

# MD FAMILY MEDICINE

## General Medicine:

Diagnosis & management of common diseases in medical speciality at a primary health care level; management of common emergencies seen in general practice including cardio - vascular, respiratory, gastrointestinal, neurological, metabolic and others like snake bite and heat stroke; Tropical diseases and common infections including tuberculosis, malaria, filariasis, rabies, leptospirosis, dengue fever, enteric fever, hepatitis, poliomyelitis, meningitis, encephalitis, HIV/AIDS, common fungal infections, skin infections, varicella, herpes zoster, rickettsia, newer emerging infections: avian influenza, chikungunya.

Approach to a patient with pyrexia of unknown origin, anemia, chest pain, breathlessness, head ache, memory loss, peripheral neuropathy, abdominal pain, seizures, dizziness , vertigo, syncope, migraine, transient loss of consciousness, cerebro vascular accidents, hemiparesis, hemiplegia, paraplegia.

Common poisonings- their symptoms, signs and remedies which includes alcohol, kerosene, barbiturates, corrosives, insecticides, organophosphorus and carbon monoxide poisoning.

ECG & it's interpretation, hypertension, ischemic heart disease, rheumatic fever & rheumatic heart disease, cardiac failure, pulmonary edema, infective endocarditis, pericardial diseases, cerebrovascular disorders, peripheral vascular diseases, cardiac arrhythmias.

Common endocrine diseases related to pancreas, thyroid, pituitary and adrenal gland. Glucose metabolism, glucose tolerance test, iodine metabolism, thyroid function tests. Diabetes mellitus, dyslipidaemia, hypothyroidism, hyperthyroidism, metabolic syndrome.

Estimation of haemoglobin, total count, differential count, ESR, preparing and staining of blood smears, lumbar puncture, cerebrospinal fluid examination. Common disorders of RBC, WBC and platelets, like various anaemia's including nutritional anaemia, leukaemia's, bleeding disorders including idiopathic thrombocytopenic purpura.

Liver function tests, jaundice, hepatitis, cirrhosis of liver, portal hypertension, hepatic encephalopathy, hematemesis, non-alcoholic fatty liver disease, cholecystitis, pancreatitis. Peptic ulcer disease, gastrointestinal bleeding, gastritis, dyspepsia, GERD, inflammatory bowel disease, irritable bowel syndrome, malabsorption syndromes, acute infectious diarrhoeal diseases, food poisoning. Parasitology including amebiasis/ giardiasis/ worm infestations.

Renal failure, hematuria, proteinuria, urinary tract infections, glomerulonephritis, pyelonephritis, genitourinary infections, erectile dysfunction.

Nutritional and metabolic disorders, alcoholism, Wernicke's encephalopathy, calcium metabolism, vitamin-D in health & disease, osteoporosis, gout, osteoarthritis, fibromyalgia.

Nutritional advice, management of under nutrition, obesity. Adolescent health, adolescent care and problems encountered during adolescence, common genetic diseases, immunology, autoimmune diseases including rheumatoid arthritis, sarcoidosis and systemic lupus erythematosus.

Choice of intravenous fluids, blood groups, blood transfusion. Rational drug usage, common drugs and their adverse reactions.

Skills: Intravenous access, lumbar puncture, ascitic fluid tap, intercostal drainage, urinary bladder catheterisation, naso gastric tube insertion, bone marrow biopsy, endotracheal intubation, basic life support.

## **Pulmonary medicine:**

Diagnostic tools in pulmonary medicine, pulmonary function tests, approach to chest pain, bronchial asthma, chronic obstructive pulmonary disease(COPD), acute and chronic bronchitis, pneumonia, pleural effusion, pneumothorax, atelectasis, bronchiectasis, allergic disorders, smoking cessation, occupational lung diseases, tuberculosis, bronchodilators and steroids in respiratory medicine, carcinoma lung, sleep apnoea, management of acute exacerbation of bronchial asthma and COPD, sarcoidosis, interstitial lung diseases.

## **Mental health:**

Knowledge of the principles and experience in the practice of interviewing and counseling patients and their families; basic principles of psychotherapy; rational use of psychotherapeutic medication; management of alcoholism and other substance abuse; Mental status examination. Common psychiatric problems and their management-anxiety disorders, depression, obsessive compulsive disorders, chronic stress, eating disorders, behavioral disorders in children and adolescents, adjustment disorders, bipolar disorders, dementia, organic disorders presenting with psychiatric symptoms.

## **Paediatrics:**

Neonatal resuscitation, care of new born, growth and development, nutrition including protein energy malnutrition and obesity, vitamin deficiency diseases, immunization, recognition and referral of common birth anomalies, common childhood infections including measles, mumps, rubella, poliomyelitis, diphtheria, pertussis, acute respiratory infections, tuberculosis, H.Influenza, hepatitis, meningitis, chicken pox, acute diarrhoeal disease, cholera, food poisoning, worm infestations. Bronchial asthma, congenital heart disease, rheumatic fever, hypothyroidism, nephrotic syndrome, glomerulonephritis. Common childhood emergencies including seizures, burns, poisoning, dehydration, acute severe breathlessness. Behaviour disorders, mental retardation, child abuse issues, sudden infant death syndrome(SIDS), genetic disorders, school health programme, breast feeding, adolescent care, awareness regarding national health programmes. Knowledge on National Immunisation Programme.

Skills - intravenous access, venesection, lumbar puncture, bone marrow biopsy.

## **General Surgery:**

The recognition and evaluation of conditions requiring surgical diagnosis and procedures; management and appropriate referral of primary surgical emergencies including burns, haemorrhage, shock, sepsis, acute abdomen, head injuries. Management of minor trauma, injuries, including immediate and resuscitative treatment of acute injuries, management of electrolyte and fluid requirements, blood transfusion. Health education for prevention of injuries; wound healing, wound dressing; suture methods and materials. Universal precautions, triage.

Cancer screening, disorders of thyroid, diseases of the breast; neck swellings, varicose veins, deep vein thrombosis, peripheral vascular disease; Abdominal pain, dysphagia, nausea, vomiting, haematemesis and melaena; jaundice, peptic ulcer, GERD, gastritis, cirrhosis, ascitis, disorders of gall bladder and pancreas. Intestinal obstruction, specific and non specific infections. Common cysts, swellings, sinuses, fistulae, abscess, ulcers and tumours. Lymphadenopathy. Hernia, inguinoscrotal swellings, hydrocoele, prostate diseases, renal and genito urinary tract disorders; anorectal disorders including fissure in ano, haemorrhoids, pilonidal sinus. Phimosi, paraphimosis, ingrowing toe nail, diabetic foot.

Skills - Fine needle aspiration cytology (FNAC), proctoscopy, paracentesis, incision & drainage, suturing, wound dressing/bandage, tracheostomy, intravenous access, circumcision, reduction of paraphimosis, vasectomy, incision and drainage of abscess, excision and biopsy of superficial swellings, venesection, urinary bladder catheterization, suprapubic cystostomy, intercostal tube drainage.

### **Orthopaedics:**

Emergency care of patients with multiple injuries, transportation of trauma patients, splinting, application of casts, diagnosis and management of injuries, sprains, infections, fracture, dislocations with proper referral. Common fractures and dislocations including Cole's fracture, fracture clavicle, shoulder dislocation. Low back ache. Common bone and joint diseases, entrapment neuropathies and neuro muscular disorders including arthritis, cervical spondylosis, intervertebral disc prolapse, bursitis, ganglion, tenosynovitis, plantar fasciitis, carpal tunnel syndrome, tennis elbow, osteomyelitis, degenerative disorders. Volkmann's ischemia, bone tumours. Rehabilitation of amputees, health education for prevention of injuries.

### **Obstetrics and Gynaecology:**

Physiological changes in pregnancy, antenatal care, normal labour and post natal care; common problems during pregnancy including hyperemesis gravidarum, urinary tract infections, low back ache. Obstetric complications including hypertensive disorders, obstetric hemorrhage, anaemia in pregnancy, gestational diabetes, multiple pregnancy. Antepartum - Abortion, preconception counselling, prenatal care, ectopic pregnancy, gestational trophoblastic diseases, teratology, medications during pregnancy. Intrapartum assessment.

Physiology of menstruation and its deviations, common problems in gynaecology including genital tract infections, dysfunctional uterine bleeding; Common disorders of uterus and ovary including fibroid uterus, genital prolapse, ovarian tumours. Polycystic ovarian disease. Sexually transmitted diseases including HIV, gonorrhoea, chlamydia, bacterial vaginosis, trichomonas, candidiasis, human papilloma virus, herpes infection. Genital tract malignancies; preventive oncology- screening and early diagnosis of genital tract malignancies. Medical termination of pregnancy. Family planning.

Skills - Conduct of normal labour, pap smear, IUCD insertion and removal.

### **Community medicine:**

Concept of health and disease, primary health care and its implementation, Principles of epidemiology and epidemiological methods. Epidemiology of communicable diseases, hospital

acquired infections, emerging and reemerging infectious diseases, epidemiology of chronic non communicable diseases and conditions. Environment and health. Health care of the community, health services at centre, state and district levels; national health programmes and policies; demography and family planning; Health information and basic medical statistics, health education – principle of health education and methods; health planning and five year plans; national health insurance schemes and other private schemes; school health programmes; management of epidemics and national disasters; role of NGOs; research in community medicine and interaction with other fields of medicine. Nutrition and health, occupational health, preventive medicine in obstetrics, paediatrics and geriatrics, medical sociology, genetics and health, international health, disaster management.

Knowledge of staff management, record keeping, stock keeping, account keeping, role of computers, equipments in general practice. Hospital waste management.

Characteristics and functions of a Family Physician, patient centred care, evidence based practice, psychosocial influences on health, care of dying patient, patient education, communication skills.

### **Otorhinolaryngology:**

Anatomy of ear, nose and throat, recognition and first line management of common diseases of ear, nose and throat like acute and chronic otitis media, otalgia, rhinitis, sinusitis, pharyngitis, tonsillitis, laryngitis, foreign body, epistaxis, nasal polyps, vertigo, tinnitus, hoarseness of voice, stridor, deafness, impacted wax in ext.auditory canal, dysphagia,, snoring, allergic disorders, temporomandibular joint disorders, otitis externa, facial nerve paralysis, hearing loss, hearing assessment, tumours, emergencies in ENT.

Oral cavity: Oral hygiene, oral ulcers, gingivitis, stomatitis, premalignant lesions.

Skills-Ear lobe repair, ear syringing, removal of wax from ext auditory canal , foreign body removal, nasal packing, tracheostomy.

### **Ophthalmology:**

Recognition of common eye diseases and management, including conjunctivitis, corneal ulcer, inflammatory disorders of eyelids, allergic conditions of eye, red eye, dry eye, painful eye, cataract, glaucoma, diabetic retinopathy, hypertensive retinopathy . Referral of emergencies in eye including eye injuries; national programme for prevention of blindness, vitamin A deficiency. Refractive errors, indications, contraindications and advantages of contact lens and intra Ocular Lenses (IOL); ocular side effects of commonly used pharmacological agents.

Skills-Fundus examination with an ophthalmoscope, vision screening, epilation, removal of superficial foreign body.

### **Dermatology:**

Prevention, diagnosis and management of common dermatological conditions including acne vulgaris, dermatitis, fungal infections, skin diseases due to bacterial infection, scabies,

pediculosis, wart, corn, pityriasis rosea, lichen planus, psoriasis, H, zoster; principles of dermatological therapy; principles of rehabilitation of chronic dermatological patients ; principle of diagnosis and management of sexually transmitted diseases, HIV/AIDS. Leprosy, skin disorders in diabetes. Urticaria, hypopigmentation, hyperpigmentation.

Skills-minor surgical procedures in dermatology including electrocautery, chemical cauterization, skin-biopsy.

### **Geriatrics:**

Comprehensive assessment of the aged; common diseases in the old age & their management eg. vascular, musculoskeletal, oncological, psychological, neurological, hearing and vision problems; special attention to falls in elderly, incontinence, delirium, dementia, drug therapy in elderly, rehabilitation, management of terminally ill patients, communication skills in bereavement, problems of the family after death; care of elderly, social & psychological problems in elderly, elderly abuse.

### **Physical medicine and rehabilitation :**

Basic physiotherapy advice.

### **Pain and palliative care:**

Common symptoms in terminally ill patients and its management, management of pain, opioid analgesics, Co-analgesics, hospice care.

### **Emergency medicine and Anaesthesiology:**

Knowledge and skills for life-saving procedures: Medical, Obstetric, Paediatric, including neonatal resuscitation, Surgical and Trauma.

Basic and advanced life support, Cardio-pulmonary resuscitation, endotracheal intubation, intravenous access (peripheral and central lines, venesection, intravenous infusion); disaster management.

Anaesthesia- basic principles, (local anaesthesia, regional anaesthesia, intravenous sedation).relaxants in anaesthesia, spinal anaesthesia, epidural anaesthesia.

### **Medical jurisprudence:**

Knowledge of health legislation and duties of doctor attending to cases. Knowledge of medical ethics and principles of good practice. Medical negligence. Medical certificate, examination of injury cases and its medicolegal importance. Legal certification and documentation.