

Course on Acute Eye Conditions

Syllabus

Outline of Anatomy of the Visual System

Eye; conjunctiva, sclera, cornea, anterior chamber and its angle, iris, lens, ciliary body, vitreous, choroid, retina, optic nerve.

Ocular Adnexa; eyelids, their structure and nerve supply. Lacrimal system, including lacrimal gland, lacrinal drainage system.

Orbit. Outline of its bony walls, and adjacent sinuses. Orbital contents, including the extra-ocular muscles, and their nerve supply. Optic nerve.

Neural pathways; optic nerves, optic chiasm, occipital cortex.

Outline of Pathophysiology of eye; tearfilm. Production and composition, aqueous humour. Production, and circulation and drainage. Cornea. Clarity, endothelial function, lens accommodation, cataract, retina, rods, cones, and neural connections, extra-ocular muscles. Eye movements, palsies.

Examination Techniques

General

Measuring visual acuity
Assessing visual field
Assessing eye movements and double vision
Assessing pupils
Everting upper eyelids
Proptosis/enophthalmos
Technique for taking bacterial and viral swabs

Slit-lamp

Its use to examine; conjunctiva and cornea
Anterior chamber
Measuring pressure (applanation tonometry)
View central fundus (disc and macula)

The Red Eye

1. Causes of red eye which do not usually affect vision:
Sub-conjunctival haemorrhage
Conjunctivitis-causes-bacterial, viral, allergic, secondary to foreign body. Features of each:
Scleritis Clinical features and associations, management
2. Causes of red eye which may affect vision:
Iritis Symptoms and signs. Systemic associations. Immediate management

Acute Glaucoma

1. Symptoms and signs
Immediate management, preventative treatment, scleritis, symptoms signs and immediate management
Corneal conditions
Corneal ulcers types. Association with contact lens wear. Herpes simplex ulcers. Injuries to cornea- foreign bodies, chemicals.

Further causes of loss of vision

Vascular conditions

1. Temporal arteritis
2. Retinal central vein occlusion, central artery occlusion, retinal emboli, retinal haemorrhages-diabetic retinopathy, macular degeneration.
3. Carotid insufficiency
4. Neurological-stroke (embolis, infarct).

Signs and effects on vision.

Retinal detachment

Warning symptoms. Risk factors. Examination and diagnosis. Preventative measures.

Ophthalmic Trauma and its immediate management

1. Ocular concussion injury- hyphaema, orbital blow-out fracture.
2. Surface foreign bodies- Importance of history Examination and immediate management.
3. Penetrating eye injuries- History and immediate management.
4. Intra-ocular foreign bodies- importance of history and index of suspicion. X-ray.
5. Chemical injuries- acid and alkali burns, in particular sodium hydroxide and lime. Immediate management.

Emergencies after Eye Surgery

Endophthalmitis- clinical features and immediate management.
Corneal graft rejection- clinical features and immediate management

Ophthalmic Pharmacology

Eye drops and ointments. Their uses indications, contra-indications, and side-effects.
Lubricants and decongestants
Local anaesthetics
Topical antibiotics
Anti-viral agents
Steroid preparations

Anti-glaucoma preparations
Preservative-free preparations- benefits and drawbacks
Allergies to medications

Course Lecturers to date (further lecturers to be confirmed)

Professor Charles McGhee
Professor Helen Danesh-Meyer
Professor Bruce Hadden (Hon)
Dr Sue Ormonde
Dr Dipika Patel
Dr Rasha Patel
Dr James McKelvie

Assessment

1. OSCE - 15%. Students will be able to discuss the management of common eye conditions.
2. Presentations x2 - 30% (15% each presentation). Presentations will be of 20 minutes duration with 10 minutes for questioning and be at the level of a conference presentation.
3. MCQ -15%. Multiple choice questions on course content.
4. Assignment 3500-4000 words - 40%. Written assignment using a patient scenario or ophthalmic condition that demonstrates attainment of learning outcomes, provides rationale and is referenced appropriately.

Workload and contact hours

56 hours	Study days (7 hour days) likely to be 2 blocks of 4 days during semester. Dates yet to be finalised. First semester 28th February to 27 th June 2011.
150 hours	Reading and self-directed learning
50 hours	Presentation and Assignment preparation and writing
44 hours	OSCE and MCQ preparation/revision

Sessions

These will be a mixture of didactic, practical and interactive video's. Didactic lectures will generally be done in the am.

Practical sessions are likely to include demonstration of skills in the learning environment at the University as well as supervised time spent in the acute eye clinic examining patients presenting to the acute eye clinic, these sessions will be supervised by the course lecturers.

Fees

\$1705.50 for a 30 point paper in 2010 – likely to increase by 5% for 2011.