Welcome to the ED at Osceola Regional Medical Center!

Student Clerkship Director: Dr. Jose Rubero
(jose.rubero@ucf.edu)

Medical Student Coordinator: Stephanie Jorge
(Stephanie.jorge@hcahealthcare.com)
(407) 518-3347

ED Secretary Desk: (407) 518-3801

Orientation, Emergency Medicine Rotation and Didactics

The ED rotation is a total of 14 shifts, including a dedicated teaching shift, ultrasound shift, simulation shift and 2 pediatric shifts. The ED rotation starts with an ED orientation and teaching shift which includes an ED tour.

You will also attend two 2-hour medical student didactic sessions during your block. The schedule for these will be arranged at the start of your rotation.

Additionally, you will attend weekly resident didactics from 7a-12p every Thursday morning in the GME conference room, unless another location has been determined. Please contact Michelle Stevenson (Michelle.stevenson@hcahealthcare.com) to be placed on the weekly conference emails so you can prepare for conference.
### Medical Student EM Rotation Shifts and Didactics

<table>
<thead>
<tr>
<th>Shift Type</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Orientation Shift</td>
<td>4 hours</td>
</tr>
<tr>
<td>10x8 hour Main ED shifts</td>
<td>7a-3p</td>
</tr>
<tr>
<td>(Incl 4 hours nursing)</td>
<td>3p-11p</td>
</tr>
<tr>
<td></td>
<td>11p-7a</td>
</tr>
<tr>
<td>1 US Shift</td>
<td>1-4p</td>
</tr>
<tr>
<td>2 Peds EM Shifts</td>
<td>11a-7p</td>
</tr>
<tr>
<td></td>
<td>7p-3a</td>
</tr>
<tr>
<td>4 Hours Med Student Didactics</td>
<td></td>
</tr>
<tr>
<td>2 Hours Med Student Sim</td>
<td></td>
</tr>
</tbody>
</table>

### Overview of the Emergency Department Process

The ED at ORMC sees approximately 200 patients per day. These are seen in 3 distinct areas of the ED:

- The Acute or Critical Area (Beds 1-26 + Hallway)
- Rapid Assessment Zone (RAZ: less acute patients)
- Pediatric ED (P1-P9).

### Triage

As the ambulatory patients enter the ED, they are registered and are seen initially in the triage area at the entrance. The triage nurse takes a brief presenting complaint and vital signs are obtained. From here the patient is triaged to the appropriate area of the ED with an acuity level of 1-5, with 1 being critically ill.

Ambulance arrivals are greeted, registered, and triaged by the charge nurse in the main ED. If the patient has a life-threatening emergency, the patient will be seen immediately in the resuscitation area of the ED.
Patient Assessment and Care

The aim is to provide fast and thorough, quality care, addressing the patient’s presenting complaints, and performing investigations as needed. A differential diagnosis is formulated and investigations used to include or exclude these conditions. Initial treatment is given as needed while awaiting the test results (for eg. pain medications, anti-emetics, fluid resuscitation).

→All EKG’s must be handed to an Attending Physician immediately.

As the diagnosis is made and more complete treatment is given, a plan is developed as to whether the patient will be discharged or will be admitted ie. A Disposition is made.

Please note that point-of-care or “istat” testing is a critical part of our ED and includes troponin, chemistry, lactic acid and HCG. Prompt results help inform patient care and improve our ED throughput.

Disposition

If the patient is to be discharged, discharge documents are written using the program ScriptRx and prescriptions are printed by the attending. The patient is then seen a final time by the student and ED physician, all result reviewed, follow-up plan established, and all questions answered. Generally, the nurse will review discharge papers, provide prescriptions, remove the IV, obtain discharge vital signs, and discharge the patient from the ED.

→All patients will have discharge instructions and follow-up arrangements, regardless of chief complaint

If the patient requires admission, you will communicate with the secretary to place a call out to the appropriate Hospitalist/Primary Care team/ VA team. It is extremely important to obtain and record the patient’s Primary Care Physician (PCP) as this designates which team is used for admission. It is also important to know whether the patient has an outpatient specialist. For example, if the patient has a presenting complaint of chest pain, has a cardiac history and is under the care of a Cardiologist, you must identify the Cardiologist so that the Hospitalist can consult the appropriate specialist team.

Pediatric Emergency Care

Pediatric Emergency Medicine Education Director: Dr Ariel Vera

Our pediatric emergency care program staffs board certified pediatric emergency doctors and specialty trained nurses in pediatric emergency care and pediatric
advanced life support. It also features a separate pediatric area and treatment room, minimization of pain via utilization of a variety of numbing agents, and diversionary techniques and Broselow™ Pediatric System to ensure quick, safe, and proper dosing and administration of drugs. Please let Dr. MacIntosh know if you would like to be scheduled for pediatric EM shifts at the start of your rotation.

**Supervision**

You will be supervised at all times in the ED by Emergency Physicians, but you will have the opportunity to see patients as independently as possible.

- Immediately notify the attending if your patient has abnormal vital signs, altered mental status or requires immediate interventions
- It is your responsibility to keep the attending up-to-date on the patient’s progress and ask for help if you have any concerns

**Procedures**

There are many interesting and complex procedures performed in the ED. You will have the opportunity to observe and you may be asked to participate. You will prepare yourself for the procedure as follows:

- Review indications for the procedure
- Review risks and benefits
- Collect all needed supplies for the procedure
- Wear complete personal protective equipment including eye protection

→**Do not perform any procedures without the attending physician present in the room.**

**Professionalism**

1. You will demonstrate behavior that conveys caring, honesty, genuine interest and tolerance when interacting with a diverse population of patients and families
2. Recurrent tardiness to shifts will result in a make-up shift
3. You will demonstrate basic professional responsibilities such as appropriate dress/grooming, rested and ready to work, delivery of patient care as a functional physician
4. You will maintain patient confidentiality
5. You will adhere to professional responsibilities, such as conference attendance, timely completion of clerkship documents (e.g. patient logs, evaluations, etc.)

**STEMI, Stroke, SEPSIS, Trauma Alerts and Medical Resuscitation**

The ED is a Certified Advanced Primary Stroke Center and an Accredited Chest Pain Center. We are also Level II Trauma Center, provisional status.

One of the most unique and rewarding aspects of Emergency Medicine is in the care of critically ill patients, and this is a key component of your rotation. There are specific medical conditions that are extremely important for you to be aware of, as faster care has been shown to have better outcomes. If you hear any of the following alerts, please excuse yourself from the patient bedside, if with a patient, and attend to the alert.

- **STEMI**
  - A patient that is found to have a ST Elevation Myocardial Infarct (STEMI) by EMS will have the EKG transmitted by Lifeline and a STEMI Alert will be activated. This includes calling the Interventional Cardiologist and readying the Cath Lab and its personnel.
  - If the patient arrives via triage then the Physician will be brought the EKG and call a STEMI Alert will be called.
  - The patient has the best outcome if the DOOR to BALLOON time is less than 90 min: the time the patient arrives in the ED to the time they are in the cath lab and the guidewire crosses the lesion in their coronary artery is less than 90 mins. It is a core quality measure for the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). This is why EKG’s must be performed on all patients with chest pain within 10 minutes, and reviewed by an **ED attending** immediately.

- **STROKE**
  - If a patient arrives with symptoms of a stroke (Facial paralysis, Arm weakness, Speech deficit) via EMS or triage then a Stroke Alert will be called and the patient will go straight to CT scan of the brain.
  - The most important part of information you can obtain is the “TIME LAST SEEN NORMAL”. Again, time is of the utmost importance and if the symptoms onset less than 3-4.5 hours ago and the CT brain shows no hemorrhage, ie, there is an ischemic stroke, the patient may qualify for tPA (tissue plasminogen activator). Also obtain the pre-hospital fingerstick blood glucose from the EMS personnel. The NIH stroke scale and packet must be completed and the stroke neurologist will be consulted.

- **SEPSIS**
  - Patients with the possibility of infection must be screened for SIRS criteria.
Please use the SEPSIS order set and call a SEPSIS ALERT!

SIRS:
Temp > 38°C (100.4°F) or < 36°C (96.8)
Heart Rate > 90 bpm
Respiratory Rate > 20 or PaCO$_2$ < 32 mm Hg
WBC > 12,000/mm$^3$, < 4,000/mm$^3$, or > 10% bands

<table>
<thead>
<tr>
<th>Sepsis Criteria (SIRS + Source of Infection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspected or Present Source of Infection</td>
</tr>
<tr>
<td>Severe Sepsis Criteria (Organ Dysfunction, Hypotension, or Hypoperfusion)</td>
</tr>
<tr>
<td>Lactic Acidosis, SBP &lt; 90 or SBP Drop ≥ 40 mm Hg of normal</td>
</tr>
<tr>
<td>Septic Shock Criteria</td>
</tr>
<tr>
<td>Severe Sepsis with Hypotension, despite adequate fluid resuscitation</td>
</tr>
<tr>
<td>Multiple Organ Dysfunction Syndrome Criteria</td>
</tr>
<tr>
<td>Evidence of ≥ 2 Organs Failing</td>
</tr>
</tbody>
</table>

If your patient meets the SIRS criteria you MUST implement BLAST. Blood Cultures, Lactic acid, Antibiotics (see order set for appropriate), Normal Saline Bolus of 30ml/kg and T is for TIME! Must be given antibiotics within 3 hours.

- **TRAUMA ALERT**
  If a patient arrives as a trauma alert, you may observe the care of this patient behind the red line in the trauma bay. You must wear lead, including thyroid shield, covered by PPE. At the discretion of the trauma surgeon, only those with ATLS certification will be permitted to provide any direct patient care to these patients.

- **MEDICAL RESUSCITATION**
  If a patient arrives in extremis, they may be announced overhead (eg. CPAP alert or “Doctor to room 3”), or you may hear the alert from the EMS patch.

  → Please listen carefully to all overhead announcements in the ED – these will provide you with some of the best learning opportunities.
**Patient Satisfaction**

Patients in the Emergency Department are often in pain, upset and overwhelmed. It is important for you to realize that your bedside manner and the way in which you address patients and their families has a tremendous impact on the patient experience in the ED. It is a trying time for them and your compassion and kind words can have a very beneficial effect in helping them feel better. You must introduce yourself and explain how you fit into their care. You must say that an Attending Physician will also be seeing them. You must let the patients know what they are waiting for and approximately how long it will take and what the next step is. You may be the first point of contact for the patient as the provider and first impressions are often lasting. In keeping with the culture of the ED, please use the following acronym, AIDET, when interacting with patients:

- **A** – Acknowledge patient and guests (“hello”), apologize for the wait
- **I** – Introduce yourself and your role, the attending physician you’ll be working with
- **D** – Anticipated duration in the ED
- **E** – Explain tests, results, follow—up, return precautions
- **T** – Thank them for their time and for choosing us for their care

**Patient Safety**

Patient safety and avoiding medical errors is of the utmost importance. This includes checking you have the correct patient (ask, don’t tell) as you enter the room, bed rails up to prevent falls, infection control and handwashing.

→ If you have any concerns, please talk to your attending physician immediately
→ Safety is everyone’s responsibility

**Documentation**

We use PDoc in Meditech for the documentation and management of the patient. You will have access for chart review and be able to document a note that can be reviewed by a clinical faculty member – ask your attending at the beginning of your shift if they would like you to complete a note.

**Shift Cards**

At the end of **every** shift please have your attending complete a shift evaluation form. Give this to the attending you have worked with the most and ask them to complete it and give you verbal feedback. You will collect these shift forms and
give them to the clerkship coordinator at the end of the rotation. These are used to grade your rotation and verify your attendance.

**Mid-Clerkship Self-Reflection and Feedback**

At the end of your 2nd week, please complete the Self-Reflection and Feedback form (provided). Please present a completed form to an attending with whom you have worked at least 2 shifts. That attending will complete the form with you. This is meant as an opportunity to understand your strengths and areas of weakness halfway through your rotation and make changes in the remaining time. This is meant as a means for you to improve and does NOT impact your final grade.

**Student Evaluation**

Student evaluation is based on your professionalism, clinical knowledge and patient care as demonstrated by direct observation, SAEM test and through the shift evaluation cards.

Students will also be graded on their patient case presentation.

Students requesting a Standardized Letter of Evaluation (SLOE) must do so during the first week of the rotation and complete the necessary ERAS documentation.

**Patient and Procedure Log**

Please complete your patient and procedure log throughout the rotation. This will help ensure you that you are seeing a variety of patients and will help your attendings to assist you in seeking out patients you have not yet encountered.

**Knowledge Assessment**

You will do a closed-book online knowledge assessment on the last Thursday of your rotation that counts for 20% of your grade.

Your SAEM test login will be provided at the start of your rotation in order that you may do practice questions throughout the clerkship.
**Recommended reading**

First Aid for Emergency Medicine – a copy will be available for you to borrow.

Tintinalli's Emergency Medicine Manual 7/E (Emergency Medicine (Tintinalli))
*David Cline (Author)*

You also have access to University of Central Florida Health Sciences Library which has an enormous selection of ebooks and journals.
http://med.ucf.edu/library/

Specific articles will be recommended during your rotation and you are encouraged to seek out the primary literature to guide your patient care in the ED.

**Online Resources for Medical Students**

EM Basic – *Your boot camp guide to emergency medicine*


www.floridaemclerkship.com