

### **Topic #3: Evaluate a patient with acute vision loss**

This post describes the ophthalmology learning objectives to evaluate a patient with acute vision loss 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 acute vision loss in a primary care or emergency setting.

#### **Learning Objectives**

3(a): Obtain a focused history and recognize urgency regarding the timing, severity, monocular or binocular nature, pain or redness associated with the vision loss

3(b): Obtain a focused past ocular history relevant to acute vision loss

3(c): Obtain a focused systemic medical history relevant to acute vision loss

3(d): Perform a focused clinical exam as outlined in [Topic #2](#)

3(e): List and describe the pathophysiology and presentations of the important causes of acute vision loss including:

- Retinal detachment \*
- Retinal arterial occlusion\*
- Retinal vein occlusion\*
- Diabetic vitreous hemorrhage\*
- Amaurosis fugax\*

3(f): Optic nerve insults such as

- Giant cell arteritis and non-arteritic ischemic optic neuropathy\*
- Compressive optic neuropathy\*
- Optic neuritis

3(g): List and interpret critical investigations related to important causes of acute vision loss (e.g., imaging, blood work)

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

3(i): 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-i, meeting all of the learning objectives.

- Queen's Medicine clinical skills:  
<https://ophthalmology.queensu.ca/academics/undergraduate/education/clinical-skills>
  - Objectives a-d

- Ophthalmic History Taking – OSCE Guide (Geeky Medics): <https://geekymedics.com/ophthalmic-history-taking-osce-guide/>
  - Objectives a-f, h, i
- Acute Vision Loss (Merck Manual): <https://www.merckmanuals.com/en-ca/professional/eye-disorders/symptoms-of-ophthalmologic-disorders/acute-vision-loss>
  - Objectives a-i

### **Additional resources**

These resources provide additional information about all learning objectives, and will allow to expand on your understanding.

- Prasad S, Galetta SL. Approach to the patient with acute monocular visual loss. *Neurol Clin Pract.* 2012;2(1):14-23. doi:10.1212/CPJ.0b013e31824cb084. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5766020/>
- Management of Acute Vision Loss in ED (AAO): [https://www.youtube.com/watch?v=iqCsBGYUL1M&ab\\_channel=AmericanAcademyofOphthalmology](https://www.youtube.com/watch?v=iqCsBGYUL1M&ab_channel=AmericanAcademyofOphthalmology)
- Acute Vision Loss (MedsSKL): <https://medskl.com/module/index/acute-visual-loss>
- Ophthalmology Guidelines for Family Physicians and the ER (Manitoba): [https://umanitoba.ca/faculties/health\\_sciences/medicine/units/ophthalmology/media/EDOphthalmologyGuidelines\\_2018.pdf](https://umanitoba.ca/faculties/health_sciences/medicine/units/ophthalmology/media/EDOphthalmologyGuidelines_2018.pdf)

### **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 #4: Evaluate a patient with chronic vision loss

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

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