

Curriculum

NBEMS Diploma



Family Medicine

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I. Introduction to Family Medicine

Family medicine is a specialty in which graduate doctors are trained to be multi-skilled practitioners dealing with a wide variety of illnesses that are commonly present at the community health center. Forty years after Alma Ata, there has been a renewed interest in primary care, which has been universally recognized as the most cost-effective method to achieve accessible healthcare for all. Though India has made steps to structure the health delivery system into primary, secondary, and tertiary levels, there has been a lack of adequately trained primary care physicians. This need is felt the most at the community health center (CHC) level. More generalists are required to manage most of the problems of most people and appropriately refer to those who need an expert opinion from another specialist. As per the present human resource guidelines, each CHC is expected to have a physician, surgeon, gynecologist, pediatrician, and an anesthesiologist. It has been a challenge to get all these specialists in the CHCs, and patients do not have access to adequate care, especially in rural areas. It makes absolute sense for the effective management of health resources and personnel, to have more multi-competent generalist physicians who can manage most of the problems.

The National Health Policy of 2002 and 2017 refer to Family Medicine as the specialty that needs to be encouraged and developed. In 2010 the Ministry of Health and Family Medicine wrote to all the states asking them to start MD in Family Medicine. Currently, training for MD in Family Medicine is going on in three of the medical colleges. There is an urgent need for a large number of well-trained Family Physicians to work in the CHCs. The two-year Diploma in Family Medicine is envisaged to meet the shortage of specialist services in the CHCs.

The objective of the Diploma in Family Medicine is to produce multi-competent clinicians. They will be equipped to practice patient-centered medicine and provide initial, continuous, comprehensive, and coordinated care for people in the context of their family and community, based in a 30 bedded community health center.

It is a two-year full-time residential course. The program will cover training in the principles of Family Medicine, management of common illnesses and practical skills learned the departments of medicine, pediatrics, surgery, orthopedics, obstetrics, gynecology, ENT, ophthalmology, dermatology, physical medicine & rehabilitation, mental health, and emergency medicine Etc. These are skills required to practice at a community health center. The training will also make the resident familiar with the concepts of Community Oriented Primary Care.

The residents will be involved in inpatient, outpatient, emergency, and home-based care. Being a residential program, the trainees will do on-call duties and get hands-on training from different departments.

II. Objectives for the Diploma in Family Medicine

At the end of the two-year Diploma in Family Medicine, the resident should be able to:

Broad Objectives

The Broad Objectives of the course will be to equip the student to address the health needs of individual patients as well as the community at the level of Community Health Centre. The resident must be able to work and make decisions independently. A graduate of the course should perform the following functions, with a high level of integrity, commitment, and competency:

- Diagnose and treat the common diseases occurring in all age groups effectively across a broad spectrum of disciplines including medicine, surgery, pediatrics, obstetrics and gynecology, orthopedics, dermatology, ENT, ophthalmology, physical medicine and rehabilitation, and mental health.
- Detect at an early stage, life, limb, and vision-threatening potential emergencies, so that urgent treatment and prompt referral to a tertiary-care hospital is made.
- Promptly treat common medical, surgical, and obstetric emergencies, referring only to those who need tertiary care services.
- Network with the specialists such that they can continue the care of patients undergoing sophisticated tertiary level care, between appointments
- Implement recognized protocols for health promotion in all age groups.
- Organize and promote the rehabilitation of the disabled.
- Participate in community health programs, especially those that are components of national health policies.
- Be motivated to improvise and problem-solve in resource-poor settings.
- Generate enthusiasm in the health team so that they can provide high quality, appropriate, ethical, and comprehensive care.
- Ensure a therapeutic environment for patients and relatives to enhance confidence in the health system.
- Competency in legal certification and documentation.
- Competency in medical record-keeping and data management

III. Syllabus (Syllabus for Diploma in Family Medicine)

The Family Medicine physician should possess the core content of knowledge, skills, and attitudes, which would enable him/her to effectively address the common health problems (and issues arising from them) in the community health center.

1. Specific Patient Groups

The Family Medicine physician should be able to deal with the unique health issues affecting specific groups of people as listed below:

- i. Newborns and Infants: Neonatal resuscitation, growth, and development, nutrition, childhood immunization, recognition and referral of common birth anomalies, common childhood emergencies.
- ii. Children: Nutrition and development, common childhood infections, behavior disorders, emergencies, child abuse issues
- iii. Adolescents: Problems of puberty, adolescent behavioral problems, school health
- iv. Women:
 - o Breast pain, breast lumps, abnormal uterine bleeding, pelvic pain, premenstrual syndrome, menopause, osteoporosis, contraception, vaginal discharge, infertility, screening, and early detection of genital tract malignancy.
 - o Obstetrics, Antenatal care: Diagnosis and management of pregnancy, including common complaints during pregnancy, excessive vomiting, medications, antenatal care, and fetal monitoring, diagnosis, and referral of high-risk pregnancy cases.
 - o Management of normal labor including, diagnosis, conduct, use of partogram, active management of the third stage, diagnosis of fetal distress, detection of abnormal progress, manual removal of placenta, management of puerperium, infection control, neonatal resuscitation, episiotomy/ perineal tear/ cervical tear management, management of postpartum collapse. The resident should be able to perform an assisted vaginal delivery.
- v. Elderly: Comprehensive assessment of older persons addresses unique problems such as falls, incontinence, delirium, dementia, common diseases in the elderly, prescribing in elderly, recognize and address social problems.
- vi. Disabled: Certification of disability, rehabilitation
- vii. Terminally Ill Patients: Palliative care, communication skills in bereavement

2. Principles of Family Medicine

Family medicine is the medical specialty, which provides continuing, comprehensive health care for the individual and family. It is a specialty in breadth that integrates the biological, clinical, and behavioral sciences. The scope of family medicine encompasses all ages, both sexes, each organ system, and every disease entity.

The principles of Family Medicine include:

- Person-centered care:
- Understanding the context of the illness
- Health promotion and disease prevention
- Seeing the practice as a population at risk
- Collaborative, coordinated, team based care
- Community-based care
- Home-based care
- Importance of subjective aspects of medicine
- Resource management and health advocacy

3. Common Symptoms

The Family Medicine physician should be able to diagnose and manage patients presenting with typical symptoms at a CHC. Unlike a tertiary hospital where patients are sent to different departments depending on their symptoms, the physician at the CHC will see the “undifferentiated patient” with symptoms and diseases across all age groups and organs. They will also see patients presenting with non-specific symptoms, which could be the initial presentation of a disease. Patients will also present with multiple co-morbidities that will require a holistic approach to diagnosis and management.

Symptoms in Family Medicine

A. Gastro-intestinal tract:

- Abdominal Pain
- Ano-rectal Disorders
- Constipation
- Diarrhea
- Dyspepsia
- Dysphagia
- Hematemesis and Melena
- Nausea and Vomiting
- Jaundice

B. Cardiovascular and Respiratory

- Cough
- Chest Pain
- Dyspnoea
- Palpitations
- Hemoptysis

C. Central Nervous System/ Eye/ ENT

- Dizziness
- Deafness and hearing loss
- Painful/Discharging Ear
- Red/ painful eye
- Reduced Vision
- Faints and fits
- Headache
- Hoarseness
- Sore Throat
- Sleep disorders
- Unconscious Patient
- Paralysis/weakness

D. Musculoskeletal System

- Arthritis
- Back pain
- Facial pain
- Neck pain
- Shoulder pain
- Hip and buttock pain
- Painful leg
- Painful knee
- Pain in foot and ankle
- Pain in arm and hand
- Painful elbow
- Limp

E. Mental Health

- The disturbed patient
- Depression
- Anxiety
- Substance abuse

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- Agitated patient
 - Medically unexplained physical symptoms
 - Grief

F. Miscellaneous

- Neck Lumps
- Weight gain/ loss
- Mouth ulcers, leg ulcers
- Edema
- Urinary Problems
- Obesity

G. Social Issues

- Domestic violence
- Sexual assault
- Child abuse
- Elder abuse

H. Infectious Diseases

- Fever with localizing symptoms
- Acute undifferentiated fever

I. Skin Problems

- Pruritus
- Skin Ulcers
- Hair and Nail Disorders
- Skin-Rash, Vésicules, Pigmentation, Plaques, Nodules, Bullae

J. Sexual Health/ Genital Symptoms

- Erectile dysfunction
- Inguino-scrotal lumps
- Scrotal pain
- Disorders of the penis
- Disorders of the prostate
- Sexually Transmitted Diseases
- Infertility
- Contraception

K. Common Chronic Diseases

- Allergy
- Asthma
- COPD
- Epilepsy

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- Hypertension
 - Diabetes
 - Dyslipidemia
 - Ischemic Heart Disease

4. Emergency Medicine

The Family Medicine physician should possess the skills to recognize and treat the following common emergencies and to arrange to transport to tertiary care, those patients requiring more sophisticated treatment.

- Acutely Dyspnoeic Patient
 - Chest Pain
 - Cardiac Arrest
 - Loss of Consciousness
 - Seizures
 - Paralysis
 - Epistaxis
 - Acute Gastrointestinal Emergencies
 - Trauma including road traffic accidents, sexual assault, victims of violence, mass casualty, drowning, and near-drowning
 - Hemoptysis
 - Acute burns
 - Acute musculoskeletal disorders including fractures, sprains, dislocations and compartment syndromes
 - Common poisonings, animal bites and stings
 - Environmental disasters (floods, earthquakes, Etc.)
 - Acute urinary system disorders including retention and anuria
 - Psychiatric emergencies
 - Choking
 - Shock

IV. List of Skills and Procedures

The resident's list of skills should be able to perform independently after completion of the course is given below:

1. Medicine

- Elicit history and perform detailed clinical examinations of the adult patient, who presents to general medicine outpatient or emergency

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- Cardiopulmonary resuscitation
 - Chest drainage with under-water seal
 - Ascitic tap
 - Bladder catheterization
 - Lumbar puncture
 - Peripheral vascular access
 - Nebulization therapy
 - Gastric lavage
 - Oxygen therapy
 - Pleural fluid aspiration
 - Interpretation and application of results of ECG / Chest X-ray / USG/ CT scan

2. Pediatrics

- Resuscitation of newborns
- Vascular access: emergency and elective
- Lumbar puncture
- Intraosseous line placement

3. Anesthesia

- Local and regional anesthesia
- Spinal anesthesia
- Intravenous anesthesia

4. Surgical procedures

- Assessment and closure of simple wounds
- Assessment and management of simple burns
- I & D of a superficial abscess
- Excision of simple, superficial skin and subcutaneous lesions
- Trauma assessment - triaging and primary/ secondary surveys
- Management of ulcers

5. Obgyn procedures / contraceptive procedures

- Pap Smear
- Conduct Normal Labor
- Conduct Assisted Vaginal Delivery
- Cervical Biopsy
- Dilatation and Curettage

- Manual Vacuum Aspiration
- Non-Scalpel Vasectomy
- Iucd Insertion
- Tubal Ligation

6. Ophthalmology

- Examination of the eye using a torch
- Fundus examination using an ophthalmoscope
- Epilation
- Removal of a superficial foreign body under the supervision

7. Orthopedic procedures

- POP application
- X-ray interpretation
- Manipulation and closed reduction of fractures and dislocations
- Application of splints
- Intra-articular injections
- Health education for back problems and chronic arthritis
- Basic physiotherapy advice

V. Rotations for the Diploma in Family Medicine

The residents will be rotated in the different departments of the district hospital/ or accredited training center for twenty months and the Community Health Centre for four months. They must spend one day each week during the rotations in the different departments in the Community Health Centre (CHC) under the supervision of a consultant.

Year 1	
Foundation course	15 days
General Medicine	Three months
Pediatrics	Two months
Obstetrics and Gynecology including one month of labor room and one month of Gynecology OPD	Two months
General surgery OPD and minor OT including anesthesia	One month
Orthopedics OPD	15 days

ENT	15 days
Ophthalmology	15 days
Community health center	15 days
Dermatology	One month
Physical medicine and rehabilitation	15 days
Total	12 months

The resident will be posted in the CHC once in two weeks.

Year 2	
Psychiatry	15 days
Accident and Emergency	Two months and fifteen days
Pediatrics	Two months
OBG including one month of labor room and one month of Family Planning	Two months
General Medicine	Two months
Community health center	Three months
Total	24 months

Note: during the first year, the residents should visit the community health center once in two weeks for follow up of patients, learn continuity of care for a defined population, and be trained in the Family Medicine setting. During the final three months in the community health center, they have to spend one day of the week in the General Medicine department of the district hospital for seeing patients in the OPD and for academic activities under the guidance of the faculty. The educational supervisor for the resident will be from the General Medicine department of the district hospital if no faculty with Family Medicine qualification is available.

VI. Postgraduate Teaching Program

In addition to the clinical postings, students will be required to attend individual teaching sessions as follows and should obtain 80% attendance.

1. Seminar/clinical demonstrations weekly.

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2. Clinical case presentation weekly
 3. Journal club weekly
 4. Logbook: The trainee will have to maintain a logbook of all procedures performed, as described in the syllabus. At the end of each posting, faculty shall review his/ her progress in clinical and practical proficiency. A signature to that effect will be obtained from the supervisor.
 5. Portfolio: In addition to the logbook, the student will maintain a portfolio of all teaching sessions attended, as outlined above. The student will describe the sessions, key learning issues, and self-directed learning.
 6. Mentorship: Each student will be allotted to a faculty member who will act as a mentor. The mentor's role will be to guide the student throughout the course, encouraging him/her to develop professional attitudes and acquiring knowledge and skills

VII. Specific Learning Objectives for the rotations

1. General medicine

At the end of the four months of internal medicine rotation, the diploma in family medicine resident will be able to

Broad Objectives

- Diagnose and Manage common medical conditions listed below (Table 1) by obtaining a relevant history, performing a physical examination, making a proper differential diagnosis for the community they are working with.
- Manage the patients with the available resources in the community health centers cost-effectively by ordering appropriate, relevant investigations.
- Identify and provide primary care for medical emergencies. Refer appropriately to the patients who cannot be managed in the community health centers to the tertiary care referral center.
- Follow up the chronic non-communicable diseases and provide preventive care and rehabilitation when appropriate, considering the individual, family, and community context.
- Communicate the health problem to the patient and caregivers and involve them in the care of the patient.
- Appraise the best clinical evidence available in the literature and apply it to the patients they manage.
- Work as a professional with the team members while providing health care to the patients.

2. Knowledge needed for this rotation

i. Infectious diseases

- Rational Antibiotic Therapy
- Pneumonia
- Tuberculosis
- Human Immunodeficiency Virus Infection
- Malaria
- Typhoid
- Urinary Tract Infections
- Leptospirosis
- Rickettsia
- Sexually Transmitted Disease
- Leprosy
- Kala-Azar
- Pyrexia of unknown origin
- Septicemia

ii. Cardiology

- Hypertension
- Congestive Heart Failure
- Rheumatic Heart Disease
- Coronary Artery Disease
- Cardiomyopathy

iii. Respiratory system

- Asthma / COPD
- Bronchiectasis / Lung Abscess
- Occupational Lung Disease
- Bronchogenic Carcinoma
- Severe Acute Respiratory Illness

iv. Gastroenterology

- Acute Diarrhoea
- Chronic Diarrhea
- Malabsorption
- Acute and Chronic Hepatitis
- Cirrhosis Liver

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- Alcoholic Liver Disease
 - Acute and Chronic Pancreatitis

v. **Nephrology**

- Acute renal failure
- Chronic Renal Failure
- Obstructive uropathy
- Recurrent UTI

vi. **Metabolic diseases**

- Diabetes Mellitus
- Hypo and Hyperthyroidism
- Addison's Disease
- Cushing's disease
- Electrolyte disturbances
- Hypocalcemia and Vitamin D deficiency

vii. **Hematology**

- Anemia
- Pancytopenia
- Bleeding Disorders
- Leukemia
- Lymphoma

viii. **Neurology**

- Stroke
- TIA
- Headache
- Seizure Disorders
- Cranial Nerves
- Meningitis
- Encephalitis
- SOL
- Peripheral Neuropathy
- Parkinsonism

ix. **Toxicology**

- Initial management of poisoning including legal aspects

Table 2. Skills to be learned during this rotation

- Basic Life support
- Advanced cardiac life support
- Intubation
- Interpretation of lab results, ECG, X-ray, Echocardiogram, Ultra sonogram, CT and MRI images, and Treadmill test
- Pleural tap
- Ascitic tap
- Intercostal chest tube drainage
- Lumbar puncture
- Urinary catheterization

3. Pediatrics:

At the end of the rotation in the pediatrics department, the resident should be able to:

- Manage children presenting with common neonatal and childhood medical and surgical illnesses (see below), both acute and chronic, elicit history, perform an appropriate physical examination, offer differential diagnosis and a management plan
- Communicate with parents and caretakers concerning the illness the child has
- Collaborate with child health specialists in the care of children.
- Perform newborn examination and identify a sick newborn.
- Assess children at various stages of development and identify deviations from normal

i. Common Childhood Clinical Presentations:

- Fever, Undifferentiated febrile illnesses, fever of unknown origin
- Cough and breathing difficulty, wheeze, ARI in under-five children
- Abdominal pain, jaundice, constipation, vomiting, diarrhea, GERD, Distension of abdomen
- Seizure(s), Altered sensorium, lethargy, Incessant cry, headache, Acute flaccid paralysis
- Rash, skin infections, cyanosis
- Edema, hypertension in children
- Faltering growth/failure to thrive
- Joint pain, Polyarthritis, Swelling

ii. Common Neonatal Syndromes and Conditions:

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- Breastfeeding, feeding difficulty, feeding in particular situations (LBW, Cleft palate, HIV or TB in mother)
 - Common problems in Neonate; establishing feeding, tachypnea in newborn, anemia
 - Prematurity and Low-birth weight
 - Neonatal seizures
 - Neonatal Jaundice
 - Neonatal sepsis

iii. **Common conditions in children:**

- Frequent infections, including Sepsis/septicemia, Meningitis, Tuberculosis, HIV, malaria, UTI.
- Respiratory infections, asthma, stridor and bronchiolitis
- Nutritional disorders, including malnutrition, obesity, and common vitamin deficiencies
- Rheumatic Fever
- Heart failure in children including Congenital heart diseases
- Infections of the skin, drug reactions, allergic skins disease,
- Anemia in children, Thrombocytopenia, bleeding disorders, thalassemia
- Renal disorders including Nephritic syndrome, nephrotic syndrome,
- Developmental delays and Cerebral palsy
- Behavioral problems, including nocturnal enuresis, ADHD

iv. **Growth & development of children:**

- Physiological influences on normal growth in childhood
- Physiological changes from birth to adulthood, puberty, and adolescence
- Normal feeding and eating behavior from birth to adulthood
- Growth & main developmental milestones of children 0-5 years

v. **Childhood immunization in India: Both UIP and IAP schedule:**

Procedures: At the end of the rotation, the student will perform the following procedures Independently:

- History taking and examination
- Prescribing in children
- Neonatal resuscitation
- Developmental assessment
- Anthropometry of a child, interpretation of growth chart
- Blood culture, Lumbar puncture
- Intravenous access

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- Suprapubic aspiration for the urine sample
 - Intraosseous line insertion

4. Labor room: At the end of the posting, the student will be able to:

i. Do the following skills independently:

- Elicit history and perform a thorough physical examination of women who present to the labor room.
- Conduct normal delivery
- Repair episiotomy and perineal tears
- Monitor women in labor and on augmentation with oxytocin
- Insert cervical ripening agents
- Read cardiotocograph and interpret
- Explain with empathy the progress and ongoing management to the expectant mother and relatives

ii. Do the following skills with the assistance?

- Operative delivery (Vacuum extraction / low forceps)
- Management of postpartum haemorrhage

The student should also have acquired knowledge about the following clinical problems through management, observation, discussion, and self-directed learning:

- Management of pre-eclampsia and eclampsia
- Indication of induction/augmentation of labor
- Management of shoulder dystocia
- Management of term and pre-term rupture of membranes
- Management of women presenting with meconium-stained liquor
- Management of malpresentation
- Indication for operative delivery
- Immediate post-natal monitoring and management

5. Surgery objectives (OPD and minor OT only)

At the end of the surgical rotation, the trainee should be able to:

- Develop the knowledge needed to take an accurate and relevant surgical history and perform a physical examination.
- Demonstrate knowledge in the pre- and post-operative management of common surgical conditions and associated complications.

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- Develop the clinical skills required to competently diagnose, investigate, refer and manage common surgical conditions in a community health center

i. Common surgical conditions

Experience and expertise should be gained in the recognition and appropriate evaluation and initial management of the following common conditions:

- Abscess, hematoma, and cellulitis
- Abdominal mass
- Altered bowel habits
- Breast infection
- Breast lumps
- Burns
- Intermittent claudication
- Foreign bodies
- GIT bleeding
- In-growing toenails
- Leg ulcers
- Lumps in the groin
- Lumps in the neck
- Perianal conditions
- Peripheral vascular disease
- Pilonidal abscess/sinus
- Prostate disease
- Rectal bleeding
- Renal pain
- Scrotal swellings/pain
- Urinary tract obstruction
- Voiding difficulties
- Wounds - simple and complex infections

ii. Common surgical skills and procedures

- Local wound infiltration with anesthetic
- Suturing lacerations
- Incision and drainage of abscesses
- Drainage of hand infections
- Drainage of perianal abscess
- Removal of foreign bodies, e.g., splinters
- Correct application of dressings and bandages
- Burns dressings

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- Proctoscopy
 - Avulsion of toenail
 - Removal of pure benign tumors/cysts such as sebaceous cyst, lipoma
 - Lymph node biopsy in neck
 - Fine needle aspiration cytology
 - Urethral catheterization

iii. **Anesthesia skills to be learned during a surgery rotation**

- Assessment of a patient for anesthesia
- Physiology and pharmacology of local, field, digital and ketamine anesthesia
- Local anesthesia
- Field block
- Digital block
- Wrist block
- Ketamine anesthesia

6. Dermatology

At the end of the posting, the student will be able to perform these skills independently:

- Describe a skin lesion
- Skin scrape for mycology/scabies
- Give an intralesional injection of corticosteroid
- Perform a skin biopsy

The student should also have acquired knowledge about the following conditions/clinical problems through self-reading, observation, or discussion.

i. **Diagnosis and management**

- Acute dermatological conditions:
- Impetigo and Cellulitis
- Herpes zoster
- Acute contact dermatitis
- Oral ulcers
- Drug rash
- Common viral rashes including Varicella, Measles
- Angio edema/ Anaphylaxis

ii. **Chronic dermatological conditions:**

- a. Eczema
- b. Skin lesions due to systemic illnesses
- c. Infections:
 - Fungal and yeast infections: Candida, pityriasis Versicolor, tinea.
 - Viral infections: molluscum contagiosum, viral warts, pityriasis rosea
 - Infestation: scabies, lice, insect bites
- d. Psoriasis
- e. Other Conditions:
 - Chronic leg ulcers
 - Generalized pruritus
 - Acne
 - Alopecia
 - Vitiligo
 - Photosensitivity
 - Genital dermatoses: Chancre, chancroid, Etc.
- f. Skin Tumors:
 - Premalignant lesions in the skin: like solar keratosis, Bowen's disease
 - Malignant lesions like basal cell cancer, squamous cell cancer, malignant melanoma

7. Accident and Emergency

At the end of the posting, the student will be able to do these skills independently:

- Triage in A & E: decision to admit, refer, follow up, or discharge.
- Basic Life Support
- Oral and Nasopharyngeal Airway maintenance
- Mask Ventilation
- Intubation
- Defibrillation
- Gaining peripheral intravenous access
- Insertion of an intraosseous needle
- Bladder catheterization
- Limb splinting
- Suturing & other wound closure techniques
- Wound management - dressings
- Local anesthetic techniques
- Acute subcutaneous abscess - drainage/incision
- Nasal packing

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- Heimlich Manoeuvre
 - Communication Skills
 - a. Communication Skills in A&E
 - b. Multi-Disciplinary Team Working
 - c. Talking to Bereaved and Distressed Relatives
 - d. Dealing with Difficult Patients and Relatives
 - e. Accident Prevention and Health Promotion

The student should also have acquired knowledge about the following conditions/clinical problems through self-reading, observation, or discussion.

- i. **Poisoning and overdose**
- ii. **Cardiovascular**
 - Acute Cardiac Failure: causes and management
 - Hypertensive Emergencies
 - Diagnosis, initial management, and appropriate referral of a patient with acute coronary syndrome
- iii. **Neurology**
 - Management of acute headache
 - Management of Status Epilepticus
 - Assessment and Management of the Unconscious Patient
 - Management of TIA and Stroke, Meningitis

8. ENT: At the end of the posting, the student will be able to:

Perform these skills with assistance:

- Clinical Examination of the Ear, Nose, and Throat (especially children) and identification of pathology
- Hearing tests – Rinne’s and Weber’s
- Use of the nasal speculum, ENT mirror, and otoscope
- Differentiate safe and unsafe ear in CSOM
- Removal of wax for the ear
- Removal of foreign bodies for the ear and the nose
- Early management of epistaxis and anterior nasal packing
- Interpretation of audiometry
- Hallpike test
- Epley’s manoeuvre for BPPV
- Ear lobe repair

The student should also have acquired knowledge about the following conditions/clinical problems through self-reading, observation, or discussion.

Diagnosis and management of:

- Acute upper respiratory infection
- Acute and chronic (safe and unsafe) otitis media
- Mastoiditis
- Vertigo – evaluation, management, and appropriate referral
- Otitis externa
- Fungal infections of the ear
- Hearing loss – assessment
- Tinnitus – assessment
- Nasal polyps
- Atrophic rhinitis
- Deviated nasal septum
- Epistaxis
- Sinusitis – Acute and chronic
- Tonsillitis – acute and chronic
- Adenoiditis – acute and chronic
- Quinsy
- Hoarseness of voice
- Dysphagia
- Lumps in head & neck – differential diagnosis and evaluation
- Bell's palsy – diagnosis, evaluation, and management

9. Ophthalmology:

At the end of the posting, the student will be able to perform:

- Clinical examination of the eye
- Fundoscopy
- Confrontation fields
- Flashlight test to assess anterior chamber depth
- Pupil examination
- Foreign body removal from lid, conjunctiva, and cornea under supervision
- Irrigation of eye
- Triaging patient in casualty with the acute problem of the eye
- Checking vision with the use of Snellen's chart and use of pinhole

The student should also have acquired knowledge about the following conditions/clinical problems through self-reading, observation, or discussion.

- Redeye (Conjunctivitis, Corneal ulcers, and Uveitis)
- Corneal Abrasions,
- Xerophthalmia
- Lid disorders, Chalazion
- Phlycten
- Pterygium
- Episcleritis
- Scleritis
- Bitot's spots
- Cataract
- Acute glaucoma
- Refractory error, Colorblindness
- Foreign body in the eye
- Panophthalmitis
- Retinal Detachment
- Sudden visual loss and progressive visual loss
- Drugs used in ophthalmology
- National Program for the control of blindness

10. Paediatric emergency rotation:

The objective of the rotation: Equip the resident to manage children who present with emergencies at CHC. The resident should be able to:

- Differentiate between the "toxic/ sick looking child" and other children
- Recognize children who need immediate resuscitation or stabilization and perform what is required
- Assess the child with an appropriate history and physical examination and ask for appropriate investigations
- Prepare a list of probable causes for the child's complaints.
- Prepare a plan of management for the child based on the analysis of the history, physical examination findings, and investigations.

The resident will learn the management of common pediatric emergencies including:

- i. **General**
 - Airway obstruction
 - Respiratory distress
 - Shock

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- Septicemia
 - Trauma
 - Acute febrile illness
 - Anaphylaxis
 - Cardiac arrest
- ii. **Neurological**
- Seizures
 - Headache
 - Altered sensorium / unconscious child
- iii. **Environmental**
- Poisoning
 - Heatstroke/ hyperthermia
- iv. **Respiratory**
- Dyspnea
 - Foreign body
 - Stridor
- iv. **Metabolic**
- Electrolyte imbalance
 - Hyper and hypokalemia
 - DKA
 - Hyper and hypothyroidism
- vi. **Gastrointestinal**
- Acute diarrheal disease
 - Dehydration
 - Abdomen pain
 - Vomiting
 - Constipation
 - Foreign body ingestion
- vii. **Psychiatry**
- Suicidal ideation
 - Anxiety and panic disorders
 - Depression
 - Psychosis
 - Substance abuse

viii. **Genito-Urinary Disorders**

- Scrotal pain or swelling
- Urinary retention
- Dysuria
- Haematuria
- Flank pain
- Paraphimosis

x. **Skin Conditions**

- Urticaria
- Rash
- Cellulitis / abscess
- Stevens-Johnson syndrome

xi. **Musculoskeletal**

- Lacerations
- Painful joints
- Limp
- Fracture

xii. **ENT**

- Epistaxis
- Sore throat
- Foreign body in the ear

The resident will be able to perform the following procedures:

- Bag-valve mask ventilation
- Endotracheal intubation
- Peripheral vein access
- Intraosseous insertion
- Lumbar puncture
- Incision and drainage of abscess
- Reduction of fracture, casting and splinting
- Digital nerve block
- Suturing of laceration
- Debridement of wounds

The resident will learn the indications for and be able to apply the results of:

- Arterial and venous blood gases
- Oxygen saturation
- ECG

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- Common blood investigations
 - Common Xrays, Ultrasound scan

xiii. Communication Skills

- Demonstrate an understanding of anxieties and stress among children and the family and communicate to them in an empathetic manner
- Communicate effectively with others in the team in the emergency room demonstrating an ability to respond to stressful situations appropriately

11. Psychiatry

At the end of the psychiatry rotation, the resident should be able to

- Perform a mental health assessment of a patient
- Diagnose and manage patients with mild to moderate depression
- Diagnose and manage a patient with anxiety
- Diagnose and refer appropriate patients with psychosis
- Provide initial care for a patient presenting with acute psychosis
- Assess a patient for suicide risk
- Screen for and diagnose postpartum depression and psychosis
- Diagnose and manage somatization disorders
- Use the CAGE questionnaire.
- Demonstrate an understanding of motivational interviewing.
- Manage and refer if needed patients with the problem of substance abuse
- Manage alcohol detoxification

12. Physical Medicine and Rehabilitation

At the end of the posting, the student will be able to do these skills independently:

- a. Prepare a walking cast for trophic ulcers in the foot.
- b. Intermittent Clean Catheterization.
- c. Exercises for patients with musculoskeletal problems

The student should also have acquired knowledge about the following conditions/clinical problems through self-reading, observation, or discussion:

- Management and rehabilitation of a patient with Hemiplegia
- Management and rehabilitation of a patient with Paraplegia
- Rehabilitation after a fracture
- Rehabilitation after head injury.

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- Management of stiffness of the joints after disuse.
 - Management of the following conditions
 - Cervical spondylosis
 - Frozen shoulder
 - OA knee
 - Mechanical back pain
 - Hip pain
 - Plantar fasciitis
 - Ankle sprain
 - De quivervan's tenosynovitis
 - Tennis and Golfer's elbow
 - Costochondritis

13. Community Health Center

At the end of the rotation, the student must be able to:

- Elicit appropriate history, perform a detailed physical examination, implement a clear management plan, and follow up for patients with joint problems presenting in a community health center.
- Assess patients needing admission and manage those admitted with common problems both in routine outpatients and in emergencies.
- Assess the interaction of the social and economic aspects of the patient's life with the disease processes and make appropriate action plans for the management of those aspects.

They will be responsible for the care of patients who are attending outpatients and inpatients. Residents will also be on call as per the schedule.

The following groups of patients and the disease categories can act as a guide to training in RUHSA. The student should be able to deal with the health issues affecting specific groups of people as listed below:

- i. Children: Nutrition and development, common childhood infections, behavior disorders, emergencies, child abuse issues
- ii. Adolescents: Problems of puberty, adolescent behavioral problems, school health
- iii. Women: Breast pain, breast lumps, abnormal uterine bleeding, pelvic pain, premenstrual syndrome, menopause, osteoporosis, contraception, vaginal discharge, infertility, screening, and early detection genital tract malignancy

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- iv. Obstetrics: Antenatal care: Diagnosis and management of pregnancy, including common complaints during pregnancy, excessive vomiting, medications, antenatal care, and fetal monitoring, diagnosis and referral of high-risk pregnancy cases
 - v. Elderly and Disabled: Comprehensive assessment of older persons addresses unique problems such as falls, incontinence, delirium, dementia, common diseases in the elderly, prescribing in elderly, recognizing and addressing social problems.

VIII. Recommended Textbooks and Journals

- 1. Journal of Family Medicine and Primary Care
- 2. Australian Family Physician
- 3. Tropical Doctor
- 4. American Family Physician
- 5. General Practice Textbook Edited by John Murtagh
- 6. Oxford Handbook of General Practice
- 7. A Textbook of Family Medicine by Ian Mcwhinney
- 8. Textbook of Family Practice by Rakel



आयुर्विज्ञान में राष्ट्रीय परीक्षा बोर्ड
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