

CURRICULUM FOR EMERGENCY MANAGEMENT COURSE

Essential Requirements:

Serial No.	Criteria	Requirement	Remarks (If any)
1	Basic eligibility of participants	Ayush Final year students, Interns, Ayush graduates and PG scholars	
2	Duration of the Course	1 Month	
3	Number of trainees per Batch	Min.-6 to 8 students Max.-10	
4	Trainer Qualification	Kayachikitsa, Shalya, MD & MBBS expert with practical knowledge on curriculum aspects	
5	Number of Trainers required (Theory)	Min.- 4	
6	Number of Guest faculty required MBBS, Specialist – Emergency medicine or Incentivist	Min.-1 Max.- 2	
7	Number of working Technician (Skill expert) required for practical training	Min.- not required	
8	Infrastructure Technical specification requirement	Min.-As per NCISM	
9	Assessment Method	Theory – 100 marks Practical – 100 Marks	

1. Basic Introduction

Applied aspect of Cardiovascular System, Respiratory System, CNS, hepatic Renal Function, Haematology, Metabolism, Nutrition, Infections, Gastro Intestinal, Obstetric Environmental Hazards.

Theory :- 2 hours

Practical:-2 hours

2. ICU Instruments

Basic Introduction of ICU Instruments like Laryngoscopes, Infusion Pumps, Suction Machine, Defibrillator, IV Cannula, Central Line, Foleys Catheter, ET Tube, Ryle's Tube, LMA, Nasopharyngeal Airway, ICU Beds, Oxygen Supply, Oxygen Devices.

Theory :- 2 hours

Practical:- 2 hours

3. ICU Monitors/ Ventilators.

Need of Non Invasive and invasive Ventilators, Modes of NIV/ Mechanical Ventilation, Features of Multi para Monitors. Indications and Contraindications of NIV, Loops and graphs of Mechanical Ventilation, mechanical ventilation of conditions such as ARDS, COPD, COVID-19 etc.

Theory:- 2 hours

Practical:- 2 hours

4. ICU Drugs

Pharmacology, Pharma kinetics and Drug interactions, Analgesics, Sedation, Muscle Relaxants, Inflammatory and anti-Inflammatory agents, Drug Calculation, Antibiotics, Inotropes, Anti Hypertensive, Anti Anginal, Antiarrhythmic, Anti Coagulants, Antiplatelet, Antiepileptic, Bronchodilators, Antihistamines, Anti Allergic, Antidotes.

Theory:- 2 hours

Practical:- 2 hours

5. BLS/ACLS

Basic knowledge of CPR, CPR in Adults, CPR in Children, Neonatal Resuscitation, Resuscitation in Pregnancy, Disturbance of Cardiac Rhythm, and Conduction.

Training of BLS/ACLS.

Theory:- 2 hours

Practical:- 4 hours

6. Airway Management

Fundamentals of Airway Management, Airway Management in Emergency, Normal Bag and Mask Ventilation, Insertion of Naso-pharyngeal Airway, Supra-glottic airway devices, ET Tube, Complications associated, Rapid Sequence Induction, Extubation, Obstructed Airway, Tracheostomy, Airway Management in special circumstances.

Theory:- 2 hours

Practical:- 4 hours

7. Sepsis and Various Bundles.

Introduction of Sepsis Symptoms, Vital Signs Changes, Septic Shock, Various Scoring Systems, Source of Infection, CAUTI, CLABSI, VAP Bundles.

Theory:- 2 hours

Practical:- 2 hours

8. Shock and its Management

Various types of Shock, Diagnosis, Vital Signs, Management of Septic Shock, Test to Diagnose sepsis, Emergency Management, Antibiotics, IV Fluids, Treating source of infection, other Treatment Modalities, Recent Advances.

Management of Various Types of Shock.

Theory:- 2 hours

Practical:- 2 hours

9. COVID Management

Infection prevention, control, interfacility transfer, clinical Management of Mild/Moderate/severely ill patients, special considerations for geriatric, pregnant and paediatric population, Rehabilitation ethics and palliative care, education and advice to patients and their families.

Theory:- 2 hours

Practical:- 4 hours

10. Respiratory Emergencies

Critical actions, Initial Diagnostic evaluation, Symptoms and Management of Acute Pulmonary edema, Decompensated Heart Failure, Pulmonary embolism, asthma, COPD, Pneumonia, Pulmonary Infections, Etiology Management, Prognosis, ABG Interpretation,

Theory:- 2 hours

Practical:- 2 hours

11. Cardiac Emergencies

Acute Coronary Syndrome, Stroke, Cardiac Arrhythmia, ECG Interpretation, Cardiac Arrest, Cardiogenic Shock, Syncope, Hypertensive Emergencies, Acute Heart Failure, Myocarditis, Endocarditis, Valvular Emergencies, Vascular Emergencies.

Theory:- 2 hours

Practical:- 2 hours

12. CNS Emergencies.

Anatomy Physiology, Blood Supply of Brain.

Stroke: - Causes, Different Types, Sign and Symptoms, management, Positioning of CVA attack patient during Transport, Ventilator Support, GCS Scale, AVPU scale.

Theory:- 2 hours

Practical:- 2 hours

13. Environment and Trauma Emergencies.

Electric Shock, Hypothermia, Heat Stroke, Altitude illness, Drowning, Trauma, Snake Bite, Roles and Responsibilities related to personal safety, safety of crew, Patient and Bystanders., burn management.

Theory:- 2 hours

Practical:- 2 hours

14. Common Poisoning and Anti dotes

Common poisoning by Ingestion, Inhalation, Injection and Surface Absorption, Signs and Symptom of over Dose, Assessment of Suspected case of Drugs Poisoning, Alcohol, Managing a Violent Patient With Care and Patience, Implement a Treatment Plan for Patients.

Theory:- 2 hours

Practical:- 2 hours

15. Electrolyte Management and Endocrine Emergencies,

Hyponatremia, Hypernatremia, Hypo-kalemia, Hyper-kalemia, Hypo-calcemia, Hyper-calcemia, Hypo-magnesiumemia, Hyper-magnesiumemia, Hypo and Hyper glycemia, Diagnosis and Management, DKA, Thyroid Disorders.

Theory:- 2 hours

Practical:- 2 hours

16. ICU procedures.

I/V cannulation, Intubation, RT Insertion, Central Line Insertion, Arterial Line Insertion, Foleys Catheterisation, Indications, Contraindications, Risk associated with Procedures.

Theory:- 3 hours

Practical:- 3 hours

After completion of training there will be one Theory exams of 100 marks comprising subjective and objective questions. Questions will be related to resuscitation, clinical Diagnosis, lab Value interpretation, Emergency Drugs, Disease Management, Emergency Procedures, Transfusion Therapy, Post-Operative care and other aspect of Critical Care Medicine. Trainees need to do ICU resident duty according to roaster.

5. Practical exam of 100 marks comprising.

A. 4 Work Stations

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| 1. ACLS/ BLS | 15 marks |
| 2. Airway Management | 15 marks |
| 3. Emergency Drugs | 15 marks |
| 4. ICU Instruments. | 15 marks |

B. Clinical Cases 40 marks

NOTE: -

- 1.It is mandatory to pass separately in ACLS and Airway stations to be declared pass in Practical Examination.
2. The trainee's need to do ICU resident duty as per roaster.