

Format Of The Ordinances (Academic)
For
Post Doctoral Certificate Course (PDCC)
IN
“Pain Management”

SUBMITTED BY
Department of Anesthesiology
King George’s Medical University, U.P
Lucknow

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Preamble:

PDCC IN PAIN MANAGEMENT (Anesthesiology) course is designed to train candidates in the principles and practice of pain management.

1. **Name of the Course:** Post Doctoral Certificate Course (PDCC) in Pain Management
2. **Eligibility: (Basic Qualification for admission)** — M.D./DNB Anaesthesiology from University recognized by MCI
3. **Number of Candidates** — 2 per year one SR on sponsored
4. Course would consist of Theory and Practice of Intervention for pain management.
5. **Admission:**
The Post Doctoral Certificate Course (PDCC) will be a common entrance test through Controller of examination King George's Medical University.
6. **Duration of the course: 1 (one) year full time course**

Minimum: 1 year

a. Duration of Course

One academic years

Syllabus PDCC Pain management Anesthesiology.

b. 4. Aims and Objectives of the Course

The aim of the course is to impart thorough and comprehensive training to the candidate in the various aspects of this specialty to enable him/her:

- (a) To function as a faculty/consultant in the specialty
- (b) To carry out and help in conducting applied intervention in the field of Pain management.
- (c) To plan and set-up independent pain Unit.

c. Teaching Methods

During the period of training candidates follow in-service residency programme. He/She works as senior resident and is given gradually increasing responsibility for independently managing interventional procedure and patients care.

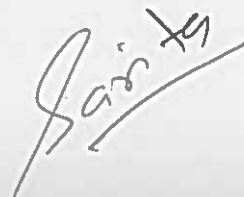
The day to day work of the trainees will be supervised by the consultant of the department of Pain unit anesthesiology. The posting is so designed that the trainee get posted in various areas of the department like Pain operation theatre and OPD, with 2 weeks posting of Radiology & 1 month of Radiotherapy Palliative ward. Beside this a programme for invasive procedure demonstration, seminars, workshops, journal club will also be organized.

d. Teaching Programme

The following teaching programme is prescribed for the course:

Operation theatre 2 days/week

Pain OPD 3 days/week



seminar Once week
Journal Club Once a week
Case presentation once a week. clinical Audit,
Lecture by Faculty=Neurology, Radiology, Psychiatry and Physiotherapy.

Log Book

Teaching to MD Anesthesia by the PDCC student is part of the training.

Research

The trainee shall be required to write one research paper under the guidance of consultant for publication in an indexed journal.

Final Examination

Eligibility

Candidate will be allowed to appear after one year of training.

Board of Examiners

Includes 2 Internal (HOD of Anesthesiology and Pain unit In charge) and 2 External Examiner concern to pain specialist

Theory Papers

There shall be three theory papers with the following titles.

Clinical Practical and Viva Voice

Theory Papers

There shall be three theory papers with the following titles

- Basic sciences as related to pain management.
- Clinical aspects of pain management.
- Recent advances in pain management;
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Clinical Practical and Viva Voice

One long case and two short cases will be given to the candidates and the discussion there on would last 30-40min in each case. The candidates are also given X-rays, CT scan and MRI to be interpreted. Various equipment used in OT, drugs, and fluids are also required to be interpreted and discussed. Viva is also held.

7. Curriculum structure:

(a) Anatomy and Physiology:

Central Nervous System

Peripheral Nervous System

Musculoskeletal System

Viscera and its innervations

(b) Pathophysiology of pain transmission and modulation:

Saints

Peripheral Mechanism

Synaptic transmission in dorsal horn

Peripheral and Central sensitization

Neurotransmitters in pain modulation

(c) Psychosocial aspect of pain:

Definition and measurement of pain

Individual differences

Behavioral processes

Emotional problem and psychiatric disorders associated with pain

(d) General principles of pain evaluation:

Clinical History, Physical Examination,

Pain assessment tools (pain scales) for adults, children and elderly.

Investigations:

Biochemical:

Radiological: X-Ray, MRI, CT, CT angio, Bone Scan, BMD/DEXA

Neurological: NCV/ H-Reflex, Evoked Potential Testing.

Genetic Studies.

Diagnostic Blocks.

(e) Ethical and legal issues in pain management:

Informed Consent

Patient confidentiality

Prescribing controlled substances

Prevention of drug abuse and dependence.

(f) Drug treatment:

Narcotics: Morphine, Oxycodone, Hydromorphone, buprenorphine, Methadone, Tramadol, Fentanyl and its analogues.

NSAIDs, Acetaminophen and COX-2 inhibitors.

Local Anaesthetics:

Neurolytic Agents: Alcohol, Phenol, Glycerol.



Antidepressants: Amitriptyline, Nortriptyline, Duloxetine, SSRI, SSNRI etc.

Anticonvulsants: Gabapentine, Pregabalin, Carbamazepine, Oxcarbazepine etc.

Bisphosphonates, Calcitonin, Parath. Hormone

Neurotropic / Vitamins: Methocobalamine, Vit E, Vit D, Folic Acid

Muscle relaxants: Baclofen, Benzodiazepines, Tizanidine.

Steroids: Depomedrol, Triamcinolone, Dexamethasone.

Anti rheumatoid: DMARD's and Biologicals.

Botulinum toxin (Botox).

Miscellaneous: L-Carnitine, Botulinum Toxin, Hylauronic acid etc.

(g) RadioFrequency (Conventional/ Pulsed), Cryoanalgesia:

Physical principles of lesion generator.

Clinical applications in pain management.

(h) Use of C-arm and Ultra sound Machine in pain management:

Basics of radiological imaging.

Spinal radio anatomy.

Radiation safety for the pain specialist.

(i) Etiopathogenesis, Clinical history, Examination, Diagnosis, D/D, Management, complications and follow up of following Pain Syndromes:

Back Pain and Sciatica

Neck Pain and Cervical radiculopathy

Oro-facial Pain/Trigeminal Neuralgia

Chronic Headache: classification, etiopathogenesis, management.

Pain in degenerative joint diseases

Pain in extremities

Thoracic Pain

Abdominal Pain

Perineal pain and Coccydynia

Urogenital Pain Syndromes

Saints

Herpetic and Postherpetic Neuralgia

Peripheral Neuropathic Pain

Fibromyalgia/ Myofascial pain syndromes

Peripheral Vascular diseases

PDPH

Complex Regional Pain Syndromes (CRPS)

Central pain states

Pain in paediatric and geriatric patients.

(j) Management of Cancer Pain:

Magnitude of problem, etiopathogenesis, clinical presentation, diagnosis and management.

Various Cancer Pain syndromes

Medications: NSAID, Narcotics (Morphine, Codeine, Tramadol, Oxycodone, Hydromorphone, Methadone, Fentanyl (patch/sub-lingual), Adjuvants.

WHO Analgesic Ladder / Modified WHO ladder.

Neuroablative Procedures.

Vertebroplasty.

Intrathecal/ Epidural Infusion Devices.

Pain management in end of life (Palliative Care).

(k) Interventional Pain Procedures:

Cervical Epidural/Transforaminal/ Median Branch Block/ Radiofrequency (RF) lesion

Stellate Ganglion block

Sphenopalatine Ganglion Block

Supra scapular nerve block

Discography/Discectomy

Gasserian Ganglion RF Lesion/ Blocks of individual branches of trigeminal N.

Lumbar epidural/ Transforaminal/Medial branch block/RF lesion

Sacroiliac Joint Injection

Ganglion impar block/ RF lesioning.

Site

Celiac Plexus Block

Splanchnic Nerve block

Superior Hypo gastric Plexus Block

Thoracic epidural/ Facet/ Paravertebral/Sympathetic Nerve Blocks

Intercostal nerve block/RF lesion

Plexus Blocks

Peripheral Nerve Blocks

Intra articular/ bursal injections

Pyriformis muscle injection

Peripheral Nerve Stimulation

Sympathetic Blocks

Botulinium toxin (Botox) injections

Lysis of epidural adhesions (Racz technique)

Neuraxial drug delivery

Spinal Cord Stimulation/Peripheral Nerve Stimulation

(I) Non-surgical neuro-augmentative techniques:

Stimulation techniques

TENS

Acupuncture

Vibration

Biofeedback

Yoga, Hypnotherapy

- Psychotherapy, Counseling.
- Physical medicine and rehabilitation.

Log Book: To keep a record of procedures performed/observed in Pain Clinic during the course.

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I. No. of seats: 2 (1 seats linked with SR of Department and 1 sponsored seat)

II. Financial implications: Nil

III. Registration and admission test fee:

Registration and admission fee will be as per University rules. It may be similar to MD / MS / Mch test. Admission charges same for internal and external students, male or female.

IV. Attendance:

Minimum 80%

V. Examination and Evaluation:

Exit examination & Internal Assessment

a. Internal assessment:

Assessor: Faculty members of the department of Anaesthesiology & Critical Care

Periodicity: 03 monthly

Assessment: By grading system (A, B, C, D)

(Pass = 50 %)

b. Exit exam:

It will comprise of written, practical, clinical and viva voce

Written exam will comprise of 4 theoretical subjective papers of 3 hours duration.

Assessment will be in the form of marks. Each paper will comprise of 100 marks

PAPER – 1 - Basic science

PAPER – 2 – Clinical Principal & Practice

PAPER – 3 - Recent advances

Each paper have 10 short notes with 10 marks

The candidate must obtain a minimum of 50% marks in theory and practical separately to pass the examination.

VI. Promotion Rules: Not applicable

VII. Mercy appeal for extension: Not applicable

VIII. Results declaration: The certificate of Post Doctoral Course (PDCC) shall be awarded by the Controller of Examinations of KGMU Lucknow, to the successful candidates