

GENERAL MEDICINE

1. PREAMBLE

The teaching and training in clinical subjects will commence at the beginning of Phase II and continue throughout.

The clinical subjects will be taught to prepare the MBBS graduates to understand and manage clinical problems at the level of a practitioner. Exposure to subject matter will be limited to orientation and knowledge required of a general doctor. Maximum attention to the diagnosis and management of the most common and important conditions encountered in general practice should be emphasized in all clinical subject areas. Instructions in clinical subjects should be given both in outpatient and in-patient during clinical posting.

Each of the clinical departments shall provide integrated teaching calling on pre-clinical, Para-clinical and other clinical departments to join in exposing the students to the full range of disciplines relevant to each clinical area of study. Problem approach will be emphasized based on basic social sciences and a continuation of clinical and laboratory syllabi to optimally understand and manage each clinical condition.

The course shall comprise of Medicine and its Allied Specialties

2. MEDICINE

2.1. GOAL

The broad goal of the teaching of undergraduate students in Medicine is to have the knowledge, skills and behavioral attributes to function effectively as the first contact physician.

2.2. OBJECTIVES

2.2.1. Knowledge

At the end of the course, the student should be able to:

1. Diagnose common clinical disorders with special reference to infectious diseases, nutritional disorders, tropical and environmental diseases.
2. Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications.
3. Propose diagnostic and investigative procedures and ability to interpret them
4. Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required.
5. Recognize geriatric disorders and their management

2.2.2. Skills

At the end of the course, the student should be able to:

1. Develop clinical skills (history taking, clinical examination and other instruments of examination) to diagnose various common medical disorders and emergencies.
2. Refer a patient to secondary and/or tertiary level of health care after having instituted primary care.
3. Perform simple routine investigations like haemogram, stool, urine, sputum and biological fluid examinations
4. Assist the common bedside investigative procedures like pleural tap, lumbar puncture, bone marrow aspiration/biopsy and liver biopsy.

2.2.3. Integration

1. With community medicine and physical medicine and rehabilitation to have the knowledge and be able to manage important current national health programs, also to be able to view the patient in his/ her total physical, social and economic milieu.
2. With other relevant academic inputs which provide scientific basis of clinical medicine e.g. anatomy, physiology, biochemistry, micro-biology, pathology and pharmacology

3. PSYCHIATRY

3.1. GOAL

The aim of teaching the undergraduate student in psychiatry is to impart such knowledge and skills that may enable him to diagnose and treat common psychiatric disorders, handle psychiatric emergencies and to refer complications/unusual manifestations of common disorders and rare psychiatric disorders to the specialist.

3.2. OBJECTIVES

3.2.1. Knowledge

At the end of the course, the student should be able to:

1. Comprehend nature and development of different aspects of normal human Behavior like learning, memory, motivation, personality and intelligence;
2. Recognize differences between normal and abnormal behavior;
3. Classify psychiatric disorders;
4. Recognize clinical manifestations of the following common syndromes and plan their appropriate management of organic psychosis, functional psychosis, schizophrenia, affective disorders, neurotic disorders, personality disorders, psycho-physiological disorders, drug and alcohol dependence, psychiatric disorders of childhood and adolescence;
5. Describe rational use of different modes of therapy in psychiatric disorders.

3.2.2. Skills

The student should be able to:

1. Interview the patient and understand different methods of communication in patient-doctor relationship;
2. Elicit detailed psychiatric case history and conduct clinical examination for assessment of mental status;
3. Define, elicit and interpret psycho-pathological symptoms and signs.
4. Diagnose and manage common psychiatric disorders;
5. Identify and manage psychological reactions and psychiatric disorders in medical and surgical patients in clinical practice and in community setting.

3.2.3. Integration

Training in Psychiatry should prepare the students to deliver preventive, promotive, curative and re-habilitative services for the care of patients both in the family and community and to refer advance cases to a specialized Psychiatry/Mental Hospital. Training should be integrated with the departments of Medicine, Neuro Anatomy, Behavioral Sciences and Forensic medicine.

4. DERMATOLOGY AND SEXUALLY TRANSMITTED DISEASES

4.1. GOAL

The aim of teaching the undergraduate student in Dermatology, S.T.D. and Leprology is to impart such knowledge and skills that may enable him to diagnose and treat common ailments and to refer rare diseases or complications/unusual manifestations of common diseases, to the specialist.

4.2. OBJECTIVES

4.2.1. Knowledge

At the end of the course of Dermatology -S.T.D. and Leprology, the student shall be able to:

1. Demonstrate sound knowledge of common diseases, their clinical manifestations, including emergent situations and of investigative procedures to confirm their diagnosis;
2. Demonstrate comprehensive knowledge of various modes of therapy used in treatment of respiratory diseases;
3. Describe the mode of action of commonly used drugs, their doses, side effects/toxicity, indications and contra-indications and interactions;
4. Describe commonly used modes of management including the medical and surgical procedures available for the treatment of various diseases and to offer a comprehensive plan of management for a given disorder;

4.2.2. Skills

The student should be able to:

1. Interview the patient, elicit relevant and correct information and describe the history in a chronological order.
2. Conduct clinical examination, elicit and interpret physical findings and diagnose common disorders and emergencies;
3. Perform simple, routine investigative and office procedures required for making the bedside diagnosis, especially the examination of scrapings for fungus, preparation of slit smears and staining for AFB for leprosy patients and for STD cases;
4. Take a skin biopsy for diagnostic purposes;
5. Manage common diseases recognizing the need for referral for specialized care, in case of inappropriateness of therapeutic response;
6. Assist in the performance of common procedures, like laryngoscopic examination, pleural aspiration, respiratory physiotherapy, laryngeal intubation and pneumo-thoracic drainage/aspiration.

4.2.3. Integration

The broad goal of effective teaching can be obtained through integration with departments of Medicine, Surgery, Microbiology, Pathology, Pharmacology and Preventive & Social Medicine.

5. DEPARTMENT OBJECTIVES

At the end of the clinical postings in General Medicine, the medical student should:

- 5.1. Be able to evaluate each patient as a person in society and not merely as a collection of organ systems.
- 5.2. Have developed an interest in and care for all types of patients.
- 5.3. Recognize differences between normal and abnormal behavior
- 5.4. Be able to discern the hopes and fears of patients which inevitably underlie the symptom complexes and know how to handle these emotions, both in the patient and in others.
- 5.5. Possess sound knowledge of common diseases, their clinical manifestations and natural history
- 5.6. Elicit a good clinical history and physical findings, elucidate the clinical problems based on these and discuss the differential diagnosis.
- 5.7. Requisition relevant laboratory tests and perform common side lab procedures.
- 5.8. Be familiar with common imaging techniques, their advantages, disadvantages and indications; be aware of radiation hazards and measures to protect there from.

- 5.9. Outline the principles of management of various diseases, including the medical and surgical procedures available.
- 5.10. Describe the mode of action of commonly used drugs, their doses, side effects, toxicity, indications, contraindications and drug interactions.
- 5.11. Have an open attitude to the newer developments in medicine to keep abreast of new knowledge.
- 5.12. Diagnose and provide competent initial care to medical emergencies.
- 5.13. Refer medical problems to secondary and tertiary care at appropriate times.
- 5.14. Recognize the problems arising in patients of AIDS.
- 5.15. Have an understanding of the art of medicine involving communication with patients, demonstration of empathy, reassurance, patient education and an understanding of the patient's socio-economic circumstances in relation to management.
- 5.16. Learn to be adaptable to new ideas and new situations where resources may be limited.
- 5.17. Possess knowledge and perform certain procedure.
- 5.18. Understand the ethical and legal implications of one's medical decisions.

6. SYLLABUS

6.1. Theory

6.1.1. Clinical Methods in The Practice of Medicine

1. Clinical approach to the patient: The art of medicine, doctor-patient relationship, communication skills and doctor's responsibilities.
2. Clinical Approach to disease and care of patient; diagnostic possibilities based on interpretation of history, physical findings and laboratory investigations and principles of rational management.

6.1.2. Common Symptoms of Disease

Pain: Pathophysiology, clinical types, assessment and management - Fever: Pathophysiology of heat regulation, its disturbances, clinical types, clinical assessment and management - Cough: expectoration and haemoptysis - Dyspnoea, tachypnoea, and cyanosis- Common urinary symptoms including dysuria, oliguria, nocturia, polyuria, incontinence and enuresis - Oedema and anasarca - Shock and cardiovascular collapse - Cardiac murmurs : functional and organic; Palpitation - Anorexia, nausea and vomiting - Constipation and diarrhea - Haematemesis, melena and haematochezia -Jaundice and hepatomegaly - Abdominal swelling and ascites -Weight loss and weight gain - Fainting, syncope and seizures; head-ache, dizziness and vertigo - Paralysis, movement disorders and disorders of gait - Coma and other disturbances of consciousness- Pallor and bleeding - Enlargement of lymph nodes and spleen -Joint pains and pain in the extremities and back.

6.1.3. Nutrition / Exposure to Physical and Chemical Agents

Nutrition in clinical medicine and dietary management: Nutritional requirements; Protein calorie malnutrition in adults; Obesity; Vitamin deficiency and excess - Fluid and electrolyte balance; acidosis and alkalosis in particular relevance to vomiting, diarrhoea, uraemia and diabetic ketoacidosis - Poisonings: phenobarbitone, organophosphorous compounds, sedative / hypnotic and others common in the locality - Acute and chronic effects of alcohol and their management - Venoms, stings, insect bites : poisonous snakes, insects and scorpions - Disturbances of temperature : heat stroke, heat exhaustion and cold exposure - Drowning, electrocution and radiation hazards.

6.1.4. Infections

6.1.4.1. Approach to infectious diseases - diagnostic and therapeutic principles

6.1.4.2. General principles of rational use of antibiotics and other chemotherapy against the following:

Common gram positive infections - Common gram negative infections - Enteric fever - Cholera, gastroenteritis, food poisoning and dysentery - Influenza and other common viral respiratory infections - Rabies - Tetanus - Herpes simplex and herpes zoster - Amoebiasis and worm infestations - Malaria, filariasis, leishmaniasis - Common exanthemata - HIV infection and infections in the immune compromised conditions - Common sexually transmitted diseases - Common fungal infections - Viral encephalitis - Tuberculosis - Leprosy - Infectious mononucleosis - Brucellosis

6.1.5. Haematology

1. Definition, prevalence, etiological factors, pathophysiology, pathology, recognition, investigations and principles of treatment of :

1.1. Anaemias: iron deficiency, megaloblastic and common haemolytic anaemias (thalassemia, sickle cell and acquired haemolytic)

1.2. Common bleeding disorders (thrombocytopenia and hemophilia).

1.3. Agranulocytosis and aplastic anemia.

2. Leukemia.

3. Lymphomas.

4. Blood group and transfusion: Major blood group systems and histocompatibility complex, concepts of transfusion and component therapy; indications for transfusion therapy, precautions to be taken during blood transfusion, hazards of transfusion and safe handling of blood products.

6.1.6. Respiratory System

Physiology and diagnostic methods: Sputum examination, X-ray chest, pulmonary function tests and bronchoscopy - Upper respiratory infections - Pneumonias - Bronchiectasis and lung abscess - Bronchial asthma and tropical eosinophilia - Chronic obstructive airway disease

and cor pulmonale - Acute and chronic respiratory failure - Diseases of pleura : pleural effusion, empyema, pneumothorax - Pulmonary tuberculosis - Neoplasms of lung - Common occupational lung diseases.

6.1.7. Cardiovascular System

ECG, Xray chest with reference to common cardiovascular diseases - Coronary artery disease - Rheumatic fever and rheumatic heart disease - Infective endocarditis - Hypertension and hypertensive heart disease - Acute and chronic heart failure - Common congenital heart diseases in adolescents and adults : ASD, VSD, PDA, TOF and coarctation of aorta - Common cardiac arrhythmias- Acute and chronic pericarditis, pericardial effusion and cardiac tamponade - Common aortic diseases; peripheral vascular disease: arterial and venous.

6.1.8. Gastrointestinal Tract

Stool examination, endoscopy and radiology in reference to common gastrointestinal diseases - Acid peptic disease - Malabsorption syndrome - Inflammatory bowel diseases and irritable bowel syndrome - Acute and chronic hepatitis - Cirrhosis of liver -Abdominal tuberculosis

6.1.9. Emergency Medicine

Cardiopulmonary resuscitation - Acute pulmonary oedema -Hypertensive emergencies - Diabetic ketoacidosis and hypoglycaemia - Status epilepticus - Acute severe bronchial asthma- Shock and anaphylaxis - Acute myocardial infarction - Upper GI bleed and hepatic coma - Diagnosis and management of comatose patient - Management of unknown poisoning.

6.1.10. Nervous System

Cerebrovascular diseases - Meningitis: Viral, bacterial and tuberculosis - Peripheral neuropathy - Epilepsy - Extrapyramidal diseases - Common compressive and non-compressive spinal cord syndromes - Motor system disease - Myasthenia gravis - Common myopathies in India - Degenerative, nutritional and metabolic diseases of the nervous system.

6.1.11. Urinary System

Acute renal failure - Chronic renal failure - Glomerulonephritis and nephrotic syndrome - Urinary tract infections / pyelonephritis- Tubulointerstitial diseases and toxic nephropathies

6.1.12. Connective Tissue Disorders

Rheumatoid arthritis - Degenerative joint disease including cervical spondylitis - Systemic lupus erythematosus, systemic sclerosis and other collagen vascular diseases - Gout

6.1.13. Endocrines

Diabetes mellitus - Hypo and hyperthyroidism; iodine deficiency disorders - Cushing's syndrome and Addison's disease; Hyperaldosteronism - Pituitary disorders: Gigantism, Acromegaly and Sheehan's syndrome - Calcium and phosphorus metabolism: parathyroid and metabolic bone disease

6.1.14. Geriatrics

Biology of aging; Factors accelerating senescence - Age re-lated changes in various organ systems - Presentation of diseases in the elderly; Identification of common diseases - Diet for the aged; Management of Nutritional disorders - Acute medical problems -infections, dehydration, acute confessional states - Osteoporosis:

Degenerative joint diseases; effects of immobility; prevention of contracture and bed sores - Neurological disturbances: manage-ment & rehabilitation - Psychogeriatric: Sensory deprivation; per-sonality changes, depressive illness - Social problems in the eld-erly: Joint family system; Day care centre and Day hospital; home for the aged - Rehabilitation: Assessment of functional status; Ac-tivities of daily living, Instrumental activities of daily living, Role of physiotherapist and Social Worker