

## **CURTIN MEDICAL SCHOOL**

## **OPHTHALMOLOGY**

(CROSS-PLACEMENT: DURING GENERAL PRACTICE, SURGERY AND ACUTE CARE PLACEMENTS)

# SPECIFIC LEARNING OBJECTIVES

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#### SPECIFIC LEARNING OBJECTIVES YEARS 4 AND 5

#### A. KNOWLEDGE: Students should be able to:

1 Recognise common symptoms and signs of the red eye:

Theme 1: Scientific Foundations of Medicine 1.1

- i. Conjunctivitis: This includes contagious (bacterial, viral, trachoma), mechanical, allergic, and chemical. Infectious cases are usually bilateral, others are often unilateral. Vision is minimally affected, with discomfort mild to moderate only. Loss of vision or extreme discomfort suggest an associated corneal or intra-ocular problem. Redness is usually diffuse, but may be localised after trauma or in delayed hypersensitivity cases. Examination under the upper lids is requisite.
- ii. Blepharitis: This presents a red rimmed appearance at lid margins, sometimes with discharge on lashes, and usually with a secondary conjunctivitis which is worse on waking.
- iii. Corneal ulcer / abrasion / infection: Vision loss and pain are characteristic, with redness concentrated close to the limbus. If the cornea is inflamed, examination in the anterior chamber for a hypopyon is requisite.
- iv. Inflamed pterygium: This presents a "wing" shaped thickening of the conjunctiva at the corneal limbus, extending onto the sun exposed area of the cornea, with surrounding redness when inflamed.
- Sub-conjunctival haemorrhage: This presents a ٧. confluent collection of blood beneath the conjunctiva, most often from a bleeding vessel located along a line about level with the lower lid margin (due to conjunctival folding). If this is mild, then it is only of cosmetic significance. If this is large enough to prevent the lids enclosing the conjunctiva, then drainage is indicated. Examination of the posterior limit is requisite.If the blood came from behind the eve. then further investigation is needed.

2 Recognise rare but important causes of Red Eye:

i. Episcleritis and scleritis: This is often a sign of systemic disease. Scleritis is usually very painful. Some types cause atrophy of the sclera revealing the 'steel grey' pigmentation of the choroid beneath. Attention for cases with an

Theme 1: Scientific 1.1 Foundations of Medicine

abnormally thin sclera is requisite. ii. Iritis /uveitis: Light sensitivity and blurred vision are characteristic. iii. Inflamed orbits: Grave's disease (or thyroid eye disease) is the commonest orbitopathy. Swelling of the fat or muscles usually leads to displacement of the eye and restricted movement. iv. Acute angle closure glaucoma: This is very rare and a true medical emergency. It is commoner in Asian than Caucasian eyes. It virtually never occurs after the natural lens has been replaced during cataract surgery. Theme 1: Scientific 13 Describe mechanisms of injury to the eye and the Foundations of Medicine early/acute management: i. Corneal abrasions/ulcer; ii. Corneal foreign bodies; Blunt trauma (e.g. lid damage, orbital damage, iii. ocular damage); Penetrating injuries, intra-ocular foreign bodies, ίV. and evelid lacerations: Ultraviolet damage, solar burns to retina; and ٧. Chemical injuries. vi. Recognise symptoms and signs of conditions that most Theme 1: Scientific 13 Foundations of Medicine commonly cause acute visual disturbance, and know when to refer: i. Vitreous floaters: ii. Vitreous haemorrhage: iii. Retinal detachment: Temporal arteritis; ίV. ٧. Retinal arterial occlusion; Retinal vein occlusion; νi. vii. Macular degeneration; Diabetic macular oedema; viii. Optic neuritis: ix. Signs of 3rd, 4th or 6th cranial nerve palsy; and X.

Theme 1: Scientific
Foundations of Medicine

1.3

i. Cataract:

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- ii. Open angle glaucoma;
- iii. Refractive errors:

Migraine.

- iv. Macular degeneration;
- v. Diabetic retinopathy; and
- vi. Corneal ulcer / foreign body.

### **B. SKILLS:** Students should be able to:

1	Take a history for common visual symptoms:	Theme 2: Patient & Doctor: Clinical Practice	2.2
	<ul> <li>i. Examine vision acuity;</li> <li>ii. Field of vision by confrontation;</li> <li>iii. Pupils;</li> <li>iv. Eye position and movements; and</li> <li>v. Ocular surface and lids</li> </ul>		
2	Use a <i>direct</i> ophthalmoscope to examine the optic disc, macula, retinal vessels, and retina to the equator.	Theme 2: Patient & Doctor: Clinical Practice	2.6
3	Conduct a visual acuity measurement using Snellen visual acuity chart, Near vision chart, and illiterate vision chart.	Theme 2: Patient & Doctor: Clinical Practice	2.6
4	Use a slit lamp to examine the eye with white light, and with fluorescein dye and a cobalt filter.	Theme 2: Patient & Doctor: Clinical Practice	2.6

## EXPECTATIONS FOR EXPOSURE DURING CLINICAL PLACEMENTS

Students should be minimally exposed to 2 cases of each of the following, during Year 4.

- i. Macular degeneration;
- ii. Cataract;
- iii. Diabetic retinopathy; and
- iv. Glaucomatous disc cupping.

Students should be minimally exposed to 3 cases of each of the following.

- v. Red eye;
- vi. Corneal injury or ulcer; and
- vii. Acute visual disturbance.

Students should perform a visual function assessment (including: Snellen acuity, confrontation visual field testing, pupil responses, and eye movements) at least three times during Years 4 and 5.