

## RAWALPINDI MEDICAL UNIVERSITY DEPARTMENT OF EMERGENCY MEDICINE

EMERGENCY MEDICINE CLINICAL TRAINING PROGRAM ROTATION CURRICULUM FOR 3<sup>RD</sup> YEAR MBBS

## **SPECIAL THANKS**

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## **COMPILED BY**

Instructor Dr Musharaf Khalid Bhutta Resident Energency Medicine, ALS (Resus Council UK), PALS (Lifesavers Pak) Instructor Dr Hamza Bin Rahat Resident Energency Medicine, ACLS (Lifesavers Pak)

#### **General layout**

02 Weeks Clinical Rotation schedule Monday to Thursday from 8AM to 11AM Teaching days: 07 Most common ED presentations End of Rotation Exam comprising of Mini Clinical Evaluation assessment (Mini CEX)

#### About Curriculum

# This curriculum is designed in such a way that student achieves Entrusted Professional Activities (EPA) level 1, 2, 3 and 10.

EPA 1: Gather a History and Perform a Physical Examination

EPA 2: Prioritize a Differential Diagnosis Following a Clinical Encounter

EPA 3: Recommend and Interpret Common Diagnostic and Screening Tests EPA 10: Recognize a Patient Requiring Urgent or Emergent Care and Initiate Evaluation and management

Emergency medicine is the ideal rotation for students to be assessed on EPA 10. This EPA requires students to recognize abnormal vital signs, determine "sick" from "not sick," gather pertinent history in an urgent or emergent situation, monitor response to initial interventions, and communicate to patient/family/staff accurately about their condition. This is an EPA built for the emergency department.

### CURRICULUM

Emergency Focus	Topics	BLS Focus	Skill of the day	Learning Outcomes
1. Major Trauma	Primary survey ABCDE approach, Trauma/ Burn assessment, Spinal precautions, Pneumothorax, Initial management	<ul> <li>Checking airway patency</li> <li>Airway maintenance maneuvers (Head tilt chin lift, Jaw thrust)</li> </ul>	<ul> <li>✓ Basic airway management (Oropharyngeal insertion, Bag valve mask ventilation)</li> <li>✓ Respiratory exam (Inspect, Palpate and Auscultate)</li> </ul>	<ol> <li>Perform a structured trauma assessment using the ABCDE approach.</li> <li>Apply spinal precautions during trauma evaluation.</li> <li>Recognize and manage different types of chest injuries in trauma patients.</li> <li>Insert an oropharyngeal airway and provide effective BVM ventilation.</li> </ol>
2. Chest Pain	Rapid Assessment of Chest pain, high risk features, ECG interpretation, initial management	<ul> <li>✓ Ventilation basics (Look, Listen and Feel</li> <li>✓ Chest compression</li> </ul>	<ul> <li>✓ 12 lead ECG placement and basic interpretations</li> <li>✓ Cardiovascular examination</li> </ul>	<ol> <li>Identify and triage chest pain based on risk features.</li> <li>Perform 12-lead ECG placement accurately.</li> <li>Interpret basic 12-lead ECG findings in emergencies.</li> <li>Initiate early management for suspected myocardial infarction.</li> <li>Demonstrate effective ventilation techniques.</li> </ol>
3. Altered mental status	Recognizing stroke symptoms, FAST assessment, Initial management, tPA protocol	<ul> <li>✓ Rescue breathing</li> <li>✓ Use of Automated External Defibrillator (AED)</li> </ul>	<ul> <li>✓ Central nervous examinationn</li> <li>✓ IV Cannulation, blood sampling &amp; Intramuscular injection</li> </ul>	<ol> <li>Recognize signs of stroke using FAST indicators and initiate appropriate management/ referral.</li> <li>Understand the importance of time-critical intervention in stroke.</li> <li>Assist ventilation and maintain a patent airway during resuscitation.</li> <li>Demonstrate use of AED.</li> <li>Demonstrate IV cannulation and safe blood sampling techniques.</li> </ol>
4. Respiratory Distress	Rapid assessment, Oxygen therapy, Non-invasive ventilation (NIV) basics	<ul> <li>✓ Managing foreign body/ Airway obstruction/ Choking</li> </ul>	<ul> <li>✓ O2 delivery</li> <li>✓ Nebulizer setup/ administration</li> <li>✓ Arterial blood gases</li> </ul>	<ol> <li>Rapidly assess patients presenting with respiratory distress.</li> <li>Choose and apply appropriate oxygen delivery methods.</li> <li>Recognize indications and apply NIV techniques appropriately.</li> <li>Respond to airway</li> </ol>

						obstruction due to foreign body using appropriate maneuvers. 5. Set up and administer nebulized medications effectively.
5. Sepsis and Shock	Early Sepsis identification, Sepsis SIX protocol, Fluid resuscitation, Antibiotic administration	~	Shock able vs Non Shock able rhythms	~	Fluid resuscitation technique (IV fluid setup)	<ol> <li>Identify clinical features of sepsis and initiate Sepsis 6 bundle.</li> <li>Administer IV fluids and antibiotics appropriately in septic patients.</li> <li>Perform a focused history and examination of abdominal pain.</li> <li>Recognize red flags that suggest surgical or life- threatening causes.</li> </ol>
6. Abdominal Pain	Differential diagnosis, Red flags, Managing acute abdomen	~	Post cardiac arrest care and stabilization	~	Abdominal examination and findings/ FAST Scan basics	<ol> <li>Provide post-cardiac arrest stabilization and continued care.</li> <li>Monitor and interpret changes in consciousness and vital signs.</li> <li>Demonstrate proper IV fluid setup and administration.</li> <li>Understand the basics of Focused Assessment with Sonography in Trauma (FAST).</li> </ol>
7. Poisoinig and overdose	Toxidromes, Decontamination, Initial management andidotes	~	Oxygen administration, airway support for toxic ingestion	~	Nasogastric tube and Foleys catheter insertion with indications	<ol> <li>Recognize clinical signs of common toxidromes.</li> <li>Understand and perform appropriate decontamination.</li> <li>Support airway and breathing in poisoned patients.</li> <li>Administer key antidotes for specific poisonings.</li> <li>Insert a nasogastric tube and understand its indications.</li> </ol>

Resources:

1. Oxford Clinical book of Emergency Medicine 2. Tintinalli's Book of Emergency Medicine

3. UK Resus Council Advance Lifesupport Manual

4. RCEM learning

5. McLeod's book of clinical methods

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Prof. Usman Qureshi Head Of Department **Emergency Medicine**