**LEARNING OBJECTIVES: EMERGENCY MEDICINE POINT-OF-CARE ULTRASOUND ELECTIVE**

<table>
<thead>
<tr>
<th>Overarching Goals of Curriculum</th>
<th>Elective objectives: By the end of the rotation, students will be expected to:</th>
<th>Where/how taught</th>
<th>Taught by</th>
<th>How student’s achievement of objective is assessed</th>
<th>How feedback is given</th>
<th>Quantity target</th>
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| 1, 2, 3, 4, 5, 6                | **History skills:** Gather the important information that is needed for the history of why the patient is getting a point of care ultrasound. Document the history in the ultrasound log sheet and complete a history for at least 50 (2 weeks)/100 (4 weeks) of point of care ultrasound.  
  a. The student should name all the routine questions that are involved in taking a history for key indications of emergency ultrasound. | In ED during POC ultrasound performance. | ED attendings, ultrasound division attendings, ultrasound fellows, ED residents. | Review of documentation, personal interaction. | Immediate during rotation, during image review, and at end of rotation evaluation. | 50-100. |
| 1, 2, 3, 4, 5                   | **Physical examination skills:** Complete a pertinent physical examination for the evaluation of a sonographically identifiable illness on at least 10 patients. The student should demonstrate the ability to perform this pertinent physical examination while being observed by at least one attending or resident.  
  a. The student should correlate physical findings with sonographic findings, including: Murphy’s sign, ascites, appendicitis, pericardial effusion, pleural effusion, pneumothorax, and others.  
  b. The student should be able to explain how point of care emergency ultrasound can be used to augment the physical examination, why it is being performed and what abnormalities are being sought. | In ED during POC ultrasound performance.  
  During US image review (weekly). | ED attendings, ultrasound division attendings, ultrasound fellows, ED residents. | Personal observation, questioning in ED, questioning during image review. | Immediate during rotation, during image review, and at end of rotation evaluation. | 10 patients with confirmed pathology on ultrasound. |
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| **1, 2, 3, 4, 5, 6, 7, 8**      | **Knowledge/diagnostic and treatment skills:** Know about conditions for which POCUS is helpful, for example  
   a. Use of FAST examination in the stable/unstable trauma patient.  
   b. Define four sonographic criteria for cholecystitis.  
   c. Describe the use of pelvic ultrasound in an algorithm for suspected ectopic, with and without beta-hCG.  
   d. Name at least 3 laboratory tests to evaluate each of these conditions.  
   e. Describe the first line therapy for each of these conditions. | In ED during POC ultrasound performance.  
   During US image review (weekly). | ED attendings, ultrasound division attendings, ultrasound fellows, ED residents. | Review of documentation, personal interaction. | Immediate during rotation, during image review, and at end of rotation evaluation. | 50-100 point of care ultrasounds. |
| **4**                           | **Procedural skills:** Perform 50-100 bedside point-of-care ultrasounds on ED patients. Perform 5-10 ultrasound guided procedures (vascular access, paracentesis, thoracentesis, arthrocentesis).  
   a. The student should know the key indications for the procedure.  
   b. The student should be observed and get feedback on the performance of the procedure on most examinations. | In ED during POC ultrasound performance.  
   During US image review (weekly). | ED attendings, ultrasound division attendings, ultrasound fellows, ED residents. | Review of documentation, personal interaction. | Immediate during rotation, during image review, and at end of rotation evaluation. | 50-100 diagnostic ultrasounds.  
   5-10 ultrasound guided procedures. |
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| 4, 5, 6                         | **Attitude:** Demonstrate professional responsibility in working as a team member with other members of the emergency department and emergency ultrasound care team, patients and families.  
  a. The student should exhibit sensitivity to the particular psychosocial issues faced by emergency department patients and their families.  
  b. The student should exhibit honesty, accuracy and integrity in all interactions with patients, families, colleagues and others. | In ED during POC ultrasound performance. | ED attendings, ultrasound division attendings, ultrasound fellows, ED residents. | Interaction during rotation. | Immediate during rotation, during image review, and at end of rotation evaluation. | 8-16 scanning shifts, 2-4 image reviews. |
| 5, 6, 8                         | **Career/context:** Know the training/career pathway for emergency medicine and emergency ultrasound.  
  a. Know 3 aspects of career satisfaction in this specialty.  
  b. Know key roles that the specialty plays in the health care system. | In ED during POC ultrasound performance. During US image review (weekly). | ED attendings, ultrasound division attendings, ultrasound fellows, ED residents. | Interaction during rotation. | Immediate during rotation, during image review, and at end of rotation evaluation. | 8-16 scanning shifts, 2-4 image reviews. |