



Royal College of  
General Practitioners



**Kuwait Institute for Medical Specialization  
Faculty of Primary Healthcare**

**Family Medicine Residency Program  
Trainers' & Residents' Guide to the curriculum –  
Part: Syllabus**

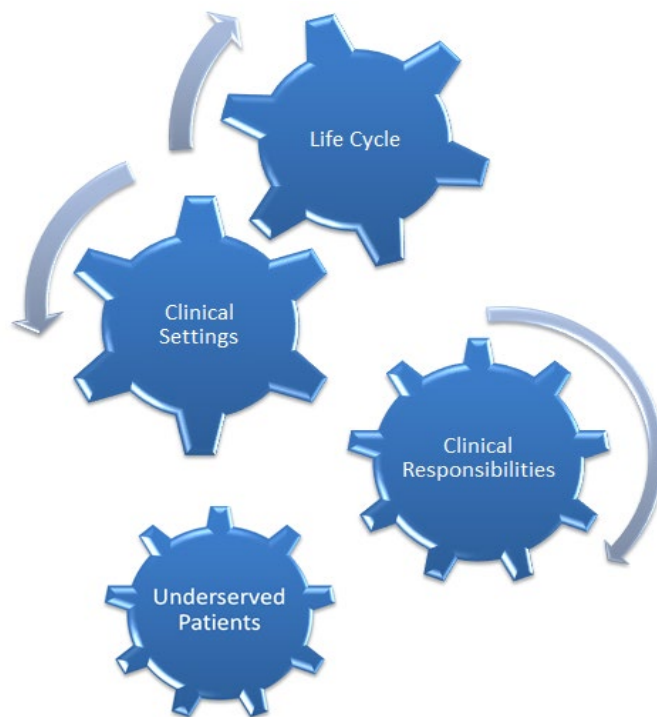
Detailed Residents and Trainers Guide to Training in Different Specialties

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*The Domains of clinical care*

The Domains are arranged by: Life cycle, clinical settings, spectrum of clinical responsibilities, care of underserved patients, procedural skills which are covered during hospital rotation and primary care setting as will be described below.



*The Domains of clinical care*

- Care of Patients Across the Life Cycle includes: Children and adolescents, adults, women's health, including maternity care, men's health care, care of the elderly, end of life and palliative care
- Care of Patients Across Clinical Settings: Across different settings in different districts as office practice, hospital, long term care, emergency settings, care in the home, other community-based settings.
- Spectrum of Clinical Responsibilities: Prevention and health promotion, diagnosis and management of presenting problems: acute, Sub-acute, Chronic, chronic disease management, rehabilitation, supportive care and palliation
- Care of underserved Patients: including, but not limited to: citizens in far-areas and patients with mental illness or addiction, disabled person, individual with language barrier or with limited literacy.

In addition to the previously mentioned domains and competencies, residents need to gain specific knowledge, attitudes and skills in the following areas:

### *Internal medicine including subspecialties*

#### **1.1 Competencies:**

At the completion of residency training in internal medicine, the resident should:

- 1.1.1 Have good understanding and clinical knowledge of the causes, pathophysiology, clinical manifestations and management of common and important medical diseases.
- 1.1.2 Be able to perform proper history and perform appropriate clinical examination and develop an appropriate working diagnosis.
- 1.1.3 Develop appropriate management plan for patients with medical conditions based on knowledge of best available evidence & local resources.
- 1.1.4 Be able to recognize his/her own practice limitations and seek consultation with other health care providers to provide optimal care by embracing a multidisciplinary approach.
- 1.1.5 Be aware of the ethical & medico-legal issues related to patients with medical conditions and their families.
- 1.1.6 Recognize the red flags for patients with medical conditions

#### **1.2 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 1.2.1 A considerate and comprehensive approach to the care of patients with medical disease especially those with chronic problems, including the support of their families
- 1.2.2 Empathy, compassion and respect in discussing diagnosis and treatment (communication within a consultation).
- 1.2.3 Ability to break bad news clearly and empathically including the communication of a terminal prognosis.
- 1.2.4 Communication of management options clearly to the patient and provides appropriate support and information to patients and their cores.
- 1.2.5 Respect of the patient's autonomy when negotiating management particularly when dealing with chronic diseases (e.g. diabetes)
- 1.2.6 A multidisciplinary approach to the care of individuals with chronic disease(s) or multiple co-morbidities.

- 1.2.7 The recognition of the importance of social support in the overall life of patients who have chronic disease(s).
- 1.2.8 The consideration of the polypharmacy issue in patients with multiple comorbidities.
- 1.2.9 Patient's education about the risk of complications from chronic conditions
- 1.2.10 Emphasis on the importance of health promotion conducted among different age groups.
- 1.2.11 Patient-centered approach for life style modification especially among patients with non- communicable diseases

**By the end of training in internal medicine, residents should achieve specific knowledge and skills in the following areas:**

### **1.3 Cardiovascular system**

#### **1.3.1 Knowledge:**

By the end of training the resident should demonstrate the ability to apply knowledge of:

- 1.3.1.1 Normal cardiovascular anatomy and physiology.
- 1.3.1.2 Cardiovascular disease Risk factors.
- 1.3.1.3 Specific diseases/conditions:
  - 1.3.1.3.1 Coronary artery disease / acute coronary syndromes
  - 1.3.1.3.2 Syncope, cardiogenic and non-cardiogenic.
  - 1.3.1.3.3 Dysrhythmias
  - 1.3.1.3.4 Hypertension
  - 1.3.1.3.5 Pulmonary heart disease
  - 1.3.1.3.6 Heart failure
  - 1.3.1.3.7 Thromboembolic disease
  - 1.3.1.3.8 Valvular heart disease
  - 1.3.1.3.9 Congenital heart disease
  - 1.3.1.3.10 Dissecting aneurysm.
  - 1.3.1.3.11 Heart murmurs.
  - 1.3.1.3.12 Peripheral vascular disease
  - 1.3.1.3.13 Cardiomyopathies.
  - 1.3.1.3.14 Pericardial disease.
  - 1.3.1.3.15 Infective endocarditis.
  - 1.3.1.3.16 Dyslipidemia
  - 1.3.1.3.17 Cardiovascular pharmacology

#### **1.3.2 Skills:**

In the appropriate setting, the resident should demonstrate the ability to perform / observe / refer appropriately:

### **1.3.2.1 Diagnostic procedures:**

- 1.3.2.1.1 Performance of history taking and physical examination.
  - Calculating atherosclerotic cardiovascular disease (ASCVD) risk using ASCVD risk calculator.
- 1.3.2.1.2 Performance and interpretation of ECG
- 1.3.2.1.3 Interpretation of chest X-ray
- 1.3.2.1.4 Awareness of:
  - Stress testing.
  - Echocardiography.
  - Ambulatory BP monitoring
  - Halter-monitoring
  - CT coronary angiogram
  - Coronary calcium score
  - Radioisotope imaging.
  - Vascular Doppler examination.
  - Invasive investigations: e.g. diagnostic cardiac catheterization
  - Therapeutic Cardiovascular interventions: e.g. coronary artery bypass, implantable cardioverter-defibrillator.... etc.
- 1.3.2.1.5 Relevant laboratory interpretation, including serum enzymes, isoenzymes and lipids.

### **1.3.2.2 Therapeutic procedures:**

- 1.3.2.2.1 Detection & management of cardiovascular risk factors.
- 1.3.2.2.2 Cardiopulmonary resuscitation (CPR)
- 1.3.2.2.3 Treating dysrhythmias / conduction disturbances.
- 1.3.2.2.4 Management of acute coronary syndrome, post infarction care, and complications.
- 1.3.2.2.5 Congestive heart failure.
- 1.3.2.2.6 Hypertensive urgencies /emergencies.
- 1.3.2.2.7 Supervision and management of cardiovascular rehabilitation
- 1.3.2.2.8 Management of patients after an intervention (e.g. coronary artery bypass surgery, valve surgery, congenital heart disease surgery): e.g. Lifestyle adjustments.

## 1.4 Neurology

### 1.4.1 Knowledge:

The resident should demonstrate the ability to apply knowledge of pathological neurological disorders among all age groups, including:

- 1.4.1.1 Headache (types, differential diagnoses & management)
- 1.4.1.2 Multiple sclerosis
- 1.4.1.3 Disorders of motor function: Upper and lower motor neuron disorders, coordination & movement disorders.
- 1.4.1.4 Cerebrovascular diseases: e.g. Ischemic stroke, hemorrhagic stroke, vasculitis, transient ischemic attacks.
- 1.4.1.5 Infections (e.g., meningitis, encephalitis)
- 1.4.1.6 Epilepsy: Types & treatment
- 1.4.1.7 Dementia (e.g. Alzheimer's, vascular, Parkinson's disease .... etc.)
- 1.4.1.8 Brain tumors
- 1.4.1.9 Disorders of consciousness: Syncope, stupor and coma: E.g. Toxic, metabolic...etc.
- 1.4.1.10 Head and spinal cord trauma: Evaluation, management & prevention.
- 1.4.1.11 Encephalopathy (acute, chronic): Toxic & Metabolic.
- 1.4.1.12 Aphasia & apraxia.
- 1.4.1.13 Recognition of increased intracranial pressure.
- 1.4.1.14 Spinal cord disorders
- 1.4.1.15 Disorders of peripheral nerve, neuromuscular junction and muscle: E.g. Muscular dystrophy, Peripheral neuropathy, Myopathy, Guillain-Barre syndrome...etc.
- 1.4.1.16 Congenital disorders
- 1.4.1.17 Cranial nerves disorders

### 1.4.2 Skills:

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

#### 1.4.2.1 Evaluation skills:

- 1.4.2.1.1 Early detection and defining the neurological problem.
- 1.4.2.1.2 To be able to take an appropriate focused and comprehensive history for patients presenting with neurological complaints.



- 1.4.2.1.3 To be able to perform thorough neurological examination including mental and physical e.g. mental status examination...etc.
- 1.4.2.1.4 Localization of neurologic lesions based on clinical examination data and differential diagnosis.
- 1.4.2.1.5 Assessing the severity and prognosis of clinical problems, determining for urgent care and specialist referral.
- 1.4.2.1.6 Formulating a rational plan for further investigation and management.
- 1.4.2.1.7 Awareness regarding indications and significance of additional tests:
  - 1.4.2.1.7.1 Lumbar puncture.
  - 1.4.2.1.7.2 Electroencephalogram (EEG).
  - 1.4.2.1.7.3 Muscle and nerve biopsy
  - 1.4.2.1.7.4 Carotid ultrasound
  - 1.4.2.1.7.5 MRI, CT-scan.... etc.
  - 1.4.2.1.7.6 Nerve conduction studies and EMG

**1.4.2.2 Management skills:**

- 1.4.2.2.1 Formulating a diagnostic and management plan of common neurological problems and assessing the need for expert advice with an awareness of the risks, benefits and costs of evaluation.
- 1.4.2.2.2 Understanding the role of a neurology specialist and the implications of special testing in patients who have neurologic disease and the implications of the test results for the patient.
- 1.4.2.2.3 Managing emergent neurology problems and obtaining urgent consultation when appropriate, e.g. Stroke, coma, Meningitis.... etc.

**1.5 Respiratory System**

**1.5.1 Knowledge**

By the end of training the resident should demonstrate the ability to apply knowledge of the followings among all age groups:

- 1.5.1.1 Normal respiratory system anatomy and physiology.
- 1.5.1.2 Prevention of respiratory disease (e.g. Bronchial asthma, COPD)
- 1.5.1.3 Specific diseases/conditions:
  - 1.5.1.3.1 Asthma
  - 1.5.1.3.2 Chronic obstructive airway disease
  - 1.5.1.3.3 Pulmonary embolism
  - 1.5.1.3.4 Upper respiratory tract infections
  - 1.5.1.3.5 Lower respiratory tract Infections (Acute bronchitis, Pneumonia, lung abscess, TB)
  - 1.5.1.3.6 Bronchiectasis
  - 1.5.1.3.7 Interstitial lung diseases

- 1.5.1.3.8 Sarcoidosis
- 1.5.1.3.9 Environmental pulmonary diseases (e.g. occupational asthma)
- 1.5.1.3.10 Pulmonary hypertension
- 1.5.1.3.11 Mediastinal and pleural disorders (e.g. pleural effusion, pleural fibrosis)
- 1.5.1.3.12 Pneumothorax
- 1.5.1.3.13 Aspiration of a foreign body
- 1.5.1.3.14 Sleep apnea
- 1.5.1.3.15 Lung cancer
- 1.5.1.4 Respiratory pharmacology

**1.5.2 Skills:**

**1.5.2.1 Diagnostic procedures:**

- 1.5.2.1.1 Performance of history taking and physical examination.
- 1.5.2.1.2 Interpretation of chest X-ray
- 1.5.2.1.3 Performance and interpretation of peak flow meter (PFM) and spirometry
- 1.5.2.1.4 Interpretation of pulmonary function test (flow rates, lung volume.... etc.)
- 1.5.2.1.5 Interpretation of blood gas analysis
- 1.5.2.1.6 Indications and interpretations of lab investigations (CBC, gram stain, culture and sensitivity...etc.)
- 1.5.2.1.7 Performance and understanding of the indications of thoracocentesis

**1.5.2.2 Awareness of the indications/interpretation of:**

- 1.5.2.2.1 CT scan
- 1.5.2.2.2 Ventilation perfusion scanning
- 1.5.2.2.3 MRI and other imaging studies
- 1.5.2.2.4 Bronchoscopy
- 1.5.2.2.5 Sleep studies

**1.5.3 Management skills:**

- 1.5.3.1 Formulating a diagnostic and management plan for common respiratory diseases e.g. asthma and COPD, and assessing the need for expert advice with an awareness of the risks, benefits and costs of evaluation.
- 1.5.3.2 Understanding the role of a pulmonologist and the implications of special testing in patients who have respiratory disease and the implications of the test results for the patient.
- 1.5.3.3 Managing emergent respiratory problems and obtaining urgent consultation when appropriate, e.g. pneumonia, acute attacks of asthma and COPD, pneumothorax, pulmonary embolism ...etc.

## 1.6 *Gastro Intestinal and hepatobiliary System*

### 1.6.1 Knowledge

By the end of training the resident should demonstrate the ability to apply knowledge of the followings among all age groups:

- 1.6.1.1 Normal Gastro Intestinal and hepatobiliary system anatomy and physiology.
- 1.6.1.2 Prevention of gastrointestinal and hepatobiliary disease (e.g. Gastroenteritis, hepatitis...)
- 1.6.1.3 The effects of liver disease on drug metabolism and liver damage caused by drugs
- 1.6.1.4 Specific diseases/conditions:
  - 1.6.1.4.1 Esophageal disorders: Gastroesophageal reflux, hiatus hernia, motility disorders...etc.
  - 1.6.1.4.2 Gastritis and peptic ulcer disease
  - 1.6.1.4.3 Gastroenteritis: e.g. traveller's diarrhea
  - 1.6.1.4.4 Functional gastrointestinal disorders: e.g. Irritable bowel disease
  - 1.6.1.4.5 Mal-absorption syndromes e.g. Celiac disease
  - 1.6.1.4.6 Inflammatory bowel disease: Crohn's, ulcerative colitis
  - 1.6.1.4.7 Diverticular diseases
  - Constipation
  - 1.6.1.4.8 Ano-rectal disorders: e.g. Anal fissure, hemorrhoids, abscess
  - 1.6.1.4.9 Gall bladder and bile duct disorders: e.g. gall stone, acute cholecystitis
  - 1.6.1.4.10 Pancreatitis
  - 1.6.1.4.11 Hepatitis: viral, chronic
  - 1.6.1.4.12 Liver fibrosis & cirrhosis
  - Colorectal cancer
  - 1.6.1.4.13 Other tumors of the GI: pancreas and hepato-biliary systems...etc.
  - 1.6.1.4.14 Fatty liver disease: Non-alcoholic and alcoholic steatohepatitis (NAFLD- AFLD)

### 1.6.2 Skills:

In the appropriate setting, the resident should demonstrate the ability to independently perform or appropriately refer:

#### 1.6.2.1 Diagnostic procedures:

- 1.6.2.1.1 Performance of history taking and physical examination.

- 1.6.2.1.2 Performance and understanding the indications/ contraindications of diagnostic procedures: e.g. nasogastric intubation, abdominal paracentesis
- 1.6.2.1.3 Understanding the indications/ contraindications and Interpretation of abdominal X- rays (with/ without contrast)
- 1.6.2.1.4 Understanding the indications/ contraindications and interpretation: Abdominal ultrasound, endoscopy, sigmoidoscopy, colonoscopy, ambulatory PH monitoring.....
- 1.6.2.1.5 Indications and interpretations of lab investigations (CBC, LFT, blood biochemistry, culture and sensitivity, H-pylori test, fecal occult blood.....etc.)
- 1.6.2.1.6 Awareness of the indications of:
  - 1.6.2.1.6.1 CT scan, PET scan
  - 1.6.2.1.6.2 MRI
  - 1.6.2.1.6.3 ERCP, PTC

**1.6.2.2 Management skills:**

- 1.6.2.2.1 Formulating a diagnostic and management plan for common gastrointestinal diseases e.g. gastroesophageal reflux, Peptic ulcer disease, functional gastrointestinal diseases....etc. and assessing the need for expert advice with an awareness of the risks, benefits and costs of evaluation.
- 1.6.2.2.2 Understanding the role of a gastroenterologist and the implications of special testing in patients who have gastrointestinal disease and the implications of the test results for the patient.
- 1.6.2.2.3 Managing emergent gastrointestinal problems and obtaining urgent consultation when appropriate, eg acute GI bleeding , acute hepatitis ...etc.

**1.7 Rheumatology**

**1.7.1.1 Knowledge**

By the end of training the resident should demonstrate the ability to apply knowledge of the followings among all ages:

- 1.7.1.1 Normal musculoskeletal system anatomy and physiology.
- 1.7.1.2 The appropriate focused history for joint and soft tissue symptoms, screening, a complete musculoskeletal examination, functional assessment and use of laboratory and imaging modalities
- 1.7.1.3 The clinical presentation, diagnostic criteria and initial treatment for the common rheumatologic conditions
- 1.7.1.4 Prevention of rheumatological disease (e.g. osteoarthritis, osteoporosis...)
- 1.7.1.5 Specific diseases/conditions:
  - 1.7.1.5.1 Osteoarthritis
  - 1.7.1.5.2 Rheumatoid arthritis (RA)

- 1.7.1.5.3 Spondyloarthropathy (Ankylosing spondylitis, Reiter's disease, Psoriatic arthritis, inflammatory bowel disease)
- 1.7.1.5.5 Infections that cause direct and indirect forms of arthritis (Acute rheumatic fever, Subacute bacterial endocarditis, Post-dysenteric)
- Hyperuricemia
- 1.7.1.5.6 Crystal-induced arthropathies (Gout & others)
- 1.7.1.5.7 Connective tissue disorders: (e.g. SLE, polymyalgia rheumatica etc.)
- 1.7.1.5.8 Vasculitis.
- 1.7.1.5.9 Osteoporosis and Osteopenia
- 1.7.1.5.10 Fibromyalgia and chronic fatigue syndrome

### **1.7.2 Skills**

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

#### **1.7.2.1 Diagnostic procedures:**

- 1.7.2.1.1 The basic elements of a rheumatic assessment (including a targeted history, musculoskeletal examination and functional assessment).
- 1.7.2.1.2 Development of a differential diagnosis based on the pattern of joint and soft tissue involvement such as symmetrical small joints, non-symmetrical large joints and axial skeleton.
- 1.7.2.1.3 Evaluation of limitations in activities of daily living and affect on social and psychological status of the patient.
- 1.7.2.1.4 A focused history, musculoskeletal exam and laboratory evaluation to evaluate disease progression.

#### **1.7.2.2 Management skills:**

- 1.7.2.2.1 The ordering of appropriate laboratory tests and radiographic images based on initial evaluation and interpretation of the results.
- 1.7.2.2.2 Recognition of urgent joint conditions such as “the red hot joint” and performing appropriate management.
- 1.7.2.2.3 Treatment of rheumatologic conditions and the monitoring of the laboratory, physical exam and potential side effects in consultation with a rheumatologist.

## **1.8 Endocrine and metabolic problems**

### **1.8.1 Knowledge**

By the end of training the resident should demonstrate the ability to apply knowledge of:

- 1.8.1.1 Prevention of common endocrine disease (e.g. Diabetes mellitus, dyslipidemias)
- 1.8.1.2 The family medicine resident is required to demonstrate the knowledge of the followings:

#### **1.8.1.2.1 Diabetes mellitus:**

- 1.8.1.2.1.1 Pathophysiology, Epidemiology, Type 1 diabetes mellitus (diagnosis, presentation, principles of care and management ,nutrition)
- 1.8.1.2.1.2 Type 2 diabetes mellitus (pathophysiology, epidemiology, diagnosis, presentation, principles of care and management, nutrition)
- 1.8.1.2.1.3 Diabetes across the age spectrum (children, adolescents, adults, elderly, pre-pregnancy/pregnancy)
- 1.8.1.2.1.4 Diabetes emergencies (hypoglycemia, diabetic ketoacidosis, hyperosmolar hyperglycemic syndrome)
- 1.8.1.2.1.5 Prevention, early detection and management of the complication of diabetes
- 1.8.1.2.1.6 Drugs & life style measurements relevant to patients with diabetes across their age & disease stage spectrum
- 1.8.1.2.1.7 Psychosocial impact of diabetes.

#### **1.8.1.2.2 Thyroid disorders:**

- 1.8.1.2.2.1 Hypothyroidism, Hyperthyroidism, Approach to the patient with a thyroid nodule, Thyroid cancers
- 1.8.1.2.2.2 Thyroid emergencies (myxoedema, hyperthyroid crisis),
- 1.8.1.2.2.3 Medications prescribed in primary care setting.
- 1.8.1.2.3 Dyslipidemia (prevention, screening, detection & medications.
- 1.8.1.2.4 Obesity (prevention, screening, Diagnosis & management)
- 1.8.1.2.5 Metabolic syndrome (screening, diagnosis & management)
- 1.8.1.2.6 Osteoporosis (screening, diagnosis & management)
- 1.8.1.2.7 Adrenal disorders (Cushing's syndrome, hyperaldosteronism, Addison's disease, phaeochromocytoma)
- 1.8.1.2.8 Pituitary disorders (prolactinoma, acromegaly, diabetes insipidus)
- 1.8.1.2.9 Fluid and electrolyte metabolism e.g. Hypo and hypernatremia, Hypo and hyperkalemia, Hypo and hypercalcemia.....

**1.8.2 Skills:****1.8.2.1 Diagnostic procedures:**

- 1.8.2.1.1 Clinical history, data gathering, and following the current literature in diagnosis common metabolic disorders, specifically, diagnostic criteria for diabetes mellitus, hypo & hyperthyroidism.
- 1.8.2.1.2 Physical examination assessment especially for the following areas:
  - 1.8.2.1.2.1 Body mass index calculation, and weight circumference
  - 1.8.2.1.2.2 Diabetic foot examination.
  - 1.8.2.1.2.3 Thyroid examination.
  - 1.8.2.1.2.4 Visual acuity and retinal photography (diabetic retinopathy).
  - 1.8.2.1.2.5 Diabetic neuropathy
  - 1.8.2.1.2.6 The use of blood glucose measuring devices
  - 1.8.2.1.2.7 The technique of using different insulins and injectable anti-diabetic medication.
- 1.8.2.1.3 The ability to interpret the following laboratory results:
  - 1.8.2.1.3.1 Fasting, Random & postprandial blood sugar.
  - 1.8.2.1.3.2 Hemoglobin A1c
  - 1.8.2.1.3.3 Albumin: creatinine ratio, dipstick for microalbuminuria.
  - 1.8.2.1.3.4 Estimated glomerular filtration rate
  - 1.8.2.1.3.5 Serum electrolyte and urate results.
  - 1.8.2.1.3.6 Thyroid function tests and understand their limitations – TSH, T4, free T4, T3, auto-antibodies.
  - 1.8.2.1.3.7 Lipid profile tests – total cholesterol, HDL, LDL, triglycerides.
  - 1.8.2.1.3.8 Awareness of the investigations in the secondary care e.g. thyroid and abdominal ultrasound, fine needle aspiration, and other endocrine procedures.

**1.8.3 Therapeutic procedures:**

At the completion of residency training, the resident should be able to:

- 1.8.3.1 Recognize that patients with metabolic problems are frequently asymptomatic or have nonspecific symptoms and that diagnosis is often made by screening or recognizing symptom complexes.
- 1.8.3.2 Decide a management plan for patients with a metabolic problem at initial stage.
- 1.8.3.3 Demonstrate a logical, incremental approach to investigate and diagnose metabolic problems.
- 1.8.3.4 Understand principles of treatment of common metabolic conditions managed commonly in primary care (obesity, diabetes mellitus, hypothyroidism, hyperlipidemia)
- 1.8.3.5 Develop strategies to simplify medication regimens in case of polypharmacy and encourage concordance with treatment.

- 1.8.3.6 Work in a multidisciplinary team with other health care providers for managing metabolic diseases encountered in primary health care setting.
- 1.8.3.7 Understand the indications for referral to an endocrinologist for management or investigation of complex metabolic problems.
- 1.8.3.8 Understand the systems of care for metabolic conditions, including the roles of primary and secondary care, shared-care arrangements, multidisciplinary teams and patient involvement.
- 1.8.3.9 Show competence in the management of the common endocrine disorders like: diabetes, hypothyroidism, dyslipidemia.... etc.

## 1.9 Hematology

### 1.9.1 Knowledge:

By the end of training the resident should demonstrate the ability to apply knowledge of the followings among all age groups:

- 1.9.1.1 Normal hematological laboratory values
- 1.9.1.2 Prevention of hematological diseases like iron deficiency anemia and other types of anemia
- 1.9.1.3 Specific diseases/conditions:
  - 1.9.1.3.1 Iron deficiency anemia (etiology, diagnosis, treatment)
  - 1.9.1.3.2 Sideroblastic anemia
  - 1.9.1.3.3 Anemia of chronic disease
  - 1.9.1.3.4 Megaloblastic macrocytic anemia: Vitamin B12 deficiency, Folate deficiency
  - 1.9.1.3.5 Anemias caused by hemolysis: Sickle cell anemia, Glucose-6 Phosphate Dehydrogenase Deficiency, Thalassemia
  - 1.9.1.3.6 Neutropenia, Lymphocytopenia
  - 1.9.1.3.7 Thrombocytopenia, Thrombocytosis
  - 1.9.1.3.8 Polycythemia
  - 1.9.1.3.9 Eosinophilia
  - 1.9.1.3.10 Leukemias (AML, ALL, CLL, CML) 1.9.1.3.11 Lymphomas (Hodgkin, non-Hodgkin)
  - 1.9.1.3.12 Multiple myeloma.
- 1.9.1.4 Common Drugs with hematological effect.

### 1.9.2 Skills:

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

- 1.9.2.1 Ensures appropriate history taking and relevant physical examination.
- 1.9.2.2 Ensures rational requesting of hematology tests, considering yield, cost & resources.



- 1.9.2.3 Interprets results of common hematological laboratory tests (e.g. CBC, ESR, Hemoglobin electrophoresis, coagulation profile, Blood grouping and rhesus factors).
- 1.9.2.4 Recognizes uncommon but serious diseases e.g. acute and chronic leukemia, myeloma and lymphomas.

### **1.9.3 Management skills:**

- 1.9.3.1 Formulates a diagnostic and management plan for common hematological diseases e.g. iron deficiency anemia, G6PD deficiency etc.....and assessing the need for expert advice.
- 1.9.3.2 Understands the role of a hematologist and the implications of special testing in patients who have hematological disease and the implications of the test results for the patient.
- 1.9.3.3 Manages emergent hematological problems and obtaining urgent consultation when appropriate, e.g. acute hemolysis, acute complications of sickle cell diseases.... etc.
- 1.9.3.4 Recognizes the risk & benefits of blood transfusion.
- 1.9.3.5 Appropriately counseling patients on the benefits and risks of screening for hematological diseases.
- 1.9.3.6 Awareness of referral criteria to hematologist.
- 1.9.3.7 Participates in liaison between laboratory and clinical staff e.g. Team Working.
- 1.9.3.8 Consults where necessary to obtain appropriate advice in reporting findings.
- 1.9.3.9 Understands the sensitivities around the diagnosis of a familial disorder, for example, premarital counseling.
- 1.9.3.10 Exhibits understanding of the impact of hemoglobin disorders on the patient and their family.

## **2. Children's health**

### **2.1 Competencies:**

At the completion of residency training, a family medicine resident should:

- 2.1.1 Demonstrate the ability to take proper history and perform appropriate clinical examination for pediatric patients at different age groups.
- 2.1.2 Formulate an appropriate diagnosis and treatment plan for common pediatric conditions.
- 2.1.3 Communicate effectively with the patient / family /caregiver(s).
- 2.1.4 Be aware of his / her own practice limitations and seek consultation with other health care providers & resources when necessary to optimize patient care.

- 2.1.5 Be aware of the ethical & medico-legal issues related to pediatric patients and their caregivers.
- 2.1.6 Recognize the red flags for children’s health conditions

**2.2 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 2.2.1 Empathic concern for the health of the child in the context of the family.
- 2.2.2 Promotion of healthy lifestyles in children and families.
- 2.2.3 An awareness of the unique vulnerabilities of infants and children that may require special attention, consultation and/or referral.
- 2.2.4 Emphasis of the awareness of social, cultural and environmental factors that impact children’s health and welfare.
- 2.2.5 Emphasis of the importance of educating children, family and society on environmental factors that impact children’s health and welfare.
- 2.2.6 The importance of obtaining information about school performance and learning disabilities.

**2.3 Knowledge:**

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of:

- 2.3.1 Fetal and neonatal period: Pathophysiology of the neonatal period; including infections and non-infectious conditions: e.g. jaundice, anemia, sepsis, respiratory distress.... etc.
- 2.3.2 Well newborn and child care:
  - 2.3.2.1 Anticipatory guidance appropriate to age and developmental stage:
    - 2.3.2.1.1 Feeding: options & variations
    - 2.3.2.1.2 Developmental stages and milestones
    - 2.3.2.1.3 Developmental screening tests
    - 2.3.2.1.4 Normal growth and variants, including dental development
    - 2.3.2.1.5 Temperament and behavior
    - 2.3.2.1.6 Family and social relationships
- 2.3.3 Prevention and screening:
  - 2.3.3.1 Developmental disabilities: Developmental delay, learning disorders e.g. dyslexia, ADHA and autism ...etc.
  - 2.3.3.2 Injury prevention: e.g. drowning, choking, burns and poisoning...
  - 2.3.3.3 Child abuse: detection & channels of reporting e.g.: SCAN Team.

- 2.3.3.4 Immunization
- 2.3.3.5 Screening: e.g. Anemia, hypertension...etc.
- 2.3.3.6 Sudden infant death syndrome (SIDS)
  
- 2.3.4 Genetics:
  - 2.3.4.1 Screening issues
  - 2.3.4.2 Appropriate referral for necessary genetic diagnosis and counseling.
  
- 2.3.5 Medical problems of infants and children: recognition, management and appropriate referral:
  - 2.3.5.1 Allergic: Asthma, atopy, allergic rhinitis...etc.
  - 2.3.5.2 Inflammatory: Juvenile rheumatoid arthritis, Kawasaki disease, Henoch-Schonlein purpura...etc.
  - 2.3.5.3 Renal and urologic: Glomerulonephritis, urinary tract infections, vesico –ureteric reflux, enuresis, hypospadias, urethral prolapse, fused labia, enuresis and undescended testis...etc.
  - 2.3.5.4 Endocrine/metabolic and nutritional problems: Thyroid disorders, diabetes mellitus, obesity, failure to thrive, abnormal growth patterns...etc.
  - 2.3.5.5 Neurologic problems: Seizure disorders, headache, syncope, psychomotor delay, cerebral palsy and movement disorders...
  - 2.3.5.6 Common skin problems: Skin rash (Atopic dermatitis, diaper rash, urticarial & erythema multiform), skin infections (Viral, bacterial, parasitic and fungal), bites, stings and burns
  - 2.3.5.7 Musculoskeletal problems: see orthopedic section
  - 2.3.5.8 Gastrointestinal problems: Gastroenteritis, constipation, encopresis, hepatitis, colic, gastro-esophageal reflux, food intolerance, malabsorption, pyloric stenosis, recurrent and chronic abdominal pain, hernia and GI emergencies (Intussusception, appendicitis,).
  - 2.3.5.9 Cardiovascular problems: Evaluation of heart murmurs, congenital heart disease and valvular disease and others e.g. hypertension
  - 2.3.5.10 Respiratory tract problems: Upper & lower respiratory tract infections, reactive airway disease and asthma, cystic fibrosis, bronchiolitis, foreign body aspiration, snoring and obstructive sleep apnea...etc.
  - 2.3.5.11 Ear problems: see ENT section
  - 2.3.5.12 Eye problems: see ophthalmology section
  - 2.3.5.13 Other serious infections: Sepsis, meningitis, encephalitis and osteomyelitis... etc.
  - 2.3.5.14 Childhood malignancies: e.g. Leukemia, lymphoma neuroblastoma, nephroblastoma, retinoblastoma and others.
  - 2.3.5.15 Children with special needs.

2.3.5.16 Psychiatric problems: see psychiatric section.

### **2.1 Skills:**

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / appropriately refer:

- 2.1.1 Resuscitation of newborns, infants and children
- 2.1.2 Age-appropriate history and physical examination, and use of growth charts, with proper documentation.
- 2.1.3 Developmental screening tests administration and interpretation.
- 2.1.4 Appropriate recognition & approach, and reporting of suspected child abuse.
- 2.1.5 Assessment of attention/hyperactivity problems.
- 2.1.6 Formulating a diagnostic and management plan for common pediatrics conditions and assessing the need for expert advice
- 2.1.7 Coordination of patient care and specialty services when required.
- 2.1.8 Running ideal well baby clinic.

## **3. Adolescent's health**

### **3.1 Competencies:**

At the completion of residency training, a family medicine resident should:

- 3.1.1 Be able to establish rapport with the patients and their families, and obtain a focused history, perform appropriate examination and develop patient centered treatment plans for adolescents.
- 3.1.2 Demonstrate the ability to communicate effectively with the adolescent and his / her family.
- 3.1.3 Awareness of the local community resources that is available for Adolescent's wellbeing & care.
- 3.1.4 Be aware of the ethical & medico-legal issues related to adolescent patients and their families.
- 3.1.5 Recognize the red flags for adolescent health conditions

### **3.2 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 3.2.1 Realize the importance of adolescent's relationship with peers, parents, school and community, for adolescent's successful development.

- 3.2.2 Being aware that adolescence is a time of invulnerability, confrontational attitudes toward society and tendencies toward experimentation and high risk behavior.
- 3.2.3 Confidentiality and the encouragement of the adolescent to communicate with his or her parents (and other supportive adults).
- 3.2.4 Utilizing each consultation as an opportunity to act as a caring adult and to promote healthy living.
- 3.2.5 Being professional & non – judgmental during consultation of patients with gender dysphoria , all within the legal boundaries of the state of Kuwait.
- 3.2.6 Be aware of the ethical & medico-legal issues related to adolescent patients and their families.

### **3.3 Knowledge:**

The resident should demonstrate the ability to apply knowledge of:

- 3.3.1 Normal growth and development in the adolescent years that include physical, mental, emotional and sexual.
- 3.3.2 Assessment and prevention of primary behavioral risks affecting health and life of adolescents.
- 3.3.3 Provision of preventive services, immunizations and health promotion to adolescents during both annual visits and routine acute care visits.
- 3.3.4 The challenges facing an adolescent to establish his or her identity and to learn responsible behaviors, including self-care, attention to mental health, sexual health and reproductive health.
- 3.3.5 The core conditions that may affect the health of an adolescent, such as family problems, poverty, depression, school failure, obesity, eating disorders, violence, drug use & sexually transmitted diseases.

### **3.4 Skills:**

The resident should demonstrate the ability to perform / observe / appropriately refer:

- 3.4.1 In the general care of the adolescent patient:
  - 3.4.1.1 Effective communication
  - 3.4.1.2 Familiar with use of common assessment tools e.g. HEADSSS questionnaire (Home, Education, Activities, Drugs, Sex, Suicide/Depression, Safety).
  - 3.4.1.3 Perform a complete exam and a focused adolescent exam.
  - 3.4.1.4 Assess for eating disorders /obesity
  - 3.4.1.5 Assess well-being at home and counsel regarding family relationships.

- 3.4.1.6 Assess progress at school and counsel regarding school failure.
  - 3.4.1.7 Assess peer relationships and counsel about healthy and ethical decision making (e.g. STD, abuse...etc.)
  - 3.4.1.8 Assess tobacco, alcohol, drug experimentation and illicit drug use (including anabolic steroids) and counsel accordingly.
  - 3.4.1.9 Assess mental health status.
  - 3.4.1.10 Assess exposure to violence, accident and safety risks and counsel accordingly.
  - 3.4.1.11 Appropriate approach of adolescents with conduct disorders (e.g. delinquency, vandalism, stealing, lying...etc.)
- 3.4.2 In the community:
- 3.4.2.1 Promote educational programs in community that advocate healthy teen behavior.
  - 3.4.2.2 Promote the support of adolescents clinical & social services in the community.

#### **4. *Women's problems***

##### **4.1 *Competencies:***

A family medicine resident should:

- 4.1.1 Be able to perform a comprehensive women's health assessment and develop appropriate treatment plan for women.
- 4.1.2 Be able to communicate effectively with the patients and their families.
- 4.1.3 Be aware of the ethical & medico-legal issues related to consulting female patients.
- 4.1.4 Awareness of the local community resources that is available for Women's wellbeing & care
- 4.1.5 Recognize the red flags for women health conditions

##### **4.2 *Attitudes:***

The resident should demonstrate attitudes that encompass:

- 4.2.1 Realizing that women need sensitive approach as they are often more conservative in dealing with issues e.g. mental health, sexual dysfunction, alcohol, smoking...etc.
- 4.2.2 Recognize that a woman's health is affected by biological, psychological, occupational and social factors.
- 4.2.3 A gender-specific understanding of the importance of disease prevention, wellness and health promotion for adding quality years to women's lives.

- 4.2.4 Understand the importance of involving women in solving their own health problems.
- 4.2.5 Being professional & non – judgmental during consultation of female patients with gender dysphoria, all within the legal boundaries of the state of Kuwait.

**4.3 Knowledge:**

In the appropriate setting, the resident should have appropriate:

4.3.1 Knowledge of diagnosis and management:

- 4.3.1.1 Appropriate history and physical examination for women of all age groups
- 4.3.1.2 Gynecology:
  - 4.3.1.2.1 Disease prevention, health promotion and periodic health evaluation
  - 4.3.1.2.2 Physiology of menstruation
  - 4.3.1.2.3 Abnormal uterine bleeding
  - 4.3.1.2.4 Gynecologic problems in adults & children (e.g. Vaginal Discharge)
  - 4.3.1.2.5 Infections and diseases of the female reproductive and urinary systems
  - 4.3.1.2.6 Breast health and diseases of the breast
  - 4.3.1.2.7 Sexual assault/ Domestic violence: Recognition, management & channels of reporting.
  - 4.3.1.2.8 Pelvic pain
  - 4.3.1.2.9 Benign and malignant neoplasms of the female reproductive system
  - 4.3.1.2.10 Menopause and geriatric gynecology
  - 4.3.1.2.11 Indications for surgical intervention
  - 4.3.1.2.12 Cervical lesions and abnormal cytology
  - 4.3.1.2.13 Ectopic pregnancy
- 4.3.1.3 Obstetrics:
  - 4.3.1.3.1 Pre-pregnancy planning and counseling
  - 4.3.1.3.2 Prenatal care (including risk assessment)
  - 4.3.1.3.3 Labor and delivery
  - 4.3.1.3.4 Postpartum care
  - 4.3.1.3.5 Indications for cesarean delivery
  - 4.3.1.3.6 Obstetric complications and emergencies
  - 4.3.1.3.7 Lactation
- 4.3.1.4 Family life education:
  - 4.3.1.4.1 Family planning
  - 4.3.1.4.2 Fertility problems

- 4.3.1.4.3 Inter-conceptual care
- 4.3.1.4.4 Family and sexual counseling

4.3.1.5 Consultation and referral:

- 4.3.1.5.1 The role of the obstetrician, gynecologist and subspecialist
- 4.3.1.5.2 Women's health care delivery systems
- 4.3.1.5.3 Collaboration with other health care providers (i.e., dietitian. etc.)

**4.4 Skills:**

Emotional preparation for and thorough performance / observation of the gynecologic examination and appropriately refer in patients of all ages:

4.4.1 Gynecology:

- 4.4.1.1 Appropriate screening e.g. breast, cervical ...etc.
- 4.4.1.2 Awareness regarding:
  - 4.4.1.2.1 Obtaining vaginal and cervical cytology
  - 4.4.1.2.2 Colposcopy
  - 4.4.1.2.3 Cervical biopsy and polypectomy/Endometrial biopsy
  - 4.4.1.2.4 Cryosurgery and cautery for benign disease
  - 4.4.1.2.5 Microscopic diagnosis of urine and vaginal smears
  - 4.4.1.2.6 Bartholin duct cyst drainage
  - 4.4.1.2.7 Dilation and curettage for incomplete abortion

4.4.2 Family planning and contraception:

- 4.4.2.1 Contraceptive counseling and prescribing including emergency contraception.
- 4.4.2.2 Intrauterine contraceptive device counseling
- 4.4.2.3 Parenteral contraceptives and counseling.

4.4.3 Pregnancy:

- 4.4.3.1 Pre-pregnancy evaluation
- 4.4.3.2 Initial pregnancy visit
- 4.4.3.3 Risk assessment
- 4.4.3.4 Counseling throughout pregnancy
- 4.4.3.5 Management of common postpartum problems.



## 5. *Men's health*

### 5.1 *Competencies:*

At the completion of residency training, a family medicine resident should:

- 5.1.1 Have a good knowledge regarding specific health problems and their unique characteristics in men.
- 5.1.2 Be able to take a comprehensive men's health history e.g. sexual & occupational histories.
- 5.1.3 Perform male physical examination e.g. urogenital, rectal and prostate examination.
- 5.1.4 Communicate effectively and sensitively with the patient / others involved in his care as appropriate.
- 5.1.5 Appropriate application of relevant guidelines regarding men's health.
- 5.1.6 Being professional & non – judgmental during consultation of male patients with gender dysphoria, all within the legal boundaries of the state of Kuwait.
- 5.1.1 Be aware of the ethical & medico-legal issues related to men patients and their families.
- 5.1.2 Recognize the red flags for men's health conditions

### 5.2 *Attitudes:*

The resident should develop attitudes that encompass:

- 5.2.1 Being aware that men visit the physicians less frequently and usually at the late stages of problems.
- 5.2.2 Realizing that men need sensitive approach as they are often more conservative in dealing with issues e.g. mental health, sexual dysfunction, alcohol, drugs...etc.
- 5.2.3 Recognize that a man's health is affected not only by biological, psychological, social and occupational factors.
- 5.2.4 A gender-specific understanding of the importance of disease prevention, wellness and health promotion for adding quality years to men's lives.

**5.3 Knowledge:**

The resident should demonstrate the ability to apply knowledge of the followings among all age groups:

- 5.3.1 Health promotion and disease prevention:
  - 5.3.1.1 Nutritional needs
  - 5.3.1.2 Exercise programs
  - 5.3.1.3 Weight management and obesity
  - 5.3.1.4 Substance abuse /performance enhancing drugs e.g. anabolic steroids
  - 5.3.1.5 Avoidance of sexually transmitted infections
  - 5.3.1.6 Occupational health and injury prevention.
  - 5.3.1.7 Coronary artery disease
  - 5.3.1.8 Cancer screening guidelines (e.g. skin, colon, prostate, . etc.)
  - 5.3.1.9 Oral health
- 5.3.2 Reproductive tract infections and problems:
  - 5.3.2.1 Sexually transmitted infections
  - 5.3.2.2 Urethritis/ epididymitis/orchitis/prostatitis
  - 5.3.2.3 Benign & Neoplastic diseases of the male ano-genital tract.
  - 5.3.2.4 Lower urinary tract symptoms
  - 5.3.2.5 Bladder dysfunction
  - 5.3.2.6 Kidney diseases
  - 5.3.2.7 Genital trauma
  - 5.3.2.8 Inguinal hernias
  - 5.3.2.9 Reproduction: Normal physiology and anatomy, infertility, effects of aging...
  - 5.3.2.10 Sexuality: Erectile/ Ejaculatory dysfunction, changes in libido, variety of sexual behaviors.....

**5.4 Skills:**

The resident should demonstrate the ability to independently perform / observe / appropriately refer:

- 5.4.1 Careful and thorough Genito -urinary examination
- 5.4.2 Counseling skills:
  - 5.4.2.1 Alcohol and other substance use and abuse
  - 5.4.2.2 Smoking
  - 5.4.2.3 Sexually transmitted infections.
  - 5.4.2.4 Exercise prescription
  - 5.4.2.5 Performance-enhancing drugs
  - 5.4.2.6 Sexual behavior
- 5.4.3 Foley's catheter placement- removal.

## 6 *Palliative care*

### 6.1 Competencies

At the completion residency training, a family medicine resident should:

- 6.1.1 Understanding for both concepts of palliative care and end-of- life care and impact into the social well-being.
- 6.1.2 Promotion for palliative care approach in the primary health care centres, home visits and different communities.
- 6.1.3 Demonstration of whole person approach in caring for terminally ill patients and their families / caregivers.
- 6.1.4 Acknowledgement of the ethical & medico-legal issues related to terminally ill patients and their caregivers / family.
- 6.1.5 Recognition of the terminally ill patient's red flags.

### 6.2 **Attitudes:**

The resident should demonstrate attitudes that encompass:

- 6.2.1 Show compassion and empathy towards dying patients and members of their families.
- 6.2.2 Keep ethical rules in relationship with patients and their relatives and caregivers.
- 6.2.3 Understand the importance of confidentiality as the basis for establishing trusting relationship with patients and their relatives.
- 6.2.4 Pay special attention to issues of care, pain and symptoms control, patient's choice and control over treatment decisions and the patient's dignity.
- 6.2.5 Appreciate the diverse of specific family and community traditions related to death and mourning rituals.
- 6.2.6 Pay special attention to psychological condition of children and adolescents who have experienced the loss of one of their family members.

### 6.3 **Knowledge**

The Family Medicine resident is required to demonstrate the knowledge of the following:

- 6.3.1 **Basics of palliative care:** end-of- life complexity; physician's role in terminal care and the multi-professional and interdisciplinary approach of Palliative Care.

- 6.3.2 **Pain and symptom management:** in different settings like: curative therapy versus palliative therapy and palliative medicine
- 6.3.3 **Recognition of chronic pain features:** the concept of "total pain", principles of pharmacological treatment, pharmacodynamics of opioids, non-opioids & adjuvant analgesics.
- 6.3.4 **Interventional pain management:** oncological interventions (chemotherapy, radiotherapy), neurolytic procedures (anesthetic or neurosurgical).
- 6.3.5 **Non-pharmacological pain management:** nursing, psychotherapy and counselling, physiotherapy, alternative therapy.
- 6.3.6 **Gastrointestinal symptoms:** nausea and vomiting, constipation, diarrhea, Malignant bowel obstruction.
- 6.3.7 **Nutrition:** anorexia and cachexia syndrome, weight loss, fatigue and role of artificial nutrition.
- 6.3.8 **Oral health:** oral and denture hygiene, thirst and artificial hydration, xerostomia and halitosis, sore mouth and stomatitis, oral infections and swallowing problems.
- 6.3.9 **Pulmonary symptoms:** dyspnea, cough, hemoptysis, Hiccups, pulmonary embolism, oedema and terminal respiratory congestion (death rattle)
- 6.3.10 **Psychological and psychiatric Distress:** Adjustment disorder, Major anxiety disorders, major depressive and other mood disorders.
- 6.3.11 **Delirium & Neuropsychiatric symptoms:** Delirium types, confusional states, dementia disorders.
- 6.3.12 **Dermatologic symptoms:** bedsores, wound breakdown, lymphedema, itching.
- 6.3.13 **End of life care (terminal phase):** signs of death, comfort measures, end of life discussions, pronouncement of death and writing death certificate.
- 6.3.14 **Psychosocial and spiritual aspects:** psychological reactions to chronic illness, loss of independence and grief, impact on the patient and family, appearance and perceived self- worth during a terminal illness, family dynamics, ethnic, social and religious differences.
- 6.3.15 **Grief and bereavement:** in caregivers and family, anticipatory

mourning, risk factors for difficult mourning

6.3.16 **Ethical and legal Issues:** related to terminal care.

6.3.17 **Communication:** Differentiation: verbal vs. non- verbal communication

6.3.18 **Difficult discussions and communications:** patient's information, prognosis, decision-making, conflicts and conflict resolution and talking with relatives.

6.3.19 **Teamwork and Self-reflection:** "Burn-out" avoidance and prophylaxis

#### 6.4 Skills

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

6.4.1 Assessing the physical status of a terminally ill patient – consciousness, neurological reflexes, vital signs, medical causes of discomfort and pain and the ability for self-service.

6.4.2 Communicating with patients and their families, ability to "share the bad news" including choice of appropriate place, time, words and expression of thoughts.

6.4.3 Psychological counseling to patients and members of their families.

6.4.4 On-going communication and work with patients and their families, including the period following patient's death.

6.4.5 Education of care givers and family members on providing appropriate home medical treatment and care.

### 7 **Emergency care**

#### 7.1 Competencies:

At the completion of residency training, a family medicine resident should:

7.2.1 Take proper history and perform appropriate clinical examination for emergency medical and surgical conditions presented to the family practitioner.

7.2.2 Recognize the importance of timely and efficient evaluation and appropriate care in emergency cases.

7.2.3 Accurately and efficiently diagnose and manage common and important acute serious illnesses and traumatic conditions. In addition to the ability

to use common emergency drugs appropriately (e.g. adrenaline, diazepam, narcotic.... etc.)

- 7.2.4 Work effectively within multidisciplinary teams to request appropriate investigations and initiate management for acute emergency cases.
- 7.2.5 Demonstrate decision-making skills in the effective management of acute illness and trauma presentations
- 7.2.6 Aware of the ethical & medico-legal issues related to emergencies in the state of Kuwait.

### **7.3 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 7.3.1 Prioritize tasks to manage acute illness and trauma effectively
- 7.3.2 Recognize their own limitations in the care of patients with acute and traumatic presentations and refer appropriately.
- 7.3.3 An ability to work effectively with other members of the health care team, including consultants, nursing and other staff (e.g. administrative staff, investigator, social services...etc.)
- 7.3.4 Awareness regarding doctor's emergency bag (importance, contents)
- 7.3.5 Ability to self-reflect and act promptly.

### **7.4 Knowledge:**

In the appropriate setting, the resident should demonstrate the ability to apply Knowledge of the followings among all age group:

- 7.4.1 The principles of care & the initial stabilization of patients
- 7.4.2 Assessment and management of conditions in the following content areas:
  - 7.4.2.1 Trauma: e.g. Blunt, penetrating, burns, drowning and near drowning, bites, stings
  - 7.4.2.2 Acute neurologic disorders: e.g. CVA, coma, meningitis, seizure disorders ...etc.
  - 7.4.2.3 Acute respiratory disorders: e.g. Pulmonary embolism/ infections, pneumothorax, asthma...etc.
  - 7.4.2.4 Acute cardiovascular disorders: e.g. acute coronary syndrome, dysrhythmias, heart failure...etc.
  - 7.4.2.5 Acute endocrine disorders: e.g. diabetic ketoacidosis, acute adrenal insufficiency ...etc.
  - 7.4.2.6 Acute gastrointestinal disorders: e.g. acute appendicitis, acute abdomen...etc.
  - 7.4.2.7 Acute urinary system disorders: e.g. urinary retention, nephrolithiasis ...etc.
  - 7.4.2.8 Acute musculoskeletal disorders: e.g. fracture, dislocated joints ...etc.

- 7.4.3 Recognition and management in the following areas
  - 7.4.3.1 Toxicologic emergencies and their treatment: e.g. acute overdose, accidental poisonings and ingestion, treatments and antidotes..... etc.
    - 7.4.3.2 Special circumstances:
      - 7.4.3.2.1 Resuscitations (e.g., coordination, communication, recording)
      - 7.4.3.2.2 Metabolic disorders and acid/base imbalance.
      - 7.4.3.2.3 Shock and initial resuscitative measures required for each unique condition of different types of shock.
      - 7.4.3.2.4 Acute infectious emergencies (e.g. encephalitis, septicemia...etc.)
      - 7.4.3.2.5 Heat injuries
      - 7.4.3.2.6 Hypersensitivity reactions and anaphylaxis
- 7.4.4 Indications and interpretation of diagnostic tests pertinent to the urgent and emergent setting e.g.: ECG, Blood laboratory chemistry and hematologic studies...etc.

## **7.5 Skills**

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

- 7.5.1 Airway management:
  - 7.5.1.1 Heimlich maneuver
  - 7.5.1.2 Ensuring airway patency and the use of advanced airway techniques
  - 7.5.1.3 Needle thoracentesis and tube thoracostomy
  - 7.5.1.4 Cricothyroidotomy
- 7.5.2 Anesthetic techniques: e.g. Local anesthesia
- 7.5.3 Diagnostic and therapeutic procedures
  - 7.5.3.1 Repair of skin lacerations: methods and techniques.
  - 7.5.3.2 Management of wounds/ foreign bodies in the skin and body orifices
  - 7.5.3.3 Use of Automated Electrical defibrillator (AED)
  - 7.5.3.4 Management of acute cardiorespiratory arrest in all age groups. (e.g. BLS)

## **8 Care of surgical patient**

### **8.1 Competencies:**

By the end of residency training, a family medicine resident should:

- 8.2.1 Be able to perform a surgical assessment and develop an appropriate treatment plan, ensuring that the diagnosis and treatment plan are clearly understood.

- 8.2.2 Demonstrate the ability to communicate effectively with the surgeon about the patient's symptoms, physical findings, test results and proposed management.
- 8.2.3 Recognize his or her practice limitations and seek consultation with other health care providers when necessary to provide optimal care.
- 8.2.4 Be aware of the ethical & medico-legal issues related to surgical patients and their caregivers.
- 8.2.5 Recognize the red flags for surgical patient's conditions

**8.3 Attitudes:**

The resident should develop attitudes that encompass:

- 8.3.1 Recognizing the importance of shared management between family physician and surgeon regarding the care of surgical patients as appropriate.
- 8.3.2 Being sensitive to concerns and anxieties of the patient and his family regarding the need for surgical intervention.
- 8.3.3 Recognizing the importance of prevention of surgical problems and patients' responsibility for his/her own health promotion and improvement.
- 8.3.4 Involving patient and his/her family in the prevention of complications and post-operative care management.

**8.4 Knowledge:**

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of the followings among all age group:

- 8.4.1 Basic principles of surgical diagnosis: e.g. basic surgical anatomy, wound physiology and healing processes
- 8.4.2 Differential diagnosis of key signs and symptoms of surgical conditions
- 8.4.3 Recognition of surgical emergencies.
- 8.4.4 Bariatric surgeries: types, indications, contraindications, and short & long-term care of post-surgery patients.
- 8.4.5 Ethical & legal considerations of surgical interventions.
- 8.4.6 Preoperative assessment.
- 8.4.7 Intra-operative care: for minor surgical interventions e.g. basic principles of asepsis, sterile technique, use of basic surgical instruments...etc.
- 8.4.8 Postoperative care: e.g. wound care, pain management, infection, follow up care ...etc.

**8.5 Skills:**



In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

- 8.5.1 Clinical assessment, including history, physical examination, X-Rays & laboratory evaluation. Invasive versus noninvasive diagnostic tests
- 8.5.2 Patient counseling on indications and contraindications for surgical or medical management of given cases.
- 8.5.3 Psychological and physical preparation of patients/ career's for surgical interventions.
- 8.5.4 Recognition and management of common post-operative complications.
- 8.5.5 Management of common conditions in the primary care setting: e.g. lumps, wounds, abscesses, lacerations, burns...etc.
- 8.5.6 Carrying out common minor surgical interventions in family physicians clinics (e.g. abscess drainage, suturing, foreign body extraction...etc.)

## **9 Orthopedics & physical medicine**

### **9.1 Competencies:**

At the completion of residency training, a family medicine resident should:

- 9.2.1 Perform an appropriate musculoskeletal history and physical examination.
- 9.2.2 Formulate an appropriate diagnosis and recommend treatment.
- 9.2.3 Demonstrate the ability to communicate effectively with the orthopedic surgeon and other team members about the patient's symptoms, physical findings, test results and proposed management.
- 9.2.4 Recognize his or her practice limitations and seek consultation with other health care providers when necessary to provide optimal care.
- 9.2.5 Perform an evidence-based, age-appropriate and activity-specific preparticipation physical evaluation and provide guidance for an appropriate exercise prescription.
- 9.2.6 Be aware of the ethical & medico-legal issues related to orthopedic conditions in the state of Kuwait.
- 9.2.7 Recognize the red flags for orthopedics' conditions

### 9.3 **Attitudes:**

The resident should develop attitudes that encompass:

- 9.3.1 The importance of shared management between family physician and orthopedic surgeon and other team members regarding the care of orthopedic patients as appropriate.
- 9.3.2 The importance of prevention of musculoskeletal problems and the benefits of exercise for patients' lives.
- 9.3.3 Emphasis of the involvement of patient and his/her family in prevention of complications and post-operative care management.
- 9.3.4 Awareness of the special needs of patients who have acute injuries.
- 9.3.5 Understanding of the importance of proper rehabilitation of acute musculoskeletal injuries to help speed recovery, maximize function and minimize the risks of re-injury, chronic pain and chronic disability

### 9.4 **Knowledge:**

The resident should demonstrate the ability to apply knowledge of the followings among all age group:

- 9.4.1 Normal anatomy and physiology of locomotor system.
- 9.4.2 Normal growth and development of locomotor system.
- 9.4.3 Pathogenesis/pathophysiology and recognition of:
  - 9.4.3.1 Joint pain, Muscular pain
  - 9.4.3.2 Musculoskeletal trauma and common sport related injuries (e.g. Fractures, dislocations, tendon ruptures and nerve injury ..etc.)
  - 9.4.3.3 Tendinopathy
  - 9.4.3.4 Bone and joint deformities
  - 9.4.3.5 Bone and joint infections
  - 9.4.3.6 Metabolic bone diseases
  - 9.4.3.7 Compartment syndrome
  - 9.4.3.8 Avascular necrosis
  - 9.4.3.9 Overuse syndromes
  - 9.4.3.10 Back pain syndromes
  - 9.4.3.11 Bone neoplasms: Benign and malignant.
  - 9.4.3.12 Pediatric problems:**
    - 9.4.3.12.1 Joint dislocation
    - 9.4.3.12.2 Legg-Calvé-Perthes disease
    - 9.4.3.12.3 Osgood-Schlatter disease
    - 9.4.3.12.4 Slipped capital femoral epiphysis
    - 9.4.3.12.5 "Clubfoot" (talipes equinovarus)
    - 9.4.3.12.6 In-toeing (metatarsus adductus, tibial torsion, femoral anteversion)

- 9.4.3.12.7 “Bowleg” (genu varum) and “knock knee” (genu valgum)
- 9.4.3.12.8 Epiphyseal injuries.
- 9.4.3.12.9 Transient synovitis
- 9.4.3.12.10 Child abuse patterns of injury
- 9.4.3.12.11 Rickets
- 9.4.3.12.12 Osteogenesis imperfecta
- 9.4.3.12.13 Thoracolumbar scoliosis.

## 9.5 **Skills:**

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

- 9.5.1 Musculoskeletal history taking & physical examination
- 9.5.2 Indications, contraindications and interpretation of laboratory data (e.g., inflammatory markers: RF, CRP...etc.)
- 9.5.3 Indications, limitations, contraindications of musculoskeletal procedures such as: Common joint aspirations and intra articular injections
- 9.5.4 Imaging & other tests:
  - 9.5.4.1 Interpretation of radiographs
  - 9.5.4.2 Awareness regarding use of magnetic resonance imaging(MRI), computed tomographic scanning (CT-scan) and bone scanning
  - 9.5.4.3 Awareness regarding indications for arthrogram, myelogram and arthroscopy
  - 9.5.4.4 Awareness regarding application of electromyography (EMG) and nerve conduction studies
- 9.5.5 Basic management of:
  - 9.5.5.1 Fractures / Ligament sprains & tears/ Muscular strains/ Dislocations.
  - 9.5.5.2 Other problems (Acute and chronic low back pain, nerve entrapment syndromes, Overuse syndromes.)
  - 9.5.5.3 Procedures (indications, contraindications and complications e.g. Joint injection, aspiration, splint, Dislocation reduction ... etc.).
  - 9.5.5.4 Orthopedic emergency recognition and stabilization (e.g. Spinal cord injury, fractures & dislocations)
  - 9.5.5.5 Common arthroplasty procedures (e.g. knee / hip replacement ... etc.)
- 9.5.6 Functional rehabilitation (Prescription of home exercise programs and referral for physical therapy)
- 9.5.7 Exercise Prescription: Evidence based, age appropriate and tailored exercise prescription, in partnership with patient.

## 10 **Dermatology**

### 10.1 **Competencies:**

By The end of training, a family medicine resident should:

- 10.2.1 Provide compassionate and culturally appropriate patient centered care
- 10.2.2 Be proficient in the diagnosis and treatment of common dermatologic conditions.
- 10.2.3 Utilize diagnostic and evidence-based treatment guidelines as well as maintain up to-date knowledge of appropriate usage of evolving dermatologic treatment technology.
- 10.2.4 Communicate effectively with patient having dermatologic problems.
- 10.2.5 Know his limitation and refer appropriately & understand how to coordinate needed referrals to specialty providers
- 10.2.6 Aware of the ethical & medico-legal issues related to dermatological practice in the state of Kuwait.
- 10.2.7 Recognize the red flags for dermatologic conditions

### 10.3 **Attitudes:**

The resident should demonstrate attitudes that encompass:

- 10.3.1 A willingness to manage the majority of dermatologic conditions.
- 10.3.2 A positive approach to psychosocial issues in patients who have skin disorders.
- 10.3.3 The consideration of counseling of patients who have dermatologic conditions as appropriate.
- 10.3.4 A willingness to learn and perform common dermatologic procedures as appropriate.
- 10.3.5 A constructive collaboration with dermatologists when appropriate.
- 10.3.6** A professional & non-judgmental approach to patients presenting with dermatological manifestations of STIs
- 10.3.7 Ability to self-reflect on performance and act promptly.

### 10.4 **Knowledge:**

By the end of training the resident should demonstrate the ability to apply knowledge of:

- 10.4.1 Specific diseases/conditions (*among all age groups*):
  - 10.4.1.1 Dermatitis: Atopic, contact, seborrheic.....etc.
  - 10.4.1.2 Psoriasis and scaling diseases

- 10.4.1.3 Acne and rosacea
- 10.4.1.4 Infections (bacterial, viral and fungal)
- 10.4.1.5 Infestations including scabies and head lice
- 10.4.1.6 Leg ulcers and lymphedema
- 10.4.1.7 Disorders of hair and nails
- 10.4.1.8 Cornification disorder: calluses, corns.....etc.
- 10.4.1.9 Reaction to sunlight
- 10.4.1.10 Pigmentation disorders: vitiligo, hyperpigmentation.....etc.
- 10.4.1.11 Hypersensitivity and inflammatory disorders: Erythema multiforme, urticaria, vasculitis, drug eruptions..... Etc.
- 10.4.1.12 Bullous diseases
- 10.4.1.13 Prevention of skin diseases
- 10.4.1.14 Management of common skin condition
- 10.4.1.15 Prevention, recognition and management of skin cancers: Melanoma, basal & squamous cell carcinoma.....etc.
- 10.4.1.16 Dermatologic medications; systemic & topical
- 10.4.1.17 Basic awareness regarding common Aesthetic procedures to guard patient's safety: i.e. precautions & post-procedure complications e.g. Injectables: fillers & Botox; Skin Rejuvenation ...etc.

**10.5 Skills:**

In the appropriate setting, the resident should demonstrate the ability to perform / observe / appropriately refer:

- 10.5.1 History and physical examination appropriate for dermatologic conditions
- 10.5.2 Preventive skin examination
- 10.5.3 Biopsy of skin lesions
- 10.5.4 Scraping and microscopic examination
- 10.5.5 Destruction of lesions: Cryosurgery, electrodesiccation & curettage
- 10.5.6 Formulating a diagnostic and management plan for common dermatological diseases and assessing the need for expert advice.... etc.
- 10.5.7 Counseling for dermatologic disorders.
- 10.5.8 Identifying & promptly referring dermatologic problems that need urgent referral.

**11 Ophthalmology**

**11.1 Competencies:**

At the completion of residency training, a family medicine resident should:

- 11.2.1 Demonstrate an understanding of the impact of ocular illness and dysfunction on patients and their families.
- 11.2.2 Demonstrate an understanding of the ophthalmic consultant's role, including the different responsibilities of ophthalmologists and optometrists.
- 11.2.3 Recognize own practice limitations & importance of consulting ophthalmologists and others when necessary to provide optimal patient care.
- 11.2.4 Be aware of the ethical & medico-legal issues related to dermatological conditions in the state of Kuwait.
- 11.2.5 Recognize the red flags for ophthalmological conditions

**11.3 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 11.3.1 Recognizing the importance of supportive and sympathetic attitude towards the patients with impaired vision and an awareness of the impact on their lives
- 11.3.2 Recognizing the effects of loss of visual function and the importance of support systems in the health of patients who have ocular disease.

**11.4 Knowledge:**

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of the followings among all age groups:

- 11.4.1 Normal anatomy and physiology of the eye, age-specific changes in the visual function.
- 11.4.2 Impact of medication and toxins on the eyes and visual function. In addition to the effects of ocular drugs on systemic function.
- 11.4.3 Understanding of geriatric ocular problems & importance of regular assessment.
- 11.4.4 Ocular complications of systemic illness.
- 11.4.5 Guidelines for appropriate vision evaluation.
- 11.4.6 Initial diagnosis, management and appropriate referral criteria for common eye problems:
  - 11.4.6.1 Diseases of the Conjunctiva: Trachoma, conjunctivitis, pinguecula and pterygium.
  - 11.4.6.2 Corneal diseases: Superficial trauma and infection e.g. corneal abrasion, keratitis, corneal ulcers, Dry eye and associated diseases
  - 11.4.6.3 Disease of sclera: episcleritis and scleritis
  - 11.4.6.4 Disease of iris and ciliary body: hyperemia, hemorrhage and Iritis, synechia, mydriasis, meiosis.
  - 11.4.6.5 Disease of choroid: hemorrhage, choroiditis, degeneration and Atrophy (myopic, senile, colloid) and detachment.

- 11.4.6.6 Disease of retina: retinitis (If due to syphilis, malaria, tuberculosis, etc., or due to diabetes or due to effects of sunlight or electric light), diseases associated with visual loss: e.g. central retinal vein & artery occlusion and retinal detachment and those associated with medical conditions: e.g. hypertension & diabetes mellitus, detachment and optic neuritis
- 11.4.6.7 Disease of lens: cataract (If due to diabetes, toxic conditions, traumatism or due to keratitis)
- 11.4.6.8 Affections of the eyeball: glaucoma, diplopia (binocular, unocular) and ametropia: myopia (simple), hyperopia (simple), astigmatism, anisometropia and presbyopia; contact eye lenses
- 11.4.6.9 Disease of the lid: blepharitis, abscess, tarsitis, chalazion, emphysema (When due to injury), trichiasis, entropion and ectropion, blepharitis, ptosis
- 11.4.6.10 Disease of the lacrimal apparatus: dacryocystitis, obstruction of duct
- 11.4.6.11 Disease of the ocular muscle: myositis and strabismus.
- 11.4.6.12 Disease of the orbit: cellulitis and exophthalmos
- 11.4.6.13 Affection of organs on eye: disorders of associated movements (Paralysis of convergence, spasm of convergence, nystagmus), optic neuritis, orbital cellulitis, optic-nerve atrophy, eczema of lids, cranial nerve palsies
- 11.4.6.14 Macular degeneration and age-related changes
  - 11.3.6.11 Trauma: Blunt & Penetrating.
  - 11.3.6.12 Pediatrics eye conditions
  - 11.3.6.13 Appropriate indications for special procedures in ophthalmology  
Awareness of: Indications, limitations and follow-up care of elective eye procedures e.g. refractive surgery
  - 11.3.6.14 Basic awareness regarding common Aesthetic procedures to guard patient's safety: i.e. precautions & post-procedure complications e.g. Injectable: fillers & Botox...etc.

### 11.5 **Skills:**

In the appropriate setting, the resident should demonstrate the ability to independently perform / observe / or appropriately refer:

#### 11.5.1 **Evaluation:**

- 11.5.1.1 Perform specific procedures and interpret results:
  - 11.5.1.1.1 Tests of visual acuity, visual fields and ocular motility.
  - 11.5.1.1.2 Direct ophthalmoscopy.
  - 11.5.1.1.3 Flashlight examinations.
  - 11.5.1.1.4 Fluorescein staining of the cornea.
  - 11.5.1.1.5 Awareness of: Tonometry / Slit-lamp examination

- 11.5.1.1.6 Perform physical examination in patients of all ages, with emphasis on understanding normal neurologic and motor responses as well as appearance.
- 11.5.1.1.7 Localize the problem and generate an appropriate differential diagnosis and management planning.

**11.5.2 Management:**

- 11.5.2.1 Formulate a plan for management, investigation and the need for expert advice with regard to the expected potential risks, costs and value of information that can be obtained.
- 11.5.2.2 Manage and recognize the common prevalent and treatable diseases.
- 11.5.2.3 Familiar with the use of different medications e.g. mydriatics, topical anesthetics, corticosteroids, antibiotics and glaucoma agents
- 11.5.2.4 Prevention and screening of eye problems among different age groups

**12 ENT**

**12.1 Competencies:**

At the completion of residency training in ENT, a family medicine resident should:

- 12.1.1 Be able to recognize the early presentation of common ENT problems.
- 12.1.2 Be competent in managing common ENT problems encountered in the primary care setting
- 12.1.3 Demonstrate an understanding of the impact of ENT illnesses on patients and their families
- 12.1.4 Demonstrate an understanding of the role of each member of the ENT team (ENT surgeons, technicians...etc.)
- 12.1.5 Recognize his/her own practice limitations and seek consultation with other healthcare providers when necessary
- 12.1.6 Be aware of the ethical & medico-legal issues related to ENT problems in the state of Kuwait
- 12.1.7 Recognize red flags of ENT conditions

**12.2 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 12.2.1 A supportive and compassionate approach to the care of patients with ENT disease, especially in cases of deteriorating hearing and incurable disabling ENT conditions
- 12.2.2 Describing strategies for effective communication with patients with hearing impairment and deafness



- 12.2.3 Demonstrating effective strategies for dealing with parental concerns regarding ENT conditions, e.g. recurrent tonsillitis and glue ear
- 12.2.4 Empowering patients to adopt self-treatment and coping strategies where possible, e.g. hay fever, epistaxis, chronic sinusitis, dizziness, vertigo and tinnitus

### **12.3 Knowledge**

The family medicine resident is required to demonstrate the knowledge of the following among all age groups:

- 12.3.1 Inner ear disorders: ENT causes of dizziness/vertigo e.g.: benign paroxysmal positional vertigo, drug induced ototoxicity, Labyrinthitis and vestibular neuritis, Meniere's disease and acoustic neuroma
- 12.3.2 Middle ear and tympanic membrane disorders: acute otitis media (serous, suppurative), chronic otitis media, otosclerosis, presbycusis, tympanic membrane perforation, mastoiditis, barotrauma and eustachian tube dysfunction.
- 12.3.3 External ear disorders; dermatitis of the ear canal, otitis externa, external ear obstructions
- 12.3.4 Oral and pharyngeal disorders: salivary stones and sialadenitis, adenoid disorders, tonsillitis, pharyngitis and obstructive sleep apnea, uvulitis
- 12.3.5 Nose and sinus disorders: infections, foreign bodies, nasal polyps, allergic rhinitis, septal deviation and sinusitis (acute and chronic)
- 12.3.6 Laryngeal disorders: laryngitis, laryngocele, vocal cord disorders (paralysis), polyps and nodules
- 12.3.7 ENT malignancies
- 12.3.8 Emergencies: epistaxis, epiglottitis, peritonsillar and retropharyngeal abscess, sudden sensorineural hearing loss, foreign bodies
- 12.3.9 Prevention: screening for hearing impairment in adults and children
- 12.3.10 Basic awareness regarding common Aesthetic procedures to guard patient's safety: i.e. precautions & post-procedure complications e.g. Injectables: fillers & Botox; Skin Rejuvenation ...etc. (Add to derma, Ophthalm)

### **12.4 Skills:**

In the appropriate setting, the resident should demonstrate the ability to perform / observe / & interpret:

- 12.4.1 Otoscopy
- 12.4.2 Tuning fork tests (Weber and Rinne's tests)
- 12.4.3 Dix-Hallpike maneuver
- 12.4.4 Interpretation of tympanometry and audiometry
- 12.4.5 Watchful waiting and use of delayed prescriptions

## **13 Mental health**

### **13.1 Competencies:**

By the end of residency training, a family medicine resident should:

- 13.1.1 Understand normal and abnormal psychosocial development and behavior.
- 13.1.2 Ability to effectively interview and evaluate patients for mental health disorders using appropriate techniques and skills.
- 13.1.3 Recognize, initiate treatment for and appropriately refer for mental health disorders to optimize patient care.
- 13.1.4 Rational & evidence-based management (drug & non-drug) for patients with mental health problems.
- 13.1.5 Be aware of the ethical & medico-legal issues related to mental health problems
- 13.1.6 Recognize red flags of mental health conditions

### **13.2 Attitudes:**

The resident should demonstrate attitudes that encompass:

- 13.2.1 Appreciate the common frequency of psychological problems in general practice.
- 13.2.2 Ability to manage psychological problems within the primary health care system and when to refer as appropriate.
- 13.2.3 Recognize the importance of interaction between family and social factors and individual health.
- 13.2.4 Understanding the issue of patient's autonomy for patients with psychiatric problems.
- 13.2.5 Appreciate the psychosocial dynamics that influence human behavior and the doctor/patient relationship.
- 13.2.6 Recognition of the prevalence of abuse in society and willingness to help patients to prevent abusive situations.
- 13.2.7 Awareness about the importance of a multidisciplinary approach to the care of patients with psychiatric problems, when indicated.
- 13.2.8 Have sensitivity to and knowledge of the emotional aspects of organic illness.
- 13.2.9 Awareness about the ethical & medicolegal boundaries related to dealing with patients having mental health problem(s) e.g. drug addicts, psychosis...etc.

13.2.10 Awareness of role of mental health clinics in PHC in Kuwait.

### **13.3 Knowledge:**

In the appropriate setting, the resident should demonstrate the ability to apply knowledge of:

#### **13.3.1 Basic behavioral knowledge:**

- 13.3.1.1 Normal, abnormal and variant psychosocial growth and development across the life cycle
- 13.3.1.2 Recognition of interrelationships among biologic, psychologic and social factors in all patients
- 13.3.1.3 Mutual effects of acute and chronic illnesses on patients and their families.
- 13.3.1.4 Factors that influence adherence to a treatment plan.
- 13.3.1.5 Family functions and common interactional patterns in coping with stress
- 13.3.1.6 Ethical issues in medical practice, including informed consent, patient autonomy, confidentiality and quality of life

#### **13.3.2 Mental health disorders:**

- 13.3.2.1 Mood disorders: depression, dysthymia & bipolar disorders
- 13.3.2.2 Anxiety disorders: Panic attack, phobias, obsessive compulsive disorder, post-traumatic stress disorder, acute stress disorder, generalized anxiety disorder
- 13.3.2.3 Disorders principally diagnosed in infancy, childhood or adolescence: e.g. Mental retardation, learning disorders, pervasive developmental disorders (e.g. autism), attention deficit and disruptive behavior disorders
- 13.3.2.4 Delirium, dementia, amnesic and other cognitive disorders
- 13.3.2.5 Substance-related disorders: e.g. Alcohol, Cannabis, Opioids ...etc.
- 13.3.2.6 Schizophrenia and other psychotic disorders.
- 13.3.2.7 Somatoform disorders: Conversion disorder, pain disorder, hypochondriasis
- 13.3.2.8 Dissociative disorders
- 13.3.2.9 Sexual and gender dysphoria.
- 13.3.2.10 Eating disorders: Anorexia nervosa, bulimia nervosa
- 13.3.2.11 Sleep disorders
- 13.3.2.12 Personality disorders: e.g. paranoid, schizoid, antisocial ...etc.
- 13.3.2.13 Problems related to abuse or neglect
- 13.3.2.14 Others: e.g. malingering, factitious disorders, bereavement

13.3.2.15 Commonly abused drugs with potential risk for addiction e.g. bupropion, tramadol, barbiturates, pregabalin...etc.

**13.4 Skills:**

In the appropriate setting, the resident should demonstrate the ability to independently perform, observe / appropriately refer:

- 13.4.1 Use of evaluation tools and interviewing skills, which enhance data collection in short periods of time and optimize the doctor/patient relationship
- 13.4.2 Mental status examination and assessment particularly in common psychiatric problems e.g. Depression and anxiety
- 13.4.3 Elicit and recognize the common signs and symptoms of the psychiatric disorders.
- 13.4.4 Management of emotional aspects of non-psychiatric disorders
- 13.4.5 Techniques for enhancing compliance with medical treatment regimens
- 13.4.6 Initial management of psychiatric emergencies: e.g. the suicidal patient, the acutely psychotic patient...etc.
- 13.4.7 Proper use of common psychopharmacologic agents:
  - 13.4.8.1 Diagnostic indications and contraindications
  - 13.4.8.2 Dosage, length of use, monitoring of response, side effects and compliance
  - 13.4.8.3 Drug interactions
  - 13.4.8.4 Associated medical problems
- 13.4.9 Behavioral modification techniques:**
  - 13.4.9.1 Stress management
  - 13.4.9.2 Smoking cessation, obesity management and other lifestyle changes
  - 13.4.9.3 Chronic pain management
  - 13.4.10 Appropriate referral procedures to ensure continuity of care, provide optimal information sharing and enhance patient compliance.

## 14 Geriatric Care

### 14.1 Competencies

**Competencies:** At the completion of residency training, a Family Medicine resident should:

- 14.1.1 Be able to execute a broad, comprehensive geriatric assessment, tailor a long-term management plan, and maintain continuity of care.
- 14.1.2 Be able to communicate effectively with family and caregiver to reach mutual, safe and pragmatic management plan.
- 14.1.3 Awareness of own limitation and inquire other colleague as teamwork for best possible geriatric care.
- 14.1.4 Ability to conduct geriatric home visit assessment (evaluating the indication for home visit, assessing the home environment and situation and signs of neglect and abuse).
- 14.1.5 Awareness of role and locations of geriatric clinics in PHC in Kuwait.
- 14.1.6 Ability to appropriately complete and document a death related certificate.
- 14.1.7 Awareness of the local community resources that are available for geriatric care as a multidisciplinary approach aiming for optimizing the older adults care.
- 14.1.8 Be aware of the ethical & medico-legal issues related to geriatric patients and their caregivers.
- 14.1.9 Recognize the red flags for geriatric's health conditions.

**14.2 Attitudes:**

- 14.2.1 The resident should demonstrate attitudes that encompass:
- 14.2.2 Recognition of own attitude toward patient, family or caregiver and as well, their attitude towards diversity of situation as disability, handicap, or death.
- 14.2.3 The promotion of the patient’s dignity through self-care.
- 14.2.4 Recognition of the importance of family and home in the overall lifestyle and health of patients.
- 14.2.5 Appropriate selection, performance and interpretation of necessary investigations or treatment for the elderly and avoid unneeded stress for Older Adults and their caregivers.
- 14.2.6 Commitment to lifelong learning and knowledge about aging, health and the medical management of geriatrics.
- 14.2.7 Awareness of the importance of coordinating a multidisciplinary approach with different team members to enhance older adults care.
- 14.2.8 Accessibility and accountability for elderly patients.
- 14.2.9 Acknowledging the Older Adults management costs and limitations to the patients and their caregivers.
- 14.2.10 Awareness of the ethical & medico-legal issues related to Older Adults patients and their families.

### 14.3 Knowledge

The resident should demonstrate the ability to apply knowledge (based on local & international evidence based guidelines) of:

- 14.3.1 Functional assessment
- 14.3.2 Home visit assessment
- 14.3.3 Nutrition assessment
- 14.3.4 Dementia
- 14.3.5 CVA/ Strokes
- 14.3.6 Delirium
- 14.3.7 Mental health
- 14.3.8 Infections
- 14.3.9 Bed sores
- 14.3.10 Falls risk and Functional disabilities.
- 14.3.11 Parkinson's disease and Parkinson plus syndromes.
- 14.3.12 Osteoporosis
- 14.3.13 Incontinence
- 14.3.14 Visual and hearing problems
- 14.3.15 Constipation
- 14.3.16 Polypharmacy
- 14.3.17 Geriatric abuse/ neglect

### 14.4 Skills

In the appropriate setting, the resident should demonstrate the ability to independently perform/observe/or appropriately refer:

- 14.4.1 Obtain a comprehensive history including reviewing of all systems like evaluation of sleeping habits, pain, energy level, hearing, vision.
- 14.4.2 Essential domain of the comprehensive geriatric assessment, using validated and standardized tools for assessing physical, cognitive, mood, and social functioning as appropriate.

14.4.3 Screening examinations for mental status, depression, and functional status.

**14.4.4 Physical diagnosis including:**

14.4.4.1 Recognition of normal and abnormal signs of aging

14.4.4.2 Mobility, gait, and balance assessments

14.4.4.3 Evaluation of the appropriate use of assistive devices (e.g. canes, walkers, wheel or power chairs, hearing aids etc.)

Counsel and educate patients and their families about age-related psychological, social, and physical stresses and changes of the normal life cycle of aging, dying, and death.

Provide health care services and education aiming to prevent common presentations and maintaining healthy life style.

## ***16. Infectious disease***

- To demonstrate adequate knowledge and skills and appropriate attitudes in routine clinical work.
- Have the breadth of knowledge and skills to take responsibility for safe clinical decisions
- Have the potential (or the ability) to take responsibility for clinical governance activities, policies and procedures, risk management and audit in order to improve the quality of service provision

### **16.1 Knowledge**

- 16.1.1 Define the presenting complain and natural history of chronic diseases
- 16.1.2 Generate hypothesis(es) within context of clinical likelihood
- 16.1.3 Conceptualize clinical problems in a medical and social context
- 16.1.4 Demonstrate knowledge of: the epidemiology, natural history and clinical management of TB and hepatitis B and C including drug resistant strains
- 16.1.5 Outline the use of patient warning symptoms and signs of serious illnesses
- 16.1.6 Define the risks and benefits of investigations
- 16.1.7 Identify the clinical and cost effectiveness of individual investigations



- 16.1.8 Demonstrate appropriate knowledge of clinical disease, and associated biochemical and haematological changes, to enable integration of clinical and laboratory findings for patient management
- 16.1.9 Explain treatments clearly and openly, the side effects of drugs, and the risks and benefits of alternative treatment options (including no treatment)
- 16.1.10 Monitor therapy and ensuring compliance with treatment
- 16.1.11 Demonstrate the importance of optimal record-keeping and correspondence
- 16.1.12 Demonstrate the principles of literature searching using medical databases
- 16.1.13 Outline the features of a safe working environment and the hazards of medical equipment in common use
- 16.1.14 Describe the elements of clinical governance

Acquire an advanced understanding of the etiology, pathogenesis (of common bacterial, viral, fungal, and other infectious agents) diagnosis, and therapy of patients with the following infectious diseases problems:

- 1. Fever of unknown origin
- 2. Fever associated with skin rash
- 3. Eye infections
- 4. Upper respiratory tract infections
- 5. Lower respiratory tract infections e.g. pneumonia, tuberculosis
- 6. Urinary tract infections
- 7. Intra-abdominal infections
- 8. Infective endocarditis and intravascular infections
- 9. Central nervous system infections e.g. meningitis
- 10. Gastrointestinal infections
- 11. Bone and joint infections e.g. Osteomyelitis and Prosthetic Joint Infections
- 12. Sexually transmitted diseases and diseases of the reproductive tract
- 13. HIV/AIDS
- 14. Hepatitis
- 15. Skin and soft tissue infections e.g. cellulitis, erysipelas, fasciitis, furunculosis, folliculitis and impetigo. understand the management of infections with Methicillin-Resistant Staphylococcus aureus (MRSA) differentiating hospital and community-associated strains.
- 16. Sepsis and shock syndromes

## **16.2 Skills**

- 16.2.1 Take and analyze a clinical history in a relevant, succinct and logical manner
- 16.2.2 Communicate promptly and accurately with clinicians and patients and their relatives/careers

- 16.2.3 Communicate effectively with people with educational and/or physical disabilities or language barriers
- 16.2.4 To develop the ability to perform focused and relevant clinical examination in problem with medical complexity
- 16.2.5 Interpretation of history and physical findings in order to establish diagnosis(es) and formulate a management plan
- 16.2.6 Develop long-term management plans for control/treatment of chronic disease
- 16.2.7 Diagnose illness including atypical presentations using clinical and epidemiological skills
- 16.2.8 Counsel patients on matters of infection risk, transmission and control
- 16.2.9 Develop and agree a holistic management plan with the patient and relatives/careers, ensuring awareness of alternative therapies and means of patient support
- 16.2.10 Use IT prescribing tools where available to improve safety
- 16.2.11 Write sommaires, lettres, médico-légal reports and apply the principles of confidentiality in the context of IT
- 16.2.12 Demonstrate a high level of safety awareness and consciousness at all times
- 16.2.13 Demonstrate encouragement of an open environment to foster and explore concerns and issues about the functioning and safety of team working

**16.3 Attitude**

- 16.3.1 Show empathy with patients
- 16.3.2 Recognize the importance of psychological factors for patients and relatives/careers
- 16.3.3 Use medical secretaries and electronic communication to communicate in an appropriate manner
- 16.3.4 Show respect towards colleagues in a multidisciplinary team
- 16.3.5 Respect patients' dignity and confidentiality
- 16.3.6 Acknowledge cultural issues. Demonstrate engagement with an open no blame culture
- 16.3.7 Explain the importance of working with other healthcare professionals and team working
- 16.3.8 Recognize critical illness and responds with due urgency
- 16.3.9 Generate plausible hypothesis(es) following patient assessment
- 16.3.10 Construct a concise and applicable problem list using available information
- 16.3.11 Construct an appropriate management plan in conjunction with the patient, careers and other members of the clinical team and communicates this effectively to the patient, relatives/careers where relevant
- 16.3.12 Search appropriate medical literature to support clinical decision making
- 16.3.13 Interpret correctly test results and the patient's clinical condition in the context of available clinical information

- 16.3.14 Adapt and adjust approaches according to the beliefs and preferences of the patient and/or caregivers
- 16.3.15 To progressively develop your ability to prescribe, review and monitor appropriate medication relevant to clinical practice including therapeutic and preventative indications
- 16.3.16 Recognize the importance of resources when prescribing, including the role of a Drug Formulary
- 16.3.17 Demonstrate optimal use of IT in clinical practice maximum use of IT
- 16.3.18 Demonstrate awareness of one's own limitations, and operates within them competently

## **17. Genetic Medicine**

### **17.1 Knowledge**

17.1.1 Human clinical genetics: Learning about different types of inheritance of various disorders (chromosomal, single gene/ or multiple genes disorders, mitochondrial, environmental / epigenetics diseases.

17.1.2 Cytogenetics and dysmorphism: How to examine a person (child/or adult) with dysmorphic feature and to learn about common types of chromosomal anomalies.

17.1.3 Molecular genetics: Gaining knowledge about different types of available techniques that help in the genetic diagnosis of diseases caused by gene defect. Also, to learn which technique to target for each disorder.

17.1.4 Biochemical genetics and newborn screening: To learn about the screening program in Kuwait.

17.1.5 Genetics counseling: To learn how to obtain medical-family history with regard to the genetic diseases, and to draw the pedigree with pedigree analysis, risk assessment and prevention of recurrence of some diseases.

17.1.6 Cancer genetics: Identification of families with different types of hereditary cancer and learning about the preventive strategies used for members of high risk families.

17.1.7 Gene therapy: to provide information about the available treatment of some disorders such as spinal muscular atrophy (SMA) and Duchenne muscular dystrophy.

17.1.8 Preimplantation genetics diagnosis (PGD): to help families with genetic disorders (a known gene defect or chromosomal abnormality), to plan for having a

healthy child, by testing the embryos for the inherited genetic defect and selecting the unaffected embryos for implantation in the uterus.

17.1.9 Medical ethics education for genetic counseling and testing: To explain the procedure of genetic testing and its potential benefits before obtaining the informed consent. Also, to emphasize the importance of respecting the privacy of the patients and their families.

## **17.2 Skills**

At the end of the course the trainee should be able to:

**17.2.1** Identify patients with dysmorphic features or developmental disability

**17.2.2** Ability to recognize patients / families with genetic disorders such as familial heart disease or cancer.

**17.2.3** Able to explain the disease to the family and to deal with emotional reaction following the diagnosis and respect their confidentiality and privacy.

**17.2.4** Ability to emphasize the importance of referring them to the genetics center for genetic counseling and appropriate testing, which might contribute to proper management of the disease or better preventive measures.

**17.2.5** Awareness of management options (reassurance, managing uncertainty, reproductive options and preventative measures)

## **17.3 Attitude**

The resident should demonstrate attitudes that encompass:

17.3.1 A considerate and comprehensive approach to the care of patients with genetic disease including the support of their families

17.3.2 Empathy, compassion and respect in discussing diagnosis and treatment (communication within a consultation).

17.3.3 Ability to break bad news clearly and empathically including the communication of a terminal prognosis.


17.3.4 Communication of management clearly and provision appropriate support and information to patients and their care givers (parents).


17.3.5 To make the decision of appropriate use of predictive genetic tests with genetic counseling informing patients of the benefits and risks of the tests


- 17.3.6 Able to communicate for genetic information in understandable, non-directive manner
- 17.3.7 Appreciate the emotional, legal, and social impacts of genetic information on patients and their families.
- 17.3.8 Able to provide and coordinate patient-centered care including an awareness of patient social support
- 17.3.9 Familiarity of availability of different social services that can support certain genetic conditions (e.g. down syndrome)

### Contacts

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**The curriculum is last reviewed and updated on January/  
2021; by scientific committee members.**