

- l. Methods in Biostatistics by B K Mahajan
- m. Textbook of Preventive & Social Medicine by Gupta & Ghai
- n. Text book of Preventive & Social Medicine by Gupta & Mahajan
- o. Essentials of Community Medicine by Suresh Chandra
- p. Introduction to Biostatistics by Sathya Swaroop
- q. Community Medicine with Recent Advances by AH Suryakantha
- r. Principles and Practice of Community Medicine by Dr. Asma Rahim
- s. Indian Primer to Palliative Care
- t. Community Medicine Simplified by Sreejith P S, Paras Medical Books

Reference Books:

- a. Preventive Medicine and Public Health Appleton Century Crofts – Maxcy, Kenneth F Rosenau
 - b. Preventive Medicine for the doctor in his community – Level H R & Clark E G; Mc Graw Hill Book Company
 - WHO Online resources
 - c. Theory & Practice of Public Health – Hobson W Oxford University Press
 - d. American P H Association Communicable Disease Control in man
 - e. Manson's tropical diseases – Wilcock's & Manson
 - f. Oxford test book of Public Health 4th edn.
 - g. Public Health & Preventive Medicine J M Last
- WHO online resources
- National health websites- mohfw, ncdc

OPHTHALMOLOGY

I. Goal

The broad goal of the teaching of students in Ophthalmology is to provide such knowledge and skills to the student that shall enable him/her to practice as a clinical and as a primary eye care physician: and also to function effectively as a community health leader to assist in the implementation of National Programme for the prevention of blindness and rehabilitation of the visually impaired.

II. Objectives

At the end of the course, the student shall be able to:

- 1. Identify common diseases of the eye
- 2. Diagnose and treat common diseases of the external eye-conjunctivitis, sty, extraocular foreign body, corneal abrasion, Vitamin A deficiency

3. Recognise and initiate treatment (prior to referral) for sight threatening diseases like acute glaucoma, keratomalacia, corneal ulcer, ocular trauma, alkali/chemical injuries.
4. Demonstrate knowledge of blindness and its causation. Be an active participant in the implementation of the National Programme for Control and prevention of Blindness
5. Integration: To provide an integrated approach towards other disciplines especially ENT, General Surgery, General Medicine etc.

III. Course Contents

The student should have knowledge on the following topics taken during their course.

IV. Topics

Title

Acute conjunctivitis, Trachoma, Allergic conjunctivitis, Pingecula, Pterygium, Xerosis/bitot spots, Dry eye, Angular conjunctivitis, neonatal conjunctivitis, subconj hemorrhage, D/D of conjunctival and limbal nodule

Chronic conjunctivitis, Dry eye, Membraneous conjunctivitis, Inclusion conjunctivitis Corneal Inflammations: Corneal Ulcers-bacterial, , fungal, viral, Mooren's Ulcer Vitamin A Deficiency and keratomalacia, Exposure keratitis, Neuroparalytic keratitis, Corneal blindness, Eye banking, eye donation, Keratoplasty, Arcus senilis, Corneal oedema

Deep / interstitial keratitis, degenerations and dystrophies, Overview of keratorefractive surgery.

Scleritis, episcleritis

Iridocyclitis, Panophthalmitis, Endophthalmitis

Systemic associations of uveitis, Choroiditis, Coloboma iris, ocular albinism,

Vitreous hemorrhage-causes

Synchysis syntillans, Asteroid hyalosis

Angle closure glaucoma, Open angle glaucoma, steroid induced glaucoma, lens induced glaucoma including surgery and management

Cataract and management, cong. Conditions, surgery and complications, lens abnormality Secondary glaucomas, Congenital glaucoma

Fundus changes in Diabetes, Hypertension, anaemias, Pregnancy induced hypertension, Hematological disorders, Myopia

Photocoagulation

Retinal vascular diseases-

Central retinal artery occlusion, Central retinal vein occlusion, Retinal detachment

Retinopathy of prematurity, Retinitis pigmentosa, retinoblastoma

Papilledema, Optic neuritis, Optic atrophy

Awareness of amblyopia, Types of squint

Paralytic, non-paralytic)

Common causes of proptosis, Orbital cellulites, Cavernous sinus thrombosis Dacryocystitis-congenital, Acute, chronic, Epiphora

ectropion entropion, trichiasis, ptosis, lagophthalmos, symblepharon, blepharitis, Chalazion, Refractive error, Myopia, hypermetropia, Astigmatism, Presbyopia,

aphakia/pseudophakia, Anisometropia, overview of keratorefractive surgery
Chemical injuries, Open globe injuries, closed globe injuries and first aid treatment including sympathetic injuries.
Siderosis bulbi, Chalcosis, medico legal aspects
Definition and types of blindness.
Causes of blindness
Promotion of eye donation
NPCB, Vision 2020, Eye camps
Symptomatic disturbances of vision, Overview of Recent advances in Ophthalmology
Lasers in Ophthalmology
Enucleation – Indication , technique
Eye & systemic diseases including AIDS
Causes of sudden /partial/ painless dimension of vision
Ocular malignancy-retinoblastoma and malignant melanoma of choroid
Pharmacology
Chronic side effects of systemic medication, local anaesthetics, viscoelastics, steroid and NSAIDS

V. Skills

At the end of the course, the student shall be able to:

- a. Elicit a history pertinent to general health and ocular status.
- b. Assist in diagnostic procedures such as visual acuity testing, examination of eye, Schiotz tonometry, staining for corneal pathology, confrontation perimetry, direct ophthalmoscopy examination, squint examination.
- c. Interpreting FFA, Optical Coherence Tomography (OCT), Humphrey Perimetry, Corneal Topography, Gonioscopic findings and observing laser and surgical procedures
- d. Diagnose and treat common problems affecting the eye.
- e. Interpret ophthalmic signs in relation to common systemic disorders
- f. Assist/ observe therapeutic procedures such as subconjunctival injection, corneal conjunctival foreign body removal, nasolacrimal duct syringing and tarsorrhaphy
- g. Provide first aid in ophthalmic emergencies.
- h. Assist to organize community survey for visual check up.
- i. Assist to organize primary eye care service through primary health centres.
- j. Use effective means of communication with the public and individual to motivate for surgery in cataract and for eye donation.
- k. Establish rapport with his seniors, colleagues and paramedical workers, so as to effectively function as a member of the eye care team.
- l. Assist in speciality clinics – namely, Cornea, Retina, Glaucoma, Squint & Low Vision Aid clinic
- m.v Communicate with patients regarding common ophthalmological problems, investigations

and treatment .

n.v Common ethical issues in ophthalmology and eye donation.

VI. Knowledge

At the end of the course, the student shall have knowledge of:

- a. Common problems affecting the eye.
- b. Principles of management of major ophthalmic emergencies
- c. Main systemic diseases affecting the eye.
- d. Effects of local and systemic diseases on patient's vision and the necessary action required to minimize the sequelae of such diseases.
- e. Adverse drug reactions with special reference to ophthalmic manifestations
- f. Magnitude of blindness in India and its main causes.
- g. National programme for control of blindness and its implementation at various levels.
- h. Eye care education for prevention of eye problems.
- i. Role of primary health centre in organization of eye camps.
- j. Organisation of primary health centre and the functioning of the ophthalmic assistant.
- k. Integration of the national programme for control of blindness with the other national health programmes.
- l. Eye bank organization
- m. Caring for the eye and preventing damage in an unconscious patient

VII. Details of Lectures

Basic Anatomy, Physiology of eye, adnexa, lacrimal apparatus and orbit

Diseases of eyelids, lacrimal apparatus, orbit, Disease of conjunctiva

Disease of cornea, Disease of sclera, Disease of uveal tract, Disease of lens

Glaucoma, Vitreous, Injuries of the eye, Intraocular tumours, Retina, Optic nerve

Refractive errors/Refraction, Squint, Operations of the eye, Basic of neuro-ophthalmology, Systemic disease and eye, Adverse drug reactions, Ophthalmic emergencies, Magnitude of blindness

National Programme for control of blindness, Eye bank organization/ Eye donation, Organisation of eye camps, Rehabilitation of the blind.

VIII. Clinical teaching during posting Clinical posting in batches during 5th & 7th Semester.

Theory Lectures, Tutorials, Group discussions, Integrated teaching, Seminars, Approx. 100 Lectures of one hour each.

IX. Details of practicals X.

Clinical postings

8.00 am to 9.00am - Clinical lecture

9.00am -12 noon - Case demonstration in outpatient department discussions during clinical postings, case records, seminars, discussions, clinical exam

12-1 pm: Clinical lecture

Minimum one day per week is devoted for live operative surgery demonstration and discussion.

Separate clinical record/ log books

PATTERN OF EXAMINATION Theory–

one paper 40 marks

(Should contain one question on pre-clinical and para-clinical aspects, of 10 marks)

Oral (viva)-10 marks

Clinical-30 marks

Internal assessment-20marks (theory-10; practical-10)

Total-100 marks

Scheme of Practical Examination

One long Case : 1 x 15=15 marks

Two Short Case : 2 x 5 = 10 marks

OSCE (5 stations) : 5 x 1 = 5 marks

Total : 30 marks

Internal Assessment : 10 marks

Grand Total : 40 marks

Text book recommended

1. Parson's disease of eye – Sihota & Tandon

2. Ophthalmology for under graduates– Dr. P.S. GirijaDevi

Reference books

Clinical ophthalmology : Kanski J J

OTORHINOLARYNGOLOGY

A. Goal

The broad goal of teaching undergraduate students Otorhinolaryngology is to ensure that they