

FINAL M.B.B.S
GENERAL MEDICINE

CURRICULUM

Goals

The aim of teaching undergraduate students in General Medicine is to prepare them to have adequate knowledge in the subject, covering both theoretical and practical knowledge, in accordance with the institutional goals.

Objectives

1. Knowledge

At the end of clinical posting, an undergraduate should have the following knowledge / skill. He /she should be able to perform the following: -

- Be able to evaluate each patient as a person in society and not merely as a collection of organ systems.
- Have developed an interest in cure for all types of patients.
- Recognize differences between normal and abnormal behavior.
- 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.
- Possess sound knowledge of common diseases, their clinical manifestation and natural history.
- Elicit a good clinical history and physical findings, elucidate the clinical problems based on these and discuss the differential diagnosis.
- Requisition of relevant laboratory tests and perform common side lab procedures.
- Be familiar with common imaging techniques, their advantages, disadvantages and indications; be aware of radiation hazards and measures to protect there from.
- Outline the principles of management of various diseases, including the medical and surgical procedures available.
- Describe the mode of action of commonly used drugs, their doses, side effects, toxicity, indications, contraindication and drug interactions.
- Have an open attitude to the newer developments in medicine to keep abreast of new knowledge.
- Diagnose and provide competent initial care to medical emergencies.
- Refer medical problems to secondary and tertiary care at appropriate times.
- Recognize the problems arising in patients of AIDS.
- 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.

- Learn to be adaptable to new ideas and new situations where resources may be limited.
- Possess knowledge of and perform certain procedures.
- Understand the ethical and legal implications of one's medical diseases.

2. Skills

At the end of the course the students shall be able to:

- Obtain a proper relevant history and perform a humane and thorough clinical examination including internal examinations (per - rectal and per vaginal) and examinations of all organs / systems in adults.
- Arrive at a logical working diagnosis after clinical examination.
- Plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments taking into consideration
 - Patient
 - Disease
 - Socio-economic status
- Assess and manage fluid / electrolyte and acid - base imbalance.
- Interpret abnormal biochemical laboratory values of common diseases.
- Interpret serologist tests such as VDRL, ASLO, Widal, HIV, Rheumatoid factor, Hepatitis and TORCH infections.
- Write a complete case record with all necessary details.
- Write a proper discharge summary with all relevant information.
- Write a proper referral note to secondary or tertiary centers or to other physicians with all necessary details.
- Assess the need for and issue proper medical certificates patients for various purposes.
- Adopt universal precautions for self protection against IV and hepatitis and counsel patients.
- Record and interpret an ECG and be able to identify common abnormalities like myocardial infarction and arrhythmias.
- Start i.v. line and infusion.
- Give intradermal / SC / IM / IV injections
- Pass a nasogastric tube
- Pass a stomach tube and do stomach wash
- Administer enemas
- Do Pleural / peritoneal tap
- Aspirate liver abscess
- Administer O₂ by mask, catheter and O₂ tent and be able to handle O₂ cylinder.
- Manage acute anaphylactic shock
- Manage diarrhoeas / dysenteries; Assess dehydration; prepare and administer oral dehydration therapy (ORT)
- Manage emergencies of drowning
- Manage common poisoning

- Manage acute pulmonary oedema and left ventricular failure
- Manage acute severe bronchial asthma.
- Manage hyperpyrexia

HIGHLIGHTS

The curriculum has been designed as per MCI recommendations. Graduate Medical Curriculum is oriented towards training students to undertake the responsibility of a General Practitioner who is capable of looking after the preventive, promotive, curative and rehabilitative aspects of Medical care.

This has to be further intensified by providing exposure to field practice areas and training during the internship period. Curriculum objectives often refer to areas of scientific knowledge, they are best taught in a setting of clinical relevance with hands on experience for the students to assimilate the knowledge and make it a part of their own working skills.

The graduate Medical Education in clinical subjects should be based primarily on coaching in the ward and in outpatient and emergency departments in small groups, preferably not more than ten students so that a teacher can give personal attention to each student.

Proper records of the work should be maintained, which will form the basis for the students internal assessment. Every attempt must be made to avoid compartmentalization of disciplines and to achieve both horizontal and vertical integration throughout the MBBS course. Students used to be encouraged to participate in group discussion and seminar. Group discussion should not have more than 20 students. Faculty members should avail of modern educational technology while teaching the students.

MCI has allocated approximately 300 hours (phase) for teaching General Medicine - for theory classes including didactic lectures, demonstration and the seminars in addition to clinical postings. The clinical lectures held from 4th semester onwards. The clinical postings to be started from 3rd semester onwards. The clinical postings shall be 3 hours daily during the forenoon.

At the beginning of the clinical course i.e. on entry into phase II whole batch shall be given introductory course in clinical methods for 2 wks. Subsequently in each of the 7 semesters (half year) of the 3 ½ years. Clinical course (i.e. semester 3,4 & 5 in II MBBS, 6 & 7 in III MBBS part II) the students shall be posted in small batches by rotation. These recommendations have been taken into consideration while designing the curriculum.

EXAMINATION PATTERN & BREAK UP OF MARKS

The assessment will be of two forms. One is the Internal / continuous assessment. A minimum of four written examinations shall be conducted in each subject during an academic year and the average marks of the three best performances shall be taken into consideration for the award of internal assessment marks. Assignments completed by candidates as home work or vacation work may also be considered.

Regular Practical / Clinical examinations shall be conducted in each subject during an academic year and the average marks shall be taken into consideration for the award of internal assessment marks. Marks awarded for maintenance of records should be included in the internal assessment of practical / clinical performance.

A failed candidate in any subject should be provided an opportunity to improve his / her internal assessment marks by conducting a minimum of two examinations each in theory and practical separately and the average be considered for improvement.

The internal assessment marks awarded both in written and clinical separately should be submitted to the University endorsed by the Head of the institution at least fifteen days prior to the commencement of the theory examinations.

A candidate should obtain a Minimum of 50% of marks in internal assessment in a subject to be permitted to appear for the University in that subject. For this purpose the combined marks of theory and clinical Internal Assessment shall be considered.

ATTENDANCE REQUIRED FOR ADMISSION TO EXAMINATION

- A. No candidate shall be permitted to any one of the parts of IIIrd MBBS examination unless he / she has attended the course in the subject for the prescribed period in an affiliated institution.
- B. A candidate is required to put in a minimum of 80% attendance in both theory & Practical /; Clinical classes separately before admission to the examination & should be certified and forwarded by HOD of the Department at least 15 days prior to the commencement of theory examination.

RECORD NOTE BOOK

Every student must maintain a record of the practical/Clinical work assigned to him in the record note Books. These shall be submitted periodically to the respective professors. At the end of the course the practical/clinical case

record note books shall be submitted to the heads of the departments who shall evaluate and include the marks in the internal Assessment. Records need not be submitted at the University Practical Examination.

In respect of failed candidates the marks awarded for records at the first attempt may be carried over to the next examinations attempt. If a candidate desires he/she may be permitted to improve on the performance by submissions of fresh record note books.

INTEGRATION

Each of the clinical departments shall provide integrated teachings, calling on pre clinical, Para-clinical & other clinical departments to join in exposing the students to the full range of disciplines relevant to each clinical area of study. Problem oriented approach shall be emphasized.

DETAILED SYLLABUS

1 – CARDIOVASCULAR SYSTEM

1. ECG, X – ray chest with reference to common cardiovascular disease.
2. Coronary artery disease
3. Rheumatic fever and rheumatic heart disease
4. Infective endocarditis
5. Hypertension and hypertensive heart disease
6. Acute and chronic heart failure
7. Common congenital heart disease in adolescents and adults: ASD, VSD, PDA, TOF and coarctation of aorta.
8. Common cardiac arrhythmias.
9. Acute chronic pericarditis, pericardial effusion and cardiac tamponade.
10. Common aortic disease, peripheral vascular disease: arterial and venous.

2 - RESPIRATORY SYSTEM

1. Physiology and diagnosis methods, sputum examinations, X – ray chest, pulmonary function tests and Bronchoscopy.
2. Upper respiratory infections
3. Pneumonias
4. Bronchiectasis and lung abscess
5. Bronchial asthma and tropical eosinophilia
6. Chronic obstructive airway disease and cor pulmonale
7. Acute and chronic respiratory failure
8. Diseases of pleura, Pleural effusion, empyema, pneumothorax
9. Pulmonary tuberculosis

10. Neoplasms of lung
11. Common occupational lung diseases
12. Acute pulmonary embolism

3 - GASTROINTESTINAL TRACT

1. Stool examination, endoscopy and radiology in reference to common gastrointestinal disease.
2. Dysphagia
3. Acid peptic disease
4. Malabsorption syndrome
5. Inflammatory bowel disease and irritable bowel syndrome
6. Acute and chronic hepatitis
7. Cirrhosis of liver
8. Abdominal tuberculosis (Gastrointestinal tuberculosis)
9. Diseases of Gall bladder and pancreas
10. LFT
11. GI Emergencies

4. NERVOUS SYSTEM

1. Cerebrovascular diseases & Coma
2. Meningitis: viral, bacterial and tuberculosis & Fungal
3. Peripheral neuropathy
4. Epilepsy
5. Extrapyramidal diseases.
6. Common compressive and noncompressive spinal cord syndromes.
7. Motor system disease.
8. Myasthenia gravis
9. Common myopathies in India
10. Degenerative nutritional and metabolic disease of the nervous system.
11. Diseases of cerebellum

5. ENDOCRINES

1. Diabetes mellitus
2. Hypo and hyperthyroidism; Goitre
3. Cushing's syndrome and Addison's disease; Hyperaldosteronism, Pheochromocytoma
4. Pituitary disorder: Gigantism, Acromegaly and Sheehan's syndrome.
5. Calcium and phosphorus metabolism: parathyroid and metabolic bone disease.
6. Short stature
7. Gonadal dysfunction syndrome & Diabetes insipidus

6. URINARY SYSTEM

1. Acute renal failure
2. Chronic renal failure
3. Glomerulonephritis and Nephrotic syndrome
4. Urinary tract infections / pyelonephritis
5. Tubulointerstitial diseases and toxic nephropathies.
6. Polycystic diseases
7. Renal Function Test

7. INFECTIONS

1. Approach to infectious disease-diagnostic and therapeutic principles
2. General principles of rational use of antibiotics and other chemotherapy against the following:
 - Common gram positive infections
 - Common gram negative infections
 - Enteric Fever, brucellosis
 - Cholera, gastroenteritis, food poisoning and dysentery
 - Influenza and other common viral respiratory infections
 - Rabies
 - Tetanus
 - Herpes simplex and herpes zoster
 - Amoebiasis and worm infestations, Haemorrhagic, fevers
 - Malaria, filariasis, leishmaniasis, PUO
 - Common exanthemata,
 - HIV infection and infections in the immunocompromised Conditions
 - Rickettsial & Spirochete diseases

8. HAEMATOLOGY

1. Definition, prevalence, aetiological factors; pathophysiology, pathology, recognition, investigations and principles of treatment of:
 - i. Anaemias: Iron deficiency, megaloblastic and common haemolytic anaemias (thalassemia, sickle cell and acquired haemolytic)
 - ii. Common bleeding disorders (thrombocytopenia and haemophilia) DIC
 - iii. Agranulocytosis and aplastic anaemia.
2. Leukaemias
3. Lymphomas; myeloma

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 and blood products.

9. PSYCHIATRY

1. Historical aspects of the diagnosis and treatment of mental illness; concept of mental health vs mental illness; classificatory system currently in use in psychiatry.
2. Eliciting a detailed psychiatric history and conducting a mental status examination; defining, eliciting and interpreting psychopathological symptoms and signs.
3. Concepts underlying normal and abnormal human behaviour; principles of learning, memory, personality and intelligence; psychopathology (cf. behavioral sciences)
4. Classification of the different types of psychoses; difference between psychoses and neuroses; difference between functional and organic psychoses.
5. Clinical features, diagnosis and management of: Schizophrenia: Man and depression; Anxiety disorders and hysteria; Dementia; Alcoholism; Drug abuse.
6. Clinical recognition and initial therapy in emergencies.
7. Clinical features, diagnosis and management of psychiatric disorders of childhood and adolescence and Geriatrics groups.
8. Personality disorders.

10. DERMATOLOGY AND STD

1. Diseases caused by nutritional and environmental factors.
2. Infective disorders: Pyodermas, Common viral and fungal infections.
3. Infestations: Scabies, Pediculosis
4. Melanocyte, Pigment metabolism and disorders of pigmentation, Ichthyosis.
5. Allergic disorders: Urticaria, Atopic dermatitis and contact dermatitis.
6. Common drug reactions and eruptions: Erythema multiforme, Toxic epidermal necrolysis, and Exfoliative dermatitis.

7. Dermatitis and Eczema
8. Vesiculobullous Disease: Pemphigus, Pemphigoid and Dermatitis herpetiformis.
9. Alopecia and Hirsutism.
10. Sebaceous glands, Acne, Seborrhoeic dermatitis
11. Sweat glands: Diseases; Miliaria Hyperhidrosis
12. Leprosy: Classification, Pathology, Clinical features, Diagnosis, Reactions, Management, Deformities and Control Programme
13. Psoriasis
14. Lichen Planus
15. Sexually Transmitted Diseases: Genital ulcerative diseases, genital discharge diseases, H.I.V.
16. Dermatological Therapy

11. NUTRITION / EXPOSURE TO PHYSICAL AND CHEMICAL AGENTS

1. Nutrition in clinical medicine and dietary management.
 - i. Nutritional requirements trace elements
 - ii. Protein calorie malnutrition in adults
 - iii. Obesity
 - iv. Vitamin deficiency / excess.
2. Fluid and electrolyte balance; acidosis and alkalosis in particular relevance to vomiting, Diarrhoea, uraemia and diabetic ketoacidosis.
3. Poisonings: phenobarbitone, organophosphorous compounds, sedative / hypnotic and others common in the locality.
4. Acute and chronic effects of alcohol and their management.
5. Venoms, stings, insect bites: poisonous snakes, insects and scorpions.

6. Disturbances of temperature: heat stroke, heat exhaustion and cold exposure.
7. Drowning, electrocution and radiation hazards.
8. Disorders of Immunity
 - a. Common auto immune diseases – SLE, Rheumatoid arthritis.
 - b. Hyper sensitivity reactions
 - c. Immuno deficiency status.

BOOKS RECOMMENDED

CLINICAL METHODS

- Hutchison's clinical methods.
- Macleoid's clinical examination.

MEDICINE TEXT

- Davidson's principles and practice of medicine
- Kumar and Clark – Clinical Medicine

REFERENCE BOOKS

- Harrison's principles of Internal Medicine

JOURNALS FOR REFERENCE

- British Medical Journal

➤ Lancet

GENERAL SURGERY

CURRICULUM

Goals

The aim of teaching undergraduate students in General Surgery is to prepare them to have adequate knowledge of General Surgery in accordance with the institutional goals.

Objectives

1. Knowledge

At the end of training the undergraduate student should be able to: -

- a. Diagnose and appropriately treat common surgical ailments;
- b. Identify situation calling for urgent or early surgical intervention and refer at the optimum time to the appropriate centres;
- c. Requisition and interpret basic relevant investigations;
- d. Provide adequate pre and post - operative and follow - up care of surgical patients;
- e. Counsel and guide patients and relatives regarding need, implications and problems of surgery in the individual patient;
- f. Develop adequate and right attitude in dealing with surgical problems of patients;
- g. Provide emergency resuscitative measures in acute surgical situations including trauma.
- h. Organise and conduct relief measures in situations of mass casualties.
- i. Effectively participate in the National Health Programmes especially the Family Welfare Programme.
- j. Discharge effectively medico-legal and ethical responsibilities.
- k. Perform simple routine surgical procedures.

2. Skills

At the end of the course the students shall be able to:

1. Obtain a proper relevant history and perform a humane and thorough clinical examination including internal examinations (per-rectal and per - vaginal) and examinations of all organs/ systems in adults and children.
2. Arrive at a logical working diagnosis after clinical examination.
3. Order appropriate investigations keeping in mind their relevance (need based) and cost effectiveness.

4. Plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments taking into consideration:
 1. Patient;
 2. Disease;
 3. Socio – economic status;
 4. Institutional/governmental guidelines.
5. Recognize situations which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.
6. Demonstrate empathy and humane approach towards patients, relatives and attendants.
7. Develop a proper attitude towards patients, colleagues and other staff.
8. Demonstrate interpersonal and communication skills befitting a surgeon in order to discuss the illness and its outcome with patient and family.
9. Establish rapport and talk to patients, relatives and community regarding all aspects of medical care and disease.
10. Write a complete case record with all necessary details.
11. Write a proper discharge summary with all relevant information.
12. Write a proper referral note to secondary or tertiary centres or to other surgeons with all necessary details.
13. Assess the need for and issue proper medical certificates to patients for various purposes.
14. Maintain an ethical behaviour in all aspects of medical practice.
15. Appreciate patients' right to privacy.
16. Obtain informed consent for any examination/procedure.
17. Be able to do surface marking of common superficial arteries, veins, nerves and viscera.
18. Assess and manage fluid/ electrolyte and acid base imbalance.
19. Adopt universal precautions for self protection against HIV and hepatitis and counsel patients.
20. Start i.v.line and infusion in adults, children and neonates.
21. Do venous cutdown.
22. Give intradermal / SC/ IM/IV injection.
23. Insert and manage a C.V.P line.
24. Conduct CPR (Cardiopulmonary resuscitation) and first aid in newborns, children and adults including endotracheal intubation.
25. Pass a nasogastric tube.
26. Pass a stomach tube and do stomach wash.
27. Perform vasectomy.
28. Perform circumcision.
29. Perform reduction of paraphimosis.
30. Do Proctoscopy.
31. Do injection and banding of piles.

32. Incise and drain superficial abscesses; do dressing.
33. Manage superficial wounds and do suturing of superficial wounds & wound toilet.
34. Remove small cutaneous/ subcutaneous swellings.
35. Control external haemorrhage.
36. Catheterise bladder in both males and females.
37. Perform nerve blocks like infiltration, digital, pudendal, paracervical and field block.
38. Relieve tension pneumothorax by inserting a needle.
39. Insert flatus tube.
40. Provide first aid to patients with peripheral vascular failure and shock.
41. Assess degree of burns and administer emergency management.

DETAILED SYLLABUS

I. GENERAL PRINCIPLES

- Wound Healing and Management; Scars: Hypertrophy scar and keloid; First aid management of severely injured.
- Asepsis, antisepsis, sterilization.
- Surgical sutures, knots, drains, bandages and splints.
- Surgical infections and ration use of antibiotics: Causes of infection, prevention of infection, common organisms causing infection.
- Boils, cellulitis, abscess, necrotizing lesions.
- Tetanus and Gas gangrene: Prevention and treatment.
- Chronic specific infections: Tuberculosis, Filarisis, Leprosy.
- Antibiotic therapy.
- Hospital infection.
- AIDS and hepatitis B
- Mechanisms and management of missile, blast and gunshot injuries.
- Surgical aspects of diabetes mellitus.
- Bites and Stings.
- Organ transplantation: Basic Principles.
- Nutritional support to surgical patients.

II. RESUSCITATION

- Fluid and Electrolyte balance.
- Shock: Aetiology, Pathophysiology and Management.
- Blood Transfusion: Indications and hazards.
- Common postoperative complications.

III. COMMON SKIN AND SUBCUTANEOUS CONDITIONS

- Sebaceous cyst, dermoid cyst, lipoma, Haemangioma, Neurofibroma, pre-malignant conditions of the skin, Basal cell carcinoma, squamous cell carcinoma, Naevi and malignant melanoma.
- Sinus and fistulae
- Pressure sores: Prevention and management.

IV. ARTERIAL DISORDERS

- Acute arterial obstruction: diagnosis and initial management; types of gangrene; diagnosis of chronic arterial insufficiency with emphasis on Buerger's disease, atherosclerosis; investigation in case of arterial obstruction.
- Amputations, Vascular injuries: Basic principles of manage.

V. VENOUS DISORDERS

Varicose veins: diagnosis and management; deep venous thrombosis: diagnosis, prevention, principles of therapy; thrombophlebitis.

VI. LYMPHATICS AND LYMPH NODES

Diagnosis and principles of management of lymphangitis, lymphedema, acute and chronic lymphadenitis, cold abscess, lymphomas; surgical manifestations of filariasis.

VII. BURNS

Causes, Prevention and first aid management; Pathophysiology; assessment of depth and surface area, fluid resuscitation; skin cover; prevention of contractures.

VIII. SCALP, SKULL & BRAIN

Wounds of scalp and their management; recognition, diagnosis and monitoring of patients with head injury including unconsciousness; Glasgow coma scale; recognition of acute cerebral compression.

IX. ORAL CAVITY, JAW, SALIVARY, GLANDS

- Cleft lip and palate; Leukoplakia; retention cysts; ulcers of the tongue.
- Features, diagnosis and basic principles of management of carcinoma lip, buccal mucosa and tongue, prevention and staging of oral carcinomas.

- Salivary Glands: Acute sialadenitis, neoplasms: diagnosis and principles of management.
- Epulis, cysts and tumors of tumors of jaw; maxillofacial injuries; salivary fistulae.

X. NECK

- Branchial cyst; cystic hygroma.
- Cervical lymphadenitis: Non specific and specific, tuberculosis of lymphnodes, secondaries in neck.
- Thoracic outlet syndrome: diagnosis

XI. THYROID GLAND

- ❖ Thyroid: surgical anatomy, physiology, investigations of thyroid disorders; types, clinical features, diagnosis and principles of management of goiter, thyrotoxicosis and malignancies; thyroglossal cyst and fistula.
- ❖ Thyroiditis, Hypothyroidism.

XII. PARATHYROID AND ADRENAL GLANDS

Clinical features and diagnosis of hyperparathyroidism, adrenal hyperfunction/hypofunction.

XIII. BREAST

- Surgical anatomy; nipple discharge; acute mastitis, breast abscess; mammary dysplasia; gynaecomastia; fibroadenomas.
- Assessment and investigation of a breast lump.
- Cancer breast: diagnosis, staging, principles of management.

XIV. THORAX

- Recognition and treatment of pneumothorax, haemothorax, pulmonary embolism: prevention/recognition and treatment; flail chest; stove in chest; postoperative pulmonary complications.
- Principles of management of pyothorax; cancer lung.

XV. HEART AND PERICARDIUM

Scope of cardiac surgery.

XVI. OESOPHAGUS

- Dysphagia: Causes, investigations and principles of management.
- Cancer oesophagus: principles of management.

XVII. STOMACH AND DUODENUM

Anatomy, Physiology; Congenital hypertrophic pyloric stenosis; Aetiopathogenesis, diagnosis and management of: peptic ulcer, cancer stomach; upper gastrointestinal haemorrhage with special reference to bleeding varices and duodenal ulcer.

XVIII. LIVER

- Clinical features, diagnosis and principles of management of: Amoebic liver abscess, hydatid cyst and portal hypertension.
- Surgical anatomy; primary and secondary neoplasms of liver.

XIX. SPLEEN

Splenomegaly: causes, investigations and indications for splenectomy; splenic injury.

XX. GALL BLADDER AND BILE DUCTS

- Anatomy, Physiology and investigations of biliary tree; clinical features, diagnosis, complications and principles of management of cholelithiasis and cholecystitis; obstructive jaundice.
- Carcinoma gall bladder, choledochal cyst.

XXI. PANCREAS

- Acute pancreatitis: clinical features, diagnosis, complications and management.
- Chronic pancreatitis, cancer pancreas.

XXII. PERITONEUM, OMENTUM, MESENTERY AND RETROPERITONEAL SPACE

- ❖ Peritonitis: causes, recognition and principles of management intraperitoneal abscesses.
- ❖ Laparoscopy

XXIII. SMALL AND LARGE INTESTINES

- Diagnosis and principles of treatment of : Intestinal amoebiasis, tuberculosis of intestine, carcinoma colon; lower gastrointestinal haemorrhage.
- Ulcerative colitis, Premalignant conditions of large bowel.

- Intestinal Obstruction: Types, aetiology, diagnosis and principles of management; paralytic ileus.
- Acute Abdomen: Causes, approach, diagnosis and principles of management.
- Appendix: Diagnosis and management of acute appendicitis, appendicular lump and abscess.

XXIV. RECTUM

- Carcinoma of rectum: diagnosis, clinical features and principles of management: indications and management of colostomy.
- Prolapse of rectum.

XXV. ANAL CANAL

- Surgical anatomy, Clinical features and management of: fissure, fistula in ano, perianal and ischioanal abscess and haemorrhoids; Diagnosis and referral of anorectal anomalies.
- Anal carcinoma.

XXVI. HERNIAS

- Clinical features, diagnosis, complications and principles of management of: umbilical, inguinal and femoral hernia.
- Epigastric hernia; omphalitis; umbilical fistulae; burst abdomen and ventral hernia.

XXVII. GENITTO - URINARY SYSTEM

- Symptoms and investigations of the urinary tract.
- Investigations of renal mass; diagnosis and principles of management of urolithiasis, hydronephrosis, pyonephrosis, perinephric abscess and renal tumours.
- Renal tuberculosis.
- Causes, diagnosis and Principles of management of haematuria, anuria and acute retention of urine.
- Benign prostatic hyperplasia; diagnosis and management; carcinoma prostate.
- Diagnosis and principles of management of phimosis, paraphimosis and carcinoma penis.
- Principles of management of urethral injuries.
- Diagnosis and principles of treatment of undescended testis, torsion testis, hydrocoele, haematocoele, pyocoete, epididymo-orchitis and testicular tumours.
- Varicocele.

B. ORTHOPAEDICS

DEPARTMENTAL OBJECTIVES:

At the end of the training the student should be able to:

Describe the aetiology, Pathophysiology, principles of diagnosis and management of common orthopaedic problems including emergencies.

COURSE CONTENTS

I. TRAUMA

- ✚ General principles in diagnosis, first aid and treatment methods of closed fractures and open fractures, and open reduction including principles of internal fixation and external fixation, their complications. Preservation of amputated parts before transfer.
- ✚ General principles of diagnosis and management of non-unions and delayed unions.

II. DIAGNOSIS, FIRST AID AND REFERRAL OF

- Fracture clavicle.
- Anterior dislocation of shoulder.
- Fracture proximal end, shaft, supracondylar, and internal condylar humerus.
- Posterior dislocation of elbow.
- Fracture shaft of radius and ulna.
- Fracture of distal radius.
- Traumatic dislocation of hip.
- Fracture femur neck, trochanter and shaft.
- Fracture patella.
- Fracture shaft tibia and fibula.
- Haemarthrosis, traumatic synovitis.
- Injury to muscles and ligaments (shoulder arc syndrome, tennis elbow, ankle sprain).
- General principles of management of hand injuries.
- Peripheral nerve injuries.
- Spinal injuries.
- Fracture of olecranon.
- Monteggia fracture dislocation.
- Polytrauma.
- Complications of fracture: Fat embolism, Ischaemic contracture, myositis ossificans, osteodystrophy.

III. INFECTIONS OF BONES AND JOINTS

Diagnosis and Principles of Management

- Osteomyelitis: pyogenic, tubercular, fungal (Madurafoot), syphilitic and parasitic infection of bone.
- Arthritis: septic and tubercular.
- Tuberculosis of the spine.
- Leprosy – principles of corrective surgery.

IV. TUMORS

Diagnosis and principles of Management:

- Benign lesions: Multiple exostosis, Enchondroma, Osteoid osteoma, Simple bone cyst, Osteochondroma.
- Malignant lesions: Osteosarcoma, Ewing's sarcoma, Giant cell tumor, Chondrosarcoma and Secondary deposits.

V. DEGENERATIVE DISEASES

Diagnosis and Principles of Management

- Osteoarthritis.
- Spondylosis.
- Degenerative disc diseases.

VI. CONGENITAL ANOMALIES

Diagnosis and Principles of Management:

- Congenital dislocation hip.
- Congenital talipes equinovarus.
- Pes Planus.

VII. BONE DYSPLASIA

Diagnosis and Principles of Management:

- Osteogenesis imperfecta.
- Achondroplasia.

VIII. NEURO - MUSCULAR DISORDERS

Diagnosis and Principles of Management:

- Post- polio residual Paralysis.
- Cerebral palsy.

IX. OSTEOCHONDROSES

Diagnosis and Principles of Management : - Perthe's disease

X. DEFORMITIES

- Scoliosis – diagnosis and referral.
- Genu Varum and Valgum – diagnosis

XI. PREVENTIVE ORTHOPAEDICS

XII. BASIC PRINCIPLES OF PHYSIOTHERAPY

OCCUPATIONAL THERAPY AND ORTHOTICS/PROSTHETICS

- Physiatric evaluation of common neurological diseases.
- Physiatric evaluation of common orthopaedic conditions.
- Principles of Exercise therapy, Electrotherapy and Occupational therapy.
- Principles of Orthotics and Prosthetics.
- Principles of Cardiopulmonary Rehabilitation.

SKILLS

1. Obtain a proper relevant history, and perform a humane and thorough clinical examination in adults and children including neonates.
2. Arrive at a logical working diagnosis after examination.
3. Plan and institute a line of treatment which is need based, cost effective and appropriate for common ailments.
4. Recognize situations which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.
5. Be able to do surface marking of common superficial arteries, veins, nerves and viscera.
6. Interpret skiagrams of common fractures and dislocations.
7. Apply skin traction.
8. Apply figure of 8 bandages for fracture clavicle.
9. Apply POP slabs/ casts and splints.
10. Transport safely victims of accidents including those with spinal injury.
11. Reduce Colle's fracture.
12. Reduce shoulder dislocation.
13. Reduce temporo-mandibular joint dislocation.
14. Perform nerve blocks like infiltration, digital, pudendal, paracervical and field block.

C. RADIOTHERAPY

Departmental Objectives:

At the end of the training in Radiotherapy the student should be able to:

Exhibit awareness of the principles of radiotherapy, the radio-responsiveness of various tumours and management of common cancers like cervical, breast and oral cancers. Refer for further consultations of irradiation and their management. State general complications of irradiation and their management. List common chemotherapeutic drugs for cancer and their toxicity.

Implement health education programmes regarding prevention and early diagnosis of tobacco related cancers, cervical cancers and breast cancers.

Know the general outlines of use of radio-isotopes in diagnosis and therapy.

COURSE CONTENTS

- Physical principal of radiotherapy.
- Principles of cancer chemotherapy.
- Prevention of cancer
- Early diagnosis of cancer.
- Principles of nuclear medicine.
- Radio-responsiveness of various tumours.
- Common radiation reactions and management.
- Radiotherapy in some of the commonly seen cancers.
- Chemotherapy in certain cancers like childhood tumours, leukemia and lymphomas.
- Radio-isotopes in diagnosis and therapy.

D.ANAESTHESIOLOGY

Departmental Objectives

At the end of the training the students should be able to:

Perform cardio-pulmonary resuscitation with the available resources and transfer the patient to be bigger hospital for advanced life support. Set up intravenous infusion. Clear and maintain airway in an unconscious patient. Administer oxygen correctly. Perform simple nerve block. Exhibit awareness of the principles of administration of general and local anesthetics.

COURSE CONTENTS

Cardiopulmonary resuscitation (CPR) - basic and advanced including use of simple ventilators.

- Anatomy of upper airway; sites of respiratory obstruction and management of airway in an unconscious patient.
- Various methods of oxygen therapy and its indications.
- The pharmacology of local anesthetics, their use and how to perform simple nerve blocks like,
 - Infiltration anaesthesia

- Digital block
 - Ankle block
 - Pudendal and paracervical blocks.
- Management of complication of regional anaesthesia.
 - The Principles of administration of general anaesthetics.

SKILLS

- Start i.v. line and infusion in adults, children and neonates.
- Do venous cutdown.
- Insert and manage a C.V.P line.
- Conduct CPR (Cardiopulmonary resuscitation) and first aid in newborns, children and adults including endotracheal intubation.
- Do lumbar puncture.
- Perform nerve blocks like infiltration, digital, pudendal, paracervical and field block.
- Administer O₂ by mask, catheter and O₂ tent and be able to handle O₂ cylinder.

BOOKS RECOMMENDED FOR SURGERY

- Short Practice of surgery - Bailey & Love
- Clinical methods in Surgery - Doss
- Clinical methods in Surgery - Hamilton Bailey
- Clinical Hamilton Bailey

BOOKS RECOMMENDED FOR ORTHOPAEDICS

- Orthopaedics Traumatology by Mayilvahanan Natarajan
- Outline of Orthopaedics - Crawford Adams (Eleventh edition)
- Outline of Fractures - Crawford Adams (Eleventh edition)

REFERENCE BOOKS

- Text book of surgery - Schwartz

JOURNALS FOR REFERENCE

- British Journal of Surgery
- Indian Journal of Surgery

PAEDIATRICS CURRICULUM

Goals

The aim of teaching Paediatrics to undergraduate students is to prepare them to have adequate knowledge and appropriate skills to treat Paediatric patients in accordance with the Institutional goals.

Objectives

1. Knowledge

At the end of clinical posting, an undergraduate should have the following knowledge / skill. He /she should be able to perform the following: -

- Early diagnosis of Paediatric/Neonatal diseases and give appropriate treatment.
- Interpret various diagnostic tests.
- Perform routine investigations and therapeutic procedures.
- Counsel the parents, and relatives regarding the nature of illness and its risks.
- Perform efficient cardio pulmonary resuscitation.
- Identify and initiate treatment for various emergencies / Identify critical illness needing referral to tertiary centres.
- Discharge Medico-legal responsibilities.
- Be aware of and participate in National programmes
- Motivate patients for Diagnostic autopsy.

3. Skills

At the end of the course the students shall be able to:

- a. Obtain a proper relevant history and perform a humane and thorough clinical examination of all systems in children including neonates.
- b. Arrive at a logical comprehensive diagnosis after clinical examination.
- c. Order appropriate investigations keeping in mind their need, relevance and cost effectiveness.
- d. Plan and institute a line of treatment which is need based, cost effective And appropriate for common ailments taking into consideration –
 - i. Patient,

- ii. Disease,
- iii. Socio-economic status,
- iv. Institutional / Governmental guidelines.
- e. Identify situations where referral to secondary or tertiary level is needed and referring promptly after first aid or emergency treatment.
- f. Show empathy and humane approach towards patient, relatives and attendants.
- g. Develop a proper professional attitude towards patient, colleagues and other staff.
- h. Maintain ethics in medical practice.
- i. Monitor growth and development and diagnose the abnormal.
- j. Assess and treat fluid / electrolyte disorders and acid – base imbalance.
- k. Assess dehydration and treat diarrhoeal illness including preparation of ORS.
- l. Early detection of Nutritional disorders and treatment.
- m. Be able to write a complete case sheet.
- n. Write a proper discharge summary.
- o. Organize antenatal, postnatal, well baby and other clinics.
- p. Motivate patients and community to participate in National Health programmes.
- q. Organize and teach first aid to paramedics, with reference to pediatric age group.
- r. Adopt universal precautions against HIV.
- s. Maintain cold chain and reverse cold chain.
- t. Perform and read Mantoux test.
- u. Safe injection practices.

DETAILED SYLLABUS

HIGHLIGHTS

This curriculum has at its core MCI recommendations. An attempt has also been made, to incorporate newer trends in teaching methodology as well as to include recent advances in Paediatrics in the syllabus.

This holistic approach is designed so that a graduate once he acquires the Degree is able to discharge the responsibility of general practitioner in such a manner that he can give proper primary child health care.

Clinical subjects must essentially be based on bedside teaching. Therefore clinical posting in Paediatrics is oriented towards teaching in Ward, OPD and Emergency departments. The size of each group of students posted is planned to be small so that teaching takes a personal bearing.

Curriculum objective has been to impart essential clinical knowledge so that he/she becomes capable of working up and treating a child case in a logical way inculcating preventive and socioeconomic aspects also in care.

CURRICULUM

A minimum of 100 hours has been allotted during the course. This is the suggested minimum. Extra hours are allowed whenever needed. The allocation of cases and marks is given separately in annexure. The lecture classes will be conducted by Professors and Assistant Professors by rotation.

DETAILS OF CLINICAL POSTINGS

During the Clinical posting, students shall be taught for three hours in the forenoon from 9 Am to 12 Noon.

In clinical posting, students are trained in Wards and Out-patient departments in small groups. The emphasis during clinical teaching is adequate and thorough history taking including Nutritional history and Vaccination, proper methods of clinical examination with subsequent discussion about diagnosis and management.

Apart from clinical cases, the following are also taught / demonstrated to students.

- Cold chain maintenance.
- Vaccination techniques.
- Cardio Pulmonary Resuscitation.
- New born Resuscitation.
- Starting IV line.
- Universal precautions
- Interpretation of Mantoux test.
- Lumbar Puncture.

RECORD NOTE BOOK

Every effort is made to ensure proper Record keeping of the cases examined by the students during the clinical posting. A minimum of 10 cases examined by the students is maintained as a record containing the detailed history, clinical findings, investigations and treatment and submitted for evaluation.

SYLLABUS

COURSE CONTENTS

I. VITAL STATISTICS

- ❖ Introduction to Paediatrics with special reference to age related disorders.
- ❖ Definition of Mortality rates and ratios: infant, perinatal , maternal, neonatal and under five.
- ❖ Causes and prevention of infant, perinatal and neonatal mortality.

- ❖ National programmes on Maternal & Child health.

II. GROWTH AND DEVELOPMENT

- Anthropometric and developmental assessment, normal and abnormal growth and development patterns, interpretation of growth curves and road to health chart.
- Psychological and behavioral problems.
- Approach to a child with growth retardation and short stature.

III. NUTRITION

- Normal requirements of protein, carbohydrate, fat, minerals, vitamins and trace elements for newborns, children, pregnant and lactating mothers.
- Exclusive breast feeding, advantages of breast feeding, infant feeding, weaning diets, planning of preterm nutrition.
- Recognition and treatment of nutritional deficiency disorders.
- Protein energy malnutrition: classification, causes, management including complications.
- National Nutritional and other child health and welfare programmes.
- Management of problems related to lactation failure.
- Hypervitaminosis.

IV. IMMUNIZATION

- National immunization programmes.
- Vaccines and Vaccine – preventable diseases.
- Principles of immunization.
- Vaccine preservation and cold chain.
- Indications, contra indications, adverse reaction and complications.
- Investigations and reporting of Vaccine preventable diseases.
- Newer vaccines – Haemophilus, Pneumococcal, Hepatitis-A,
- Meningococcal, Acellular Pertussis, Injectable Polio, Influenza vaccine,
- Varicella, Rotavirus Vaccine etc.,

V. INFECTIOUS DISEASES

Natural history, clinical course, signs, symptoms, investigations, management and prevention of common bacterial, viral, parasitic and fungal infections with special reference to vaccine preventable disease, tuberculosis, mumps, Measles, rubella, typhoid, chicken pox, Dengue, Leptospirosis and

parasitic infections like Giardiasis, malaria, kala azar, filariasis, intestinal helminthiasis and HIV infection.

VI. CENTRAL NERVOUS SYSTEM

- Clinical diagnosis, investigations and treatment of acute CNS infections: Meningitis including tuberculosis, encephalitis, seizure disorders, febrile convulsions, Rheumatic chorea.
- Cerebral palsy, mental retardation, hydrocephalus and coma.

VII. GASTROINTESTINAL SYSTEM

Clinical diagnosis, relevant investigations and management of:

- Gastro - oesophageal reflux, GI bleeding, Short bowel syndrome, acute and Chronic diarrhea, complications of gastroenteritis.
- Common hepatic disorders: Hepatitis, Chronic liver disorders, Obstructive jaundice, Portal Hypertension and Cirrhosis.
- Abdominal tuberculosis, acute abdomen including surgical causes, paralytic ileus, chronic constipation and rectal bleeding.
- Budd-Chiari syndrome, Metabolic disorders like Wilson's disease.

VIII. GENITOURINARY SYSTEM

- ❖ Clinical features, investigations, complications and management of acute glomerulonephritis, nephrotic syndrome, urinary tract infection - acute and recurrent.
- ❖ Acute and chronic renal failure.

IX. CARDIOVASCULAR SYSTEM

- Clinical features, diagnosis, investigations, prevention and treatment of acute rheumatic fever, rheumatic heart disease and complications.
- Recognition of congenital acyanotic and cyanotic heart diseases and management of cyanotic spells.
- Prevention, recognition and treatment of bacterial endocarditis.
- Diagnosis and management of congestive cardiac failure.
- Clinical features, diagnosis, prevention and treatment of pericardial effusion and Myocarditis and Supraventricular tachycardia.

X. RESPIRATORY SYSTEM

- Epidemiology, clinical features, investigation and management of acute infections of upper and lower respiratory tract.

- Diagnosis and management of acute bronchial asthma, status asthmaticus, chronic suppurative lung diseases.
- Upper airway obstruction and congenital laryngeal stridor.
- Diagnosis and appropriate management of foreign body aspiration.
- ARI Control programmes.

XI. ENDOCRINE SYSTEM

- Clinical recognition, causes, laboratory diagnosis, prevention and management of Hypothyroidism and Hyperthyroidism, Congenital adrenal hyperplasia.
- Juvenile diabetes mellitus.

XII. HAEMATOLOGICAL SYSTEM

- Classification of anemias, Clinical features, diagnosis and management.
- Diagnosis and basic investigations of bleeding and coagulation disorders in newborn and older children, Leukaemia and Lymphomas.

XIII. NEONATOLOGY

- Foetal physiology. Identification of antenatal, intrapartum and immediate postnatal risk factors.
- Definition, identification and classification of high risk neonate, Neonatal resuscitation, Gestational age assessment and care of the normal newborn. Management of neonatal problems: Transient metabolic disorders, infections, minor developmental defects, infants of diabetic mothers Haemorrhagic disease of newborn, respiratory distress, feeding difficulties, birth injuries, Anemia and jaundice.
- Respiratory Distress Syndrome and Meconium Aspiration Syndrome.
- Care of the preterm and low birth weight infant: temperature maintenance, feeding, prevention of complications, appropriate method of transfer to tertiary centre.
- Identification and referral of neonates with congenital malformations like cleft palate, tracheo-oesophageal fistula, diaphragmatic hernia, Hirschsprung's disease.
- Neonatal and Infant Feeding Practices and Lactation Management.

XIV. GENETIC DISORDERS

- Terminology in genetics.
- Down's syndrome, Turner's syndrome, Klinefelter's Syndrome.
- Genetic counseling including prenatal diagnosis.

XV. EMERGENCY PAEDIATRICS

Clinical features, aetiology, laboratory diagnosis, prevention and management of: Status asthmaticus, Status epilepticus, Acute pulmonary edema, Hypertensive emergencies, Shock including Cardiogenic shock , Cardiac failure and Cyanotic spells, scorpion and snake envenomation, and common poisoning like kerosene and OPC, Diabetic Ketoacidosis, Drowning and Burns.

CONNECTIVE TISSUE DISORDERS

- Rheumatoid arthritis.
- Other disorders.

MISCELLANEOUS DISORDERS

- Common childhood symptoms that cause undue parental anxiety but are of no serious importance: recurrent common cold, stubbornness, temper tantrums, refusal to eat, breath holding spell, Enuresis, Encopresis.
- Perinatal, Neonatal and Paediatric HIV Infections - Mode of transmission and prevention strategies. Impact of HIV infection and AIDS on childhood immunization.

INTEGRATED TEACHING

- Diabetes in children.
- Protein Energy Malnutrition.
- Tropical infections and infestations.
- Diarrheal disorders.
- Psychological and behavioral disorders in children.
- Adolescent Paediatrics.
- Common childhood and neonatal surgical problems.
- Congenital Heart Disease: Cyanotic and Acyanotic.

BOOKS FOR RECOMMENDED

- Essential Paediatrics 7th Edition - O.P.Ghai
- IAP Textbook of Paediatrics 3rd Edition - Parthasarathy
- Text Book of Paediatrics - Suraj Gupte
- Short textbook of Paediatrics - Udani
- Clinical Methods in Paediatrics - Meharban Singh
- Clinical examination - Hutchinson & Hunter

REFERENCE BOOKS

- Text book of Paediatrics 17th Edition - Nelson
- Forfar & Arneils Text book of Paediatrics 5th Edition - McIntosh, Neil

- Manual of Neonatal care. - Meharbahn Singh
- Nutrition and Child development - Elizabeth
- Textbook of Preventive and Social Medicine - Park

JOURNALS FOR REFERENCE

- Indian Paediatrics

OBSTETRICS & GYNAECOLOGY

CURRICULUM

Goals

The aim of teaching undergraduate students in Obstetrics & Gynaecology is to prepare them to have adequate knowledge of Obstetrics & Gynaecology in accordance with the Institutional goals.

Objectives

1. Knowledge

At the end of training the undergraduate student should be able to: -

- a. Appreciate the socio-cultural, economic and demographic factors that influence the practice of Obstetrics and Gynaecology.
- b. Appreciate the principles of reproductive anatomy and physiology.
- c. Understand the preconception, antenatal, intra natal and post-natal factors including drugs that affect the mother and foetus.
- d. Recognise the changes and adaptation that occur in the mother during pregnancy, labour and puerperium.
- e. Impart antenatal care, detect deviations from normal pregnancy and refer risk cases appropriately.
- f. Manage normal labour, recognize the factors that may lead to complications and refer such cases appropriately.
- g. Institute primary treatment in Obstetrics and Gynaecological emergencies.
- h. Resuscitate and take adequate care of the newborn.
- i. Assist couples with infertility and those requiring contraception.
- j. Know the aetiopathology and management of menstrual abnormalities.
- k. Know about the benign and malignant tumours of the genital tract and appreciate the need for screening and prevention.

- l. Recognize the importance of infections and other diseases of the genital tract and appreciate the need for screening and prevention.
- m. Recognizes the importance of infections and other diseases of the genital tract and give appropriate treatment.
- n. Know about the displacements of genital tract and injuries.
- o. Understand the implications of medico legal and ethical issues concerning the specialty.
- p. Acquire communication, decision making and managerial skills.
- q. Acquire skills to perform Obstetrical and Gynaecological Examination and certain minor investigations and therapeutic co operative procedures.

2. Skills

At the end of the course the students shall be able to:

- Obtain proper relevant history and thorough clinical examination.
- Arrive at a logical working diagnosis after examination.
- To order appropriate investigations.
- Plan & institute line of treatment which is need based, cost effective & appropriate for common ailments taking into consideration.
- To Recognize situations which call for urgent/ early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.
- Demonstrate interpersonal & communication skill befitting a physician in order to discuss outcome with patient and family.
- Determine gestational age.
- Maintain an ethical behavior.
- Obtain informed consent for any examination / procedure.
- Motivate colleagues, community and patient to participate actively in national health programmes.
- To write a complete case record with all necessary details.
- To write a proper discharge summary with all relevant information.
- To write a proper referral note to secondary and tertiary institutions with all necessary details.
- To assess the need for and issue proper medical certificate to patient for various purposes.
- To organise antenatal, postnatal & well baby clinics.
- To plan & manage health camps and family welfare camps.
- To accept universal precaution for self protection against HIV, Hepatitis and counsel patients.
- To do & examine a wet film vaginal smear for Trichomoniasis and fungal infection.
- To take Pap smear.

- To take a punch biopsy of cervix.
- To conduct normal vaginal delivery.
- To do artificial rupture of membranes.
- To perform & suture episiotomies.
- To apply outlet forceps.
- To do postpartum tubectomy.
- To perform MTP in I trimester and to be able to do evacuation in incomplete abortions.
- To insert and remove IUCD.
- To be able to diagnose & provide emergency care for ante partum & postpartum haemorrhage.

HIGHLIGHTS

The curriculum has been designed as per MCI recommendations. Graduate medical curriculum is oriented towards training students to under take the responsibility of a general practitioner who is capable of looking after the preventive, promotive , curative and rehabilitative aspects of medical care.

This has to be further intensified by providing exposure to field practice areas and training during the internship period. Curriculum objectives often refer to areas of scientific knowledge, they are best taught in a setting of clinical relevance with hands on experience for the students to assimilate the knowledge and make it a part of their own working skills.

The graduate medical education in clinical subjects should be based primarily on coaching in the wards and in outpatient and emergency departments in small groups, preferably not more than ten students so that a teacher can give personal attention to each student.

Proper records of the work should be maintained, which will form the basis for the students internal assessment. Every attempt must be made to avoid compartmentalization of disciplines and to achieve both horizontal & vertical integration throughout the MBBS course. Students used to be encouraged to participate in group discussion, and seminar. Group discussion should not have more than 20 students. Faculty members should avail of modern educational technology while teaching the students.

MCI has allocated approximately 300 hours for teaching obstetrics & Gynecology- for theory classes including didactic lectures, demonstration and the seminars in addition to clinical postings. The clinical lectures shall be held

from 4th semester onwards. The clinical postings to be started from 3rd semester onwards. The clinical postings shall be 3 hours daily during the forenoon.

DETAILED SYLLABUS

1. CURRICULUM

Theory component would comprise of 300 hours of didactic teaching. Which will be vertically intergrated. Clinical postings should comprise of 120 hours. The time allocated for tutorials is approximately 90 hours, this will include seminars, assignments and problem based learning (PBL) this will involve small group discussion and will be part of internal assessment. This will be conducted in three sessions of 2 hours each. Labour ward postings (Internships) for conducting 20 deliveries in 6&7 in III M.B.B.S in one month period.

2. EXAMINATION PATTERN & BREAK UP OF MARKS

The assessment will be of two forms. One is the internal / continuous assessment and will have 30 marks, which will be further divided into theory and practical assessments of 15 marks each. There will be five internal assessment theory examinations, conducted approximately once in 60 days, three Clinical examinations at the end of each semester, and one model examination. One examination in the Family planning postings one in Labour ward postings & one in the Obstetrics, Gynaecology in the final year (8 & 9).

a) Internal Assessment / continuous assessment : 60 marks
are allotted for I A and the assessment will be carried out as follows.

1. Theory examinations 30 Marks

2. Clinicals 30 Marks

Assignments & clinical records
Viva Voce
Clinical case discussion

The average of the internal assessment theory examinations and clinical exams will be taken for the purpose of final calculation of marks.

ATTENDANCE REQUIRED FOR ADMISSION TO EXAMINATION

- No candidate shall be permitted to any one of the parts of III rd MBBS examination unless he/she has attended the course in the subject for the prescribed period in an affiliated institution.

- A candidate is required to put in a minimum of 80% attendance in both theory & Practical/clinical classes separately before admission to the examination & should be certified and forwarded by HOD of the Department at least 15 days prior to the commencement of theory examination.

COURSE OF STUDY

PART - II OF THE III M.B.B.S.,

RECORD NOTE BOOK

Every student must maintain a record of the practical / Clinical work assigned to him in the record note Books. These shall be submitted periodically to the respective professors. At the end of the course the practical/clinical case record note books shall be submitted to the heads of the departments who shall evaluate and include the marks in the internal Assessment. Records need not be submitted at the University Practical Examination.

In respect of failed candidates the marks awarded for records at the first attempt may be carried over to the next examinations attempt. If a candidate desires he/she may be permitted to improve on the performance by submissions of fresh record note books.

Clinical methods for whole class will be for 2 week each respectively at the start of 3rd semester.

1. The posting includes training, in Radio Diagnosis & Radio therapy where existent.
2. The posting includes exposure to rehabilitation and Physiotherapy.
3. This posting includes exposure to infectious diseases.
4. The Posting includes exposure to dressing.
5. This includes maternity training & Family medicine and the 4th semester posting shall be in family welfare planning.

INTERNAL ASSESSMENT

The internal assessment marks awarded both in written and clinicals separately should be submitted to the university, endorsed by the head of the institution at least 15 days prior to the commencement of the theory examination.

SYLLABUS

I. ANATOMY OF FEMALE REPRODUCTIVE TRACT

- Basic Anatomy - Relationship to other pelvic organs
- Applied Anatomy - as related to Obstetrical & Gynaecological surgeries
- Female pelvis
- Fetal Skull

II. PHYSIOLOGY OF CONCEPTION

- 1 a) Gametogenesis
- b) Ovulation
- c) Menstruation, fertilization & Implantation.

III. DEVELOPMENT OF FETUS & PLACENTA

- (i) a) Basic Embryology
- b) Fetal Growth & development
- (ii) Anatomy of placenta
- a) Teratogenesis
- b) Placental Barrier
- (iii) Abnormalities of placenta & Umbilical cord.

IV. DIAGNOSIS OF PREGNANCY

1. Clinical features, Differential Diagnoses principles underlying pregnancy test
2. Immunological tests & their interpretation, USG

V. MATERNAL CHANGES IN PREGNANCY

1. Genital tract CVS & Haematology, Urinary tract
2. Respiratory, GI system, locomotor system, endocrine system

VI. ANTENATAL CARE

1. Objectives of Antenatal care Clinical evaluation with Gravidogram
Monitoring of maternal & fetal well being Obstetrical examination
2. Nutrition in Pregnancy Immunization against tetanus & basic investigations

VII. COMPLICATIONS OF EARLY PREGNANCY

1. Abortion – Definition, types, cases, management
2. Ectopic Pregnancy, clinical features differential diagnosis, medical & surgical management
3. Hyperemesis gravidarum – Etiology, Pathology, impact on maternal & fetal health, principles of management.
4. GTT – clinical features, differential diagnosis, principles of management & follow up.

VIII. ANTE PARTUM HAEMORRAGE

1. Classification, clinical features, differential diagnosis, principle of management
2. Etiopathology, USG, complication & Management.

IX. ABNORMAL PRESENTATION & CONTRACTED PELVIS

1. Causes, types – Occipitio posterior, brow, face and transverse lie & Management
2. Breech presentation – Types, management & conduct of breech delivery & complications.
3. Obstructed labour – Definition, clinical features & prevention.

X. MULTIPLE PREGNANCY

1. Clinical features, Causes, diagnosis & investigations
2. Complications & Management

XI. PREGNANCY INDUCED HYPERTENSION

1. Definition, Early detections, Investigations & Management.
2. Eclampsia & its Management
3. D.D. of convulsions in pregnancy & Management

XII. ANEMIA IN PREGNANCY

1. Etiology, Clinical features, diagnosis, complications & Management

XIII. HEART DISEASE COMPLICATING PREGNANCY

Etiology, Clinical features, diagnosis, Complications & Management.

XIV. DIABETES COMPLICATING PREGNANCY

Etiology, Clinical features, diagnosis, complications and management

XV. OTHER DISORDERS

1. Renal disorders, Hepatic disorders, Diagnosis, clinical features, Obstetric implications & Management

2. Respiratory disorders – Clinical features & Management
3. Maternal Viral infections and other infectious diseases
4. Venereal diseases – syphilis, Herpes, AIDS.
5. Surgical emergencies during pregnancy

XVI. NORMAL LABOUR

1. Physiology & Mechanism of Labour
2. Intrapartum monitoring – maternal & fetal surveillance with Partogram
3. Conduct of Normal labour & Pain relief

XVII. MANAGEMENT OF THIRD STAGE OF LABOUR

1. Atonic PPH, Prevention & Management, predisposing factors, Complications
2. Traumatic PPH, other third stage complications & Management

XVIII. DYSTOCIA

1. Abnormalities of expulsive forces
2. Abnormalities of Maternal soft parts

XIX. INDUCTION OF LABOUR

1. Definition, Indications, Methods of induction & its Complications
2. Postdated Pregnancy
3. Preterm Labour & PROM

XX. FETAL DISORDERS

1. Asphyxia neonatorum, Causes, Prevention & Management
2. Intrauterine death, Causes, diagnosis & Management
3. Congenital anomalies
4. Haemolytic disease of newborn, Rh incompatibility, ABO incompatibility & others

XXI. PUERPERIUM (NORMAL & ABNORMAL)

Physiology, Clinical features, complications, recognition and principle of Management, prevention of puerperal sepsis

XXII. BREAST FEEDING

Physiology of lactation, care of breasts, counseling regarding breast feeding, mastitis & breast abscess, Galactocoele, Lactation inhibition, contraindication to breast feeding.

XXIII. CARE OF NEW BORN

Assessment of maturity, Detection of asphyxia, principles of resuscitation, other common problems – icterus, neonatorumophthalmia neonatorum, cord care, caput & cephal Haematoma

XXIV. MEDICAL TERMINATION OF PREGNANCY

1. Legal aspects, Indications, methods, surgical techniques.
2. Medical techniques, Methods for I, II Trimester MTP
3. Complications of MTP & its Management

XXV. CONTRACEPTION

1. Definition methods, Natural methods, Barrier methods
2. IUCD & Suppression of Spermatogenesis
3. Hormonal contraception
4. Post coital contraception, Immunological methods, male sterilization
5. Female sterilization

XXVI. OPERATIVE OBSTETRICS

1. Episiotomy, Menstrual regulation, suction evacuation
2. Cesarean section
3. Instrumental Delivery
4. Assisted Breech delivery
5. External cephalic version, cervical encirclage

XXVII. POST CAESAREAN

XXVIII. IUGR

XXIX. DRUGS IN PREGNANCY

XXX. NEURO ENDOCRINOLOGY IN REPRODUCTION

GYNECOLOGY

1. Anatomy & Development of female genital tract
2. Supports of Uterus
3. Physiology of menstruation & Ovulation
4. Puberty and intersex
5. Leucorrhoea Normal, Abnormal: cervicitis & cervical polyp
6. Diseases of vulva, Vagina
7. Sexually Transmitted diseases
8. Tuberculosis of female genital tract
9. Pelvic Inflammatory disease

10. Disorders of Menstruation
 - Definition , Etiology, Treatment, Menorrhagia
 - Dysfunctional Uterine Bleeding
 - Amenorrhea
11. Menopause & Post menopausal bleeding
 - Malformations of FGT and Injuries of FGT (Female Genital Tract
12. Diseases of Urinary system & genital fistula Retention of urine, Cystitis, stress
 - & urge incontinence & other. Vesico Vaginal fistula, Rectovaginal fistula & others
 - Leucorrhea
13. Infertility
 - Physiology of conception, Vaginismus, dyspareunia
 - Female infertility
 - Male infertility & ART
14. Prolapse Uterus
15. Endometriosis and Adenomyosis
16. Ectopic Pregnancy
17. Trophoblastic diseases
18. Fibroid Uterus
19. Inflammations of uterus, cervix, & Displacements
20. Disorders of the Ovary
 - Benign and malign tumours
21. Malignancies of genital tract, Carcinoma cervix, Ca - body of Uterus Ovarian
 - Malignancy, Radiotherapy and chemotherapy
 - Exfoliative Cytology
22. Chronic pelvic pain, Disorders of broad ligament, fallopian tubes & Parametrium
23. Operative Gynaecology Dilatation & curettage & cervical biopsy
 - Abdominal hysterectomy.

INTEGRATED TEACHING

- 1) Family Planning
- 2) Embryology, integrated fetal growth & development
- 3) Acute abdomen
- 4) Care of newborn
- 5) Drugs in Pregnancy
- 6) Nutrition & anemia in pregnancy
- 7) Physiological changes in pregnancy

8) Neonatal resuscitation problems

BOOKS RECOMMENDED

- ❖ Mudaliar and Menon - Clinical Obstetrics - 10th Edition
- ❖ Shaw - Text book of Gynaecology

REFERENCE BOOKS

- ❖ William Obstetrics - Cunningham F.Gray - 23rd Edition
- ❖ Recent advances in obstetrics & Gynaecology
- ❖ Jelinde - Operative Gynaecology
- ❖ Jeff Coates principles of Gynaecology & Infertility
- ❖ Obstetrics by ten teachers - Campbell Stuart
- ❖ Gynaecology by ten teachers - Campbell Stuart
- ❖ IAN Donald,- Practical Obstetrics problems
- ❖ C.S. Dawn - Text book of Gynaecology, contraception & Demography -
14th Edition.

JOURNALS FOR REFERENCE

- ❖ FOGSSI - Journal of Obstetrics & Gynaecology - 6 nos / year
- ❖ British Journal of Obstetrics & Gynaecology
- ❖ American Journal of Obstetrics & Gynaecology.