

Goals and objectives of Allied Subjects

(B) ORTHOPAEDICS

(A) KNOWLEDGE

The student shall be able to:

1. Explain the principles of recognition of bone injuries and dislocation.
2. Apply suitable methods to detect and manage common infections of bones and joints.
3. Identify congenital, skeletal anomalies and their referral for appropriate correction or rehabilitation.
4. Recognize metabolic bone diseases as seen in this country:
5. Explain etiogenesis, manifestations, and diagnosis of neoplasm affecting bones.

(B) SKILLS:

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

1. Detect sprains and deliver first aid measures for common fractures and sprains and manage uncomplicated fractures of clavicle, Colles's forearm, phalanges etc.
2. Use techniques of splinting, plaster, immobilization etc.
3. Manage common bone infections, learn indications for sequestration, amputations and corrective measures for bone deformities;
4. Advise aspects of rehabilitation for Polio, Cerebral Palsy and Amputation.

(C) APPLICATION

Be able to perform certain orthopaedic skills, provide sound advice of skeletal and related conditions at primary or secondary health care level.

(D) INTEGRATION

LEARNING METHODS

Lectures, Tutorials bedside clinics and lecture cum demonstrations

Distribution of Teaching hours -

- Lectures - 50 hours
- Tutorials and revision - 50

□ **Clinical postings in Orthopaedics**

Total clinical Posting of 10 weeks of 180 hours

5th Semester - 4 weeks

6th Semester - 4 weeks

9th Semester - 2 weeks

Course contents and suggested lecture program of Orthopaedics

(Total 100 hours)

This is suggested programme and can vary at institute

Total 100 hours of teaching has to be done in Orthopaedics including Tutorials

Details of syllabus is given separately below after distribution as per semester

- **6th Semester Lectures 1 to 16**
- 8 th Semester Lectures 1 17 to 32
- 8th Semester Lectures 2 33 to 48

Topic : General Orthopaedics

Lectures

1. Introduction and scope of Orthopaedics Traumatology and Orthopaedic Diseases. Idea about Scheme of Examination.
2. Definition and Classification of Fracture and Dislocation Signs, symptoms and diagnosis of sprain, contusion fracture and dislocation.
3. First aid measures in Poly-trauma patient, spinal cord Injury patients and knowledge about various splints.
4. & 5 Principles of Management of sprain, Fracture and Dislocation with emphasis on various aspects of closed reduction, immobilization including internal fixation and rehabilitation.
- 6,7,8 Complications of fracture and its management with specific reference to malunion Delayed union, Non union, Myositis Ossificans, Sudeck's dystrophy, Volkman's ischaemia, Avascular Necrosis, Fat embolism, secondary Osteoarthritis and injury to Muscles, Tendon, nerve and Blood vessels.
9. Plaster technique, plaster complications and plaster disease.
10. Fracture Healing in cortical and cancellous bones and factors affecting fracture healing.

Topic : Orthopaedic Traumatology

11. Fracture clavicle, scapula, neck humerus and shaft humours.
12. Supracondylar fracture humerus with complications.
13. Fracture Forearm bones, Monteggia and Galeassi fracture dislocations, fracture olecranon head and neck radius.
14. Fracture scaphoid, Metacarpals and phalanges.
15. Colles fracture and Complications.
16. Dislocation (Acute and Recurrent) of shoulder and elbow.
17. Fracture of Vertebrae with complications.
18. Fracture of Pelvis with complications.
19. Fracture Neck femur and trochanteric fracture.
20. Fracture shaft femur and fractures around knee.
21. Meniscus and ligaments injury at knee.
22. Fracture Tibia-fibula, fracture in tarsals, Metatarsals and phalanges.
23. Fracture dislocation around ankle,
24. Dislocation of Hip, knee, ankle, tarsals and small bones in foot.

Topic : Orthopaedic Diseases

- 25,26 Congenital skeletal anomalies with emphasis on congenital Talipes Equino varus (CTEV). :-
27. Congenital dislocation of hip (CDH), Osteogenesis Imperfecta, spina Bifida and Torticollis.
28. Osteochondritis – various types.
29. Post Polio Residual Palsy with stress on preventive and rehabilitation aspect.
30. Acute Osteomyelitis.
31. Chronic Osteomyelitis.
32. Pyogenic arthritis of Hip, knee.
- 33,& 34. Osteo-articular Tuberculosis with special reference to Tuberculous of Hip, knee and elbow.:-
35. Tuberculosis spine and paraplegia.
36. Fungal Infections and leprosy in Orthopaedics.
37. Cerebral palsy, Diagnosis and rehabilitation.

38. Rheumatoid arthritis.
39. Degenerative arthritis.
40. Nerve injuries and principles of management.
41. Amputation and Disarticulation – Indications methods and complications.
42. Metabolic bone disease : Rickets, Osteomalacia and Osteoporosis.
- 43,& 44 Tumours of bones and its classification. Benign :- Osteochondroma, Giant cell tumour Unicameral Bone cyst, Aneurysmal cyst.
- 45,46 Malignant- Osteogenic sarcoma, Ewing’s tumour, Fibrosarcoma, Chondrosarcoma, Multiple Myeloma, Secondaries from Primary Carcinoma (Metastatic tumours)
47. Back ache,
48. Frozen shoulder, Tennis Elbow, Dequervain’s disease, Dupuytren’s Contracture Osgood – Schlatter;s disease, planter fasciitis.

Practical and Lecture cum Demonstration Classes, in MBBS in Orthopaedics

Once a week class for two hours in 8th/9th semester.

Topics of Demonstrations :-

1. Plaster technique and splint applications.
2. Traction application, Orthopaedic appliances demonstration, Demonstration of Physiotherapy equipments.
3. Specimens of sequestrum and Tumours, Madura foot etc.
4. Common instruments and Implants.
- 5 to 7. Common X-rays of traumatology, bony infection, joint infection and tuberculosis, Malunited Colle’s fracture, forearm or Supracondylar Humerus fracture.
- 8 to 10. Chronic osteomyelitis case, knee effusion case, Non union case, Bony tumour case.

Seminar Topics :-

1. Osteomyelitis.
2. Tuberculosis.
3. Bone tumours
4. First aid and acute trauma Life saving (ATLS) measures.

Tutorial Topics :-

15. Supracondylar fracture Humerus.

16. Colle's fracture.
17. Fracture neck femur.
18. Spine examination, Pott's spine and paraplegia
19. CTEV.
20. Shoulder, Elbow and wrist examination.
21. Hip examination.
22. Knee, ankle foot examination.
23. Nerve examination and nerve injuries.

Internal assessment:

Two Term ending examination at the end of Posting of 50 marks each

Total 100 out of 450 marks under general surgery.

Yours sincerely,

HOD
Dept. of Orthopaedics

