

Fellowship in Emergency Medicine

Curriculum:

Module 1 - Introduction & overview emergency medicine department:

- Organization of EMD
- Organization of Emergency MS
- Disaster Management

Legal aspects of emergency medicine:

- Introduction

Module 2 – Airway: Airway management

- Introduction

Mechanical ventilation

- Introduction
- Specific Modes Of ventilation
- General Classes of Ventilators
- Non-invasive ventilation
- Weaning

Module 3 - Trauma & Orthopaedics Trauma

- General approach
- Traumatic Shock
- Hypovolemic Shock
- Penetrating and Blunt Neck Trauma
- Thoracic Trauma
- Stab Wounds
- Pelvic Trauma
- Genitourinary Trauma
- Paediatric Trauma
- Trauma in Pregnancy

Emergency Department Imaging:

- Emergency Department Sonography
- Diagnostic Imaging in Emergency Medicine

Neurology in Trauma:

- Management of Head Injuries
- Cerebral protection in Head injuries
- Spinal Injuries

Orthopaedics:

- Types of Orthopaedics Emergencies
- Fractures
- Basic management of Orthopaedics Emergencies
- Hand & Wrist Injuries
- Forearm, Elbow & Shoulder Injuries
- Pelvis, Hip & Ankle Injuries
- Lower Leg & Ankle Injuries
- Complications of Orthopaedic Injuries

Module 4 - Wounds & analgesia wound assessment and management

- Principles of Wound Management
- Methods of Wound Closure

Local Anaesthetics and Anaesthesia

- Introduction
- Bupivacaine
- Lidocaine Hydrochloride
- Nerve Blocks

Analgesia in Emergency Room

- Introduction

Chronic pain management

- Introduction

Module 5 – Medical emergencies Part 1 -

Cardiac:

- Approach to Chest Pain
- Cardiogenic Shock
- CCF
- Drugs and Interventions
- Syncope
- Cardiac Arrhythmias

Respiratory:

- Acute Respiratory Failure
- Asthma / Bronchial Asthma
- COPD
- PE and DVT
- Haemoptysis 1 & 2
- LRTI
- Non- Cardiogenic Pulmonary Edema
- Pleural Effusions
- Pneumothorax
- Mycobacterial Emergencies

Module 6 – Medical emergencies Part 2 –

Endocrine Emergencies:

- Hypoglycemia
- Diabetic Ketoacidosis
- NKH Coma
- Alcoholic Ketoacidosis
- Lactic Acidosis
- Thyroid Storm
- Myxedema Coma
- Adrenal Crisis
- Management of DKA in Adults and Children

Neurology:

- CNS Infection
- Altered Mental Status & Coma
- Stroke Emergencies

Psychiatric:

- Introduction
- Anorexia Nervosa & Bulimia Nervosa
- Panic Disorder
- Conversion Reactions
- Depression & Suicide
- Septic shock

Module 7 – Medical Emergencies Part 3 -

Acid base balance and Electrolyte Disorders:

- Acid base balance & Interpretation of Blood Gas results
- Electrolyte Disorders

Renal Failure:

- Acute
- Chronic

Gastrointestinal & Hepatobiliary:

- Hepatic Encephalopathy
- IBD
- Gastroenteritis
- Diverticular disease
- Hepatitis
- Fulminant Hepatic failure
- Management of Acute Bleeding Oesopharyngeal Bleeding
- Portal vein Thrombosis
- Acute pancreatitis

Module 8 -Surgery and Transfusion Emergencies Surgical Emergencies:

- Abdominal Trauma
- Surgical Emergencies
- Acute Cholecystitis
- Diverticular Disease
- Esophageal Perforation
- Haemorrhoids
- Inflammatory Bowel Disease
- Anorectal Disorders
- Pancreatitis
- Anorectal Disorders

- Anal Fissures and Fistulae
- GI Foreign Bodies
- Oropharyngeal Foreign Bodies
- Rectal Foreign Bodies
- AAA
- Acute Mesenteric Ischemia
- Intestinal Obstruction

Module 9 - Obstetrics, Gynaecology & Paediatrics Emergencies:

- Pelvic Pain
- Ectopic Pregnancy
- Vaginal Bleeding during Pregnancy
- Hypertension in Pregnancy
- Emergency Delivery
- Vaginitis, cervicitis and PID
- Amenorrhoea
- Sexual Assault

Urogenital Emergencies:

- Urinary retention
- Urinary Tract infection
- Genital lesions

Paediatric emergencies:

- Approach to Ill Paediatric Patient
- Pain
- SIDS
- Ingested Foreign Bodies
- RTI
- Bronchiolitis
- Pharyngitis
- Epiglottitis
- Pneumonia Syndrome
- Otitis Media
- Congenital Heart Disease
- Kawasaki Disease
- Bacterial Meningitis and Sepsis
- GIT Disorders
- Intestinal Obstruction

- Incarcerated Hernia
- Pyloric Stenosis
- Intussusception
- Meckel's Diverticulum
- Appendicitis
- Seizures
- Status Epilepticus
- Child Abuse

Module 10 – Toxicology

- Approach to the Poisoned patient
- Antidotes commonly used in Overdoses
- Treatment of Hypotension Associated with Drug Poisoning
- Carbon Monoxide Poisoning
- Illicit Drug & Controlled Substances of Abuse
- Alcohol Withdrawal
- Digitalis Toxicity
- Calcium Channel Blocker Toxicity
- Acetaminophen Hepatotoxicity
- Salicylate Overdose
- Tricyclic Antidepressant Overdose
- Mono-Oxidase Inhibitor Overdose
- Arsenic Poisoning
- Cyanide Poisoning
- Iron Poisoning
- Lithium carbonate Overdose
- Serum Osmolality
- Ethanol Poisoning
- Ethylene Glycol Poisoning
- Poison Management

Module 11 - Ear & Eye emergencies Otolaryngeal Emergencies –

- Acute Airway Obstruction
- Obstruction Due To Foreign Body
- Epistaxis
- Anterior Epistaxis Posterior Epistaxis
- Nasal Fracture

Ophthalmic emergencies-

- Corneal Abrasion
- Glaucoma
- Red Eye

Module 12 - Environmental emergencies environmental emergencies:

- Frostbite
- Heat Exhaustion & Heat Stroke
- High Altitude Pulmonary Symptoms
- High Altitude Cerebral Symptoms
- Hypothermia

Burns:

- **Chemical Burns**
- Electrical Burns
- Lightning Burns
- Thermal Burns
- Inhalation Smoke

Dive Emergencies:

- Barotrauma
- Near Drowning

Anaphylaxis:

- Introduction

Bites & Stings:

- Bee Sting
- Animal Bites
- Human Bites
- Insect Bites

Envenomation:

- Envenomation-Cobra
- Envenomation-Scorpion
- Snake Bite Emergency First Aid

Clinical Internship / Contact Programme:

During the 12 months contact program, students are posted in the emergency medicine departments of accredited training hospitals to gain a first-hand experience under the expertise of trained Emergency Medicine specialists. The student is expected to acquire the following skills by the end of the 12-month training period:

Compulsory:

- Rhythm Recognition and Defibrillation
- Lumbar Puncture
- Chest Drain Insertion
- Needle and Tube Thoracostomy
- Basic and Advanced Airway Management
- Splinting and Reduction of Common Dislocations
- Nasal Packing
- Suturing and Wound Care
- Spinal Immobilization and Log Roll
- Peripheral and Central IV Cannulation (Femoral and Internal Jugular)

Desirable:

- BIPAP and CPAP use
- Closure of open pneumothorax
- Needle and surgical cricothyroidotomy

Along with these, the student is expected to interpret X-rays and CT scans.

Learning / Teaching Methodology:

- Online self-learning on our Learning Management system
- Live virtual classes by expert faculty throughout the course duration
- Clinical skills training during the clinical internship

Assessment Online:

- MCQ based online module wise assessment
- Student has 2 attempts to clear each module
- A minimum of 60% is required to clear each module

Offline:

Final Examination: Paper 1-Theory (100 Marks); Paper 2-MCQ's (200Marks)

To be eligible for the offline final examination, the candidate should have successfully completed all the module tests and the contact program.

Viva Format: The viva examination will have three stations/Examiners.

-Station/Examiner 1: Medical Emergencies.

-Station/Examiner 2: Rhythm recognition (compulsory) + mix of trauma and orthopaedics or surgical emergencies.

-Station / Examiner 3: a mix of obstetrics + gynaecology or paediatric emergencies.

-The overall mark shall be the average of all three stations.

-Rhythm recognition and defibrillation is a compulsory pass. A candidate will fail the overall viva if he/she does not pass this station. A second attempt will be given if a candidate fails in this section.

-Examiners expectation: overall the examiners will be looking for a structured, safe approach and firstly doing no harm, with the candidates looking to seek seniors help if necessary.

Certification On successful completion of the online module exams, completion of the clinical internship with 90% attendance, submission of the logbook and clearing the final exam and viva, candidate will be awarded the 'Fellowship in Emergency Medicine' jointly by Medvarsity and Royal Liverpool Academy.

Accreditation partner: The Royal Liverpool Academy is the education wing and centre of the Royal Liverpool & Broadgreen University Hospitals Trust. It is one of the largest University Teaching Hospitals in the UK and has one of the largest Emergency Departments and throughput. It is one of the primary sites where medical education is delivered through the University of Liverpool and one of the main partners of Liverpool Health Partners, the Academic Health Sciences System of Liverpool, UK.

Course start date: January 2021

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