FORTH BACHELOR IN PHYSIOTHERAPY
(1-TEAR DURATION_)

P.T. IN ORTHOPAEDIC CONDITIONS

Introduction:

Brief review of the orthopaedic conditions and various physiotherapeutic modalities, aim, means and techniques of physiotherapy should be taught.

Dislocations: Classification - types of displacements methods of immobilization. Healing of fractures and factor influencing union, non-union, delayed union etc.

Specific fracture and their complete physiotherapeutic management

Physiotherapeutic management of fracture of spine with paraplegia and without neurodeficit.

Physiotherapy in relation to soft tissue injuries

Physiotherapy in relation to amputation

Physiotherapy in relation to various deformities eg. CTEV, Pes planu, Pes cavus etc.,

Physiotherapy in various acquired & congenital spinal

Physiotherapy in relation to arthritis.

Fracture cast bracing and mobilization

Step program & its importance in orthopaedic rehabilitation

Amputation
OA
RA
PNF

PRACTICAL:

1. Various techniques of Physiotherapy for the above mentioned conditions/diseases should be demonstrated and practiced by the students.
2. Assessment planning and management of orthopedics conditions
3. General viva.
4. Piratical record

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P.T. in Surgical Conditions including Obs & Gyane.

- Brief review of the following surgical conditions and various physiotherapeutic modalities, aims, means and techniques of physiotherapy should be taught.

- Pre and Post Operative Physiotherapy management of following abdominal surgical conditions including incisions. pre and postoperative complications.
  - Herniorraphy
  - Nephrectomy.
  - Radical Mastectomy etc

- Postural drainage & respiratory physiotherapy in CTVS
- Physiotherapy in patients on ventilators
- Pre and Post Operative physiotherapy management of following conditions.
  - Thorectomy
  - Lobectomy
  - Thoraco Plasty
  - Pneumonectomy
- Orientation about atelectasis, pneumothorax, pre and post operative physiotherapy management of cardiac surgery, open-heart surgery.

- Burn & its classification Physiotherapy management.
- Pre and Postoperative physiotherapy of skin grafting
- Physiotherapy of cases after reconstructive surgery of hand.
- Physiotherapy in obstetrics
- Physiotherapy in PID, Stress incontinence, prolapse uterus, etc.
- Pre and Post operative physiotherapeutic management of Neuro- Surgical conditions and complication. Peripheral Nerve Injuries. Pre and Post operative physiotherapeutic management of Nerve Repair / Grafting. Physiotherapy in Head Injury

PRACTICAL:

1. Various techniques of Physiotherapy for the above mentioned conditions/diseases should be demonstrated and practiced by the students.
2. Assessment planning and management of Surgical conditions
3. General viva.
4. Piratical record

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P.T. in Medical conditions including Paediatrics

Introduction: Brief review of the following medical condition and various modalities of physiotherapy, aims, mean and techniques of physiotherapy should be taught.

Physiotherapy in diseases of respiratory system

Prior to beginning with various conditions brief introduction of breathing exercises and postural drainage in detail to be taught.

Physiotherapy in relation to :

Edema, Non Articular' Rheumatism Rickets Vitamin Deficiency Syndrome, Myopathy and various types of muscular dystrophy, Diabetic Neuropathy, Rheumatoid Arthritis and General Debility.

Physiotherapy in relation to :

Congestive Heart Failure, Myocardial Infarction & Peripheral vascular diseases

Physiotherapy in relation to

- Hemiplegia
- Cerebral palsy
- Tetraplegic Syndrome
- Muitiple Sclerosis
- Tabes Dorsalis
- Transverse Myelitis
- Polio Myelitis
- Parkinson's Disease
- Motor Neuron Disease
- Poly Neuritis Ataxia
- Extra Pyramidal Lesion
- Peripheral Neuropathy
- Peripheral Nerve Injuries
- Sciatica
- Brachial Neuritis and Neuralgia
- Facial Palsy and Bell's Palsy
- Syringomyelia
- Monoplegia
- Myopathy and Muscular Dystrophy
- Sub-acute Combined Degeneration of Spinal Cord
- General and Physiotherapeutic management of Psycatric Patients

PRACTICAL:

1. Various techniques of Physiotherapy for the above mentioned conditions/diseases should be demonstrated and practiced by the students.
2. Assessment planning and management of Medical conditions
3. General viva.
4. Piratical record

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P.T. In Neurological and Neurosurgical conditions

DESCRIPTION

Following the basic science and clinical science, this course introduces the student to the neurological conditions which commonly cause disability.

Objectives

The objectives of this course is that after 300 hours of lectures & demonstrations, in addition to clinics, the student will be above to demonstrate and understanding of neurological conditions causing disability and their management.

In addition the student will be above to fulfill with 75% accuracy (as measured by written, oral & practical internal evaluation the following objectives of the course.

OUTLINE

A. Neuroanatomy

Review the basic anatomy of the brain and spinal cord including : Blood supply of the brain and spinal cord, anatomy of the visual pathway, connections of the cerebellum and extra-pyramidal system, relationship of the spinal cord segments, long tracts of the spinal cord, the brachial and lumbar plexuses and cranial nerves.

B. Neurophysiology

Review in brief the Neurophysiological basis of : tone and disorders of tone and posture, bladder control, muscle contraction and movement and pain.

C. Clinical Features & Management.

Briefly outline the clinical features and management of the following Neurological Disorders:

1. Congenital and childhood disorders
   a) Congential and childhood disorders – Day
   b) Hydrocephalus
   c) Spina Bifida
   d) Arnold Chiari malformation, Dandy

2. Cerebrovascular accidents
   a) General classification, thrombotic , embolic, haemorrhagic and inflammatory strokes.
   b) Gross localization and sequelae.
   c) Detailed rehabilitative programme.

3. Trauma – broad localization, first aid and management of sequelae of head injury and spinal cord injury.

4. Diseases of the spinal cord
   a) Cranio-vertebrai junction anomalies.
   b) Syringomyelia
   c) Cervical and lumbar
   d) Tumors
   e) Spinal arachnoiditis
   f) T.B. Spine

5. Demyelinating diseases (Central and peripheral)
   a) Gullian – Barre Syndrome
   b) Acutre disseminated encephalomyelitis.
   c) Transverse myelitis.
   d) Multiple sclerosis

6. Degenerative disorders.
   a) Parkinson's disease.
   b) Dementia

7. Infections

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a) Pyogenic Meningitis sequelae
b) Tuberculosis infection of central nervous system.
c) Poliomyelitis
d) Brain abscess

8. Diseases of the muscle including myopathies: Classification, signs, symptoms, progression and management.
9. Peripheral nerve disorders
   a) Epilepsy; Definition, classification and management.
   b) Myasthenia Gravis; Definition, course and management
   c) Intracranial tumors; Broad classification, signs and symptoms.
   d) Motor neuron disease
   e) Herniation of Brain

D. Clinical assessment of neurological function to be taught through beside or demonstration clinics spread out over at least 5 sessions

1. Basic history to determine whether the brain, spinal cord or peripheral nerve is involved.
2. Assessment of higher mental function such as orientation, memory, attention, speech and language.
3. Assessment of cranial nerves.
4. Assessment of motor power.
5. Assessment of sensory function tough, pain and position .
6. Assessment of tone-spasticity, rigidity and hypotonia.
7. Assessment of cerebellar function.
8. Assessment of higher cortical function-apraxia etc.
9. Assessment of gait abnormalities.

PRACTICAL:

1. Various techniques of Physiotherapy for the above mentioned conditions/diseases should be demonstrated and practiced by the students.
2. Assessment planning and management of Neurological conditions
3. General viva.
4. Piratical record

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Clinical Rehabilitation-II

A *Prosthesis and Orthosis*

1) Definition and Basic Principles
2) Designing and Construction of Upper & Lower extremity Orthosis & Spinal Orthosis.
3) Prescription and design of footwear- & its modification.
4) Wheel Chairs.
5) Ambulatory Aids & Assistive Devices
6) Measurement and P.O.P. cast techniques.
7) Low cost thermo-labile material for construction of Orthosis.

B. Management studies:

1. Definition-Branches of management-Principles of health sector management.
2. General principles of management-Theories of management.
3. Personnel management - Policies and procedures, Basic concepts and theories.
4. Financial issues including budget and income generation.
5. Principles of an organizational chart.
6. Organization of a department planning, space, manpower, materials, basic requirements.
7. Resources and quality management-planning with change and coping with change.
8. Self-Management.
   - (1) Preparing for 1st Job
   - (2) Time management
   - (3) Career development

C. Professional Management and Ethics:

1. The implications of and confirmation to the rules of professional conduct.
2. Legal responsibility for their actions in the professional context and understanding liability and obligations in case of medico-legal action.
3. A wider knowledge of ethics relating to current social and medical policy in the provision of health care.
4. National and international professional bodies: as a professional association, and education body-Difference between scientific association (Professional body) and statutory body.
5. The role of international health agencies such as WHO.

D *Prosthesis and Orthosis*

1. Upper limb amputee rehabilitation & prosthetic training
2. Lower limb amputee rehabilitation & prosthetic training
3. Foot wear modification in various conditions.
4. Wheel Charis & seating system.
5. Design and construction of adoptive devices.
6. Classification of Aids & Appliances.
7. Ambulatory Aids & Assistive Devices.
8. Simple splint techniques.
9. Thermoplastic materials.
10. Computer assistive devices & environmental control.
11. Musculoskeletal problems of the upper limb.

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12. Musculoskeletal problems of the lower limb.
13. Sports physiology, Physiotherapy in sports and sports injuries.
14. Rehabilitation concerns in rehabilitation.
15. Neurorehabilitation.
16. Surgical rehabilitation.
17. Rheumatology & Rehabilitation.

Practical:

A. Practical demonstration of difficulties Orthotics / Prosthetics.
B. Practical demonstration of different types of Orthoses /Prostheses /Mobility aids /Assistive.
C. Demonstration of disability evaluation procedure.
D. General viva.

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