

**Maharashtra University of Health Sciences,
Nashik**

SYLLABUS

**“Fellowship Course in Chronic Pain
Medicine”**

Objective:

This is a one year fellowship program that is available for candidates desiring additional training in Chronic Pain Medicine.

The goal of this Fellowship Programme is to provide Anaesthetists/Orthopedic Surgeons/ Neurologists/ Rehab Medicine Specialists with comprehensive academic, research and clinical training in Chronic Pain Medicine. This will include learning on the relevant applied anatomy, pathophysiology, evaluation, diagnosis and current Standard Management in all pathologies that lead them to Fellowship in Chronic Pain Medicine. There will be a very strong emphasis on research, scholarly activity and teaching experience. This Fellowship will enable candidates to have a strong foundation to receive the Post-Doctoral Fellowship Award from the MUHS and consequently have a successful career in clinical practice.

Programme:

The Fellowship seeks 2 years of relevant post graduate experience in the fields of Anaesthesia, Orthopedics, Rehabilitation medicine, and neurology (the post graduate qualification should be from a reputed institution which is Republic of India or MCI accredited). It provides both didactic and self-directed teaching at both clinical and research skills aimed towards a very strong commitment to academic evidence based medicine and research..

Name of the Course**Fellowship Course in Chronic Pain Medicine****Course Duration.**

1 year.

Course fee.

As per University rules

Eligibility for Candidate for the Award of Fellowship

2 years of relevant experience Post-Diploma or MD/DNB in Anaesthesia,/ post-MS/MD/DNB in Orthopedics, Rehab, Neurology, Anaesthesia (Republic of India and MCI accredited). For Foreigners, Post graduate degrees equivalent to and recognised by Medical Council of India.

Selection Criteria for candidates:

Fellows should be selected in a fair and non-discriminatory manner in accordance with the Equal Opportunities regulations of MUHS. The selection process will be according to MUHS guidelines.

Candidate will be evaluated by credit points system: Most Fellows confuse credit based system with a different evaluation system in medical education. The credit based system is rather a scientifically accepted system which allows different weightage to different courses in a program based on its utility in the overall program structure. Over a period of time it has been identified that every program must have some learning objective defined to it. Since the entire course is Credit System based, for each Module, the candidates will be assigned credits for their work by respective Faculty/Institute.

SCHEME OF EVALUATION

General Guidelines for allotment of Credits

Total Credits: -300

Minimum Number of Credits for successful completion of programme:-240 credits (80%)

Transfer of Credit to and from other Universities: Not at present as no other Indian university has any such course available at present, but will be informed once broad consensus among other universities is established.

Breakup of credits

Expectations include: All Fellows

- Demonstrate manual dexterity appropriate for their training level.
 - Critically evaluate and demonstrate knowledge of pertinent scientific information.
 - Practice-based learning and improvement that involve investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
- All Fellows will present and review current literature at Journal Clubs.
 - All Fellows will be expected to actively participate at local, regional and National seminars and conferences.
 - Maintain high standards of ethical behaviour.
 - Demonstrate sensitivity to age, race, gender, and culture of patients and other healthcare professionals

- Practice high-quality, cost-effective patient care.
- Demonstrate knowledge of risk-benefit analysis.

These academic activities will constantly be reviewed by a Senior Faculty.

Portfolio Management:

All Fellows will maintain a Fellowship PORTFOLIO.

Two monthly review of following topics by faculty via internet /in person this will include:

- Research/Project
- Log Book
- Presentations
- On-going Publications
- Number of hours spent on hands on practice
- Summaries of case discussions and presentations.
- Synopsis of publications.

Maintaining accurate case logs is critical to each fellow. These numbers are vital for hospital privileging. It is mandatory that case logs are entered by each fellow into the Course Fellowship Case Log. Case logs need to be printed and brought to the monthly didactic meetings for review. Failure to do so results in the curtailing of operative privileges. Log book, presentation & Dissertation will be signed & evaluated on a time to time basis by respective faculties.

CURRICULUM:

Course Director/Programme Director is required to fill up the requirements according to guidelines presented below and submit it to University.

Training Schedule:

1. Introductory course for one month when the candidate is introduced to the aspects of anatomy physiology and pharmacology relevant to chronic pain as well as to common categories of pain conditions.
2. Assignment: documentation, writing and publication of one scientific paper during the fellowship period
3. One week Contact session at the end of 6 months to assess the candidate's progress
4. Modules with assignments with periodic assessment
5. Hands on training – after 6 months up to 1 year

A) SOFT SKILL DEVELOPMENT MODULE (60 Credits)

(Please specify the subjects in chronological order required for the course and break up of the credits allotted according to importance of the subject)

1) Hand skills development (16 credits points)

Anatomy workshop- cadaveric dissection: Demo by Anatomists

- a) Lower Limb & Upper limb (2 credit points)
- b) Pelvic and Shoulder girdles (2 credit points)
- c) Back (2 credit points)
- d) Neck (2 credit points)
- e) Thorax (2 credit points)
- f) Abdomen (2 credit points)
- g) Face (2 credit points)
- h) Identification of anatomical structures and hands-on use of IMS needles (2 credit points)

2) Observation, recap of muscles needled and introduction of needles under supervision: upper limb (10); lower limb (10); back (10); neck (10); thorax (5); abdomen (5); face (5); Pelvis (2). Written documentation: 2 in number for each site. (2 credit points for observation of each site and 2 points for written documentation of each site- total 32 points)

3) Observation and documentation of USG guided nerve blocks and dry needling of thorax, abdomen and limbs: 4 credit points for each site- total 12 credit points)

B) Didactic Credits :(70 Credits @ 1 credit point per lecture)

Didactic on various topics as per syllabus spread over one Hour lecture.

Module I: Introduction to pain medicine

1. Chronic Pain- Theory and Intervention
2. Applied Anatomy relevant to Pain medicine
3. Applied physiology -Neurophysiology - pain receptors, pathways, gate theory, peripheral and central sensitization.
4. Applied pathology - Neuropathophysiology of neuropathies, neuralgias, neuromuopathies and nociceptive pains
5. Pharmacology for pain management- NSAIDs, coxibs, opioids, neuromodulators (tricyclics antidepressants, anticonvulsants SSRI, SNRI), muscle relaxants

6. Cellular mechanics in chronic pain - calcium channels sodium channels, role of cell membrane in pain impulse conduction, and its stereospecificity towards endogenous and exogenous molecules involved in pain sensation conduction transmission and inhibition .
7. Pathophysiology of nociceptive pain
8. Pathophysiology of neuropathic pain
9. Pathophysiology of neuromyopathy

Module II; Diagnostic aids

10. Pain Measurements
11. Designing Reporting of pain – Pain scales
12. Animal models in pain
13. Ethical standards in pain
14. Epidemiology
15. Clinical Nerve Function Studies and Imaging
16. Understanding MRI and CT
17. Understanding Ultrasound and sonoanatomy
18. Understanding Ultrasound guided interventional procedures.

Module III: Basic Pain Management using a biopsychosocial model

19. Relevance of conservative Medical management of chronic pain
20. Relevance of Interventional Pain Management- Fluoroscopy, Ultrasonography,
21. Relevance of Interventional Pain Management- Peripheral nerve stimulator guided blocks, Radiofrequency procedures.
22. Relevance of Physical Medication & Rehabilitation
23. Relevance of Psychological Treatments, cognitive behavioural therapy
24. Relevance of advanced Interventional Pain Management
25. Continuous catheter techniques
26. Intrathecal drug delivery
27. Neuro Stimulation
28. Radiofrequency procedures
29. Complementary Therapies
30. Placebo & Pain

Module IV- Pain relief and rehabilitation

31. Relevance of Work Rehabilitation

32. Occupational therapy

Module V- Taxonomy of Pain Systems - An integrated approach to pain in various parts of the body. Including etiology, diagnosis, pathophysiology, investigations, treatment, rehabilitation

33. Acute and Postoperative Pain

34. Cancer Pain and palliative medicine

35. Cervical Radicular Pain

36. Lumbar Radicular Pain

37. Visceral Pain

38. Chronic Urogenital Pain.

39. Pain in Pregnancy and Labor

40. Somatic Pains (Repetitive Strain injury)

41. Somatic Pains (fibromyalgia)

42. Neuropathic pains

43. CRPS

44. Post herpetic neuralgia

45. Central pain states (Spinal cord injury)

46. Central pain states (Multiple sclerosis))

47. Phantom limb pain

49. Headaches, migraines

50. Orofacial pain, dental pains

Module VI- pain management in special situations

51. Pain in Older Adults

52. Pain in Infants, Children, and Adolescents

53. Sex and gender in pain

55. Psychosocial & Cultural Aspect

56. Pain Relief in Substance Abusers

57. Surgical Pain Management

58. Pain Relief in Areas of Deprivation and Conflict

59. Chronic renal failure

60. Cardiac failure

61. Respiratory diseases

62. Neurological and musculoskeletal disorders

Module V11- Ethical considerations in Pain Medicine

63. Ethics and legal issues

64. Ethics in different clinical situations

Module V111

Nursing Issues:

65. Management of continuous catheter systems

66. Prevention and Management of complications with simple and complex procedures in chronic Pain

Module 1X- Academic training

67. Understanding the mechanics of paper publication in journals

68. Understand clinical research methodology

69. Assisting the senior staff in preparing a manuscript.

70. Understanding literature search, literature citing, use of end note

D) Observation, assistance and documentation of block: (Total 70)

- a) Transforaminal epidural (20 blocks): 20 credit points
- b) Cervical epidural (5 blocks): 5 credit points
- c) Pulsed Radiofrequency neck facets (1 block): 1 credit point
- d) Radiofrequency ablation of medial branches in lumbar region (5 blocks): 5 credit points
- e) Pulsed Radiofrequency knee (5 blocks): 5 credit points
- f) Stellate Ganglion Block (2 blocks): 2 credit points
- g) Lumbar/thoracic sympathetic block (1 block): 1 credit point
- h) Pulsed Radiofrequency trigeminal nerve (2block): 2 credit point
- i) Trigger point injection under USG (5 blocks): 5 credit points
- j) Intra articular blocks (knee, shoulder, digital) (3 blocks each): 1 credit point per block: total 9 credit points.
- k) Frozen shoulder block (5 blocks): 5 credit points
- l) Transverse abdominis plane block (1block): 1 credit point
- m) Continuous peripheral nerve block and its management(1 block): 5 credit points
- n) Sacroiliac joint block (1 block): 1 credit point
- o) Any other block that is observed and documented: 3 credit points

(E) Logbook: (Total 50)

Detailed patient evaluation, assessment, documentation, archiving and follow-up of 25 cases reports including physiotherapy, psychosocial and spiritual issues: (2 credit points per case documented; total 50)

F) Fellowship Examination (50 Credits)

The examination for a particular course may be conducted according to the requirement of a course.

The examination should be of MCQ type for judging overall proficiency of a Fellow.

On successful completion of all modules of the Programme the Fellow will be awarded a Certificate of the Fellow in Chronic Pain Medicine.