MD Physical Medicine and Rehabilitation

Introduction

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

Currently, the need for rehabilitation is largely unmet and according to "WHO" more than 50% of people do not receive the rehabilitation services in India at present due to lack of trained specialists in Physical Medicine and Rehabilitation. Therefore, the products of this course would fill this gap in Patient Care as well as teaching-training and research. Since, the Post graduate training in PMR is being given only at a few places in India, this MD (PMR) would supplement to the efforts to meet the unmet demand. This program is meant to standardize Physical Medicine and Rehabilitation teaching at postgraduate level creating suitable manpower with appropriate knowledge, skills, attitude and expertise.

Physical Medicine and Rehabilitation (PMR), also called Physiatry or Physical and Rehabilitation Medicine or Rehabilitation Medicine emphasizes the prevention, diagnosis and treatment of disorders, particularly those of the neuro-musculo-skeletal, cardiovascular, and pulmonary systems, that may produce temporary or permanent activity limitation, disability, or participation restriction. Physical Medicine and Rehabilitation is an independent clinical discipline. PMR has a vast scope as it provides integrated comprehensive care in the diagnosis, treatment and rehabilitation management of neurological, musculo-skeletal, cardio-pulmonary disabilities from acquired or congenital conditions presenting at any stage in life from pediatric to geriatric phases. This specialty focuses on the restoration of function of people to the highest possible level, through a multi-disciplinary team approach, making use of diagnostic and therapeutic armamentarium including education and counseling, prescription of medicines, therapeutic exercises, equipment (mobility aids, orthotic-prosthetic appliances, assistive technology, physical agents and modalities, etc.), injections, surgical interventions for correction of deformities etc. in an institution-based (out-door and indoor/wards/ICUs/Nursing Homes/Old-Age Homes etc.), out-reach (Camps, Mobile

Units), or community-based settings (CBR), based on the evaluation of the individual under consideration. It is also involved in disability prevention, evaluation and certification, besides development, monitoring and supervision of a rehabilitation plan and conducting research and development.

Academic activities

1. PG Seminars – Once weekly on topics suggested by Faculty Members
2. Case presentations – Once weekly, short and long cases alternatively, if possible
3. Journal Club – Once weekly or fortnightly
4. Attending UG lectures – As assigned
5. Attending/Teaching in UG Clinical postings
6. Institutional academic activities
   - Attending Common Grand Rounds

Research activities

i. PG Thesis

The student would carry out the research project and write a thesis following the prevailing rules of the Institute. The student should be able to recognize a research topic, state the objectives in terms of what is expected to be achieved in the end, plan a rational approach with full awareness of the statistical validity, spell out the methodology and carry out most of the technical procedures required for thestudy, accurately and objectively record on systematic lines the results and observations made, analyze the data using appropriate statistical approach, interpret the observations in the light of existing knowledge and highlight in what ways the study has advanced existing knowledge on the subject and what remains to be done, draw conclusions which should be reached by logical deduction and he should be able to assess evidence both as to its reliability and its relevance, write a thesis in accordance with the prescribed instructions, and be familiar with the ethical aspects of research etc.

ii. Non-funded research - Desirable

Equipments

i. Wheel chairs (Manual and Powered)
ii. Mobility Aids such as Crutches (Different types), Walkers, Rollators
iii. Tilt table
iv. Operation Theatre Instruments related to Rehabilitative Surgery
v. Electrodiagnostic tools
vi. MSK USG (Diagnostic)
vii. Nerve-Muscle stimulator
viii. Occupational therapy equipment(s)
ix. Ergometer cycle for aerobic and anaerobic testing and training
x. Electrotherapy equipment(s) such as Ultrasound, Diathermy, IFT, LASER
xi. Movement therapy system for lower and upper limbs
xii. Treadmill – Motorised and/or Manual
xiii. Gait training system
xiv. Functional electrical stimulation system
xv. Radio-frequency ablator, if possible
xvi. Ozone therapy Generator, if possile

Facilities

i. Musculoskeletal Rehabilitation
ii. Rheumatological rehabilitation
iii. Neurorehabilitation
iv. Pediatric rehabilitation
v. Cardio-Pulmonary Rehabilitation
vi. Cancer Rehabilitation
vii. Geriatric Rehabilitation
viii. Trauma Rehabilitation
ix. Burn injury Rehabilitation
x. Sports injury Rehabilitation
xi. Rehabilitative Surgery such as correction of deformity, revision of Stump etc.

xii. Interventional pain management including USG/Fluoroscopy guided procedures

xiii. Amputee Rehabilitation

xiv. Electro diagnosis

xv. Orthotic/Prosthetic/assistive devices

Subject Specific Learning Objectives

1. Patient care

Postgraduate students need to be trained in the following:

(a) **Basic Sciences**: He/she should possess basic knowledge of (1) the structure, function and development of the human body as related to Physical Medicine and Rehabilitation. (2) Knowledge of the factors which may disturb these mechanisms and the resulting disorders of structure, function and psycho social aspects related to Physical Medicine and Rehabilitation.

(b) **Clinical knowledge**: He/she should acquire necessary competence to adopt the principles and practice of Physical Medicine and Rehabilitation so as to provide Medical & Rehabilitation interventions of high standard in an ethical manner as expected under different clinical settings, during the phase of acute care, in the setting of hospitals even at district and sub-district levels and in the chronic stage to deal with individual impairments, disability and functional limitation at the community level.

(c) **Community-based Rehabilitation Medicine**: He/she should be able to practice rehabilitation medicine at the door step of community and familiar with the common problems occurring in rural areas and deal with them effectively.

(d) Understand the principles, prescription and supervision of occupational therapy, orthosis & prosthesis prescription-measurement-fabrication-check out, physiotherapy (exercise and electrotherapy), psycho-socio-vocational counseling, speech & swallowing therapy.

(e) **Environment and Health**: He should understand the effect of environment on health and be familiar with the epidemiology of common diseases in the field of rehabilitation medicine. He should be able to integrate the preventive and

promotive methods with the curative and rehabilitative measures in the treatment of diseases.

(f) **Clinical rehabilitation medicine, decision making ability & management expertise**: Diagnose conditions from history taking, clinical evaluation and investigations and develop expertise to manage the commonly encountered, disorders and disease in different areas as follows:

1. Musculoskeletal medicine and Rheumatology: Trainees are expected to understand the basic pathophysiology of common acute and chronic musculoskeletal conditions and its basic principle of management.
2. Pediatric Neurological and behavioral Conditions: The student should be exposed to all aspects of congenital and developmental disorders such as Meningomyelocele, High risk baby, Developmental delay, Cerebral palsy, Autistic spectrum disorders, CTEV (club-foot), congenital deficiency of limbs and also to acquire adequate knowledge about the principles of management of these disorders.
3. Neurological Rehabilitation: The resident is expected to be familiar with Spinal cord injury, Stroke, Traumatic brain injury, Parkinsonism, Multiple sclerosis, Gillian Bare syndrome, Peripheral neuropathies and Muscular dystrophy etc. encountered in PMR practice.
4. Amputee Rehabilitation - The student is expected to be familiar with various causes for amputations, clinical assessment, surgical and rehabilitation approach to persons with amputations.
5. Neuropathic Foot management - The student is expected to be familiar with various causes for neuropathic foot, assessment, surgical and rehabilitation approach for them.
6. Cardio-Pulmonary, Cancer, and Burn injury Rehabilitation – The student is expected to be familiar with various aspects of Cardio-Pulmonary, Cancer, and Burn injury Rehabilitation, should be able to manage common emergency during rehab training of these patients.

And student is also expected to apply his knowledge to a terminally ill cancer patient.

7. Rehabilitation Surgeries – The student is expected to be familiar with basic principles of corrective surgeries and competently handle and execute safely common routine rehabilitative surgical procedures.
8. Ultrasound medicine- The resident is expected to be familiar with basics and principle of ultrasound machine, ultrasound guided anatomical screening and reporting of common conditions of musculoskeletal system.
9. Electro diagnosis - The resident is expected to be familiar with basics and principle of EMG/NCV machine, diagnosis of various nerve injuries and muscular dystrophies using appropriate electrodiagnostic studies.
10. Interventional pain management- The student should be exposed to all kind of chronic musculoskeletal pain condition regarding their recognition and Ultrasound/ Fluoroscopic guided interventions for management of such conditions.
11. Sports injury rehabilitation- The student is expected not only to encompass diagnostic and therapeutic aspects of athletic injuries but also their prevention, training schedules of personnel & their selection.
12. Orthotic/Prosthetic/assistive devices - The student is expected to be familiar with this in all its aspects including understanding of the fabrication and competence in prescription and check out of orthoses and prostheses. Adequate exposure in the workshop manufacturing orthotics and prosthetics is mandatory, In addition, the student learns about advances in assistive devices.
13. Basic Sciences in PMR- These deals with some of the fundamentals in PMR such as the structure and function of bone, cartilage, muscles, nerves, brain, heart, lungs etc., and their physiological/metabolic process. In addition, the student learns about common implants in

orthopedics and their design principles, mechanics, materials and metallurgy.

14. Radiology- Acquire knowledge about radiology/imaging and to interpret different radiological procedures and imaging in musculo-skeletal disorders. There should be collaboration with Radiology department for such activities.

15. Psychologic and social aspect- Elementary knowledge in clinical Psychology and social work management is to be acquired for management of patients, especially those terminally ill and disabled-persons and interacting with their relatives.

16. BLS and ACLS Trauma courses: It is mandatory for each trainee to successfully complete the BLS and ACLS Trauma course during their residency.

2. Teaching:

Acquire ability to teach an MBBS student in simple and straightforward language about the common musculoskeletal, neurological, pediatrics disorders and sports injuries especially about their signs/symptoms for diagnosis with their general principles of rehabilitation.

Student should be able to plan educational programs in Rehabilitation Medicine in association with his/her senior colleagues and be familiar with the modern methods of teaching and evaluation. The candidate should be able to -

a. To attend, observe and understand lectures delivered by the Faculty Members to undergraduates under the supervision of Faculty Member(s).
b. To write and discuss a seminar or a symposium and critically discuss it with his/her Faculty, colleagues and juniors.
c. To methodically summarise nationally and internationally published articles according to prescribed instructions and critically evaluate and discuss each selected article.

d. To present cases at clinical conference, discuss them with his/her faculty, colleagues and guide his/her juniors in groups in evaluation and discussion of these cases.
e. To learn and deliver a microteaching lecture.

3. Research:

Develop ability to conduct a research enquiry on clinical materials available in Hospital and in the community.

The candidate should be able to

a. Recognize a research problem.
b. State the objectives in terms of what is expected to be achieved in the end.
c. Plan a rational approach with full awareness of the statistical validity.
d. Spell out the methodology and carry out most of the technical procedures required for the study.
e. Accurately and objectively record the results and observations made.
f. Analyse the data using appropriate statistical approach.
g. Interpret the observations in the light of existing knowledge and highlight in what ways the study has advanced existing knowledge on the subject and what remains to be done.
h. Draw conclusions which should be reached by logical deduction and he/she should be able to assess evidence both as to its reliability and its relevance.
i. Should be capable to write case-reports or research papers for publication in scientific journals.
j. Be familiar with the ethical aspects of research and publication.

4. Identification of a special areas within the subject: To further develop higher skills within the specialty in a specialized area such as interventional pain management, Sports Injury Rehabilitation, Pediatrics Rehabilitation, Neurological Rehabilitation (Spinal cord injury, stroke and traumatic brain injury etc.), diabetic foot care, Rehabilitative surgeries, chronic musculoskeletal pain and rheumatology.
5. Should develop communication skills, public speaking ability to talk to patients, their family, and general public

6. Should be able to make presentations on disease-conditions/research topics to fellow colleagues in a Seminar/Scientific meeting/Conference using audio-visual aids.
7. Comprehensive approach/Team Work: Resident have to exhibit exemplary leadership skills in pooling and harnessing the skills with other rehabilitation paramedical staffs namely, clinical psychologists, medico-social workers, occupational therapists, orthotists and prosthetists, physiotherapists, rehabilitation nurses, speech language pathologists, vocational counselors etc. so as to provide benefits in synergistic manner involving the patients in the decision-making process.

SKILL TRAINING:

A Junior Resident doctor, pursuing M.D. Physical Medicine and Rehabilitation is expected to understand, observe, assist and perform electrophysiological diagnostic procedures, minimally invasive USG/fluoroscopy guided interventions and soft tissue surgical procedures independently as well as under supervision of a faculty member/senior resident. She/he should be able to do a few procedures independently such as: (A few examples only given below):

1. Intra-articular injections and aspirations
2. Steroid and PRP injections for appropriate musculoskeletal conditions
3. Spasticity management intervention like neurolysis, botulinum toxin A injection, Phenol motor point block, soft tissue surgery.
4. Ultrasound/fluoroscopic/nerve stimulation guided blocks for musculoskeletal and cancer pain like Stellate ganglion block, Suprascapular nerve block, Epidural block, Facet joint block, Saphenous nerve block, Trigger point injections, and others.
5. EMG/NCV of all peripheral neuropathy
6. Ultrasound screening of musculoskeletal system.
7. Urodynamic study in Spinal cord, Stroke and Meningomyelocele
8. Handling of Equipment's related to: Gait Analysis, Foot Pressure Mapping, Virtual Reality System for Balance training, Upper & Lower Limb Rehabilitative Robot, 3D Printing & Data acquisition system for orthosis & prosthesis fabrication

9. Total contact casting for diabetic/insensate foot
10. Application of POP casts and slabs like Tone inhibiting cast, Ponseti casting, Wedge casting for FFD (fixed flexion deformity) etc.
11. Application of post amputation pylon
12. Pressure ulcer debridement
13. Soft tissue surgeries in polio, cerebral palsy like TA lengthening, Subcutaneous tenotomy
14. Guidelines for evaluation and certification of disability, especially Locomotor Disability
15. Medical emergencies in Physical Medicine and Rehabilitation

Selection of candidates

This would be made on the basis of the following criteria, modified by AIIMS, Guwahati from time to time: -

a. Essential Qualifications: For admission to this course, the candidates must have passed M.B.B.S. examination of a recognised University and should have completed compulsory rotatory internship.
b. Competitive Entrance Examination as for MD/MS entrance examination of AIIMS

Syllabus

PAPER – I: Basic Health Sciences and related subjects as applied to Physical Medicine & Rehabilitation

1. Basic Anatomy and Physiology of the Musculoskeletal (including Biomechanics), Cardio-pulmonary, Urogenital, and Nervous systems, etc.
2. Basics of biochemical aspects of Calcium and Vit. D metabolism, osteoporosis, diabetes mellitus etc.
3. Basic Pathological processes causing diseases and disabilities, healing etc.
4. Basic principles of Pharmacology as applied to the conditions encountered in Physical Medicine and Rehabilitation.
5. Basic principles and practice of diagnostic modalities as applied to Physical Medicine and Rehabilitation.

6. Philosophy, history, scope and need of Physical Medicine and Rehabilitation.
7. Basic concepts in Physical Medicine and Rehabilitation - definitions, rehabilitation team, team members, scope, role and responsibilities of different members etc.
8. Principles of evaluation and rehabilitation management of social problems
9. Principles of evaluation and rehabilitation management of vocational problems
10. Organisation and Administration of Physical Medicine and Rehabilitation Services.
11. Disability concepts, models, and process. Impairment, disability, participation, International Classifications
12. Disability Prevention- levels and examples
13. Epidemiology of disability, magnitude, causes, changing trends etc.
14. Gait Analysis - Terminology, types, Clinical Applications
15. Electrodiagnostic Medicine - basic principles, clinical methods, interpretation etc.
16. Therapeutic exercises - principles, types, indications, contraindications, prescription writing
17. Physical agents/modalities - principles, types, indications, contra-indications, precautions, prescription writing.
18. Manipulation, traction, massage - principles, types, indications, contraindications, precautions, prescription writing.
19. Electrical stimulation - principles, types, indications, contra-indications, precautions, prescription writing.
20. Outcome Measures in Physical Medicine and Rehabilitation
21. Principles and scope of Occupational Therapy
22. Rationale and training of Activities of Daily Living
23. Integrative Medicine and Physical Medicine and Rehabilitation

PAPER – II: Physical Medicine & Rehabilitation II (Principle and Practice of Physical Medicine & Rehabilitation in common and important Medical, Paediatric, Geriatric conditions etc.)

1. Upper limb orthotic devices including splints– principles, types, materials and indications,
2. Lower limb orthotic devices including footwear modifications– principles, types, materials and indications
3. Spinal orthoses – principles, types, materials and indications
4. Upper limb prosthetics and amputee rehabilitation,
5. Lower limb prosthetics and amputee rehabilitation
6. Mobility aids, Assistive Devices, wheelchairs and seating systems,
7. Pain – Acute, Chronic; Low back pain, Complex regional pain syndromes
8. Geriatric Rehabilitation
9. Comprehensive Rehabilitation of persons suffering from:
    a. Arthritis, including Rheumatoid Arthritis, Osteoarthritis, Ankylosing Spondylitis, Gout etc.
    b. Coronary Artery Disease, Cardiac Rehabilitation, Rehab after coronary interventions, cardiac transplantation
    c. Chronic Obstructive Pulmonary Diseases (COPD), Asthma, Bronchiectasis
    d. Osteoporosis
    e. Stroke
    f. Cerebral palsy
10. Rehabilitation of persons:
    a. with diabetes mellitus, obesity, dyslipidemia, Gout etc.
    b. after Arthroplasty,
    c. after POP cast, Fracture treatment, Surgical intervention
    d. with urological, gynaecological and/or obstetric problems
11. Pediatric Rehabilitation including children with cerebral palsy, developmental disabilities, autism spectrum disorders, learning disabilities, multiple disabilities etc.

12. Principles of Sports Medicine, diagnosis, evaluation, prevention, and fitness training, return to sports etc.
13. Basic principles of rehabilitative surgery including surgeries such as deformity correction in poliomyelitis, cerebral palsy, clubfoot, contractures, revision of amputation stump, closure of pressure sore, tendon transfers etc.

PAPER – III: Physical Medicine & Rehabilitation III (Principle and Practice of Physical Medicine & Rehabilitation in Traumatic and Surgical conditions)

1. Comprehensive Rehabilitation of persons suffering from:
   a. Bone, Joint, muscles, ligaments, tendon injuries
   b. Amputations – upper limb, lower limb, congenital, acquired, multiple
   c. Traumatic Brain Injury
   d. Spinal Cord Injuries
   e. Peripheral Nerve Injuries
   f. Brachial Plexus Injury etc.
   g. Facial Nerve Injury
   h. Sports Injuries
   i. Burns Injury
   j. Spinal deformities like Kyphosis, Scoliosis etc.
   k. Neural tube defects like meningomyelocele and hydrocephalus etc.

2. Rehabilitation of persons:
   a. after Organ Transplantation
   b. in ICU, HDU setting
3. Principles of evaluation and rehabilitation management of persons with:
   a. visual impairment
   b. mental retardation
   c. hearing /speech impairment
   d. psychological problems or mental illness
   e. multiple disabilities
4. Medical/ surgical Emergencies in Physical Medicine and Rehabilitation

5. Sexuality and Disability

PAPER – IV: Recent Advances, Disability Research, Legislation, Rehabilitation Administration, Applied aspects of Physical Medicine and Rehabilitation.

1. Evidence-based Physical Medicine and Rehabilitation
2. Legislation in relations to disability- National and International Laws
3. Functional evaluation, Impairment rating, disability evaluation and certification including guidelines
4. Schemes and Benefits extended to persons with disabilities by the Govt.
5. Barrier-free Environment and accessibility related issues
6. Artificial intelligence in Physical Medicine and Rehabilitation
7. Assistive Technology related to Physical Medicine and Rehabilitation
8. Ethical aspects in Physical Medicine and Rehabilitation
9. Research methodology
10. Recent Advances related to Physical Medicine and Rehabilitation

Recommended books and journal (suggestive, not exhaustive) – latest Editions

Books

i. Braddom's Physical Medicine and Rehabilitation – David X Cifu
ii. DeLisa's Physical Medicine and Rehabilitation: Principles and Practice – Walter R Frontera
iii. Physical Rehabilitation - Assessment & Treatment - O'Sullivan
iv. Physical Medicine & Rehabilitation Board Review – Sara J Cuccurullo
v. IAPMR Textbook of Physical Medicine and Rehabilitation
vi. Spinal Cord Medicine- Steven Kirshblum and Vernon W Lin
vii. Physiological Basis of Rehabilitation Medicine - Downey & Darlings
viii. Treatment Planning for Rehabilitation: A patient centered Approach
ix. Rehabilitation of the lower limb Amputee - W. Humm
x. American Academy of Orthopaedic Surgeons. Atlas of Limb Prosthetics
xi. AAOS. Orthopedic Appliance Atlas
xii. Orthotics and Prosthetics in Rehabilitation - Michelle Lusardi
xiii. Ultrasound of Musculoskeletal system – Stefano Bianchi
xiv. Pain Management in Rehabilitation- Monga & Grabois
xv. Stroke Rehabilitation: A Function-Based Approach - Glen Gillen
xvi. Andrew's Physical Rehabilitation of the Athlete
xvii. Neurological Rehabilitation – Umphred
xviii. Muscles testing and function with posture and pain - Florence Peterson Kendall
xix. Electro diagnosis in diseases of nerve and muscle: Principles and practice-Jun Kimura
xx. Kinesiology: The mechanics and patho mechanics of human movement, Carol A. Oatis

Journals

i. Archives of Physical Medicine & Rehabilitation
ii. American Journal of Physical Medicine & Rehabilitation
iii. Arthritis and Rheumatism
iv. American Journal of Sports Medicine

v. Indian Journal of Physical Medicine & Rehabilitation (IJPMR)
vi. Development Medicine & Child Neurology
vii. Disability and Rehabilitation
viii. Indian Journal of Pediatrics
ix. Indian Pediatrics
x. Journal of Paediatric Orthopaedics
xi. Journal of Prosthetics Orthotics International
xii. Journal of Rehabilitation Research and Development
xiii. Journal of Rheumatology
xiv. National Medical Journal of India (NMJI)
xv. Neurology India
xvi. Physical Medicine & Rehabilitation Clinics of North America
xvii. Scandinavian Journal of Rehabilitation Medicine
xviii. Spinal Cord
xix. Stroke
xx. The Journal of musculoskeletal medicine

Teaching and learning methodology

The training program would be divided into theoretical and clinical/practical in all aspects of the delivery of the rehabilitative care, including methodology of research and teaching. Learning should be essentially self-directed and primarily emerging from clinical and academic work. The formal sessions are merely meant to supplement this core effort.

Theoretical

The theoretical knowledge would be imparted to the candidates through discussions, symposia and seminars. The students will be exposed to recent advances through discussions in journal clubs. These are considered necessary in view of an inadequate exposure to rehabilitation medicine in the undergraduate curriculum. Knowledge in applied basic sciences and clinical subjects would be imparted during clinical case discussion in the OPD, speciality clinics and bedside.

Clinical/Practical

The Residents would be attached to a faculty member to be able to pick up methods of history taking and examination in rehabilitation practice. During this period the resident would also be oriented to the common problems that come to the department. Resident will be allotted new and old cases for work up including prescription writing in OPD as well as bedside after 6 months of training under supervision of senior residents and faculty members. The resident will be provided with an opportunity to learn, assist and perform operations including post-operative care with the assistance of the senior residents and/or under the direct supervision of a faculty member.

Thesis

The student would carry out the research project and write a thesis in accordance with the prevailing rules and regulations of the Institute. The candidate will have to compulsorily undertake dissertation/thesis during the course. The work will be done independently by the candidate under the guidance of faculty member(s) who will act as his/her thesis guide/co-guides. The postgraduate candidate will have to submit a research protocol within 6 months of joining the course. The guide/co-guide will facilitate the orientation of the candidate with the curriculum and encourage his/her interest in the subject. The guide will be responsible for training and carrying out dissertation work to

be done by the candidate. A 6-monthly evaluation of thesis progress will be presented by the candidate. The completed thesis should be submitted 6 months before the completion of the course and will be evaluated as per institute rules.

Student Logbook

1. The postgraduate candidate shall maintain a 'logbook' of their academic activities like case presentations, seminars, journal clubs, minor and major procedures performed.
2. Details of leaves availed during the tenure of training program.
3. Record of end of the posting and 6-monthly assessment to be entered and signed by faculty where they are posted.

Training schedule

The postgraduate candidate will work as full-time resident. Individual and collective responsibilities will be assigned to the candidates in teaching and all routine activities in the department. In addition to his/her duties in the department, postgraduate trainee may/will be posted to other departments as per the AIIMS Guwahati policy and agreement with other departments as outlined below:

S. N.	Rotation to specialty / Name of service	Duration (Total 26 weeks)
1.	Basic Sciences	2 weeks
2.	Community medicine	1 week
3.	Cardiology & Cardiothoracic-Vascular Surgery	2 weeks
4.	Neurology	2 weeks
5.	Neurosurgery	2 weeks
6.	Orthopedics	2 weeks
7.	Trauma & Emergency Medicine	2 weeks
8.	Burns & Plastic Surgery	2 weeks
9.	Pediatrics	2 weeks
10	Urology	2 weeks
11	Oncosciences	2 weeks
12.	Pulmonary Medicine	1 week

13.	ICU/HDU/Pain Clinic	2 weeks
14.	Outstation Posting at another institute (Subject to feasibility and desire of the candidate without any institutional financial support)	2 weeks

Pattern of Assessment:

As per the prevailing policy and practice at the Institute (AIIMS Guwahati).

General Principles

- The assessment should be valid, objective, and reliable covering cognitive, psychomotor and affective domains.
- Formative and Summative assessment will be conducted in theory as well as Practicals / Clinicals. In addition, thesis should be assessed separately.

Internal assessment

As per the prevailing policy and practice at the Institute, for the sake of uniformity at the end of each year/semester assessment will be done as per the Institutional Policy and Practice.

Final Assessment

As per the prevailing policy and practice at the Institute.

- At the end of the course, final examination would be conducted as per the standard criteria/institute rules for MD/MS evaluation/examination of AIIMS Guwahati.
- Ratio of marks in theory and practical will be as per the standard criteria/institute rules for MD/MS evaluation/examination of AIIMS Guwahati.
- The pass percentage will be as per the standard criteria/institute rules for MD/MS evaluation/examination of AIIMS Guwahati, which is generally 50%.
- Candidate will have to pass theory and practical examinations separately.

Theory examination

There shall be four papers each of three hours duration.

- Paper I: Basic Sciences as applied to Physical Medicine and Rehabilitation.
- Paper II: Physical Medicine & Rehabilitation II (Principle and Practice of Physical Medicine & Rehabilitation in common and important Medical, Paediatric, geriatric conditions etc.)

- Paper III: Physical Medicine & Rehabilitation III (Principle and Practice of Physical Medicine & Rehabilitation in Trauma and Surgical conditions etc.)
- Paper IV: Recent Advances, Disability Research, Legislation, Rehabilitation Administration, Applied aspects of Physical Medicine and Rehabilitation.

Practical Examination

OSCE may be incorporated in varying proportions.

Practical examination would be conducted as per the policy and practice at the Institute. Usually it is as follows:

- Long Case - One
- Short Cases – Three
- Viva-Voce involving
    - PMR related X-Rays/CT scan/MRI/Bone Scan/Electrodiagnosis Report etc.
    - Rehabilitation Surgery Instruments
    - Physical Medicine Instruments/Equipments/Modalities
    - Orthotic-Prosthetic Appliances/Mobility Aids etc.