



AMERICAN BOARD
OF OPHTHALMOLOGY

Advancing Excellence in Eye Care

WQE Sample Questions

Sample Questions with SME Analysis from All 9 Subjects of the WQE Content Outline

SQ#1: Lens and Cataract

One day after phacoemulsification with placement of a posterior chamber intraocular lens, a patient with no history of glaucoma has a visual acuity of 20/50, epithelial edema, and intraocular pressure of 44 mm Hg. The lens is in a normal position. What is the most appropriate next step in management?

- A. Mannitol 1 gm/kg IV push
- B. Pilocarpine 1% topically
- C. Prednisolone acetate 1% topically
- D. Vent the paracentesis



Lens and Cataract – Answer & Analysis

D. Vent the paracentesis

Vent the paracentesis is the correct answer. Intraocular pressure elevations at this point postoperatively are usually due to a retained ophthalmic viscosurgical device (OVD). At 44 mm Hg, venting the paracentesis acutely lowers the intraocular pressure (IOP) and topical and/or systemic pressure lowering agents can help keep the IOP down after this procedure.

Mannitol can be helpful in reducing posterior pressure during surgery by decreasing the vitreous volume. It is not as helpful for an IOP elevation after surgery due to OVD retention, and it is generally not readily available in clinics.

Pilocarpine 1% topically can be helpful in treating angle closure glaucoma, but it is not as useful for an IOP rise secondary to retained OVD.

Prednisolone acetate 1% topically is a corticosteroid agent and not useful for decreasing the intraocular pressure in this situation.



SQ#2: Cornea, External Disease and Anterior Segment

Which of the following oral medications increases the risk for development of meibomian gland dysfunction?

- A. Acyclovir
- B. Erythromycin
- C. Isotretinoin
- D. Tetracycline

Cornea, External Disease and Anterior Segment – Answer & Analysis

C. Isotretinoin

Isotretinoin is used to treat acne, and it is known to cause meibomian gland dysfunction that can lead to dry eyes. Tetracycline, as well as erythromycin (used in children under 7 years of age), are both used orally for treating meibomian gland dysfunction. Topical erythromycin ointment is also used. Acyclovir is not known to have any significant effects on the meibomian glands.

SQ#3: Glaucoma

Which of the following conditions most commonly is associated with high peripheral anterior synechiae extending anterior to Schwalbe line?

- A. Fuchs heterochromatic iridocyclitis
- B. Iridocorneal endothelial syndrome
- C. Pigment dispersion syndrome
- D. Plateau iris syndrome

Glaucoma – Answer & Analysis

B. Iridocorneal endothelial syndrome

Iridocorneal endothelial (ICE) syndrome is a group of disorders involving an abnormal corneal endothelium causing variable degrees of corneal edema, iris atrophy, and secondary angle-closure glaucoma. The three clinical variants of ICE syndrome include Chandler syndrome, essential (progressive) iris atrophy, and Cogan-Reese (iris nevus) syndrome. The condition is unilateral, generally presents between the ages of 20 and 50 years, and is more common in women. High peripheral anterior synechiae (PAS) are characteristic of ICE syndrome, and they frequently extend anterior to Schwalbe line.

Patients with Fuchs heterochromatic iridocyclitis may have multiple fine vessels in the angle, but they usually do not lead to PAS formation. Pigment dispersion syndrome is associated with increased pigmentation of the trabecular meshwork, but the angle is open. Plateau iris syndrome may produce angle-closure glaucoma, but the PAS typically do not extend anterior to Schwalbe line.

SQ#4: Neuro-Ophthalmology

Which of the following is most likely to be present in a patient with Charles Bonnet syndrome?

- A. Auditory hallucinations
- B. Formed visual hallucinations
- C. Impaired cognitive status
- D. Simultanagnosia



Neuro-Ophthalmology – Answer & Analysis

B. Formed visual hallucinations

Charles Bonnet syndrome refers to the visual hallucinations experienced by patients with vision loss who have normal mental status and are aware that the images are not real. Simultanagnosia is unrelated to Charles Bonnet syndrome and involves the inability to perceive more than one object at a time.

SQ#5: Oculofacial, Plastics, and Orbit

Alternating enophthalmos and exophthalmos can be seen in which of the following conditions?

- A. Blowout fracture
- B. Cavernous hemangioma
- C. Dural sinus fistula
- D. Orbital varix

Oculofacial, Plastics, and Orbit – Answer & Analysis

D. Orbital varix

Alternating enophthalmos and exophthalmos is a classic sign of an orbital varix. This is particularly noted with postural changes and Valsalva maneuver, when the varix engorges with blood.

Blowout fractures, cavernous hemangioma, and dural sinus fistula can all cause a change in globe position within the orbit, but the globe position is more constant and not changing.

SQ#6: Pediatric Ophthalmology and Strabismus

A child who has acquired Horner syndrome and no history of birth trauma should be screened for which of the following tumors?

- A. Medulloblastoma
- B. Neuroblastoma
- C. Rhabdomyosarcoma
- D. Wilms tumor

Pediatric Ophthalmology and Strabismus – Answer and Analysis

B. Neuroblastoma

Horner syndrome, classically described as including unilateral ptosis, miosis, and anhidrosis, is caused by interruption of the oculosympathetic tract and can occur at any location along the neuronal pathway between the hypothalamus and the orbit. Etiologies for acquired Horner syndrome in children include surgical injury, trauma, infection, vascular malformations, and neoplasms. Evaluation includes urine testing for catecholamines and MRI of the brain, neck, and chest. The incidence of Horner syndrome in patients with neuroblastoma is estimated to be between 3 and 13%, due to compression of the oculosympathetic tract by the tumor. Acquired Horner syndrome has not been reported in association with medulloblastoma, Wilms tumor, or rhabdomyosarcoma.

SQ#7: Refractive Management and Optics

A patient without preexisting astigmatism undergoes large incision extracapsular cataract surgery with monofocal intraocular lens implantation for a dense nuclear sclerotic cataract. Manifest refraction 6 weeks postoperatively reveals the following refractive error: $-0.50 +4.25 \times 110$. Vision with this refraction is 20/25. What is the most appropriate treatment for this patient?

- A. Cut the scleral suture near 110°
- B. Perform intraocular lens exchange with a toric intraocular lens
- C. Prescribe glasses, correcting the plus cylinder at axis 20°
- D. Resuture superior aspect of scleral wound



Refractive Management and Optics – Answer & Analysis

A. Cut the scleral suture near 110°

Cutting scleral wound sutures at or near 110 degrees will reduce the astigmatism caused by tight sutures. A lens exchange with toric implant is not indicated for reversible surgical wound and suture-induced astigmatism. Although glasses could be prescribed for this patient, the plus cylinder axis would need to be at 110°. After 6 weeks of healing the extracapsular wound should be healed and suture removal alone will lessen astigmatism; additional sutures are unnecessary.

SQ#8: Retina, Vitreous, and Intraocular Tumors

Which of the following medications may be associated with the development of crystalline retinopathy?

- A. Cidofovir
- B. Rifabutin
- C. Tamoxifen
- D. Thioridazine

Retina, Vitreous, and Intraocular Tumors – Answer & Analysis

C. Tamoxifen

Tamoxifen is an anti-estrogen drug used as adjuvant therapy for breast cancer. Crystalline deposition from tamoxifen is rare at typical doses of 20 mg daily and is more likely to occur in patients receiving high doses (>200 mg/day or cumulative dose >100 grams). The crystals tend to deposit at the inner retina and cluster around the fovea. Cystoid macula edema may be present. Severe vision loss may be present in severe cases.

Cidofovir, rifabutin and thioridazine are not known to cause crystalline retinopathy. Cidofovir and rifabutin are associated with intraocular inflammation. With cidofovir, the inflammation is typically mild to moderate and associated with hypotony. Rifabutin-induced inflammation resembles acute anterior uveitis with sterile hypopyon but with less photophobia and pain. Thioridazine has been used previously to treat schizophrenia. The brand name, Mellaril, was voluntarily discontinued due to possible fatal cardiac arrhythmias with long-term use. Thioridazine has been associated with a pigmentary retinopathy.

SQ#9: Uveitis

Which of the following findings is most likely to suggest chronic herpes zoster virus uveitis?

- A. Anterior subcapsular cataract
- B. Iris heterochromia
- C. Iris atrophy
- D. Rubeosis iridis

Uveitis – Answer & Analysis

C. Iris atrophy

Of the possible choices, the answer that specifically is associated with a herpetic zoster related uveitis is iris atrophy.

Anterior subcapsular cataracts are atypical and usually associated with human leukocyte antigen related anterior uveitis complicated by posterior synechiae. Posterior subcapsular cataract are seen more frequently and commonly associated with many types of uveitis.

Iris heterochromia is seen in Fuchs' heterochromic uveitis and is not a common feature of herpetic uveitis.

Rubeosis iridis can be seen in many forms of uveitis and is associated with retinal ischemia. It is not a specific finding for herpetic uveitis.

Additional Resources

- For a comprehensive list of the topics you can expect to see on the examination, check out the [WQE Content Outline](#)
- To see what the examination will look like at your testing center on examination day, try the [Pearson VUE Tutorial](#)
- A complete candidate guide for the examination can be found in the [WQE Procedures Manual](#)



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