

**CURRICULUM FOR
POST-DOCTORAL FELLOWSHIP
COURSE
IN
ORTHOPAEDIC ONCOLOGY**



**DEPARTMENT OF ORTHOPAEDICS
SRI AUROBINDO UNIVERSITY**

SAIMS HOSPITAL CAMPUS, Indore Ujjain, State Highway, Bhawrasla, Indore, Madhya
Pradesh 453555

COURSE DETAILS

1. Goals-

To train an orthopaedic surgeon into a safe, skilled, independent musculoskeletal oncologist capable of managing bone & soft-tissue tumors with limb salvage & oncologic principles.

2. Equipments & Facilities available-

Dedicated orthopaedic oncology unit with radiation oncology, medical oncology and interventional radiology department all together performing complex procedure in correlation to each other with dedicated 2 operation theater.

3. Duration of The Course – 11 month

4. Eligibility – MS /DNB (Orthopaedics) or equivalent degree

5. Attendance and leave rules- same as per rules of senior resident of the institute

6. Duties and Responsibilities of fellows Clinical Duties

(i) OPD & PATIENT EVALUATION

- Attend daily OPD and evaluate new and follow-up patients
- Take detailed history, perform musculoskeletal examination
- Order and interpret radiology & lab investigations
- Plan staging work-up for tumour cases
- Provide counselling regarding diagnosis & treatment options

(ii) WARD & IN-PATIENT CARE

- Conduct daily ward rounds (morning & evening)
- Review post-operative patients regularly
- Document clinical findings, plan and record management
- Manage drains, dressings, pain control, antibiotics
- Coordinate physiotherapy and rehabilitation plans
- Attend oncologic emergencies (pathological fractures, spinal cord compression, tumour bleed, febrile neutropenia referrals etc.)

(iii) OPERATION THEATRE RESPONSIBILITIES

- Detailed pre operative planning.
- Participate in tumour surgeries (assistant & primary role depending on training stage)
- Understand oncologic surgical principles: margins, biopsy tract handling, specimen orientation
- Assist or perform limb salvage procedures, reconstructions, megaprosthesis surgeries
- Maintain OT planning, instrument preparation, and implant checklists
- Supervise sterility protocols and patient positioning

(iv) ACADEMIC & RESEARCH RESPONSIBILITIES

- Case presentations & discussion- once a week
- Seminar — Once a week
- X-ray, MRI and CT-scan reading classes every month incoordination with department of radiology
- Journal club- Once a month
- Round Presentation
- Faculty lecture teaching- Once a month
- Clinical Audit-Once a Month

(v) DOCUMENTATION & LOGBOOK

- Maintain daily surgical logbook (assisted & performed cases)
- Record OPD, ward, call, tumour board participation
- Update case presentations, academic activity record
- Ensure proper patient documentation and consent forms

(vi) Multidisciplinary Coordination

- Coordinate with:
- Surgical oncology team
- Medical & radiation oncology
- Pathology, radiology, rehab & palliative care
- Prosthesis & orthotics, physiotherapy teams
- Communicate clinical findings & treatment plans effectively

7. CONTENT (CURRICULUM):

Module A – Basic Sciences & Foundation

- History and evolution of orthopaedic oncology
- Bone & soft tissue tumour biology and molecular mechanisms
- Pathology and tumour classification
- Imaging in musculoskeletal tumours (X-ray, MRI, CT, PET-CT)
- Biopsy techniques — open, needle, and image-guided
- Tumour grading and staging systems (Enneking, AJCC, etc.)

Module B – Diagnosis & Pre-operative Planning

- Clinical presentation and differential diagnosis
- Radiological features and tumour localization
- Pre-operative optimization and planning
- Surgical margins and resection principles
- Decision-making: Limb-salvage vs amputation
- Role of neoadjuvant chemotherapy and radiation
- Planning of custom or modular prosthesis
- Coordination with pathology, oncology, and radiology teams

Module C – Operative & Post-operative Management

- Principles of tumour resection and margin clearance
- Limb-salvage surgery (LSS): wide resection, biological and prosthetic reconstruction
- Megaprosthesis reconstruction and allograft / autograft techniques
- Vascular and nerve preservation in limb salvage
- Use of microvascular free flaps for soft tissue coverage
- Infection control and wound management
- Post-operative rehabilitation and physiotherapy
- Adjuvant therapy coordination (chemo, radiation, targeted therapy)
- Long-term follow-up, recurrence detection, and management

Module D – Research, Teaching & Administration

- Case presentations, journal clubs, seminars
- Research methodology and publication ethics
- Morbidity & mortality meetings
- Record keeping and tumour registry maintenance
- Institutional tumour board participation
- Medical ethics, patient consent, and medico-legal documentation
- Teaching and mentoring postgraduate residents