

NATIONAL MEDICAL COMMISSION
Postgraduate Medical Education Board

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**GUIDELINES FOR COMPETENCY
BASED
POSTGRADUATE TRAINING
PROGRAMME FOR DIPLOMA IN
PHYSICAL MEDICINE AND
REHABILITATION**

GUIDELINES FOR COMPETENCY BASED POST-GRADUATE TRAINING PROGRAMME FOR DIPLOMA IN PHYSICAL MEDICINE AND REHABILITATION (DPMR)

Preamble:

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.

The **goal** of this diploma programme is to standardize Physical Medicine and Rehabilitation (PMR) teaching at the Post Graduate Diploma level throughout the country so that it will benefit in achieving uniformity in postgraduate medical teaching.

Physical Medicine and Rehabilitation, also called physiatry, (pronounced fiz-ee-ah-tree), or physical and 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. It is not the same as Physiotherapy (physiotherapy is an allied health profession). PMR has a vast scope as it provides integrated comprehensive care in the diagnosis, treatment and rehabilitation management of musculo-skeletal, neurological, cardio-pulmonary disabilities etc. 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, equipments (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 in-door/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.

The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment.

PROGRAMME OBJECTIVES

The overall objective is to impart a thorough and comprehensive training to a medical graduate so that at the end of this training she/he becomes a knowledgeable, skilled, and competent Physical Medicine and Rehabilitation specialist, capable of discharging his/her duties as expected under different settings, in an independent and ethical manner.

The student should be able to suspect, investigate, diagnose, confirm, evaluate, certify, treat, and rehabilitate if and when a person is suffering from a temporary or permanent limitation in function, disability, or restriction in participation; the student should be able to plan, prescribe, supervise and lead the execution of rehabilitation plan through an integrated, multi-disciplinary team involving various medical, nursing, allied health professionals such as therapists (occupational therapists, physiotherapists, speech therapists etc.), counselors, and technicians (orthotic-prosthetic engineers/ technicians). The student should be able to interpret reports and plan research, teach medical and allied health personnel, educate (1) the person with disability, (2) family, (3) rehabilitation team members and (4) the community. The student should be well versed with recent advances in the field, and with administrative, financial, ethical and legal aspects related to the specialty.

SUBJECT SPECIFIC LEARNING OBJECTIVES

Upon completion of the training and successfully qualifying in the DPMR (Diploma in Physical Medicine and Rehabilitation) examinations, the student should be able to demonstrate:

1. **Theoretical knowledge:** The student should be able to demonstrate possession of basic knowledge of (1) the basic medical sciences such as Anatomy, Biomechanics, Physiology, Biochemistry, Pathology, Microbiology, Pharmacology, Medical Genetics and Molecular Biology etc. as related to Physical Medicine and Rehabilitation; (2) factors which may disturb structure or function and result in disability; (3) bed-side procedures (diagnostic and therapeutic).
2. **Teaching-Training:** The student should be able to plan educational programmes in Physical Medicine and Rehabilitation (PMR) in association with his senior colleagues/Faculty and be familiar with the modern methods of teaching and evaluation; teach and/or deliver lectures to medical students, PG students, other health professionals and persons with disabilities and their family members etc. and hold clinical demonstrations for them; write and discuss a topic for seminar or a symposium and critically discuss it; methodically summarise published articles according to prescribed instructions and critically evaluate and discuss each selected article etc.
3. **Clinical/Practical skills:** The student should understand and develop competence in executing common general procedures employed in diagnosis, investigations and management of conditions encountered in rehabilitation medicine. He/she should be able to practice and handle independently most of the day to day problems as encountered in Rehabilitation Medicine in a safe, effective and ethical manner. He/she should be able to plan a comprehensive rehabilitation service independently. He/she should be able to demonstrate understanding of the fabrication and competence in prescription and check out of orthoses and prostheses, the principles, prescription and supervision of physiotherapy, occupational therapy, psycho-socio-vocational counseling. He/she should be able to practice rehabilitation medicine at the door step of community. She/he should be familiar with the common problems occurring in the urban, semi-urban, and rural areas and deal with them effectively, should be able to organize, conduct, and supervise surveys in rural, urban and industrial

communities and in specified groups of population; organise and conduct camps for disability prevention and rehabilitation of disabled persons, and guide rehabilitation workers at the peripheral level for rehabilitation of persons with disabilities.

4. **Research:** The student should be familiar with the basic principles and common research methodologies including how to recognise a research topic, state the objectives in terms of what is expected to be achieved in the end, and if required, plan a rational approach with awareness of the statistical validity, analysis of the data etc. and be familiar with the ethical aspects of research although thesis writing is not mandatory.

SUBJECT SPECIFIC COMPETENCIES

The topics for MD (PMR) and Diploma (DPMR) remain essentially the same. However, the depth of teaching-training is lesser in the Diploma course since the course contents would be covered in three papers only (unlike 4 papers in MD) and the duration of the Diploma course is only two years (unlike 3 years in MD programme).

By the end of the course, the student should have acquired knowledge (cognitive domain), professionalism (affective domain) and skills (psychomotor domain) as given below:

A. Cognitive domain:

1. Acquire basic knowledge of basic medical sciences such as Anatomy, Physiology, Biochemistry, Pathology, Microbiology, Pharmacology, and Molecular Biology etc. as related to Physical Medicine and Rehabilitation
2. Acquire knowledge on factors which may result in disability
3. Acquire knowledge of basic anatomy and physiology of the musculoskeletal (including Biomechanics), urogenital, cardio-pulmonary and nervous systems
4. Acquire knowledge of basic principles of diagnostic modalities as applied to Physical Medicine and Rehabilitation.
5. Understand philosophy, history, scope and need of Physical Medicine and Rehabilitation.

6. Acquire knowledge of basic concepts in Physical Medicine and Rehabilitation - definitions, rehabilitation team, team members, scope, role and responsibilities of different members.
7. Acquire knowledge of principles of evaluation and rehabilitation management of social problems
8. Acquire knowledge of principles of evaluation and rehabilitation management of vocational problems
9. Understand disability prevention & management- levels and examples
10. Understand epidemiology of disability
11. Understand the outcome measures in Physical Medicine and Rehabilitation
12. Impairment Rating and Disability Evaluation
13. Acquire knowledge of integrative Medicine and Physical Medicine and Rehabilitation
14. Understand Assistive Technology related to Physical Medicine and Rehabilitation
15. Acquire knowledge of basic principles of rehabilitative surgeries
16. Acquire knowledge of Pediatric Rehabilitation including children with Autism Spectrum Disorders, learning disabilities, multiple disabilities etc.
17. Acquire knowledge of Geriatric Rehabilitation
18. Acquire knowledge of Evidence-based Medicine and Physical Medicine and Rehabilitation
19. Understand Legislation in relations to disability- National and International

B. Affective Domain:

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
2. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
3. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

C. Psychomotor domain

At the end of the PG Diploma course, the student should acquire the following clinical/practical skills:

Section A:

1. Evaluation Process:
 - History taking in Physical Medicine and Rehabilitation
 - Clinical evaluation, Manual Muscle Strength Testing, Joint Range of Motion, Goniometry, Activities of Daily Living
 - Investigations - Laboratory and Radiological imaging studies including
CT Scan, MRI, diagnostic musculoskeletal ultrasound, DEXA Scan etc.
 - Evaluation of neurogenic bowel and bladder dysfunction including Urodynamic studies
2. Gait Analysis - Terminology, types, Clinical Applications
3. Electrodiagnostic Medicine - basic principles, clinical methods, interpretation etc.
4. Outcome Measures in Physical Medicine and Rehabilitation
5. Impairment Rating, Disability Evaluation and Guidelines for Certification

Section B:

6. Therapeutic Exercises- settings, equipments, applications
7. Physical agents/modalities - precautions, prescription, application, follow-up etc.
8. Traction, Massage - principles, types, indications, contra-indications, precautions, prescription, application, follow-up etc.
9. Electrical Stimulation - precautions, prescription, application, follow-up etc.
10. Principles and practice of Occupational Therapy
11. Training of A.D.L. (Activities of Daily Living) in various conditions
12. Injection Techniques (e.g. intra-articular, peri-articular, trigger-point, epidural etc.) in Physical Medicine and Rehabilitation

13. Interventions in Physical Medicine and Rehabilitation e.g. Botulinum toxin injection, Phenol block, Alcohol blocks etc.
14. Upper limb orthotic devices including splints - applications
15. Lower limb orthotic devices including footwear modifications - applications
16. Spinal orthoses - applications
17. Upper limb prosthetics and amputee rehabilitation
18. Lower limb prosthetics and amputee rehabilitation
19. Mobility aids, wheelchairs and seating systems
20. Low back pain and Physical Medicine and Rehabilitation
21. Musculoskeletal trauma and Physical Medicine and Rehabilitation
22. Rehabilitation of persons suffering from:
 - a. Arthritis including Rheumatoid Arthritis, Osteoarthritis, Ankylosing Spondylitis etc.
 - b. Spinal deformity
 - c. Neck Pain, Shoulder Pain etc.
 - d. Osteoporosis
 - e. Sports Injury
 - f. Post-burns Injuries including acid attacks
 - g. Spinal Cord Injury
23. Rehabilitation of persons:
 - a. with obesity, dyslipidemia etc.
 - b. after Arthroplasty
 - c. after POP cast, Fracture treatment, Surgical intervention
24. Basic principles and practice of interventions and rehabilitative surgeries such as deformity correction in poliomyelitis, cerebral palsy, clubfoot, contractures, revision of amputation stump, closure of pressure sore, tendon transfers etc.

Section C:

25. Rehabilitation of persons suffering from:

- a. Plexus or Nerve Injury
- b. Traumatic Brain Injury
- c. Stroke
- d. Parkinsonism,
- e. Multiple sclerosis, Ataxias, Important Neurodegenerative disorders etc.
- f. Neuropathy, Bell's Palsy etc.
- g. Hansen's Disease (Leprosy including leprosy-cured persons)
- h. Important diseases of Muscles e.g. myopathy, motor-neuron disease, myasthenia gravis etc.
- i. Cerebral Palsy
- j. Spasticity
- k. Poliomyelitis and its sequelae including Post-Polio Syndrome
- l. Cardiovascular Disease e.g. CAD, MI, CABG Surgery, Angioplasty, Heart failure, Cardiac transplantation etc.
- m. Pulmonary Disease e.g. COPD, Bronchiectasis, Asthma, Cystic fibrosis etc.
- n. Cancers
- o. Patients in the ICU settings
- p. Swallowing disorders
- q. Bladder dysfunction
- r. Bowel dysfunction
- s. Vertigo
- t. HIV/AIDS
- u. Covid-19 and Post-Covid-19 impairments and sequelae
- v. Chronic Pain
- w. After Organ Transplantation

26. Pediatric Rehabilitation including children with Cerebral Palsy, muscular dystrophy, Autism Spectrum Disorders, learning disabilities, neural-tube defects, Intellectual impairments, multiple disabilities etc.

27. Geriatric Rehabilitation – Principles and Practices

28. Principles of evaluation and rehabilitation management of persons with:

- visual impairment
- mental retardation
- hearing /speech impairment
- psychological problems or mental illness

29. Important Medical/ Surgical Emergencies in Physical Medicine and Rehabilitation

30. Sexuality and Disability.

Section D:

31. Evidence-based Medicine and Physical Medicine and Rehabilitation
32. Legislation in relations to disability- National and International
33. Schemes and Benefits extended to persons with disabilities by the Government
34. Barrier-free Environment and access related issues
35. Computers in Physical Medicine and Rehabilitation
36. Assistive-technologies in and related to Physical Medicine and Rehabilitation
37. Ethical aspects in disability and rehabilitation
38. Recent Advances related to Physical Medicine and Rehabilitation

Syllabus

Course Contents:

The course content for DPMR (Diploma in Physical Medicine and Rehabilitation) is divided into three broad sections, covering three Theory Papers. However, certain degree of overlapping may occur among different sections. The contents would include the following:-

Section A:

- 1) Basic Anatomy and Physiology of the Musculoskeletal (including Biomechanics), Urogenital, Cardio-pulmonary and Nervous Systems etc.
- 2) Basics of Biochemical aspects of Calcium and Vitamin 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 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: Impairment, disability, participation restriction, International Classification, ICF, models of disability etc.
- 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) Outcome Measures in Physical Medicine and Rehabilitation.
- 17) Impairment Rating and Disability Evaluation.

Section B:

- 18) Therapeutic exercises - principles, types, indications, contraindications.
- 19) Physical agents/modalities - principles, types, indications, contra-indications, precautions.
- 20) Manipulation, traction, massage - principles, types, indications, contra-indications, precautions.
- 21) Electrical stimulation - principles, types, indications, contra-indications, precautions.
- 22) Principles and scope of Occupational Therapy.
- 23) Rationale of A.D.L. (Activities of Daily Living) in various conditions.
- 24) Integrative Medicine and Physical Medicine and Rehabilitation.
- 25) Upper limb orthotic devices including splints – principles, types, materials and indications, prescription writing, check-out
- 26) Lower limb orthotic devices including footwear modifications– principles, types, materials and indications, prescription writing, check-out
- 27) Spinal orthoses – principles, types, materials and indications, prescription writing, check-out
- 28) Upper limb prosthetics and amputee rehabilitation, prescription writing, check-out
- 29) Lower limb prosthetics and amputee rehabilitation, prescription writing, check-out
- 30) Mobility aids, wheel chairs and seating systems, prescription writing, check-out
- 31) Low back pain and Physical Medicine and Rehabilitation.
- 32) Musculoskeletal trauma and Physical Medicine and Rehabilitation.
- 33) Comprehensive Rehabilitation of persons suffering from:
 - Rheumatoid Arthritis, Osteoarthritis, Ankylosing Spondylitis etc.
 - Spinal deformity
 - Neck Pain, Shoulder Pain etc.

- Osteoporosis
- Sports Injury
- Burns Injury
- Spinal Cord Injury (traumatic and non-traumatic)

34) Rehabilitation of persons:

- with obesity, dyslipidemia etc.
- after Arthroplasty
- after POP cast, Fracture treatment, Surgical intervention

35) Principles and practices of Sports Medicine, including assessment, prevention, treatment and rehabilitation of sports injuries etc.

36) Basic principles of rehabilitative interventions and surgeries such as deformity correction in poliomyelitis, cerebral palsy, clubfoot, contractures, revision of amputation stump, debridement and closure of pressure sore, tendon transfers, application of total contact cast, local injections etc.

Section C:

37) Holistic Rehabilitation of persons suffering from:

- Plexus or Nerve Injury
- Traumatic Brain Injury
- Stroke
- Parkinsonism, Multiple sclerosis, Ataxia, neurodegenerative disorders etc.
- Neuropathy, Bell's Palsy etc.
- Hansen's Disease
- diseases of muscle e.g. myopathy, motor-neuron disease, Myasthenia gravis etc.
- Cerebral Palsy
- Spasticity
- Poliomyelitis and its sequelae
- Cardiovascular Disease e.g. CAD, MI, CABG Surgery, Angioplasty, Cardiac transplantation etc.

- Pulmonary Disease e.g. COPD, Bronchiectasis, asthma, Cystic fibrosis etc.
 - Common Cancers
 - Swallowing disorder
 - Bladder dysfunction
 - Bowel dysfunction
 - Vertigo
 - HIV/AIDS
 - Covid-19 and post-Covid-19 sequale and impairments
 - Chronic Pain
 - Neural tube defects like meningomyelocele and hydrocephalus etc.
- 38) Rehabilitation of persons:
- after Organ Transplantation
 - in ICU setting
- 39) Pediatric Rehabilitation including children with Autism Spectrum Disorders, learning disabilities, multiple disabilities etc.
- 40) Geriatric Rehabilitation
- 41) Principles of evaluation and rehabilitation management of persons with:
- visual impairment
 - mental retardation
 - hearing /speech impairment
 - psychological problems or mental illness
- 42) Medical/surgical Emergencies in Physical Medicine and Rehabilitation
- 43) Sexuality and Disability

Section D:

- 44) Evidence-based Medicine and Physical Medicine and Rehabilitation
- 45) Legislation in relations to disability- National and International
- 46) Functional evaluation, Impairment rating, disability evaluation and certification including guidelines for these

- 47) Schemes and benefits extended to persons with disabilities by the Government
- 48) Barrier-free Environment and access related issues
- 49) Computers in Physical Medicine and Rehabilitation
- 50) Recent Advances related to Physical Medicine and Rehabilitation
- 51) Ethical aspects in rehabilitation

TEACHING AND LEARNING METHODS

Post-Graduate Training:

A. Theoretical Methodology:

1. Symposia/Seminars:

The post graduate student would be required to present topics to the combined group of teachers and students. A free discussion would be encouraged in these activities. The topics of the symposia/seminars would be given to the PG students with the dates for presentation.

The topics for Seminars could include any of the following: Gait Analysis, Spasticity, Pressure Sores, Spinal Orthoses, Hand Splints, Assistive Technology, Psycho-Social-Vocational Aspects, Cardiac Rehabilitation, Pulmonary Rehabilitation, Neuro-developmental Techniques, Post-Polio Syndrome, Cognitive Rehabilitation, Prosthetic Feet, PTB Prosthetic, Prosthetic Terminal Devices, CAD-CAM, FES, Spinal Deformities, Rehabilitation after Arthroplasty, Epidemiology of Disability, Barrier-free Environment, Ethical Aspects, Legislation related to Disability and Rehabilitation, Community-Based Rehabilitation, Leprosy Rehabilitation, Sexuality and Disability, Rehabilitation related to HIV/AIDS, Stem Cell Therapy in Rehabilitation, Geriatric Rehabilitation, Sports Injuries Rehabilitation, Rehabilitation after Organ Transplantation, Pain Management, Analgesics, NSAIDs, DMARDs, Disability Evaluation, Interventions in Physical Medicine and Rehabilitation etc.

2. Journal Club:

This should be a regular fortnightly activity. The post graduate student would be assigned /allowed to chose an article from amongst the recent publications

from the list of recommended journals, present, summarise, and discuss the published article critically. The contributions made by the article in furtherance of the scientific knowledge as well as limitations (if any) should be highlighted.

3. Practical and Clinical Training:

Clinical:

The student 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 student would also be oriented to the common problems that present in the OPD or Wards/ICUs or are encountered in the community. The student would be supervised by Senior PG students and Faculty members.

Bedside:

The student would work up cases; learn management of cases by discussion with the senior PG students and faculty of the department. He/she would be trained in management of in-patients including performing certain procedures such as debridement, Plaster cast application, traction, catheterization, intubation etc.

Rehabilitative Interventions (Interventional Physiatry) and Surgery:

The student would be provided with an opportunity, as far as possible, to observe, learn, assist and once proficient, perform rehabilitative surgical operations such as for correction of deformities in polio, cerebral palsy, amputation, clubfoot, pressure sore etc. including post-operative care with the assistance of Senior PG students and/or under the direct supervision of a Faculty member.

The student would also be oriented to the various sections/units in a comprehensive rehabilitation set up (such as occupational therapy, orthotics-prosthetics, physiotherapy, social works, clinical psychology, vocational guidance/counseling, educational institution and Non-Governmental Organization in the disability sector etc.) and be well informed about and demonstrated the various equipments/materials/methods used there, and the scope, role and responsibilities of different members of a rehabilitation team.

4. Training in Research Methodology

The student would be given exposure to partake in the research projects going on to learn their planning, methodology and execution to learn various aspects of research.

5. **Teaching Skills**

The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

6. **Continuing Medical Education Programmes (CME)**

At least two CME programmes should be attended by each student in 3 years.

7. **Conferences**

The student should be encouraged and given opportunities to attend courses, conferences, workshops and seminars relevant to the speciality.

8. **Case presentation, case work up, case handling/management (once in 2 weeks)**

9. **Attending clinical grand rounds / clinic-pathological conference, if available**

The post graduate students are encouraged to attend lectures and grand rounds of other clinical and basic science departments of the hospital.

10. **Paper/poster presentation:**

A post graduate student of a post graduate diploma course in PMR should be encouraged to make one poster presentation, present one paper at a national/State-level Conference and present one research paper which should preferably be published/accepted for publication/sent for publication during the period of his postgraduate studies.

11. **Teaching skills:**

The post graduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

12. **A logbook** should be maintained recording the duration of posting, the period of absence, if any, skills performed, and remarks if any by the teacher/faculty member. The logbook should also record journal clubs, seminars attended and partaken as well as undergraduate teaching activities the post graduate student has participated and should be signed by the faculty in charge.

13. Department should encourage e-learning activities.

During the training programme, patient safety is of paramount importance, therefore skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of surgical skills laboratories in medical colleges is mandatory.

ASSESSMENT

FORMATIVE ASSESSMENT i.e., Assessment during the training

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.

Quarterly assessment during the Diploma training should be based on:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).

SUMMATIVE ASSESSMENT, i.e., at the end of the training

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.

Practical examination

Practical examination should include various major components of the syllabus focusing mainly on the psychomotor domain.

The emphasis may be laid on the pattern of Objective Structured Clinical Examination (OSCE).

Practical examination would be conducted as per following:

Long Case - One

Short Cases - Two

Viva-Voce involving:

X-Ray/CT Scan/MRI /DXA Scan/Bone Scan Films/PFT/EMG-NCV

Rehabilitation Surgery related common Instruments

Physical Medicine Instruments/Equipment/Electrically operated modalities etc.

Orthotic-Prosthetic Appliances

Assistive Technologies

Mobility aids including Wheelchairs

Oral/Viva voce examination on defined areas should be conducted by each examiner separately or collectively. Oral examination shall be comprehensive enough to test the post graduate student's overall knowledge of the subject focusing on psychomotor and affective domains.

The final clinical examination in PMR should include:

- Cases pertaining to major systems (e.g., one long case and two short cases)
- Stations for clinical, procedural and communication skills including disability etiquettes
- Log Book Records and reports of day-to-day observation during the training
- It is emphasized that Oral/viva voce examination shall be comprehensive enough to test the post graduate student's overall knowledge of the PMR subject

1. Theory:

The Final Theory Examination consists of three papers:

Paper I: Basic Sciences and Basic Concepts as applied to Physical Medicine and Rehabilitation including Physical Agents, Therapeutic Exercises, Important Laws/Legislations, Assistive Technology,

Recent Advances as applied to Physical Medicine and Rehabilitation etc.

Paper II: Principles and Practice of Physical Medicine; Rehabilitation Management of important Musculoskeletal, Surgical Conditions, Pain, Cancers etc.

Paper III: Principles and Practice of Rehabilitation Management of important Medical, Neurological, Cardio-pulmonary and other Conditions including Paediatric and Geriatric Rehabilitation

Recommended Reading

Books (latest edition)

1. Braddom's Physical Medicine and Rehabilitation, Author David X Cifu, Elsevier.
2. DeLisa's Physical Medicine and Rehabilitation: Principles and Practice. Lawrence R. Robinson, Walter R Frontera, Joel A. DeLisa, John Chase, John Chae. Lippincott Williams and Wilkins Lippincott.
3. Physical Medicine and Rehabilitation Board Review, Sara J Cuccurullu, Springer Publishing Company.
4. Spinal Cord Medicine - Principles and Practice. Steven Kirshblum, [Vernon W. Lin](#), Demos Medical Publishing.
5. Campbell's Operative Orthopaedics, Elsevier.
6. Fundamentals of Musculoskeletal Ultrasound, Jon A Jacobson, Elsevier.
7. Atlas of Interventional Pain Management, Steven Waldman, Elsevier.

Journals

PMR speciality related important 3 to 5 International and 2 National journals (all indexed)

Student Appraisal Form for Diploma in Physical Medicine & Rehabilitation											
	Elements	Less than Satisfactory			Satisfactory			More than satisfactory			Comments
		1	2	3	4	5	6	7	8	9	
1	Scholastic Aptitude and Learning										
1.1	Has Knowledge appropriate for level of training										
1.2	Participation and contribution to learning activity (e.g., Journal Club, Seminars, CME etc)										
1.3	Conduct of research and other scholarly activity assigned (e.g. Posters, Publications etc)										
1.4	Documentation of acquisition of competence										
	(e.g. Log book)										
1.5	Performance in work based assessments										
1.6	Self- directed Learning										
2	Care of the patient										
2.1	Ability to provide patient care appropriate to level of training										
2.2	Ability to work with other members of the health care team										
2.3	Ability to communicate appropriately and empathetically with patients families and care givers										
2.4	Ability to do procedures appropriate for the level of training and										

	assigned role										
2.5	Ability to record and document work accurately and appropriate for level of training										
2.6	Participation and contribution to health care quality improvement										

3	Professional attributes										
3.1	Responsibility and accountability										
3.2	Contribution to growth of learning of the team										
3.3	Conduct that is ethical appropriate and respectful at all times										
4	Space for additional comments										
5	Disposition										
	Has this assessment been discussed with the trainee?	Yes	No								
	If not, please explain										
	Name and Signature of the PG Student/Trainee										
	Name and Signature of the assessor										
	Date										

Subject Expert Group members for preparation of REVISED Guidelines for competency based postgraduate training programme for Diploma in Physical Medicine and Rehabilitation

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