a substituted published paper) must be accepted before the candidate is eligible to take the written or practical examinations. The initial case report must be submitted at least **10 weeks prior to the Annual Meeting** before either of the required examinations can be taken. Keep in mind that revisions are frequently necessary, and each grading cycle may take up to four weeks.

Therefore, in order to have the case report passed before the Annual Meeting, the case report should be submitted as early as possible to allow time for any revisions.

**Case Report Checklist**

Below is a checklist of items required before submission to the Case Reports Committee via email. Materials should be provided in the following order.

* The case report should be written in Microsoft Word with double spacing, line numbers, written in a style similar to that of a peer reviewed journal (third person’s point of view), and formatted according to the instructions above and in Appendix A.
* Title page
* Title, Case Report Number/Category, Candidate Number
* Abstract (limit: 150 words)
* Text
* References
* Figure Legends
* Tables
* Figures

**See Appendix A for Case Report Composition Details**

**Appeals Process**

The section does its best to have expert reviews. Understand that many good case reports may be rejected or require substantial revision. View each case report as an individual learning opportunity. Reviewers are encouraged to provide constructive criticism that is meant to aid in your professional growth. If you feel that the case report reviews are not objective and that you deserve another evaluation, please address this issue with the Diplomate Award Committee at any time.

# Revisions

If a case report is sent back for revision, please attach a cover letter stating how and where in the case report the concerns by the reviewers have been addressed. It is also helpful to return the revision to the Case Report Committee with highlighted print (for example *italics*) where changes to the original submission have been made or by using the “Track Changes” option in Microsoft Word.

# Examinations

## Scheduling

IF YOU ARE TAKING AN EXAMINATION FOR THE FIRST TIME OR ARE REPEATING PARTS OF THE EXAM, YOU SHOULD NOTIFY THE DIPLOMATE AWARD COMMITTEE CHAIR OF YOUR INTENT PRIOR TO THE ANNUAL MEETING AND SCHEDULE YOURSELF ACCORDINGLY.

You may sit for the written and practical in separate years or together in one year as long as the above requirements are met.

## Written Examination

The examination is comprised of three major topics: cornea, contact lenses and refractive technologies. All Clinical Diplomate Candidates are responsible for a high level of knowledge in the topic of Cornea; however, those with an emphasis in Contact Lens will have more contact lens questions and similarly those with an emphasis in Refractive Technology will have more refractive technology questions.

|  |  |  |  |
| --- | --- | --- | --- |
| **% of Written Questions** | **Cornea****Questions** | **Contact Lens****Questions** | **Refractive Technologies****Questions** |
| **Contact Lens Emphasis Candidates** | 40-65% | 45-65% | 5-15% |
| **Refractive Technology****Emphasis Candidates** | 45-65% | 5-10% | 30-65% |

The examination format may contain various media, with fill in the blank and multiple choice questions at the discretion of the author; some calculations may be required. Questions and calculations will attempt to remain germane to clinical practice. The following is a guide for studying and is not meant to exclusively identify all topics that might be covered on the written examination.

### Cornea Questions

Cornea questions are designed to evaluate your knowledge of the Cornea and Anterior Segment. The examination will cover anatomy, physiology, pathology, pathophysiology, identification and differential diagnosis of conditions of the adnexa, anterior segment and cornea. Most particularly, questions will be focused on both normal and atypical responses of these tissues to contact lens wear and/or surgical procedures. Treatment options for these conditions will also be covered.

* Knowledge of basic cornea and anterior segment anatomy and physiology.
* Ability to identify and differentiate pathologies related to contact lens wear or refractive surgery.
* Ability to identify and differentiate pathologies as induced by other ocular/systemic diseases.
* Identify differential diagnosis of conditions of the adnexa, anterior segment and cornea.
* The influence of contact lenses and refractive surgery on the metabolism, transparency, and integrity of the cornea and conjunctiva.
* Identify certain conditions as being contraindications for contact lens wear or refractive surgery.
* Biomicroscopy techniques used in contact lens practice.
* Pharmacology and other treatment of cornea and anterior segment disease, as well as potential complications of contact lens and refractive technology applications.
* Understanding the imaging of the cornea and structures that help maintain a healthy ocular surface (topography, OCT, profilometry, meibography, aberrometry, etc.) as it relates to contact lenses and refractive surgery.
* Dystrophies and degenerations of the adnexa, cornea and anterior segment.

### Contact Lens Questions

Contact lens questions are intended to primarily test and evaluate your knowledge and skill in the application and management of contact lenses in a clinical setting. Topics include though not exclusive to the following:

* Familiarity with current contact lens literature.
* Familiarity with all types of contact lens designs and modalities (i.e. corneal, scleral, hybrid, gas permeable, hydrogel, silicone hydrogel, piggyback).
* Familiarity with contact lens materials and care systems.
* Major historical developments in contact lens technology.
* Prognosis and contraindications of contact lenses when applied in particular patient scenarios.
* Biomicroscopy technique as applied to contact lens practice.
* Principles of types of contact lenses. (e.g., myopia control lenses, multifocal lenses).
* Clinical application of the optics of contact lenses and a comparison to the spectacle lens correction of the refractive error.
* Design, construction and fitting techniques of various types of modern contact lenses.
* Fitting of specialty contact lenses (e.g. toric, bitoric, aspheric, hybrid, scleral, bifocal, orthokeratology, aphakia, myopia control, etc.)
* Management of the contact lens patient, including training, wearing schedules, post- fitting care, complications, etc.
* Various fitting philosophies of all types of contact lenses.
* Pharmacology and contact lens hygiene related to contact lens practice.
* Understanding of topographical analysis of the cornea as it relates to contact lens fittings.

**Refractive Technology Questions**

Refractive Technology questions are intended to primarily test and evaluate your knowledge and skill in the management of refractive surgeries in a clinical setting. Topics include though not exclusive to the following:

* Familiarity with current refractive technology literature.
* Familiarity with different types of refractive surgeries (i.e. intraocular lenses, corneal surface surgeries, inlays, laser-guided procedures, corneal collagen crosslinking, intracorneal ring segments).
* Major historical developments in refractive technology.
* Prognosis and contraindications of refractive technology when applied in particular patient scenarios.
* Biomicroscopy technique as applied to the refractive technology practice.
* Principles of refractive technology (e.g., laser surgery, refractive implants, corneal reshaping).
* Clinical application of the optics of corneal surgery and intraocular lenses and a comparison to the spectacle lens correction of the refractive error.
* Management of the refractive technology patient, including consent, pre-surgical evaluation, surgical technology and technique, post-surgical care, complications, etc.
* Various philosophies of different refractive technology surgeries.
* Pharmacology related to refractive technology practice.
* Understanding of topographical analysis of the cornea as it relates to refractive surgery.

## Practical Examination

The practical examination is designed to evaluate clinical skills in patients who have cornea, contact lens or refractive technology issues. It will stress biomicroscopic evaluation of patients but may include diagnostic instrument (e.g. corneal topography, OCT or pachymetry) interpretations.

For those Diplomate Candidates with an emphasis in Contact Lenses, it will also likely test skills in the fitting of contact lenses, identification and measurement of contact lenses, use of contact lens instrumentation, contact lens care systems and evaluation of lenses in situ.

For those Diplomate Candidates with an emphasis in Refractive Technologies, it will test your examination/observation skills related to refractive surgery patients and case presentation scenarios.

The practical examination is typically conducted at an eyecare office or clinic/school in the area. The exact location and information about transportation to and from the site will be provided. Four or five hours are usually allocated for this examination. Lunch is typically provided at the examination site.

## Oral Examination

After successful completion of your case reports and all other tests, you will be eligible to sit for the oral examination. This oral examination allows you to demonstrate your mastery of knowledge in all of the areas covered by your Diplomate designation. **The oral exam is not intended to be limited to a strict defense of your case reports and examinations. Rather, it will be your opportunity to prove that you have a high level of knowledge in all aspects of the field of cornea, contact lenses and refractive technologies appropriate to the designation.**

The oral examination is usually administered by three current Diplomates and will last approximately two hours. Typically, there will be a past Section Chair, an educator, and a clinician on the examining committee. When you are eligible to sit for the oral examination, the Diplomate Award Committee will schedule your oral examination for you. You are expected to be very flexible with regard to the time schedule for the oral examination; it is best that your schedule is not full of lecturing/presenting commitments for that year.

## Repeating Examinations

Failure of any one part of the examination necessitates a repetition of that entire part of the examination at a subsequent meeting of the Academy. Those parts of the examination completed successfully need not be repeated unless your application period has expired. If any portion of the written and/or practical examinations are not successfully completed, you must make additional progress on any outstanding case reports before you will be allowed to retake the remaining examination sections the following year. Such progress is defined as having one additional case report accepted prior to the Annual Meeting.

# Annual Interviews

All active candidates in the examination process will have an annual interview scheduled during the Annual Meeting. You should be in contact with the Diplomate Award Committee Chair prior to the Annual Meeting (or at the Orientation Meeting/Welcome Breakfast at the latest) to schedule this interview. You are expected to have some flexibility to make this appointment – commitments for lecturing/presenting can be accommodated, but desire to attend courses/workshops is not a sufficient reason to deny an opportunity for this interview. Few candidates complete all phases of the examination in one year.

# Completion

After completion of the CCLRT Diplomate requirements, you will be nominated to the AAO Board as a Diplomate in the Section on Cornea, Contact Lenses and Refractive Technologies. After accepted, it is expected that you attend the CCLRT Section *Reception Honoring the New Diplomates* and the Academy’s *Recognition Gala and Awards Program*, where you will be introduced as a new Diplomate at each event.

# Final Advice

Everyone involved in the Diplomate process of the American Academy of Optometry has previously completed the process themselves. It is a rewarding professional goal that sets you apart from your colleagues. It is a designation that is held in high esteem within our profession. It is not intended to be simple or easy, but is intended as a growth experience and to validate a candidate’s mastery in the area of emphasis.

Every Diplomate in any of the Academy’s Sections will tell you that it was a great personal experience. It will require a review of your clinical techniques, a solidification of your thinking in many clinical areas, and force you to review textbooks and journals which are the foundation of the clinical work that we do every day. We wish you good luck in the process and are here to help and guide you if you wish to move forward in the process. In addition to the official representative (Section Chair, Diplomate Award Committee Chair, Case Reports Committee, referees, exam proctors), any Section Diplomate would be more than happy to offer you his or her time to assist you in the process. Please do not hesitate to use all of these resources at any time throughout the process.

# Appendix A: Case Report Composition

Please refer to the sample cases that are posted online: https://[www.aaopt.org/membership/sections-](http://www.aaopt.org/membership/sections-) sigs/fellows-sections/fellows-sections-cclrt/fellows-sections-cclrt-diplomate

Case reports, which are typically 20 to 25 pages in length, must contain the following information:

## Abstract

Include a structured abstract of 150 words or less with the following headings:

* + Purpose
	+ Case Report
	+ Discussion

## Introduction

Describe the purpose of the case report, the clinical problem illustrated in the report, and any major findings that will constitute the focus of the report. The Introduction should highlight the unique elements of this individual case in the context of the more general clinical entity that is represented by the findings presented in the following sections.

## Results

The case report results are a detailed report of the case history; chief complaint including symptoms; signs; diagnosis; and treatment of the patient. It should also include the date and time of these clinical observations as well as any supplementary material relevant to the diagnosis and management of the patient. Charts such as the ones detailed below can be used for the diagnostic testing results; however, text in prose format should be used for the rest of the case report.

### Chief Complaint

* + When providing patient information, it is important to maintain HIPPA compliance. All identifying names and birthdates must be deleted from text and concealed on any included graphics such as corneal topographies. Patient age, gender, occupation and hobbies should be reported without violating HIPAA regulations.
	+ **List the dates of all relevant visits:** This helps the Case Reports Committee confirm that the minimum follow-up requirement (6 months) has been met.

### History

* + Include a complete general history (including family history) with a list of diseases and medications. Also include visual and ocular history with details relating to contact lenses (if worn). Ocular injuries and surgeries should be detailed in full. Describe visual requirements and reasons for desiring contact lenses or refractive surgery. Patient's symptoms should also be properly investigated and described.

### Diagnostic Testing Results

* + Diagnostic testing results can be written in table form such as the example below. It should include:
		- Visual acuities
1. Distance and near
2. Aided and unaided
3. Pinhole
	* + Manifest refraction
		+ Keratometry or topography
		+ Binocular function
		+ External examination (including lids and other adnexa)
		+ Biomicroscopy (detailing all structures examined)
		+ Intraocular pressures
		+ Ophthalmoscopy
		+ Tear film assessment Example of diagnostic testing results table: **DATE OF VISIT:**

|  |
| --- |
| **Entrance Visual Acuity (Spectacles)** |
| OD | Spectacle Rx | (20/40) |  |
| OS | Spectacle Rx | (20/40) |  |

|  |
| --- |
| **Manifest Subjective Refraction with VA** |
| OD | Manifest refraction | (20/40) | Pinhole VA |
| OS | Manifest refraction | (20/40) | Pinhole VA |

OS

OD

**Keratometry (auto)**

|  |
| --- |
| **Anterior Segment: Biomicroscopy** |
| Lids/Lashes | Clear OU |
| Cornea | Clear OU |
| Tear Quality | Unremarkable OU |
| Upper PalpebralConjunctiva | Clear; no papillae OU |
| Upper Palpebral Conjunctiva | Clear; no papillae OU |
| Bulbar Conjunctiva | Clear OU |
| Iris | Flat OU |
| Lens | Clear OU |

|  |  |
| --- | --- |
| Anterior Chamber | Deep (grade IV angle); no cells or flare OU |
| Tear Break-Up Time | >10 seconds OU |

### Diagnosis

* + Add differential diagnosis if appropriate
	+ Differential diagnoses are required for cases 1-6

### Treatment Options

1. Include a discussion of all treatment options for the patient, delineating advantages and disadvantages of each
2. Describe the course of treatment and justification for this patient
3. Include the information that you shared with the patient and the patient’s response

### Diagnostic Contact Lens Fitting for Contact Lens Patients

1. Include a complete diagnostic lens specification
	1. It can be placed in a table form such as:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **OD** | **OS** |
| Design | Rose K2 (Blanchard Contact Lenses, Manchester, NH) | Rose K2 (Blanchard Contact Lenses, Manchester, NH) |
| Power (D) | -20.00 | -11.00 |
| Baser curve radius (mm) | 5.10 | 5.90 |
| Overall diameter (mm) | 8.5 | 8.7 |
| Peripheral curve | 2 steps flat | 1.5 steps flat |
| Material: Boston XO (B+L, Bridgewater, NJ) | Green | Blue |

1. Include a full description of the fitting philosophy and techniques
2. Evaluate the lens performance, including fluorescein patterns for rigid lenses, centration, movement, visual acuities and over-refraction for all diagnostic lenses
3. Include reasons for the final lens selection
	1. Detail why you selected each parameter including material, base curve, diameter, power, and complete specifications of the final lens design ordered.

### Dispensing or Prescription Information

1. Evaluate the lens (or medication/treatment/procedure) performance
2. Include visual acuities and over-refraction
3. Include modifications, if necessary
4. Discuss instructions given to the patient (for contact lens patients this includes wearing schedule, contact lens care (including solution regimen) and handling)
5. For cases 1-6 (and others if applicable), include medication prescription information and justification as needed

### Follow-up Visits: Describe at Least Two in Detail

1. Dates
2. Wearing times (for CL patients)
3. History
4. Symptoms
5. Visual acuity (include over-refractions)
6. Evaluation of fit (for CL patients)
7. Biomicroscopy (with and without contact lenses)
	1. Include lens performance, condition of the cornea and any other test results
8. Contact lens modifications and rationale for any changes (if applicable)
9. Discuss advice given to the patient and any changes to the treatment plan

## Discussion, Summary and Conclusions

1. For contact lens cases, discuss:
	1. Why you selected the specific contact lens design, material and/or parameters
	2. Methods that you used for this patient
	3. Your fitting philosophy
	4. Types of problems normally associated with this type of fitting that you may or may not have encountered
	5. Whether you would have approached the case differently had you had materials and/or lens designs that were not available when you started the case.
2. For refractive technology cases, discuss:
	1. Why that mode of refractive surgery and co-management was selected
	2. Treatment and co-management philosophy
	3. Types of problems normally associated with this type of surgery that you may or may not have encountered
	4. Whether you would have approached the case differently had you had other options that were not available when you started the case.
3. For all cases where any diseases were discussed (contact lens-related or not), discuss the pathophysiology relevant to the case.
4. Give equal emphasis to positive and negative aspects with respect to the management of this case.
5. Indicate any additional care or clinical intervention that might be recommended.
6. Conclude with the broader clinical implications illustrated by the case report.

## References

Cite references (i.e. peer-reviewed publications) as a basis for your clinical decisions and to contrast their findings with previously reported findings to demonstrate their depth of

scholarship and critical thinking. The references should be listed numerically as an attachment to each case report, and should be formatted according to the style guidelines (APA style) as exemplified below.

References should be numbered consecutively in the text and in the reference list. In the text, reference numbers are entered as superscripts. Candidates are advised to use automated reference numbering software (e.g. Medline, EndNote or Reference Manager) since they may facilitate accurate citations and consistent formatting. PubMed offers a useful reference checker.

Any cited references should have been read in their entirety by the candidate. Discussion and interpretation of referenced citations is appropriate subject matter for the oral examinations.

## References to journal articles should include:

* The author or authors (for more than three authors, list the first three followed by "et al.")
* Title
* Journal name
* Year of publication
* Volume number
* Page numbers

## References to books should include:

* The author or authors
* Chapter title (if any)
* Editor or editors (if any)
* Book title
* Edition (other than the first)
* City of publication
* Publisher
* Copyright year
* Pages of the chapter or section cited

**Examples:**

**Journal article:**

Craig JP, Nelson JD, Azar DT et al. TFOS DEWS II Report Executive Summary. *Ocul Surf*

2017;15(4):802-12.

Szczotka-Flynn LB, Jiang Y, Stiegemeier MJ et al. Mucin balls influence corneal infiltrative events.

*Optom Vis Sci* 2017;94(4):448-57.

## Book Chapter:

Twa M, Moreira S. Astigmatism and toric contact lenses. In: Mannis MJ, Zadnik K, Coral- Ghanem C et al., eds. *Contact Lenses in Ophthalmic Practice.* New York: Springer-Verlag, 2003:109-124.

## Unpublished data:

Unpublished data includes studies in preparation or submitted for publication, scientific posters, and unpublished abstracts that reviewers cannot retrieve in an electronic literature search should be included parenthetically in the text.

Example: “… As described by Jones et al. (Jones RA, ASCRS, 1997)”.

The candidate should be prepared to provide abstracts or copies of such for reviewers if requested.

## Internet references:

References to material that is available via the internet are appropriate, provided the material is of peer-reviewed caliber. The online reference should be listed with URL address and date the information was last accessed. Since Internet articles may not be available at the time of review the Candidate is advised to make a printed copy of the material they are referencing so that they will be able to provide it for reviewers if requested.

Example: Bullimore MA, Dobos MJ. Repeatability and validity of refractive error using the Bausch and Lomb Zywave [ARVO Abstract]. [*www.arvo.org*,](http://www.arvo.org/) 2003 Abstract nr 4081, accessed December 24, 2019.

## Tables

Information in the tables should not entirely duplicate the text. Instead, the candidate should highlight the most important trends and significant findings.

Tables should be numbered consecutively in order of citation in the text. Each table should have a brief title so that the reader can understand what is being displayed in the table without reference to the text. Tables may also be embedded in the text or each table may be submitted on separate page at the end of the text following the References and Figure legends page if any are included.

Tables should be created in a Word or Excel using the table tools. Each table should be double- spaced.

## Figures and Figure Legends

Figures may be embedded in word processing documents or may be attached as separate pages to the end of the case report. For embedded figures, figure legends should be included together at the bottom of the figure. For figures attached to the end of case reports, please include a separate figure legend page following any tables. Each legend should be numbered consecutively in the text, have a brief title, and contain a complete description of each figure. Ideally, the legend should contain enough information so that the figure can be understood independently of the text.

## Plagiarism/Cheating

Plagiarism is defined as the process of copying another person's idea or written work and claiming it as original.

The policy, as stated at the Academy website, is:

1. All written work is expected to be the candidate’s own original writing.
2. Information taken from references or other source documents must be properly attributed.
3. Plagiarism may cause the candidate’s application for Diplomate to be terminated.

The Case Report Committee members are instructed to check every case report for evidence of plagiarism (written work offered as original when, in fact, it was copied word for word without proper attribution to the original source).

Any instances of suspected plagiarism should first be reviewed among the Case Report Committee members. If all members agree that the written work was plagiarized, the Case Report Committee Chair should immediately forward the case report with supporting documentation to the Diplomate Award Chair for review. The Case Report Committee should suspend communication with the candidate until a decision is made.

The Case Report Lead will notify the candidate in question that his/her written material is being sent to the Diplomate Award Chair to investigate the possibility of plagiarism.

If the Diplomate Award Chair does not find plagiarism, the Case Report Committee Lead will notify the candidate and provide an explanation of the Case Report Committee concerns along with clarification as to how to avoid the perception of plagiarism in future written work.

If the Diplomate Award Chair confirms that the written material in question was plagiarized, the Executive Committee will be notified. Although extenuating circumstances raised by the candidate may be considered, confirmed plagiarism is considered a violation of the AAO Standards of Conduct. The Diplomate Award Chair will notify the candidate that his/her application for Fellowship has been terminated. Information regarding the grievance policy will be sent along with the decision.

Nothing in this policy will preclude a candidate whose application was terminated due to plagiarism from re-applying in future years. The Diplomate Award Chair, in consultation with the Executive Committee, will decide whether the candidate’s application will be accepted. If the candidate is allowed to reapply, all work previously attained will be forfeited. All case reports previously submitted, including the plagiarized report, are excluded from eligibility even in a re-written format. All practical and written examination results will be forfeited. A Research candidate previously dismissed must submit a new topic outline and restart the research.

If the re-application is denied, the candidate has the right to appeal the Admittance Committee’s decision to the Board of Directors.

Suspected cheating on the written exam will result in the test being taken immediately nullified. The decision on whether to terminate the candidate’s application or allow a retest of the examination at a future Academy meeting (as well as the appropriately referral of the matter to the American Academy of Optometry ethics board) will be made by the Executive Committee of the CCLRT Section at the earliest possible date.

Nothing in this policy will preclude a candidate whose application was terminated due to cheating from re-applying in future years. The Diplomate Award Chair, in consultation with the Executive Committee, will decide whether the candidate’s application will be accepted. If the candidate is allowed to reapply, all work previously attained will be forfeited. All case reports previously submitted, including case reports, practical and written examination results will be forfeited.