

Syllabus MD(Geriatrics)

The broad outline of the course contents is given below:

- A) **Basic Sciences:** Biology of human ageing, Epidemiology of human ageing, Immunology of human ageing, Effect of ageing on different organs, death.
- B) **Clinical Geriatric Medicine:** General Medicine, Geriatric Medicine, Cardiology, Pulmonary Medicine, Gastroenterology, Endocrinology, Nephrology, Neurology, Rheumatology, Hematology and Oncology.
Allied specialties: Orthopedics, Urology, Gynecology, Ophthalmology, ENT, Dentistry, Psychiatry, Pre - and post - anesthetic evaluation and management
- C) **Preventive geriatrics:** Rehabilitation, end of life care, legal, ethical and economic aspects

The details of the course contents under each of the four papers are outlined herewith:

Paper I: Basic Sciences of the following systems:

1. Anatomy
2. Physiology
3. Biochemistry
4. Pharmacology
5. Microbiology
6. Pathology

Paper II: General Medicine and Psycho-Geriatrics Introduction to Clinical Medicine:

- Headache
- Chest pain
- Chills and Fever
- Lassitude and Asthenia
- Cough
- Nausea and Vomiting
- Dysphagia
- Ascites
- Weakness, Tremor
- Dizziness, Vertigo, Disorders of Sensation, Seizures

Immunological Factors in Disease:

- Components of immune system
- Mechanism of the immune response
- Immune deficiency and lympho-proliferative disorders
- Types of immune reaction and their relation to disease
- Suppression of immune reactions and its effects

Infection and Diseases:

- Nature of microorganisms
- Epidemiology and spread of infections

Syllabus approved
A. Balakrishnan
2/12/21

A. Murthy
02/12/21

Sanjay
2.12.2021

Balaji
2/12/21

Kandiah
02/12/21

- Immunity and Immunosenescence
- Diagnosis and management of infections
- Pyrexia of unknown origin

Chemotherapy of Infections:

- Antibiotics and other antibacterial agents
- Anti-virals
- Anti-fungals
- Anti-retroviral therapy

Disturbances in Electrolyte and Water Metabolism:

- Hyponatremia and hyponatremia
- Hyperkalemia and hypokalemia
- Calcium-phosphate and magnesium metabolism
- Disturbances in H⁺ ion concentration

Diseases of the Cardiovascular System:

- Cardiac Arrhythmias
- Cardiac failure
- Valvular Heart Disease
- Ischemic Heart Disease
- Pericardial diseases
- Cardiomyopathies, Myocarditis
- Atherosclerosis, hypertension
- Diseases of the aorta
- Peripheral Vascular Disease

Diseases of the Respiratory System:

- Disease of the Upper and Lower Respiratory Tract
- Bronchial Asthma, chronic Obstructive Pulmonary Disorder (COPD), Cor pulmonale
- Acute and Chronic Respiratory Failure
- Neoplasm of lung
- Diseases of Pleura, Mediastinum and Diaphragm

Diseases of the Gastrointestinal System:

- Diseases of the esophagus, Gastro-esophageal Reflux Disorder (GERD)
- Peptic Ulcer, Gastritis and other diseases of the stomach
- Inflammatory diseases of small and large intestine
- Diverticulosis
- Malignancy of stomach, small intestine, colon and rectum
- Mal-absorption syndrome
- Diseases of the peritoneum

Diseases of the Liver and Biliary Tract:

- Diagnostic procedures in liver disorders
- Derangement of hepatic/biliary metabolism
- Acute Hepatitis
- Chronic active hepatitis
- Cirrhosis of liver
- Tumors of liver
- Liver Abscess
- Infiltrative and Metabolic diseases of liver
- Disorders of Gall Bladder and Bile Duct
- Ascites

Diseases of the Pancreas:

· Diagnosis of pancreatic diseases

- Acute and chronic pancreatitis
- Tumors of pancreas

Diseases of the Kidney and Urinary System:

· Acute Renal Failure

- Chronic Kidney Disease
- Glomerulonephritis
- Nephrotic syndrome
- Vascular diseases of the kidney
- Infections of the urinary tract
- Obstructive Uropathy
- Urinary Incontinence
- Nephrolithiasis
- Renal Cell Carcinoma

Diseases of the Endocrine System:

· Thalamus and pituitary gland

- Diseases of the Anterior Pituitary
- Disorders of the neuro-hypophysis
- Hyper thyroidism and hypo -thyroidism
- Hyper parathyroidism and hypo -parathyroidism
- Diabetes Mellitus
- Hyperinsulinism /Glucagon and its effects
- Diseases of the Adrenal Cortex and Medulla
- Diseases of the testes and ovaries

Diseases of Blood and Blood Forming Organs:

· Blood formation and destruction

- Anemia
- Bone Marrow Failure
- Blood Groups and Blood Transfusion
- Myeloproliferative disorders
- Abnormal hemoglobins
- Disorders of platelets
- Hemorrhagic disorders
- Leukemia
- Lymphomas
- Diseases of Spleen and Reticulo-endothelial system

Diseases of Connective Tissue, Joints and Bones:

· Rheumatoid Arthritis, including Late Onset Rheumatoid Arthritis (LORA)

- Ankylosing spondylitis
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- Systemic Lupus Erythematosus/ Vasculitis
- Scleroderma
- Polymyalgia Rheumatica
- Gout/ Pseudogout
- Osteoarthritis
- Diseases of bone - Metabolic and Endocrine
- Tumors of Bone

Diseases of the Nervous System:

- Diagnostic methods in Neurology
- Coma
- Headache
- Epilepsy
- Sleep Disorders
- Diseases of Cranial Nerves
- Cerebro-vascular Diseases
- Diseases of the Spinal Cord
- Diseases of the Peripheral Nervous System
- Pyogenic infections of the CNS
- Viral Infections
- Multiple Sclerosis and other demyelinating diseases
- Metabolic and Nutritional diseases of brain
- Degenerative diseases

Diseases of the Skin:

- Skin lesions of general medical significance
- Generalized pruritus
- Pressure ulcers
- Pigmentation of the skin
- Disorders of Melanin Metabolism
- Photosensitivity and other reactions to light
- Hirsutism and Alopecia
- Cutaneous manifestations of internal malignancy
- Psoriasis
- Scabies
- Fungal infections of skin

Psycho-Geriatrics:

- Epidemiology of Mental Disorders in the elderly
- Definition and Classification of Psychiatric Disorders
- Delirium /Acute confusional state
- Dementia
- Depression in old age
- Bipolar disorder
- Functional psychiatric disorders in old age
- Personality and behavioral disorders
- Psychogeriatric service - Principles of treatment
- Management of Psychiatric Illness
- Alcoholism and the elderly patient
- Care-giver problems

Paper III: Geriatric Medicine**General:**

- Demography, World Trends
- Trends in India and Developing countries
- The Aged and Society - Past and Present
- The evolution of Geriatric Medicine

Gerontology:

- Normal and abnormal aging

