

## **Topic #5: Evaluate a patient with a red or painful eye**

This post describes the ophthalmology learning objectives on the evaluation of a patient with a red or painful eye that are covered on the Medical Council of Canada Qualifying Examination (MCCQE). The resources presented here should be sufficient to help you pass the MCCQE exam and have a basic understanding of a patient with a red or painful eye in a primary care or emergency setting.

### **Learning Objectives**

5(a): Take a focused history with regards to the timing, severity, monocular or binocular nature or vision loss associated with the painful or red eye

5(b): Take a focused past ocular history relevant to painful or red eye

5(c): Take a focused systemic medical history relevant to painful or red eye

5(d): Perform a focused exam as outlined in [Topic #2](#) and describe the pattern of redness

5(e): List and describe the pathophysiology of common causes of a painful or red eye including:

- Blepharitis and dry eye
- Conjunctivitis (allergic, viral, and bacterial)
- Subconjunctival hemorrhage
- Scleritis
- Corneal abrasion
- Uveitis

5(f): List and describe the pathophysiology of urgent causes of a painful or red eye including:

- Angle-closure glaucoma\*
- Preseptal and orbital cellulitis\*
- Corneal ulcer (infectious, herpetic, bacterial, or contact lens related) \*
- Intraocular infection/endophthalmitis\*

5(g): Describe the presenting signs and symptoms of these diagnoses and generate a differential diagnosis based on the elicited history and exam

5(h): Describe the initial management and urgency of referral for these diagnoses

Note: \*Urgent and red flag conditions have been denoted with a red Asterix. These warrant urgent referral to an ophthalmologist.

### **Primary resources**

These resources cover learning objectives a-h, meeting all of the learning objectives.

- Red Eye (MEDSKL): <https://medskl.com/module/index/eye-redness>
  - Objectives a-h
- Red Eye (Merck Manual): <https://www.merckmanuals.com/en-ca/professional/eye-disorders/symptoms-of-ophthalmologic-disorders/red-eye>
  - Objectives a-h

- The Atraumatic Red Eye (Royal College of Emergency Medicine):  
[https://www.rcemlearning.co.uk/reference/atraumatic-red-eye/#1568194845112-79c32c14-ff73%20%20https://litfl.com/the-red-eye-challenge/%20https://wikem.org/wiki/Unilateral\\_red\\_eye%20](https://www.rcemlearning.co.uk/reference/atraumatic-red-eye/#1568194845112-79c32c14-ff73%20%20https://litfl.com/the-red-eye-challenge/%20https://wikem.org/wiki/Unilateral_red_eye%20)
  - Objective a-h

### **Additional resources**

These resources will allow you to expand on your understanding.

- Uveitis: <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/uveitis>
  - Objective e
- Scleritis: <https://www.aao.org/eye-health/diseases/what-is-scleritis>
  - Objective e
- Overall understanding of the red eye: <https://geekymedics.com/painless-red-eye/>
  - Objectives a-h

### **Other Undergraduate Medicine Resource Pages**

Topic #1: Describe the anatomy of the eye and the visual system

Topic #2: Perform a basic eye exam

Topic #3: Evaluate a patient with acute vision loss

Topic #4: Evaluate a patient with chronic vision loss

Topic #6: Evaluate a patient with eye trauma

Topic #7: Evaluate a patient with an eye movement abnormality, diplopia, or pupillary disorders

Topic #8: Evaluate pediatric ophthalmic presentations

Topic #9: Ocular Pharmacology

Topic #10: Evaluate a patient with ocular manifestations of systemic disease