



Cataracts/Refractive Surgery/Glaucoma CAP Assessment Form II – May 2024

SECTION 1: REFERENCE-BASED QUESTIONS (questions 1-12)

These questions are based on the references listed below, which emphasize new information relevant to optometry within the areas of refractive surgery and glaucoma.

See page 2 for learning objectives for each topic area.

Topic: Myopic refractive surgery (questions 1-4)

Reference: Du, H., Zhang, B., Wang, Z. *et al.* Quality of vision after myopic refractive surgeries: SMILE, FS-LASIK, and ICL. *BMC Ophthalmol* 23, 291 (2023).

<https://bmcophthalmol.biomedcentral.com/articles/10.1186/s12886-023-03045-6#citeas>

Topic: 6-year LiGHT trial (questions 5-8)

Reference: Gazzard G, et al. LiGHT Trial Study Group. Laser in Glaucoma and Ocular Hypertension (LiGHT) Trial: Six-Year Results of Primary Selective Laser Trabeculoplasty versus Eye Drops for the Treatment of Glaucoma and Ocular Hypertension. *Ophthalmology*. 2023 Feb;130(2):139-151.

<https://www.aaojournal.org/action/showPdf?pii=S0161-6420%2822%2900732-1>

Topic: Glaucoma medications and OSD (question 9-12)

Reference: Kolko M et al. Impact of glaucoma medications on the ocular surface and how ocular surface disease can influence glaucoma treatment. *The Ocular Surface*, Volume 29, July 2023, Pages 456-468.

<https://americanboardofoptometry.org/wp-content/uploads/2024/07/OSD-and-glc-meds.pdf>

SECTION 2: FUNDAMENTAL KNOWLEDGE QUESTIONS (questions 13-25)

These questions are considered “fundamental knowledge” within the areas of cataracts, refractive surgery and glaucoma. listed below. This is information that has not changed substantially in the past 5-10 years, and with which all optometrists should be familiar or be able to access quickly.

The following outline is provided as a general guide for this section.

- The assessment, differential diagnosis, and management of glaucoma, glaucoma suspects, and ocular hypertension
- Use of glaucoma medications, including contraindications/complications
- Indications for and/or interpretation of gonioscopy, visual fields, and RNFL/optic nerve OCT
- The management of patients with cataracts, including pre-and/or post-operative care for cataract surgery and recommending/co-managing specialty IOL implants (toric, multifocal, extended range-of-focus, accommodative)
- The pre-and/or post-operative care for patients undergoing refractive surgery

The following references are recommended as a review of general concepts, but not required.

- The Wills Eye Manual, 7th ed. (2017)
- Kaiser and Friedman, Mass Eye and Ear Illustrated Manual of Ophthalmology, 4th ed. (2014)



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Learning objectives

The following learning objectives are provided as a guide to aid in navigating through the references and preparing for the reference-based section of the assessment.

Reference 1: Du, H., Zhang, B., Wang, Z. *et al.* Quality of vision after myopic refractive surgeries: SMILE, FS-LASIK, and ICL. *BMC Ophthalmol* 23, 291 (2023).

<https://bmcophthalmol.biomedcentral.com/articles/10.1186/s12886-023-03045-6#citeas>

The learner will be able to:

- Compare and contrast the objective and subjective visual outcomes of the 3 refractive procedures considered in this study: SMILE, FS-LASIK, and ICL
- List the most frequent and severe visual symptoms reported at 3-month follow-up, and identify any clinically-significant difference between the between the 3 refractive procedures
- Identify the risk factors and protective factors for post-operative visual outcome
- Describe the effect of pre-operative pupil size on post-operative visual outcome

Reference 2: Gazzard G, et al. LiGHT Trial Study Group. Laser in Glaucoma and Ocular Hypertension (LiGHT) Trial: Six-Year Results of Primary Selective Laser Trabeculoplasty versus Eye Drops for the Treatment of Glaucoma and Ocular Hypertension. *Ophthalmology*. 2023 Feb;130(2):139-151. <https://www.aaojournal.org/action/showPdf?pii=S0161-6420%2822%2900732-1>

The learner will be able to:

- Describe the major results of the previous 2019 LiGHT study (3-year study)
- Discuss how the 6-year study conditions differed from the 3-year study, e.g. patient selection and treatment criteria
- List the major results of the 6-year study: health related quality of life outcomes, treatment effectiveness, visual function outcomes and safety of SLT
- Discuss the major recommendations that have emerged from this 6-year study

Reference 3: Kolko M et al. Impact of glaucoma medications on the ocular surface and how ocular surface disease can influence glaucoma treatment. *The Ocular Surface*, Volume 29, July 2023, Pages 456-468.

<https://www.sciencedirect.com/science/article/pii/S154201242300054X?via%3Dihub>

The learner will be able to:

- Discuss the general concerns related to IOP-lowering eye drops, including adverse reactions, effects on patient adherence, and concerns about generic eye drops
- List the risk factors for the development of OSD in patients with glaucoma



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- Describe the effects of the active ingredients in glaucoma drops on the ocular surface, adnexa, periorbital and nasolacrimal areas
- Describe the adverse effects of BAK and other preservatives on the ocular surface
- Describe the step-by-step approach to managing OSD in glaucoma patients as suggested in this article
- Describe the approach to managing glaucoma in patients with OSD as suggested in this article

Fundamental Knowledge Section

The learner will review fundamental knowledge related to:

- The assessment, differential diagnosis, and management of glaucoma, glaucoma suspects, and ocular hypertension
- Use of glaucoma medications, including contraindications/complications
- Indications for and/or interpretation of gonioscopy, visual fields, and RNFL/optic nerve OCT
- The management patients with cataracts, including pre-and/or post-operative care for cataract surgery and recommending/co-managing specialty IOL implants (toric, multifocal, extended range-of-focus, accommodative)
- The pre-and/or post-operative care for patients undergoing refractive surgery