



الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties



Family Medicine Postgraduate Examination

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EXAMINATION OUTLINE

- The Family Medicine postgraduate examination questions encompass different sections within the area of family medicine. Within each section a range of topics that are encountered in general clinical service are listed. Each of these sections comprises a specific percentage of the overall examination. The sections are described in the following:

Section	Weight%
Family Medicine	19%
Internal Medicine	10%
Pediatric	10%
Obstetrics and Gynecology	10%
General Surgery	6%
Psychiatry	9%
Emergency Medicine (Adult and Pediatric)	10%
Dermatology	5%
Orthopedic and Musculoskeletal	5%
Ophthalmology	5%
Otolaryngology	5%
Radiology	5%

* Blueprint distributions of the examination may differ up to +/-5% in each category

* Applies to Family Medicine postgraduate examinations as of Jan 2020



- In each section the resident will be evaluated in the following six main competencies:
 - 1- Medical Knowledge
 - 2- Patient Care
 - 3- Communication and Collaboration
 - 4- Management and Leadership
 - 5- Professionalism
 - 6- Scholarship

- Please refer to the curriculum for details of competencies and their sub-competencies that the resident must master in each section.

- The content of the exam in the first part exam (Part I), the final written exam and the final clinical exam may contain one of the topics related to the practice of family medicine described in each section as follows:



Sections:

1. Family Medicine

1.1 The necessary clinical information for **physiological, supportive preventive, promotive, and for common acute and chronic conditions**

▪ **Basic knowledge**

- Demonstrates a thorough understanding of relevant basic sciences, including anatomy, physiology, pathophysiology, drug therapy, and the microbial basis of diseases of the key presenting problems and diseases
- Understands the basic pharmacology and management of essential conditions

▪ **Common Acute and Chronic Presentation**

- Allergic rhinitis
- Anemia
- Anxiety
- Arthritis
- Asthma
- Back Pain
- Bronchitis
- Bursitis
- Cancer
- Cholecystitis
- Common Benign and malignant Skin Lesions
- Common Rashes/Viral Exanthems
- Constipation/diarrhea
- Costochondritis
- Stroke and TIA
- Cystitis
- Depression
- Dermatitis
- Dizziness
- DM
- Bell's palsy
- Dyslipidemia
- Eczema
- Epistaxis
- Emphysema/COPD
- Enuresis
- Esophagitis/gastritis
- Fractures
- Gastritis
- Gastroesophageal Reflux/Hiatal Hernia
- Gastroenteritis/dehydration
- Gout
- Headache
- Heart failure
- Hypo/hyperglycemia
- Hypothyroidism/hyperthyroidism
- Infertility
- Intestinal obstruction
- Irritable Bowel syndrome
- Menopausal syndromes
- Menstrual disorders
- Metabolic syndrome
- Ischemic heart diseases
- Neck pain
- Obesity
- Osteoarthritis
- Vaginal/cervical infection
- Upper respiratory tract infections
- Otitis media
- Polycystic ovarian syndrome
- Peptic Ulcer Disease
- Pharyngitis/Sore Throat
- Pelvic inflammatory disease
- Pneumonia
- Prostatitis
- Pyelonephritis
- Shoulder pain
- Sinusitis
- Sprains/strains
- Sexually transmitted illnesses
- Urethritis
- Urinary incontinence



- **Prevention and Promotion**

- Child abuse
- Domestic violence
- Routine and catch-up vaccination
- School/Sports/Occupational Physical Assessment
- Screening for common diseases and their complications
- Senior abuse
- Sexual violence
- Adult immunizations
- Smoking cessation
- Weight Management/Exercise
- Well-adult Assessment
- Well-child Assessment
- Women's Health Assessment

- **Health Education and Counseling**

- Anticipatory Guidance/Family Life Cycle Issues
- Premarital Care (Counseling and Screening)
- Family Planning/Contraception
- Referral and consultation
- Tobacco, Alcohol, Prescription, and Illicit Drugs
- Medication compliance Issues
- Life style and diet counseling



1.2 The necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for patients attending the FM center

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb's test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV, brucellosis, malaria, lishmaniasis, infestations)
- ECG (12 leads ECG, stress test, treadmill testing, ambulatory ECG)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12, folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-feto protein)
- Tumor markers
- Serology (rheumatoid factors, ANA, anti-microsomial Abs, anti-thyroglobulin Abs)
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen, and Doppler US, Fluoroscopy, CT brain, abdomen, and musculoskeletal. MRI brain, spine and joints)
- Others (spirometry, EEG, EMG, echocardiography, nuclear cardiology)

1.3 The ability of the resident to perform the following clinical assessment for adults and adolescent patients:

Full clinical history taking including:

- History of present illness
- Systemic review
- Past medical and surgical history
- Family history
- Psychosocial history (including ICEE)
- Medication history and allergies
- Behavioral history

Full physical examination including:

- Assess airway, breathing and circulation
- General examination and vital signs
- Head and neck examination
- Chest examination
- Abdomen and pelvis examination
- Musculoskeletal examination
- Neurological examination
- Foot examination



1.4 The ability of the resident to perform the following **procedures** for adults and adolescent patients:

- Anoscope / proctoscopy
- Antenatal ultrasound
- Anterior nasal packing
- Application of sling upper extremity
- Application of eye patch
- Bag-and-mask ventilation
- Cardiac defibrillation
- Digital block in finger or toe
- Drainage acute paronychia
- Dressing and wound care
- Electrocautery of skin lesions
- Incision and drainage of superficial abscesses
- Infiltration of local anesthesia
- Insertion and removal of an intrauterine device
- Intradermal injection
- Intramuscular injection
- Nasogastric tube insertion
- Partial toe nail removal
- Peripheral intravenous line (adult and child)
- Release subungual hematoma
- Removal of cerumen
- Removal of a foreign body in the eyes, ears, nose, and skin
- Oral airway insertion
- Skin closure techniques (suturing and non-suturing techniques)
- Skin scraping for fungus determination
- Slit lamp examination
- Subcutaneous injection
- Pare skin callus
- Use of Wood's lamp
- Venipuncture
- Wound debridement
- Pap smear
- Placement of the transurethral catheter



2. Internal Medicine:

2.1 The necessary clinical information for **approaching the following clinical presentations** in adult and adolescent patients:

- Chest pain
- Dizziness and syncope
- Palpitation
- Claudication
- Fatigue
- Shortness of breath
- Cough
- Wheeze
- Abdominal pain
- Dyspepsia
- Bowel movements irregularity
- Jaundice
- Nausea and vomiting
- Polyuria
- Dysuria
- Interstitial edema
- Musculoskeletal pain (Joint, Back and limb pain)
- Weight and appetite changes
- Headache
- Faints and fits
- Disturbed sensation and motor function
- Tremor
- Fever
- Loss of consciousness
- Hematuria
- Urinary incontinence
- Urethral discharge
- Proteinuria

2.2 The necessary clinical information for **managing the following chronic conditions** in adult and adolescent patients:

- Coronary heart diseases
- Hypertension
- Heart failure
- Arrhythmias
- DVT and PE
- Asthma
- COPD
- Sleep apnea
- Diabetes mellitus
- Thyroid disorders
- Obesity
- Dyslipidemia
- Metabolic syndrome
- Osteoporosis
- Peptic ulcer diseases
- GERD
- Irritable bowel syndrome
- Chronic liver diseases
- Hepatitis
- Epilepsy
- CVA/ TIA
- Headache
- Dementia
- Pain syndromes
- Anemia
- Thrombocytopenia
- Bleeding disorders
- Chronic renal failure and nephropathies
- Osteoarthritis
- Rheumatoid arthritis
- Geriatric medical problems



2.3 The necessary clinical information for **managing the following acute conditions** in adult and adolescent patients:

- Basic and advanced life support
- Shock
- Anaphylaxis
- GI bleeding
- Myocardial infarction
- Asthma acute exacerbations and status asthmaticus
- Hypertensive urgencies and emergencies
- Diabetes emergencies (DKA, hyperosmolar and hypoglycemia)
- Thyroid emergencies (thyrotoxic storm, and myxedema)
- Acute renal failure
- Status epilepticus
- Meningitis and encephalitis
- Poisoning and overdoses
- Scalds and burns
- Acid base, fluid, and electrolytes regulation and management

2.4 The necessary clinical information for **managing the following infectious conditions** in adult and adolescent patients:

- Lung infection and infestation (pneumonia, TB, parasite)
- Urinary tract infections
- GIT infections
- Septic arthritis
- Sexually transmitted infections
- Viral hepatitis
- Brucellosis
- Malaria
- Giardiasis and amoebiasis
- Food poisoning

2.5 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations** for patients with medical conditions:

- Blood (CBC, cytology, peripheral blood smear, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb's test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV, brucellosis, malaria, Lishmaniasis, infestations)
- ECG (12 leads ECG, stress test, treadmill testing, ambulatory ECG)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, UIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-feto protein)
- Tumor markers
- Serology (rheumatoid factors, ANA, antimicrosomal Abs, antithyroglobulin Abs)
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen, and Doppler US. fluoroscopy. CT brain, abdomen, and musculoskeletal. MRI brain, spine and joints)
- Others (spirometry, EEG, EMG, echocardiography, nuclear cardiology)



2.6 The ability of the resident to perform the following the following **procedures** for adults and adolescent patients:

- CPR
- IV cannula insertion
- IV, IM, and SQ injections
- NGT insertion
- Proctoscopy
- Glasgow coma scale
- Folly's catheter insertion and management
- Central line insertion and management
- Tracheostomy tube management



3. Pediatric:

3.1 The necessary clinical information for **approaching the following clinical presentations** in pediatric patients:

- Care of the newborn
- Pediatric immunization
- Pediatric screening
- Growth and development delay
- Failure to thrive
- Dehydration
- Shortness of breath
- Cough
- Stridor
- Wheeze
- Bowel movements irregularity
- Jaundice
- Nausea and vomiting
- Dysuria
- Proteinuria
- Hematuria
- Enuresis
- Interstitial edema
- Musculoskeletal pain (joint, back, and limb pain)
- Limping child
- Abdominal pain
- Weight and appetite changes
- Headache
- Faints and fits
- Disturbed sensation and motor function
- Fever
- Loss of consciousness
- Skin rash
- Lower extremity abnormalities e.g., in toeing

3.2 The necessary clinical information for **managing the following chronic conditions** in pediatric patients:

- Food allergies
- Asthma
- Celiac disease
- Urticaria
- Hypertension
- Heart failure
- Diabetes mellitus
- Thyroid disorders
- Obesity
- Osteomalacia and Rickets
- Hepatitis
- Epilepsy
- Headache
- Febrile seizures
- Juvenile rheumatoid arthritis
- Pain syndromes
- Anemia
- Thrombocytopenia and bleeding disorders

3.3 The necessary clinical information for **managing the following Emergency conditions** in pediatric patients:

- Basic and advanced life support
- Shock
- Anaphylaxis
- GI bleeding
- Intestinal obstruction
- Croup
- Acute epiglottitis
- Bronchiolitis
- Asthma acute exacerbations and status asthmaticus
- Epistaxis
- Hypertensive urgencies and emergencies
- Acid base, fluid and electrolytes regulation and management
- Diabetes emergencies (DKA and hypoglycemia)
- Thyroid emergencies (thyrotoxic storm and myxedema)
- Foreign body (aspiration/ ingestion)
- Child abuse
- Acute testicular torsion
- Bell's palsy
- Acute renal failure
- Status epilepticus
- Meningitis and encephalitis
- Poisoning and overdoses
- Scalds and burns



3.4 The necessary clinical information for managing the following infectious conditions in pediatric patients:

- Otitis media and Otitis externa
- Sinusitis
- Upper respiratory tract infections
- Pneumonia
- Urinary tract infections
- GIT infections
- Food poisoning
- Septic arthritis
- Osteomyelitis
- Pertussis
- Skin infections
- Meningitis and encephalitis
- Viral hepatitis
- Eye infections
- Rheumatic fever
- Viral exanthema

3.5 The necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for pediatric patients:

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb's test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV)
- ECG (12 leads ECG)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-fetoprotein)
- Serology (rheumatoid factors, ANA, antimicrosomal Abs, antithyroglobulin Abs)
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen and Doppler US fluoroscopy. CT brain, abdomen, and musculoskeletal. MRI brain, spine and joints)
- Others (spirometry, EEG, EMG, echocardiography)

3.6 The ability of the resident to perform the following the following procedures for pediatric patients:

- IV cannula insertion
- IV, IM and SQ injections
- NGT insertion
- Peak flow measurement
- Inhaler techniques
- Oxygen administration
- Foreign body removal from ears, nose, and skin
- Glasgow coma scale
- Folly's catheter insertion and management
- Wound debridement
- Central line insertion and management
- Tracheostomy tube management



4. Obstetrics and Gynecology:

4.1 The necessary clinical information for **approaching the following clinical presentations in obstetrics and gynecology patients:**

▪ **Menstruation:**

- Physiology of puberty, menarche, and menstrual cycles, including normal variations
- Abnormal menstruation
- Amenorrhea
- Abnormal uterine bleeding (ovulatory dysfunction, fibroids, polyps, coagulopathy)
- Postcoital bleeding
- Dysmenorrhea

▪ **Antenatal care:**

- Physiological changes in pregnancy
- First trimester diagnosis of pregnancy
- Routine laboratory and radiology investigation in pregnancy
- Assessment and management of common symptoms in pregnancy like pelvic pain, back pain, nausea, vomiting and spotting
- Screening for diabetes, asymptomatic bacteriuria, iron deficiency anemia
- Differentiation and management of abnormal gestations (e.g., gestational trophoblastic disease, ectopic pregnancy)
- Assessment and management of abortions including: (threatened, incomplete, and complete, embryonic demise)
- Assessment and management of post-abortion symptoms and complications
- Assessment of immunization status
- Occupational hazards assessment
- Prenatal diet, exercise, weight, and traveling counseling
- Screening, counseling and management of psychosocial stressors of pregnancy

▪ **Family planning and contraception:**

- Counseling for contraception for women in all reproductive age groups
- Permanent methods of contraception
- Reversible methods of contraception
- Emergency method of contraception

▪ **Infertility:**

- Primary infertility
- Secondary infertility



- **Common gynecological conditions**
 - Acute and chronic pelvic pain
 - Vaginal discharge
 - Vaginitis
 - Menorrhagia
 - Sexually transmitted disease
 - Dyspareunia
 - Ovarian cyst
 - Ovarian torsion
 - Polycystic ovarian disease
 - Pelvic inflammatory disease
 - Fibroid
 - Endometrial hyperplasia
 - Urine incontinence
 - Cervical dysplasia screening
 - Menopause

- **Evaluation and management of complication of pregnancy such as:**
 - Preterm labor
 - Intrauterine growth restriction (IUGR)
 - Placental abruption
 - Rh Incompatibility and Isoimmunization
 - Intrahepatic cholestasis of pregnancy
 - Polyhydramnios and oligohydramnios
 - Hypertensive disorders of pregnancy, including essential hypertension, gestational hypertension, preeclampsia, and eclampsia

- **Evaluation of medical complications during pregnancy, with appropriate consultation or referral to medical sub-specialist if needed which include:**
 - Bronchial Asthma
 - Thyroid disease (hypothyroid and hyperthyroid)
 - Preexisting hypertension or diabetes
 - Understand the physiology of the three stages of labor and demonstrate effective management of all three stages
 - Demonstrate understanding for the indication of Cesarean section

- **Postpartum care**
 - Routine postpartum care
 - Assessment and follow-up of any complication during pregnancy (e.g., GDM, preeclampsia, IUGR, preterm labor)
 - Breastfeeding counseling
 - Counseling regarding postpartum contraceptive options
 - Screening for postpartum depression
 - Assessment and management of Postpartum fever and endometritis, Pain associated with normal uterine involution
 - Postpartum sexual relationships and family dynamics
 - Counseling about pelvic floor muscle strengthen with exercise



4.2 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations** for Obstetrics & gynecology patients:

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR arterial blood gases, Comb's test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV)
- ECG (12 leads ECG)
- CTG
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-fetoprotein)
- Serology (rheumatoid factors, ANA, antimicrobial Abs, antithyroglobulin Abs)
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. Obstetric US, and Doppler US. fluoroscopy)

4.3 The ability of the resident to perform the following the following **procedures** for Obstetrics & gynecology patients:

Obstetric:

- Calculation of gestational age and expected date of delivery
- Performance and interpretation of non-stress tests and stress tests
- Management of labor with accurate assessment of cervical progress and fetal presentation and lie
- Spontaneous cephalic delivery
- Calculation of ABGAR score

Gynecology:

- IUD insertion and removal
- Implantable contraceptive insertion and removal
- Diaphragm fitting
- Speculum and bimanual examination
- Perform pap smear and vaginal swab



5. General Surgery

5.1 The necessary clinical information for **approaching the following clinical presentations** in patients with surgical conditions:

- Abdominal pain
- Renal colic
- Groin pain
- Breast conditions and masses
- Abdominal mass
- Constipation
- Dysphagia
- Jaundice
- Nausea and vomiting
- GI bleeding
- Hematuria
- Urinary Incontinence
- Limb ischemia
- Wound infection
- Urinary retention
- Abscesses
- Burns
- Neck masses
- Trauma

5.2 The necessary clinical information for **managing the following chronic surgical conditions**:

- Peptic ulcer disease
- Gallbladder disease
- Benign prostatic hyperplasia
- Hemorrhoids
- Varicocele
- Bariatric surgery
- Diabetic foot
- Neurogenic bladder
- Impotence
- Varicose vein
- Urinary tract stones
- Pain syndromes
- Chronic sinuses and abscesses
- Anal fissure

5.3 The necessary clinical information for **managing the following Surgical Emergency Conditions**:

- Basic and advanced life support
- Trauma
- Shock
- GI bleeding
- Intestinal obstruction
- Acute appendicitis
- Acute cholecystitis
- Mesenteric ischemia
- Acute pancreatitis
- Wound infection
- Cellulitis
- Sepsis
- Incarcerated hernia
- Perforated viscus
- Foreign body aspiration
- Diverticulitis
- Flail chest
- Airway obstruction
- Pneumothorax and hemothorax
- Pleural effusion
- Diabetic foot infection
- Necrotizing soft tissue infections



5.4 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations** for surgical patients:

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb's test)
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-fetoprotein)
- Microbiology (culture and sensitivity)
- ECG (12 leads ECG)
- Uroflowmetry
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen, prostate and Doppler US. fluoroscopy. CT abdomen)

5.5 The ability of the resident to perform the following surgical **procedures**:

Minor surgical techniques:

- IV Local anesthesia
- Simple excision
- Incision and drainage of abscesses
- Aspiration of cysts
- Foreign body removal
- Cauterization
- Skin biopsy (punch, shave, excisional)
- Wound debridement
- Excision of external thrombotic hemorrhoid
- Ingrown toe nail
- Nail trephination to drain Hematoma
- Nail removal
- Drain acute paronychia

Wound care:

- Technique selection (ligature, staples, adhesives)
- Suture selection and removal
- Drains application and removal
- Dressings application and removal
- Care of diabetic foot
- Burn care (1st and 2nd degrees)

Others:

- IV cannula insertion
- IV, IM, and SQ injections
- NGT insertion and removal
- Glasgow coma scale
- Folly's catheter insertion and management
- Central line insertion and management
- Tracheostomy tube management
- Suctions and drains



6. Psychiatry

6.1 The necessary clinical information for **managing the following chronic mental conditions:**

Depressive disorders:

- Major depressive disorder
- Dysthymia
- Premenstrual dysphoric disorder
- Depression secondary to medical problem
- Medication induced depression

Substance-related and addictive disorders

- Substance use disorder

Trauma- and stressor-related disorders

- Acute stress disorder
- Adjustment disorders,
- Post-traumatic stress disorder

Sleep-wake disorders

- Insomnia disorder
- Hypersomnolence disorder

Neurocognitive disorders

- Major neurocognitive disorder (dementia)
- Alzheimer disease
- Delirium

Bipolar and related disorders

- Bipolar disorders (including hypomanic, manic, mixed, and depressed)

Somatic symptom and related disorders

- Conversion disorder
- Illness anxiety disorder

Anxiety disorders:

- Generalized anxiety disorder
- Panic attack
- Phobias (agoraphobia, specific phobia)
- Social anxiety disorder [social phobia]
- Separation anxiety disorder
- Obsessive compulsive disorder

Eating disorders:

- Anorexia nervosa
- Bulimia nervosa

Neurodevelopmental disorders:

- Autism spectrum disorder
- Attention deficit/hyperactivity disorder (ADHD)

Psychotic disorders and Schizophrenia:

- Schizophrenia
- Schizoaffective disorder
- Delusional disorder
- Psychotic disorder due to another medical condition
- Substance/medication induced psychotic disorder

6.2 The necessary clinical information for **managing the following Emergency Conditions in psychiatric patients:**

- Suicidal patient
- Psychotic disorders
- Major depressive disorder
- Alcohol withdrawal
- Bipolar mood disorder
- Substance use disorders
- Borderline personality disorder
- Homicidal patient
- Assaultive/aggressive patient



6.3 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations for psychiatric patients:**

- Illicit drug and substances testing
- Electroencephalogram
- Brain CT and MRI

6.4 The ability of the resident to perform the following **techniques** for psychiatric patients:

- Techniques to enhance compliance with medical treatment regimens
- Properly use psychopharmacologic agents, considering the diagnostic indications and contraindications, dosage; (Length of use; monitoring of response, side effects, and compliance), and drug interactions
- Establish and use the connection in the physician-patient relationship as a tool to manage mental health disorders
- Utilize motivational interviewing to support behavioral and lifestyle changes (e.g., smoking cessation, obesity management, medication adherence)
- Assess the patients' "Stage of Change"
- Use of patient-centered language



7. Emergency Medicine (Adult and Pediatric)

7.1 The necessary clinical information for **approaching the following acute clinical conditions in adult and pediatric patients:**

General:

- Basic and advanced life support
- Shock
- Sepsis
- Trauma
- Fever/ acute infections
- Anaphylaxis and angioedema
- Abuse and non-accidental trauma
- Bleeding

Neurologic:

- Coma and altered level of consciousness
- Seizure, status epilepticus
- Meningitis and encephalitis
- Stroke, TIA

Environmental:

- Hypothermia and hyperthermia
- Acute or chronic poisoning
- Burns and frostbite

Musculoskeletal:

- Fracture, Acute severe Sprain
- Lacerations
- Dislocations
- Swollen limb
- Foreign bodies
- Acute Joint pain or swelling

Gastrointestinal Disorders:

- Abdominal pain including the acute abdomen
- Ingested foreign body
- Hematemesis, bleeding per rectum
- Constipation/ diarrhea

Genitourinary Disorders:

- Acute renal failure
- Urinary retention
- Hematuria or Acute Renal Colic
- Scrotal pain or swelling (including torsion, hydroceles, epididymitis)
- Acute pelvic pain, or bleeding
- STDs
- Acid base, fluid and electrolytes regulation and management

Cardiac:

- Cardiac arrest
- Arrhythmias
- Acute coronary syndrome
- Pulmonary embolism/ DVT
- Heart failure, pulmonary edema
- Hypertensive urgencies and emergencies

Respiratory:

- Asthma acute exacerbations and status asthmatics
- Airway obstruction
- Respiratory distress
- Exacerbation of asthma, COPD
- Hemoptysis

Endocrine/Metabolic:

- Diabetes emergencies (DKA, hyperosmolar and hypoglycemia)
- Thyroid emergencies (thyrotoxic storm, and myxedema)
- Adrenal (crisis)
- Dehydration and electrolyte abnormalities

Hematology:

- Sickle cell crises
- Severe anemia

Psychiatry:

- Psychosis and agitation
- Acute panic attack
- Behavioral and personality disorders (including addiction)
- Delirium
- Suicide
- Poisoning and overdoses



7.2 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations for patients with emergency conditions:**

- Blood (CBC, cytology, peripheral blood smear, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb's test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV, brucellosis, malaria, Lishmaniasis, infestations)
- ECG (12 leads ECG, stress test, treadmill testing, ambulatory ECG)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, UIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-feto protein)
- Serology (rheumatoid factors, ANA, anti-microsomal Abs, anti-thyroglobulin Abs)
- Tumor markers
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen, and Doppler US. fluoroscopy. CT brain, abdomen, and musculoskeletal. MRI brain, spine and joints).
- Others: (spirometry, EEG, EMG, echocardiography)

7.3 The ability of the resident to perform the following **procedures** for patients in the Emergency Department:

- IV cannula insertion
- IV, IM, and SQ injections
- NGT
- Rectal enema
- Proctoscopy
- Trauma survey
- Incision and drainage
- IV line
- Splinting and applying different techniques of immobilization
- Suturing and suture removal
- Glasgow coma scale
- Foley catheter insertion and management
- CPR
- Anterior nasal packing and cautery for control epistaxis
- Use and interpret peak flow meter and Spirometry
- Urine dipstick
- Local anesthesia techniques
- Acid-base interpretation
- Central line insertion and management
- Tracheostomy tube management
- Foreign Body Removal
- Using nebulizer and humidified O2
- Ear wax aspiration and ear syringing
- Dressing of common simple injuries



8. Dermatology

8.1 The necessary clinical information for **managing the following skin conditions:**

- Types of burn
- Actinic keratosis
- Bacterial skin infections
- Fungal skin infections
- Viral infections and exanthems
- Benign skin lesions/ neoplasms
- Bites and stings
- Disorders of sebaceous, eccrine, and apocrine glands
- Skin Infestations
- Skin allergy, dermatitis
- Inflammatory skin conditions
- Psoriasis
- Keloids/scars
- Nevi
- Skin malignancies
- Dermatologic manifestations of sexually transmitted infections
- Nodular lesion
- Dermatologic manifestations of systemic disease
- Urticaria and cellulitis
- Vascular skin lesions
- Drug eruption
- Telangiectasia, atrophic, scarring, ulcerative diseases Bullous/vesicular diseases
- Pigmentary disorders
- Vasculitis skin lesions

8.2 The necessary clinical information for **managing the following nail and hair conditions:**

- Inflammatory conditions
- Nail infection (fungal, bacterial)
- Nail malignancies
- Psoriasis
- Nails manifestation with systemic disease
- Alopecia and hair loss
- Infestation
- Infection
- Inflammatory conditions

8.3 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations for dermatological conditions:**

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR)
- Microbiology (culture and sensitivity, viral hepatitis, VDRL, HIV, PCR, Monospot test, EBV, NAAT test for chlamydia and gonorrhea)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes,)
- Serology (rheumatoid factors, ANA, antimicrosomal, Abs, antithyroglobulin Abs)
- Hormones assays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)



8.4 The ability of the resident to perform the following **procedures** for dermatology patients:

- Local anesthesia
- Wood's lamp
- Incision and drainage
- Skin closure techniques
- Cryotherapy
- Skin cautery
- Swabs/skin scrape
- Dressing and wound care
- IV cannula insertion
- IV, IM, and SQ injections



9. Orthopedic and Musculoskeletal

9.1 The necessary clinical information for approaching the following clinical orthopedic conditions.

▪ Adult problems:

- Arthralgia, swelling, and erythema
- Muscular pain and injury
- Ligament sprain
- Musculoskeletal trauma
- Fractures and dislocations
- Nerve injuries and joint deformities
- Bursitis, tendinopathy, and tenosynovitis
- Common fibrocartilage injuries
- Neurologic conditions (e.g., nerve entrapment syndromes)
- Synovial cysts (e.g., Baker cyst, ganglion cysts)
- Patellofemoral syndrome
- Osteochondroses/aseptic necrosis
- Osteoarthritis (gout, pseudo-gout)
- Infections
- Costochondritis
- Metabolic bone disease (osteoporosis, Paget disease)
- Compartment syndrome
- Overuse syndromes
- Back pain
- Osteomyelitis
- Rheumatologic disorders
- Plantar fasciitis
- Joint replacement

▪ Pediatric problems:

- Hip dislocation
- Congenital hip dysplasia
- Avascular necrosis of the femoral head
- Osgood-Schlatter disease
- Slipped capital femoral epiphysis
- Physeal injuries (Salter-Harris classification)
- In-toeing disorders
- Bowleg disorders
- Clubfoot
- Transient synovitis
- Child abuse patterns of injury
- Dislocation of the radial head
- Rickets
- Osteogenesis imperfecta
- Thoracolumbar scoliosis
- Trauma
- Metabolic bone diseases
- Congenital anomalies
- Musculoskeletal birth injuries

▪ Miscellaneous:

- Cast problems (including compartment syndrome)
- Targeted pharmacologic treatment
- Supportive/corrective devices, including braces, casts, splints, and orthotics
- Physiotherapy
- Arthroscopy



9.2 The necessary clinical information for managing the following sport related conditions:

- General considerations of the impact of sport/ physical activity on patients
- Ethical, psychosocial, and medicolegal issues
- Banned substances to avoid in athletics
- Pre-sport evaluation
- Injury prevention
- Conditioning and training techniques, including principles of aerobic and resistance training
- Athletes with chronic diseases
- Exercise types and addiction
- Effect of anabolic steroids and other performance enhancing substances
- Female athlete triad

9.3 The necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for orthopedic patients:

- Blood (CBC, Hb electrophoresis, coagulation profile, ESR)
- Hormones assays (TFT, cortisone, parathyroid)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, CRP, vitamin D, uric acid, bone profile, synovial fluid analysis)
- Microbiology (culture and sensitivity)
- Radiology (x-rays and CT musculoskeletal, spine and joints MRI)
- ECG reading in athletes

9.4 The ability of the resident to perform the following orthopedic procedures:

- Correction of dislocations (e.g., nursemaid's elbow)
- Intra-articular injection
- Joint aspiration (arthrocentesis)
- Common injections for bursitis
- Splints fixation for upper and lower extremity
- Cast problems release (compartment syndrome)
- Closed reduction of joint dislocation (shoulder, radial head)
- Suturing and laceration repair and suture removal, local anesthesia techniques (infiltration, ring block)



10. Ophthalmology

10.1 The necessary clinical information for **approaching the following clinical ophthalmology conditions:**

- **Refractive errors**
 - Ametropia (myopia, hyperopia, astigmatism)
 - Anisometropia
 - Presbyopia
 - Refractive surgery
 - Amblyopia
- **Lid and lacrimal system**
 - Trauma: contusion, abrasion, avulsion, laceration
 - Infection: blepharitis, meibomitis, herpes simplex virus, herpes zoster virus, molluscum, pediculosis
 - Inflammation: chalazion, hordeolum, contact dermatitis, blepharochalasis
 - Bell palsy
 - Lacrimal gland: nasolacrimal duct obstruction, dacryocystitis, nasolacrimal gland obstruction, dacryoadenitis, lacrimal gland tumor
- **Conjunctiva**
 - Trauma: foreign body, lacerations, subconjunctival hemorrhage
 - Inflammation: chemosis, follicles, papillae, phlyctenule
 - Conjunctivitis
 - Infectious (bacterial, viral including herpes simplex and herpes zoster, chlamydia)
 - Allergic: perennial, giant papillary conjunctivitis, toxic
 - Subconjunctival hemorrhage
 - Dry eye disease
- **Sclera**
 - Episcleritis, Scleritis, and Scleral perforation
- **Cornea**
 - Trauma: abrasion, laceration, burn (chemical and thermal), foreign body, globe perforation
 - Infectious: keratitis and corneal ulcers (bacterial, viral [including herpes zoster], fungal, parasitic)
 - Contact lens-related problems: abrasion, corneal hypoxia, keratitis,
- **Anterior chamber**
 - Glaucoma: Angle-closure glaucoma (primary and secondary), open-angle glaucoma
 - Hyphema, Hypopyon and Anterior uveitis
- **Retina and choroid**
 - Central and branch retinal artery occlusion
 - Central and branch retinal vein occlusion
 - Retinopathy of prematurity
 - Diabetic retinopathy
 - Hypertensive retinopathy
 - Age-related macular degeneration: non-exudative (dry) and exudative (wet)



- **Lens**
 - Acquired cataract

- **Vitreous**
 - Vitreous hemorrhage
 - Posterior vitreous detachment
 - Optic nerve
 - Papilledema

- **Orbit**
 - Trauma: blunt and penetrating trauma, including orbital fracture
 - Infectious: pre-septal cellulitis, orbital cellulitis
 - Inflammation: thyroid related ophthalmopathy

- **Extraocular muscles and cranial nerves**
 - Strabismus: horizontal (esotropia and exotropia), vertical
 - Nystagmus: congenital acquired and physiologic
 - Cranial nerve palsy (III, IV, VI)
 - Myasthenia gravis

- **Effects of drugs and toxins on ocular function**

- **Sports-related eye injuries**

10.2 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations for ophthalmology:**

- Blood (CBC, Hb electrophoresis, coagulation profile, ESR)
- Hormones assays (TFT, cortisone, parathyroid)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, CRP, vitamin. D, uric acid, bone profile)
- Microbiology (culture and sensitivity)
- CT/MRI head

10.3 The ability of the resident to perform the following **ophthalmologic procedures:**

- Eye irrigation
- Fluorescein dye examination
- Superficial Foreign body removal
- Application of eye shield.
- Upper eye-lid eversion



11. Otolaryngology

11.1 The necessary clinical information for **approaching the following clinical ENT conditions.**

- **Head and neck:**

- Dizziness / vertigo
- Head and neck pain /masses
- Facial palsy
- Stomatitis
- Mastoiditis

- **Ears:**

- Otitis media
- Otorrhea/otalgia
- Hearing loss
- Tinnitus
- Meniere's disease
- Chronic ear disease
- Cerumen impaction (Ceruminosis)
- Otitis externa
- Otomycosis
- Furunculosis
- Tympanosclerosis
- Cholesteatoma

- **Throat:**

- Cough/sneezing
- Sore throat
- Leukoplakia
- Recurrent tonsillitis
- Peritonsillar abscess
- Adenoid enlargement
- Hoarseness
- Stridor
- Dysphagia
- Airway obstruction (e.g foreign body)
- Croup
- Epiglottitis
- Diphtheria
- Obstructive sleep apnea
- Indications for tracheostomy

- **Nose:**

- Epistaxis
- Runny nose
- Sinusitis
- Snoring
- Anosmia
- Rhinitis
- Nasal deformity
- Nasal polyposis
- Trauma



11.2 The necessary clinical information for **ordering and interpreting the following laboratory and radiology investigations for ENT patients:**

- **Blood** (CBC, differential, coagulation profile)
- **Serology** (rapid screen strep test, Monospot test)
- **Microbiology** (culture and sensitivity)
- **Hormones assays** (TFT)
- **Radiology** (sinus x-rays, throat and chest x-rays, brain and sinus CT and MRI scans)
- **Others** (pure tone audiometry, tympanometry)

11.3 The ability of the resident to perform the following **ENT procedures:**

- Nasal packing and cautery
- Intubation

11.4 The ability of the resident to interpret the following **ENT procedures:**

- Audiometry
- Tympanometry



12. Radiology

12.1 The necessary clinical information for **approaching the following conventional radiology conditions.**

- **Identify normal anatomy on PA, AP and lateral chest films**
 - Pleural effusion
 - Pneumothorax
 - Pneumonia
 - Congestive heart failure
 - Chronic obstructive pulmonary disease
 - Atelectasis
 - Pulmonary nodules and masses
 - Hyaline membrane disease of the newborn
- **Identify normal anatomy on four views of the abdomen**
 - Ileus
 - Small bowel obstruction
 - Large bowel obstruction
 - Free air, and Calcifications
- **Identify normal anatomy of the spine and long bones in both adults and children**
 - Fractures
 - Degenerative joint disease
 - Osteoporosis (including vertebral collapse)
 - Primary versus metastatic bone malignancy
- **Identify normal anatomy on barium enema, and upper gastrointestinal series**

12.2 The necessary clinical information for **approaching the following mammogram and ultrasound related conditions:**

- **Breast US and mammogram**
- **OB/Gyn:**
 - Molar pregnancy
 - Anencephalic pregnancy
 - Placenta previa
 - Fetal age
 - Ectopic pregnancy
- **Vascular Doppler ultrasound**
 - Aneurysm
 - Deep vein thrombosis,
 - Carotid artery and peripheral vascular disease
- **GIT:**
 - Gall bladder and bile duct
 - Liver
- **Genitourinary:**
 - Renal stone



12.3 The necessary clinical information for **approaching the following CT scan and MRI related conditions**

- Discuss general indications of when to use CT and MRI as the imaging of choice.
- Identify normal anatomy found on CT and MRI of the head, spine, chest, abdomen, and pelvis

- **Head CT**
 - Subarachnoid hemorrhage
 - Subdural hemorrhage
 - Parenchymal hemorrhage
 - Infarcts
 - Cerebral edema
 - Brain mass
 - Hydrocephalus

- **Abdominal/pelvis CT**
 - Diverticular disease
 - Appendicitis
 - Bowel obstruction
 - Abdominal aortic aneurysms
 - Pancreatitis
 - Abdominal abscesses
 - Ascites
 - Hepatic
 - Pancreatic
 - Renal masses

- **Head and spine MRIs**
 - Central nervous system infection
 - Masses
 - Stroke syndromes
 - Multiple sclerosis
 - Disc disease
 - Metastatic vertebral column disease
 - Cord compression

- **Chest CT:**
 - Pulmonary nodules
 - Chest masses

- **Spine CT:**
 - Metastatic disease
 - Degenerative joint disease
 - Disc disease



Example of Part 1 Question:

A 53-year-old man presents for routine physical examination. He has not seen a physician in 8 years. He has a family history of premature cardiovascular disease, and smokes 10 to 12 cigarettes daily. He has a sedentary lifestyle.

Examination does not reveal any obvious signs of renovascular disease.

BMI	41
Heart rate	92 /min
Temperature	36.9 C
Blood pressure	185/112mmHg
Respiratory rate	12 /min

Which of the following is the most likely diagnosis?

- A. Prehypertension
- B. Stage 1 hypertension
- C. Stage 2 hypertension
- D. Secondary hypertension



Example Final Written Examination Question:

A 46-year-old woman complains of upper abdominal pain for six hours. The pain radiates to her right shoulder and is associated with nausea and vomiting. She had similar complaints two weeks ago that started after she had a fatty meal.

The abdominal examination reveals right upper quadrant tenderness (see lab results).

Blood pressure 135/88 mmHg
Heart rate 92 /min
Respiratory rate 19 /min
Temperature 37.8 C

Test	Result	Normal Values
WBC	14.2	4–10.5 x 10 ⁹ /L
Total bilirubin	16.4	3.5–16.5 µmol/L
Alkaline phosphatase	117	39–117 U/L
Alanine aminotransferase	44	5–40 U/L
Amylase	2.48	0.54–2.02 nkat/L

Which of the following is the most appropriate management?

- A. Conservative management
- B. Laparoscopic cholecystectomy
- C. Upper gastrointestinal endoscopy
- D. Endoscopic retrograde cholangiopancreatography



EXAMINATION DOMAINS:

These domains reflect practice that will be assessed in all examinations. The domains are not mutually independent such that items can be designed for a particular domain or for multiple domains solely. Principles of patient safety underscore each of the domains.

ASSESSMENT/DIAGNOSIS

Discriminates important from unimportant information and/or physical assessment to reach a reasonable differential diagnosis and/or diagnosis. Explores illness and disease using clinical judgment to gather, interpret and synthesize relevant information.

MANAGEMENT

Discusses therapeutic management, including but not limited to pharmacotherapy, surgical management, adverse effects and patient safety, illness prevention and health promotion when appropriate. Selects appropriate treatments (including monitoring, counseling, and follow-up); considers risks and benefits of therapy and instructs the patient accordingly.

Management Process includes but is not limited to generating, planning, organizing safe and effective care in collaboration with patients, families, communities, populations, and other professionals (e.g., finding common ground, agreeing on problems and goals of care, time and resource management, roles to arrive at mutual decisions for treatment, working in teams).

INVESTIGATIONS

Selects suitable laboratory or diagnostic studies to elucidate or confirm the diagnosis; takes into consideration associated risks and benefits.

DATA INTERPRETATION

Interprets investigative data appropriately in the context of the problem(s).

PROFESSIONAL BEHAVIORS

Attitudes, knowledge, and skills relating to clinical and/or medical administrative competence, communication, ethics, as well as societal and legal duties. The understanding and application of these behaviors demonstrates a commitment to excellence, respect, integrity, empathy, and accountability. Professional behaviors also include but are not limited to self-awareness, reflection, life-long learning, leadership, and scholarly habits.

HEALTH PROMOTION AND ILLNESS PREVENTION

The process of enabling people to increase control over their health and its determinants, and thereby improve their health. Illness prevention covers measures not only to prevent the occurrence of illness, such as risk factor reduction, but also to arrest its progress and reduce its consequences once established. This includes, but is not limited to screening, periodic health exam, health maintenance, patient education and advocacy, and community and population health.



ACUTE

Brief episode of illness within the time span defined by initial presentation through to transition of care. This dimension includes but is not limited to urgent, emergent, and life-threatening.

CHRONIC

Illness of long duration that includes but is not limited to illnesses with slow progression.

PSYCHOSOCIAL ASPECTS

Presentations rooted in the social and psychological determinants of health and how these can impact on wellbeing or illness. The determinants include but are not limited to life challenges, income, culture, and the impact of the patient's social and physical environment.

PATIENT SAFETY

Includes the intention of identifying risks associated with patient care and elements determining risks associated with patient safety or enhancing patient safety.



REFERENCES:

The listed books and online references should cover at least 70% of the knowledge required to pass written assessments in the FM postgraduate exams. This approach may help and reduce the overwhelming large number of references. Newly released national or international guideline within six months or less from the date of the exam will not be included.

Suggested References

Recommended Textbooks:

- Text Book of Family Medicine by Robert E. Rakel, MD
- CURRENT Diagnosis and Treatment in Family Medicine
- Family Medicine: Principles and Practice, by Robert B. Taylor
- McWhinney's Textbook of Family Medicine
- The Color Atlas and Synopsis of Family Medicine

Recommended scientific websites and guidelines:

- ADA: <http://www.diabetes.org/>
- American Family Physician: <https://www.aafp.org/journals/afp.html>
- Medical ethics: <https://www.scfhs.org.sa/en/elibrary/DocsLibrary/versions/Documents/Medical%20ethics.pdf>
- ICD 11: <https://icd.who.int/>
- Joint National Committee (JNC): <https://sites.jamanetwork.com/jnc8/>
- The United States Preventive Services Task Force: <https://www.uspreventiveservicestaskforce.org/Page/Name/recommendations>
- CDC: <https://search.cdc.gov/search/>
- EBM: <https://www.cebm.net/2014/06/critical-appraisal/>

Other References:

- NICE guidelines: www.nice.org.uk
- www.cochrane.org
- www.uptodate.com

- This list is intended for use as a study aid only. SCFHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken from these sources.