

1. Information Related to Course Content

Program goals: Trainee must develop competency in managing patients with acute and chronic pain efficiently.

Curriculum:

Objectives

Physicians upon completing this entry-level pain curriculum will be able to:

1. Recognize pain medicine as a necessary field in clinical practice for acute and persistent (chronic) pain conditions
2. Understand the basic science of pain-processing components such as anatomy, physiology, and pharmacology
3. Identify clinical presentation of acute and persistent pain syndromes or conditions
4. Recognize the multidimensional aspects of the pain experience and its related management
5. Understand pain management options appropriate for individual patients according to medical condition, medicine availability, risk-benefit balance, cost-effectiveness, culture, mental status, and evidence of efficacy
6. Know the indications, contraindications, and risks of the primary elements of multimodal pain management
7. Learn effective interaction with multi-professional teams involved in practicing pain medicine
8. Practice pain medicine according to ethical principles

Curriculum Content Outline

1. Multidimensional Nature of Pain
 - a. Definition of pain
 - b. Biological significance of pain (survival value)
 - c. Relationship between acute and chronic pain
 - d. Distinction between nociceptive, nociplastic, and neuropathic pain
 - e. Pain as a public health problem
 - f. Epidemiology: Societal consequences
2. Ethical issues
 - i. The right to receive treatment for pain
 - ii. Pain disability and litigation
 - iii. Pain in children
 - iv. Pain and opiate dependence
 - v. Pain research in humans and animals
3. Basic sciences
 - i. Neuroanatomy and Neurophysiology of Pain
 - ii. Peripheral receptors, afferent fibers, transduction and transformation, peripheral sensitization
 - iii. Spinal terminations and spinal processing of nociceptive information, spinal reflexes, ascending tracts, transmitters (peptides and amino acids)
 - iv. Brainstem mechanisms of pain (autonomic reflexes, ascending reticular activating system)
 - v. Thalamic nuclei, nociceptive cortical network, cortical reorganization
 - vi. Descending control of nociceptive information and pain modulation
 - vii. Central sensitization
 - viii. Genetics in relation to pain mechanisms
4. Pharmacology of Pain

- i. Basic pharmacology of local anesthetics
 - ii. Basic pharmacology of nonsteroidal anti-inflammatory agents
 - iii. Basic pharmacology of opioids
 - iv. Basic pharmacology of medicines licensed for neuropathic pain
 - v. Basic pharmacology of other relevant analgesic medicines
5. Psychology of Pain
- i. Affective, cognitive, behavioral, and developmental aspects
 - ii. Pain attribution., self-esteem, self-efficacy, and perceived self-control
 - iii. Interpersonal issues, sick role, illness behavior (normal and abnormal), the role of the family
 - iv. The influence of political, governmental, and social welfare programs
 - v. Cultural differences in pain meanings and treatment approaches
 - vi. Illness behaviors associated with pain (denial and amplification)
 - vii. Pain as a coded message of psychosocial distress
6. Pain Assessment and Measurement
- a. The validity, reliability, sensitivity, specificity, and clinical utility of methods for:
 - i. The measurement of pain, disability, associated distress, and suffering
 - ii. Quantitative sensory testing in relation to specific mechanisms
 - iii. Assessment of pain relief and functional improvement (sleep, work, self-care, etc.)
7. Management of Pain
- a. General principles
 - i. The measurement, quantification, and recording of pain
 - ii. The multimodal approach (multidisciplinary pain clinics)
 - iii. The clinician-patient relationship
 - b. Clinical pharmacology
 - i. Nonsteroidal anti-inflammatory agents and antipyretics
 - ii. Systemic and spinal opioids, endorphins
 - iii. Local anesthetics
 - iv. Steroidal anti-inflammatory Drugs
 - v. Medicines indicated for neuropathic pain
 - vi. Other medicines active against neuropathic pain (e.g., anticonvulsants, antidepressants)
 - c. Psychotherapeutic and behavioral approaches
 - i. Individual, family, and group psychotherapy
 - ii. Cognitive-behavioral therapy
 - iii. Relaxation techniques (biofeedback, etc.)
 - iv. Hypnotherapy, operant approach, stress management
 - d. Physical therapy
 - i. Exercise and other active treatments
 - ii. Manual therapy and other physical medicine treatments
 - e. Neuromodulation techniques
 - i. Transcutaneous nerve stimulation
 - ii. Brain and spinal cord stimulation
 - iii. Acupuncture
 - iv. Pulsed radiofrequency
 - f. Nerve blocks (image guided)
 - i. Local anesthetics
 - ii. Neurolytic solutions
 - iii. Ablative Radiofrequency
8. Clinical Conditions
- a. Etiology, diagnosis, multidisciplinary management, economic impact, medico-legal, and compensation issues within:

- i. Emergency-service pain
- ii. Postoperative pain
- iii. Chronic primary pain syndromes
- iv. Chronic pain related to cancer or its treatment
- v. Chronic postsurgical or posttraumatic pain
- vi. Neuropathic pain
- vii. Headache and facial pain syndromes
- viii. Musculoskeletal pain
- ix. Visceral pain
- b. Specific pain issues related to:
 - i. Children and infants (signs of pain, evaluation and management, physiology, acute and chronic pain)
 - ii. Elderly
 - iii. Developmentally challenged
 - iv. Pregnancy, childbirth, and breastfeeding
 - v. The opioid tolerant patient
 - vi. Substance use disorders

Skills to be achieved during the course:

- 1) Developing diagnosis skills by attending OPD and learning algorithms
- 2) Medical managements
- 3) Physiotherapy and yoga
- 4) Knee- attending knee scopies, diagnosing lesions depending on patients presentation
- 5) Spine- Attending surgeries to learn anatomy, understanding the concepts of disc buldge, PID, Contained / noncontained disc
- 6) Headache – types and management
- 7) Arthritis- types and management
- 8) Plantar fasciitis, tennis elbow, golfers elbow
- 9) Causalgia , vitamin deficiencies
- 10) Trigeminal ganglion, pterygopalatine ganglion neuralgia and management
- 11) Plexus nerve blocks for various pain conditions
- 12) C arm / USG guided procedures
- 13) Shoulder- Anatomy and Pathology
- 14) Radiofrequency, ozone, PRP therapies
- 15) Spinal cord stimulation
- 16) CRPS 1 and 2
- 17) Failed back spine surgery syndromes

Non Technical Skills

- Orders and prioritizes appropriate investigations
- Principles of informed consent
- Principles of crisis management, conflict resolution, negotiation and debriefing
- Understand nonverbal communication with attendants of patients
- Research programmes

Teaching skills

- Clinical core competency skills : development and assessment
- Research
- Organizing a CME
- Representation in conferences

- Writing a paper and basics of biostatistics, research methodology, ethics
- Medico legal aspects relevant to the discipline

2. Duration : 1 year

3. Training Facilities

- a) OPD - Twice a week
- b) Daily IPD round for patients referred for pain management

•Teaching and training activities

The fundamental components of the teaching programme should include:

1. Case presentations & discussion- once a week
2. Seminar – Once a week
3. Journal club- Once a week
4. Round presentation - once a week
5. Faculty lecture teaching- once a month
6. Clinical Audit-Once a Month
7. One poster/paper presentation and one publication at least once during their training period in a recognized conference.

The training program would focus on knowledge, skills and attitudes (behavior). It is divided into theoretical, clinical and practical training in all aspects of the delivery of care. It also includes methodology of research and teaching.

Theoretical: The theoretical knowledge would be imparted to the candidates through discussions, journal clubs, symposia and seminars. The students are exposed to recent advances through discussions in journal clubs.

Symposia: Trainees would be required to present a minimum of 20 topics based on the curriculum over a period of one years to the combined class of teachers and students. A free discussion would be encouraged in these symposia. The topics of the symposia would be given to the trainees with the dates for their presentation.

Clinical: The trainee would be attached to a faculty member to be able to pick up methods of history taking, examination, prescription writing and management.

Bedside: The trainee would work up cases, learn management of cases by discussion with faculty of the department.

Journal Clubs: This would be a weekly academic exercise. A list of suggested Journals is given towards the end of this document. The candidate would summarize and discuss the scientific article critically. A faculty member will suggest the article and moderate the discussion, with participation by other faculty members and resident doctors. The contributions made by the article in furtherance of the scientific knowledge and limitations, if any, will be highlighted.

Key accountability

- 1) OPD
- 2) Preparation for interventional procedures
- 3) Keeping all patient’s records
- 4) Follow up of patients
- 5) Helping in the OT

- 6) Daily compulsory duty (9am to 5pm) and emergency duties as per allotment
- 7) Case presentation once a week
- 8) Publication of one original article in indexed journal
- 9) Participation in PG activities

Rotation:

- 1) Neuroanaesthesia
- 2) Orthopaedics
- 3) Radiology
- 4) Oncosurgery/ Oncomedicine

Log book

- A candidate shall maintain a log book of operations (assisted / performed) during the training
Period, certified by the concerned post graduate teacher / Head of the department / Senior Consultant.
- The candidate will maintain the record of all academic activities undertaken by him/her in log book .
 1. Personal profile of the candidate
 2. Educational qualification/Professional data
 3. Record of case histories
 4. Procedures learnt
 5. Record of case Demonstration/Presentations
 6. Every candidate, at the time of practical examination, will be required to produce performance record (log book) containing details of the work done by him/her during the entire period of training as per requirements of the log book. It should be duly certified by the supervisor as work done by the candidate and countersigned by the administrative Head of the Institution.

Examination: At the end of tenure of fellowship there will be university exam (theory and practical) which will be conducted in presence of external examiner. Theory will consists of multiple choice questions. Practical will have one long, two short cases and Table viva.

4. Teaching Faculty Details

Name: - Dr. Chhaya Suryawanshi, Professor & Head of Department Anaesthesiology
Qualifications: – MBBS, MD Anaesthesia, Registration No. – 69085

Name: - Dr. Aparna Bagle, Professor Department of Anaesthesia
Qualifications: – MBBS, DA, DNB, Ph. D. & Fellowship in Pain Management (FIPM)
Registration No. – 89747,

Name:- Dr. Bhagyashree Soor, Assistant Professor Department of Anaesthesia
Qualifications: – MBBS, MD, DNB & Fellowship in Pain Medicine (FIPM)
Fellowship in Regional anaesthesia (FRA), Registration No. – 2014/08/3654

5. Infrastructure Facilities

- Clinical workload
- Well equipped OPD
- 2000 bedded IPD hospital
- Consultation/ Examination room

- Well equipped Operation Theatre/ Pain procedure room – Anaesthesiologist, facilities for monitoring and resuscitation, trained staff, trained radiographer
- Well equipped Recovery room
- Diagnostic facility – X-ray, CT, MRI, Sonography and laboratory
- Equipments – Fluoroscopy compatible table, radio protection shield, C- arm, USG machine
- Staff facility – access to computers and IT support
- Multi disciplinary team
 - a) Psychologist
 - b) Staff/ Nurse
 - c) Physiotherapy
 - d) Pharmacy
 - e) Orthotics
 - f) Rehabilitation
- Simulation Lab
- Central and departmental library

6. Fees:- Rs. 1,00,000 /- (Rupees One Lakh Only)