

**Emirates Medical
Residency Entrance
Examination
(EMREE)**

**Examinee Guidelines Blue
Print**

2019-2020

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Emirates Medical Residency Entrance Examination (EMREE)

Blue Print

Section	Weight %
Internal Medicine	20
Obstetrics and Gynaecology	15
Paediatrics	15
Surgery	15
Family Medicine	15
Psychiatry	10
Public Health / Preventive Medicine	10

Note:

1. Blueprint distributions of the examination may differ up to +/-5% in each category
2. See the website for the most up-to-date information
3. As a validity measure, items are further classified to ensure they sample various dimensions of care and physician activities. Definitions of these aspects can be found below

Physician competencies

Dimensions of Care	Focus of care for the patient, family, community, and/or population
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 conditions, new conditions, and exacerbation of underlying conditions.
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.

Physician Activities	Reflects the scope of practice & behaviours of a practicing clinician
Assessment/Diagnosis	Exploration of illness and disease using clinical judgment to gather, interpret and synthesize relevant information that includes but is not limited to history taking, physical examination and investigation.
Management	Process that 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)
Communication	Interactions with patients, families, caregivers, other professionals, communities and populations. Elements include but are not limited to relationship development, intraprofessional and interprofessional collaborative care, education, verbal communication (e.g. using the patient-centred interview and active listening), non-verbal and written communication, obtaining informed consent, and disclosure of patient safety incidents

EMREE Content Outline

This outline provides a common organization of EMREE content. EMREE supervisory committee continually reviews the outline to ensure content is relevant to the practice of medicine. As practice guidelines evolve or are introduced, the content on EMREE is reviewed and modified as needed.

The examination will emphasize certain parts of the outline, and no single examination will include questions on all aspects. Questions may include content that is not included in this outline

Internal Medicine

Cardiovascular system & Cardiology

- Coronary Artery Disease
- Heart Failure
- Atrial Fibrillation
- Cardiovascular risk reduction
- Valvular heart diseases
- Pericarditis / myocarditis
- Congenital heart disease
- Heart failure
- Syncope
- Rheumatic heart disease

Respiratory System & Pulmonary

- Bronchial Asthma
- COPD
- Lung mass
- Pleural effusion

- Pulmonary embolism
- Sinusitis
- Adenotonsillitis
- Pleural effusion
- Laryngomalacia
- Tracheomalacia
- Cystic fibrosis
- Croup
- Tracheitis

Gastrointestinal Systems & Gastroenterology

- Cleft palate
- Gastroesophageal reflux
- Pyloric stenosis
- Congenital Gastrointestinal anomalies
- Foreign body ingestion
- Peptic ulcer disease
- Inflammatory bowel disease
- Appendicitis
- Intussusception
- Chronic liver disease
- Jaundice
- Peptic ulcer disease
- GERD
- IBD
- Celiac disease
- Pancreatitis

Central Nervous System & Neurology

- Ischemic stroke
- Hemorrhagic stroke
- TIA
- Seizure disorders
- Multiple sclerosis
- Spinal cord compression
- Migraine
- Guillain barre syndrome
- Headaches
- Epilepsy
- Hypotonia
- Ataxia
- Myasthenia gravis

Dermatology

Acne Vulgaris

Acne rosacea

Psoriasis

Vitiligo

Skin Infection

Photo sensitivity

Urticaria

Immune mediated condition

Bites

Pruritus

Eczema herpeticum

Chicken Pox

Impetigo

Folliculitis

Musculoskeletal System

- Systemic lupus disease
- Kawasaki Disease
- Post infectious arthritis
- Rheumatoid arthritis

Infectious Diseases

- Brucella
- Tuberculosis
- Osteomyelitis
- Myositis
- Cellulitis
- Scarlet fever
- Pharyngitis
- Meningitis
- Encephalitis
- Malaria, enteric fever, leishmania
- Dengue fever
- CMV, EBV, HSV, HIV, hepatitis
- Measles, mumps and rubella
- Pertussis
- Parasites (Ascaris, pinworms, giardiasis, amoeba)

- Septic arthritis
- Osteomyelitis

Nephrology

- Post streptococcal glomerulonephritis
- Chronic kidney Disease
- Congenital anomalies of kidney and genitourinary tract (CAKUT), (polycystic kidney disease, Vesicourethral reflux, neurogenic bladder)
- Hemolytic uremic syndrome
- Renal tubular acidosis

Acute Care

- Acute respiratory distress syndrome
- Status asthmaticus
- Status epilepticus
- Shock
- Arrhythmias
- Drug ingestions (e.g. iron, acetaminophen)
- Trauma
- Testicular torsion
- Peritonitis
- Foreign body inhalation

Hematology/Oncology

- Hemolytic anaemia's
- Immune thrombocytopenic purpura

- Hemoglobinopathies
- Leukemia
- Lymphoma
- Retinoblastoma
- Wilm's tumor
- Neuroblastoma
- Nephroblastoma
- Bleeding disorders

Hepatology

- Acute viral hepatitis
- Acute non-viral hepatitis
- Chronic viral hepatitis
- Complications of Liver cirrhosis
- Hepatocellular carcinoma
- Ascending cholangitis

Nephrology

- Acute kidney injury
- Chronic Kidney disease
- Diagnosis of nephrotic syndrome
- Hyper and hypokalemia
- Hypo and hyper natremia
- Primary Hypertension
- Secondary Hypertension

Endocrine

- Hypothyroidism
- Hyperthyroidism
- Diabetes (diagnosis)
- Acute diabetic complications
- Chronic diabetic complications
- Prolactinoma
- Adrenal insufficiency
- Osteoporosis

Rheumatology

- Rheumatoid arthritis
- SLE
- Osteoarthritis
- Gout
- Reactive arthritis
- Iron deficiency anemia
- Megaloblastic anemia
- Hemolysis
- Thrombotic disorders
- Sickle cell disease
- Anticoagulant Rx management
- Thrombocytopenia
- Acute leukemia (recognition)

Infectious Diseases

- Pneumonia
- Urinary tract infections
- Tuberculosis
- Brucellosis
- Meningitis
- Soft tissue / bone / joint infections
- Infective endocarditis
- Line related blood stream infections
- H1N1
- MERS-CoV
- Chickenpox and shingles
- Sexually transmitted infections (including HIV)
- Malaria and dengue fever

Oncology

- Lung cancer
- Prostate cancer
- Tumor lysis syndrome
- Superior vena cava obstruction
- Febrile neutropenia
- Respiratory failure
- Sepsis and septic shock
- Hemorrhagic shock
- Cardiac tamponade
- Massive PE
- Cardiogenic Shock

Geriatrics

- Acute confusional state
- Dementia
- Falls

Pediatrics

General Paediatric

- Gastroenteritis
- Nephrotic syndrome
- Febrile seizure
- Bronchial asthma
- Iron deficiency anemia
- Bronchiolitis
- Pneumonia
- Otitis media
- Cellulitis
- Upper respiratory tract infections
- Urinary tract infections
- Celiac disease
- Down syndrome
- Acute renal failure
- Henoch schonlein purpura
- Constipation
- Fluids and electrolytes disturbance
- Rickets

- Hypertension
- Infantile colic
- Celiac disease
- Cerebral palsy
- Undescended testis
- Well baby

Ambulatory

- Immunization
- Development and behavior
- Growth and growth disorders
- Nutrition and nutritional disorders
- Sequent
- Failure to thrive
- Enuresis

Neonatology

- Respiratory distress syndrome
- Transient tachypnea of newborn
- Intrauterine growth retardation
- Meconium aspiration
- Hemorrhagic diseases of newborn

Endocrinology

- Diabetes mellitus
- Thyroid disorders
- Diabetes insipidus

- Panhypopituitarism
- Short stature
- Precocious puberty
- Ambiguous genitalia
- Adrenal disorders
- Obesity

Genetic/Metabolic

- Newborn screening
- Hypoglycemia
- Galactosemia
- Phenylketonuria
- Maple syrup disease
- Turner syndrome
- Marfan syndrome

Allergy/Immunology

- Atopic dermatitis
- Allergic rhinitis
- Primary immunodeficiencies

Obstetrics & Gynaecology

- History & Examination
- Ectopic Pregnancy
- Spontaneous Abortion
- Preeclampsia-Eclampsia

- Third Trimester Bleeding
- Preterm Labor
- Preterm Rupture of Membranes
- Postpartum Hemorrhage
- Pap Smear & DNA Probe & Culture
- Sexually Transmitted Infections and Urinary Tract Infections
- Personal Interaction and Communication Skills
- Normal and Abnormal Uterine Bleeding
- Dysmenorrhea
- Uterine Leiomyomas
- Sexual Assault
- Domestic Violence
- Diagnosis and Management Plan
- Maternal-Fetal Physiology
- Preconception Care
- Antepartum Care
- Intrapartum Care
- Immediate Care of the Newborn
- Postpartum Care
- Lactation
- Medical and Surgical Complications of Pregnancy
- Alloimmunization
- Multifetal Gestation
- Fetal Death
- Abnormal Labor
- Intrapartum Fetal Surveillance
- Postpartum Infection
- Anxiety and Depression

- Post-term Pregnancy
- Fetal Growth Abnormalities
- Obstetrics Procedures
- Family Planning
- Induced Abortion
- Vulvar and Vaginal Disease
- Endometriosis
- Chronic Pelvic Pain
- Gynecological Procedures
- Puberty
- Amenorrhea
- Hirsutism and Virilization
- Menopause
- Infertility
- Premenstrual Syndrome and Premenstrual Dysphoric Disorder
- Legal and Ethics Issues in Obstetrics and Gynecology
- Gestational Trophoblastic Neoplasia
- Cervical Disease and Neoplasia
- Endometrial Hyperlasia and Carcinoma
- Ovarian Neoplasms
- Preventive Care and Health Maintenance
- Pelvic Organ Prolapse and Urinary Incontinence
- Vulvar Neoplasms
- Sexuality and Modes of Sexual Expression

Surgery

Basic Principles

Surgical Infection & Antibiotics

- Systemic inflammatory response
- Surgical infection prevention
- Principles of antibiotics use in surgical patients
- Surgical Site Infections
- Intra-Abdominal Infections
- Infections of the Skin and Soft Tissue

Preoperative assessment

- Preoperative evaluation
- Risk assessment

Anaesthesia & Pain management

- Local and regional anaesthesia
- Patient's monitoring
- Pain management

Wound care

- Phases of wound healing
- Factors affecting wound healing
- Abnormal wound healing
- Wound dressing

Post-operative complications

- Post-operative care
- Postoperative fever
- DVT
- Complications of common procedures

General Surgery

Breast

- Mastalgia
- Nipple discharge
- Breast mass approach
- Breast mass in pregnancy
- Benign breast disorders proliferative and non-proliferative disease, breast abscess, mastitis
- Breast cancer screening
- Breast cancer

Thyroid and Parathyroid

- Neck mass evaluation
- Thyroid nodule approach
- Surgery for hyperthyroidism
- Thyroid cancer
- Complications of thyroidectomy
- Primary hyperparathyroidism
- 2ndry hyperparathyroidism
- Tertiary hyperparathyroidism

Adrenal

- Surgical hypertension
- Incidental adrenal mass

Gastrointestinal System

- GERD
- Corrosive esophageal injury
- Swallowing foreign body

- Esophageal cancer
- Upper GI bleeding
- Peptic Ulcer Disease
- Surgical management of Obesity
- Lower GI bleeding
- Appendicitis
- Bowel obstruction
- Inflammatory Bowel Disease
- Colon cancer screening
- Colonic polyp
- Colon cancer
- Diverticular disease
- PR bleeding
- Anorectal conditions
- Pilonidal sinus

Hepatobiliary

- Biliary colic
- Acute cholecystitis
- Obstructive jaundice
- Cholangitis
- Hydatid liver disease
- Liver abscess
- Acute Pancreatitis
- Chronic pancreatitis
- Pancreatic cancer

Hernias

- Inguinal hernia

- Incisional, Umbilical and epigastric hernias
- Obstructed hernia
- Rectus sheath hematoma

Skin & subcutaneous lesions

- Cellulitis
- Necrotizing fasciitis
- Lipoma
- Tetanus prophylaxis
- Soft tissue sarcoma

Vascular Surgery

- Diabetic foot
- Peripheral arterial disease PAD
- Acute limb ischemia
- Chronic limb ischemia
- Critical limb ischemia
- Venous Disorders
- Varicose veins
- Venous thromboembolism
- Others
- Compartment syndrome
- Gangrene
- Dialysis vascular access
- Abdominal aortic aneurysms

Paediatric surgery

- Branchial cysts
- Thyroglossal cyst
- Pyloric stenosis

- Diaphragmatic hernia
- Tracheoesophageal fistula
- Umbilical hernia
- Undescended testicle
- Hirschsprung disease

- Wilms tumor
- Neuroblastoma
- Circumcision

Plastic surgery

- Hand infections
- Fingers injuries and amputations
- Carpal tunnel syndrome
- Upper limb nerve injuries evaluation
- Cutaneous melanoma
- Squamous cell carcinoma
- Burn
- Bed sore

Trauma & Acute Care Surgery

Trauma

- Initial assessment of trauma patient
- Airway management
- Life threatening injuries (Airway obstruction, tension pneumothorax, cardiac tamponade)
- Chest trauma
- Shock

- Abdominal trauma
- Pelvic fracture
- Head trauma
- Spinal injuries
- Musculoskeletal trauma
- Trauma in extreme age
- Triaging

Gastrointestinal Bleeding

- Upper GI bleeding, causes and surgical management
- Lower GI bleeding causes and surgical management

Specific organ trauma

- liver
- spleen
- kidney and retroperitoneum
- Esophageal, gastric and bowel trauma
- Damage control surgery

Surgical ICU

- Abdominal compartment syndrome
- Lung protective ventilation
- Early and adequate nutrition
- Restrictive blood transfusion
- DVT and stress gastritis prophylaxis
- Source control in septic patients

Acute surgical condition

- Acute abdomen
- Peritonitis

- Mesenteric bowel ischemia
- Perforated viscous

Subspecialties

Urology

- Emergencies Acute Urinary Retention, Testicular Torsion , hematuria, Fournier's Gangrene,

Priapism

- Infections Cystitis ,Pyelonephritis , Prostatitis, Epididymo-orchitis
- Lower Urinary Tract Obstruction Benign Prostatic Hyperplasia, Urethral Stricture
- Upper Urinary Tract Obstruction Urolithiasis, Retroperitoneal Fibrosis
- Pediatric Urology Ureteropelvic Junction, Vesicoureteral Reflux, Ureterocele, Posterior

Urethral Valve

Neurosurgery

- Raised intracranial pressure
- Cerebrovascular diseases
- Spinal cord compression
- Entrapment neuropathy
- Cranial & spinal infection
- Hydrocephalus
- Degenerative disc disease
- Congenital anomalies
- Brain tumors

Orthopedic

- Trauma Open fracture treatment, Compartment syndrome
- Principles of fracture/ dislocation management

- Oncology Osteosarcoma, Ewing's sarcoma, Chondrosarcoma
- Birth injuries
- Developmental diseases

ENT

- Epistaxis
- Otitis externa
- Otitis media
- Sinusitis
- Tonsillitis
- Acoustic neuroma
- Foreign body
- Disorders of balance
- Hearing loss

Ophthalmology

- Infectious and inflammatory disorders blepharitis; conjunctivitis , uveitis endophthalmitis;

iritidocyclitis; periorbital cellulitis; uveitis

- Neoplasms melanoma; retinoblastoma
- Cataract
- Glaucoma
- Lacrimal system disorders
- Refractive disorders
- Disorders of the retina diabetic retinopathy; papilledema; retinal detachment; retinitis pigmentosa; retinal hemorrhage, amaurosis fugax,
- Visual impairment/blindness, night blindness, Sudden loss of vision
- Traumatic and mechanical disorders corneal abrasion, ulcer; dislocated lens; foreign body in eye, laceration of the eyelid; subconjunctival hemorrhage

Public Health / Preventive Medicine

- Evidence Based Medicine
- Nutrition / Obesity
 - Exercise
 - Travel medicine
 - Risk factors (NCDs) Assessment and modifications
 - Smoking
 - Environmental
- Temp (hyperthermia, heat stroke)
- Metals (lead)
- Venomous bites and stings
- Reportable diseases
- Outbreaks
- Herd immunity
- Immunization (Child, Adult)
- Disease screening (Cancer, CVD, DM, HTN, AAA)
- Mental Health
- Principles of screening (validity, test parameters, criteria for screening test)
- Sleep Medicine
- Preventive Cardiology
- Adolescent health
- Geriatric medicine
- Women Health
- Basic statistics
- Basic Epidemiology

Family Medicine

Ethics

- Informed Consent
- DNR/DNI
- Organ Donation
- Abortion
- Breaking Bad News
- DAMA
- Authorship and Plagiarism
- Patient Privacy
- Proper HIM
- Abuse (spouse, child and elderly)
- Conflict of Interest
- Social Media Practices/Technology
- Confidentiality
- Sick Leave
- Second opinions
- Medico-legal Issues/Whistleblowing
- Death Certificate
- Identity Theft
- Fertility Ethics
- Plastic Surgery/Bariatric/Obesity
- Communications with peers' patients
- Bullying and Abuse
- Impaired Physicians

Patient Safety

- Clinical Privileges
- Patient /Community Education
- Medications Safety
- Infectious Prevention and Control
- Surgical Safety
- Emergency Preparedness
- Continues Professional development
- Inter-professional communication
- International patient safety goals
- Blood Transfusion safety
- Radiation Safety
- Patient Empowerment
- Communication with patient and family
- Institute of Medicine Quality dimensions
- Diagnostic Errors
- Venous thromboembolism prophylaxis

Psychiatry

- Deliberate self- harm
- Obsessive compulsive disorder
- Access to psychological therapies
- Depression
- Insomnia
- Benzodiazepine dependence
- Anxiety disorders
- Psychiatry crisis

- Post-traumatic stress disorder
- Cognitive behavioural therapy
- Treatment of depression
- Somatic symptoms of depression
- ADHD

Recommended Reading List

Section	Textbooks
Medicine	<ul style="list-style-type: none"> • Yingming A. Chen, . Toronto Notes Canadian ed Edition • Brian R. Walker BSc MB ChB MD FRCPE FRSE FMedSci. Davidson's Principles and Practice of Medicine, 22 Edition. • Dennis L. Kasper M.D., Anthony S. Fauci, Stephen L. Hauser M.D, Dan L. Longo M.D, J.Larry Jameson M.D, and Joseph Loscalzo. Harrison's Principles of Internal Medicine, 19th Edition. • Parveen Kumar , Michael Clark. Kumar and Clark's Clinical Medicine, 9th Edition.
Obstetrics and Gynecology	<ul style="list-style-type: none"> • Neville F. Hacker, MD, Joseph C. Gambone, DO, MPH, Executive Editor and Calvin J. Hobel, MD, . Hacker and Moore's Essentials of Obstetrics and Gynecology. • Alan H. DeCherney, Lauren Nathan, T. Murphy Goodwin, Neri Laufer and Ashley S. Roman, Current Diagnosis and Treatment Obstetrics and Gynecology, 11th Edition. • Louise Kenny, Helen Bickerstaff and Jenny Myers, . Gynaecology by Ten Teachers, 20th Edition Value Pak. • Jeremy J N Oats, MBBS, DM, FRCOG, FRANZCOG and Suzanne Abraham, MSc, PhD(Med), MAPS, . Llewellyn-Jones Fundamentals of Obstetrics and Gynaecology Edition.
Paediatrics	<ul style="list-style-type: none"> • Daniel Bernstein , Steven P. Shelov MD, MS. Paediatrics for Medical Students. • Karen Marcdante MD , Robert M. Kliegman MD . Nelson Essentials of Pediatrics, 7th Edition. • Tom Lissauer , Will Carroll. Illustrated Textbook of Paediatrics 5th Edition.
Surgery	<ul style="list-style-type: none"> • John L. Cameron , Andrew M. Cameron. Current Surgical Therapy,12th edition, 2017.

	<ul style="list-style-type: none"> • Norman Williams, Christopher Bultrode and P Ronan O'Connell. Bailey and Love's Short Practice of Surgery, 26th edition, 2013. • The University of Cincinnati Residents and Amy Makley .The Mont Reid Surgical Handbook: Mobile Medicine Series, 7th edition, 2017
Public Health, Patient Safety &, Preventive Medicine and Ethics	<ul style="list-style-type: none"> • Walton, M. (2011). Patient Safety Curriculum Guide. Geneva: World Health Organization • Katz D, Jekel J, Elmore J, Wild D, Lucan S. Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health. 4th ed. 2013. • U.S. Preventive Services Task Force: Guide to Clinical Preventive Services. • Al kaabba F. Abdulaziz, Hussein MA Ghaiath, Kasule H. Omar SCFHS-2015, . • Professionalism and Ethics Handbook for Residents Practical guide.
Family Medicine	<ul style="list-style-type: none"> • Family Medicine doctor.org https://familydoctor.org/ • Case Files Family Medicine, Fourth Edition 4th Edition by Eugene C. Toy (Author), Donald Briscoe (Author), Bruce S. Britton (Author), Joel John Heidelbaugh (Author) • Textbook of Family Medicine 9th Edition by Robert E. Rakel MD (Author), David Rakel MD (Author) • GP Notebook https://www.gpnotebook.co.uk/homepage.cfm

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