

Emergency Medicine Rotation Learning Outcomes:

Upon completion of the EM Rotation, the clinical year PA student will possess **the knowledge, clinical and technical skills, interpersonal skills, professional behaviors, clinical reasoning and problem-solving abilities** necessary to demonstrate entry-level proficiency through demonstration of the following:

To obtain the following RLO's, students will participate in the clinical care of patients of all ages requiring assessment and management of acute and emergent medical and surgical conditions in the Emergency Department.

1. Obtain a thorough history based on the patient's chief complaint or clinical presentation.
2. Perform a thorough problem-focused physical exam based on the patient's chief complaint.
3. Present relevant findings of the history and physical exam to the preceptor.
4. Document care of the patient in the form of a problem-focused note.
5. Develop an appropriate differential diagnosis based upon the history and physical exam findings for patients presenting with acute and emergent issues.
6. Order and interpret laboratory and diagnostic studies indicated for the initial evaluation of the presenting complaint, including ECGs.
7. Develop initial treatment plans for common problems seen in emergency medicine to include pharmacotherapy, lifestyle modification, non-pharmacologic therapies, hospital admission, follow-up evaluation and patient education using evidence-based medicine guidelines.
8. Recommend appropriate disposition of patients according to severity of presenting symptoms and response to therapy.
9. Recommend medications based on indication, patient profile, potential adverse effects, and drug interactions.
10. Observe, assist with and perform common emergency medicine procedures, under preceptor supervision, including suturing and dressing superficial lacerations, I & D, and/or splinting.
11. Demonstrate sterile technique when performing procedures.
12. Provide patient education on diagnosis and treatment plan with special emphasis on outpatient follow-up.
13. Identify indications for consultation of specialists needed to meet the medical, surgical or psychological needs of patients.
14. Demonstrate appropriate professional demeanor, ethics, and respect for patients, families, and health care team members.
15. Demonstrate respect for patient rights to individuality and privacy by treating confidential information with professional discretion.

16. Demonstrate appropriate response to feedback.
17. Demonstrate an ability to collaborate with other healthcare professionals to provide patient-focused care.

Instructional Objectives for EM

Under appropriate preceptor supervision, by the end of this rotation, the clinical PA student will be able to demonstrate knowledge and competence pertaining to each of the Instructional Objectives (IOs are observable actions or behaviors) listed below in patients of any age from birth to elderly and with acute and emergent medical or surgical presentations:

History Taking and Physical Exam Skills: The student should be able to demonstrate competency in the following:

1. Conducting focused and comprehensive interviews based on presenting complaints with efficiency
2. Identifying pertinent historical information
3. Correlating current complaint with presented history and review of systems
4. Performing focused or comprehensive physical examinations
5. Performing physical exam techniques pertinent to the patient's chief complaint
6. Identifying quickly the patient signs and symptoms that distinguish a significantly ill patient from one with a minor illness

Developing a differential diagnosis: The student should be able to demonstrate competency in the following:

1. Presenting to the preceptor the significant history as it relates to possible differential diagnosis
2. Presenting to the preceptor the significant physical exam findings as they relate to possible differential diagnosis
3. Administering basic life support and resuscitation when needed
4. Formulating a differential diagnosis with consideration to the most likely diagnosis, the most common diagnosis, as well as the most severe and/or life threatening diagnosis
5. Prioritizing patient management

Selecting and Interpreting Laboratory and Diagnostic Studies: The student should be able to demonstrate competency in the following:

1. Identifying indication for initial and subsequent diagnostic or laboratory studies
2. Identifying pertinent pathophysiology in the urgent and emergent patient, to include shock, fluid imbalance, and cardiopulmonary resuscitation
3. Selecting appropriate common screening tests for medical conditions encountered
4. Selecting appropriate interventions in first hour management of medical emergencies

5. Identifying appropriate procedures in rapid stabilization techniques for critically ill patients
6. Identifying cost effectiveness, benefits, contraindications, sensitivity and specificity, and informed consent for diagnostic studies or procedures.
7. Identifying risks associated with diagnostic studies or procedures to the patient
8. Identifying normal and abnormal laboratory/diagnostic ranges and results for studies
9. Performing the lab and diagnostic studies safely and with appropriate technique
10. Interpreting results of lab and diagnostic studies correctly

Developing, Documenting, and Executing an Assessment and Plan: Student should be able to demonstrate competency in the following:

1. Correlating lab and diagnostic data to the differential diagnosis to help select the most likely diagnosis
2. Determining when to transfer a patient to a higher-level facility
3. Applying current EMTALA laws governing transfer and acceptance of a patient
4. Demonstrating basic abilities in chest tube placement, endotracheal intubation, suturing techniques and other procedures as directed
5. Developing pertinent non-pharmacologic management plan including consultation/referral to specialists, community resources, behavioral and/or psychological interventions
6. Applying EBM criteria (i.e. NEXUS Criteria in clearing a c-spine, Ottawa ankle rules, PERC, CURB-65, etc) in the appropriate management of patients
7. Initiating treatment with approval and supervision of preceptor
8. Documenting the patient encounter using site-specific template for problem-focused note, including patient education and follow-up recommendations
9. Delivering and documenting patient counseling and education that is patient-centered, culturally sensitive and inclusive to ensure patient's understanding of the plan, including:
 - a. Health prevention such as nutrition, safety, domestic violence screen, and substance use
 - b. Physical activity and exercise modifications
 - c. Adjustments to lifestyle changes related to ADLs, physical/mental impairment, culture and diverse backgrounds, violence/assault/safety, rehabilitative care, palliative care, death and dying
 - d. Attention to body, soul, and spirit with consideration of and sensitivity to patient's religious/spiritual beliefs, health practices, and lifestyle choices

Developing and Documenting Pharmaceutical Therapeutics and Treatment Modalities: The student should be able to demonstrate competency in the following:

1. Discussing rationale for utilization of each drug with understanding of:
 - a. Mechanism of action
 - b. Indications for use
 - c. Contraindications
 - d. Side effects
 - e. Adverse reactions
 - f. Potential for drug-drug interactions
 - g. Therapeutic effects
 - h. Dosing
 - i. Cost-effectiveness
 - j. Drug toxicity
 - k. Identify risks for, and signs and symptoms of drug interactions from polypharmacy
 - l. Methods to reduce medication errors
 - m. Cross-reactivity of similar medications
2. Selecting appropriate pharmacologic therapy for medical conditions encountered
3. Reviewing patient's current pharmacologic regimens and adjusting as appropriate
4. Managing adverse drug reactions
5. Determining appropriate medications and utilizing appropriate resources
6. Documenting orders and prescriptions for treatment medications

Applying Basic Science Concepts: The student should be able to demonstrate competency in the following:

1. Identifying normal and abnormal human anatomy and physiology to correlate how it applies to conditions encountered
2. Correlating pathophysiologic principles to specific disease processes common in Internal Medicine
3. Correlating abnormal physical exam findings to a given disease process
4. Applying abnormal results of diagnostic tests to a given disease process

Professionalism: The student should be able to demonstrate competency in the following:

1. Demonstrating sensitivity to the emotional, social, and ethnic background of patients
2. Demonstrating respect for the privacy and confidentiality of each patient
3. Communicating and interacting professionally with other members of the healthcare team.
4. Identifying limitations and willingness to seek help from supervising preceptors, and referencing appropriate resources.
5. Demonstrating an openness to receiving constructive criticism
6. Initiating independent outside research concerning clinical cases encountered
7. Performing duties with a professional attitude in such areas as attendance, dress code, and demeanor