EMED 420: EMERGENCY MEDICINE
ORIENTATION MANUAL

INTRODUCTION TO THE EMERGENCY DEPARTMENT

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Welcome to the Emergency Department! To help make your Emergency Medicine rotation enjoyable, it is important that you know as much as possible about the Emergency Department prior to your first shift. This manual has been prepared to assist you with any questions you may have regarding the operation of the department. Please take time to review the following information *before the start of your first shift*.

HILLCREST ED GENERAL FLOOR PLAN

The layout of the Hillcrest ED is essentially a rectangle, with room numbers and beds split into a "front hall" (into which the ambulance bay empties) and a "back hall" in the figure below:

There are also several hallway beds or "T" beds. When the census is high, it may be necessary to place patients in the hall in the "T" beds. This may make it difficult to maintain patient privacy and perform a complete assessment. If it is clear that you cannot perform and adequate assessment to at least begin a work-up, notify your supervising physicians & the charge nurse so that they can help find an exam room for the patient.

SHIFT SCHEDULES

The student program coordinator creates and manages student shifts/schedules; schedule preferences should be requested in advance of your start date. Students are expected to work 12 shifts overall including weekends and 1-2 overnight shifts at (Hillcrest (5-7shifts) ; La Jolla (2-4 shifts) ; and the La Jolla Geriatric ED (1-2 shifts), Students are allowed to make changes to the schedule by connecting with the course coordinator. Neither "split shifts" nor "double-shifts" are allowed. If you are ill or have a personal emergency, you must call or email the course coordinator.

All emergency physicians (and students) should aspire to as much as possible complete the ED care of patients with whom they are assigned. If a lengthy work-up is in process at the end of

your shift, be sure to relay a detailed sign-out to your Senior EM Resident and/or Attending and complete your note in the chart including any updated information up to the point of your departure. Before leaving, let your patients know it is the end of your shift, but that you have given a thorough sign out to a physician (whomever you signed out to) and that he or she will check in with the patient with further updates. This will help the patient stay updated and not feel abandoned after shift change.

DRESS CODE

There is a dress code in the hospital, which applies to the Emergency Department. Identification badges must be worn with name visible at all times. Please make sure your name badge is displayed on the upper third of your person. Clothing must be neat and clean. Thongs, beach sandals, T-shirts, torn or frayed garments, or blue jeans are not allowed to be worn in the hospital. Hair longer than shoulder length should be tied back. Any visible tattoos should be covered. In the ED, neckties should be the clip-on variety only as they could pose a strangulation hazard. Matching scrubs are recommended (and what all care-providers in the ED wear). There is no particular color or style required. It is encouraged that all physicians & students have a clean white coat to wear over formal dress or scrubs.

GENERAL PRINCIPLES

Our goal in the Emergency Department is to provide the highest quality care to patients in the most cost effective and efficient manner. The ED is staffed by board certified Emergency Medicine (EM) attending physicians and EM residents. Additionally, we have interns and residents from the Departments of Medicine, Family Medicine, and Psychiatry rotating.

It is important that we provide you with the best experience possible. We are fortunate to have a high level of acuity and pathology in the ED, which enables us to give you a valuable learning experience. As part of your rotation, you will learn how to evaluate patients who present to the ED and how to manage them efficiently. Managing patients efficiently is generally accomplished by limiting H&Ps and ancillary tests to only what is necessary to arrive at the accurate diagnosis (or to at least rule out immediate life/limb threats) and provide appropriate treatment during this particular visit.

Please keep in mind that the ED is the first encounter the majority of our patients have with our hospital. It is important to treat all patients with courtesy and respect, as the impression we make with our patients is frequently their first and most lasting. The following guidelines should be used at all times:

1. Introduce yourself as a 4th year medical student or “student doctor” to your patients and their family members when entering the room.

2. Treat patients with dignity & respect. Make sure the patient is covered with either a sheet or blanket when examining him/her.

3. Patients in the ED can be emotionally unstable. If the patient becomes verbally abusive or combative with you, attempt to remain in control and not elevate your voice. If you feel you are in danger, the security staff is immediately available to help (as well as your supervising resident/attending).

4. The ED can be a very intimidating place. This, along with the anxiety related to their illness, may make patients feel uncomfortable. Try to empathize with your patients' feelings. To help make them feel more relaxed, clearly explain (in layman's terms) all tests and procedures that are being done. In addition, if there are delays in the patient's management, please let him or her know what the delay is and how long you anticipate the wait may be (i.e., "the surgeon is in the operating room but will hopefully be finished in an hour"). This lets the patient know that he or she hasn't been forgotten, and the patient appreciates knowing why there is a long wait.

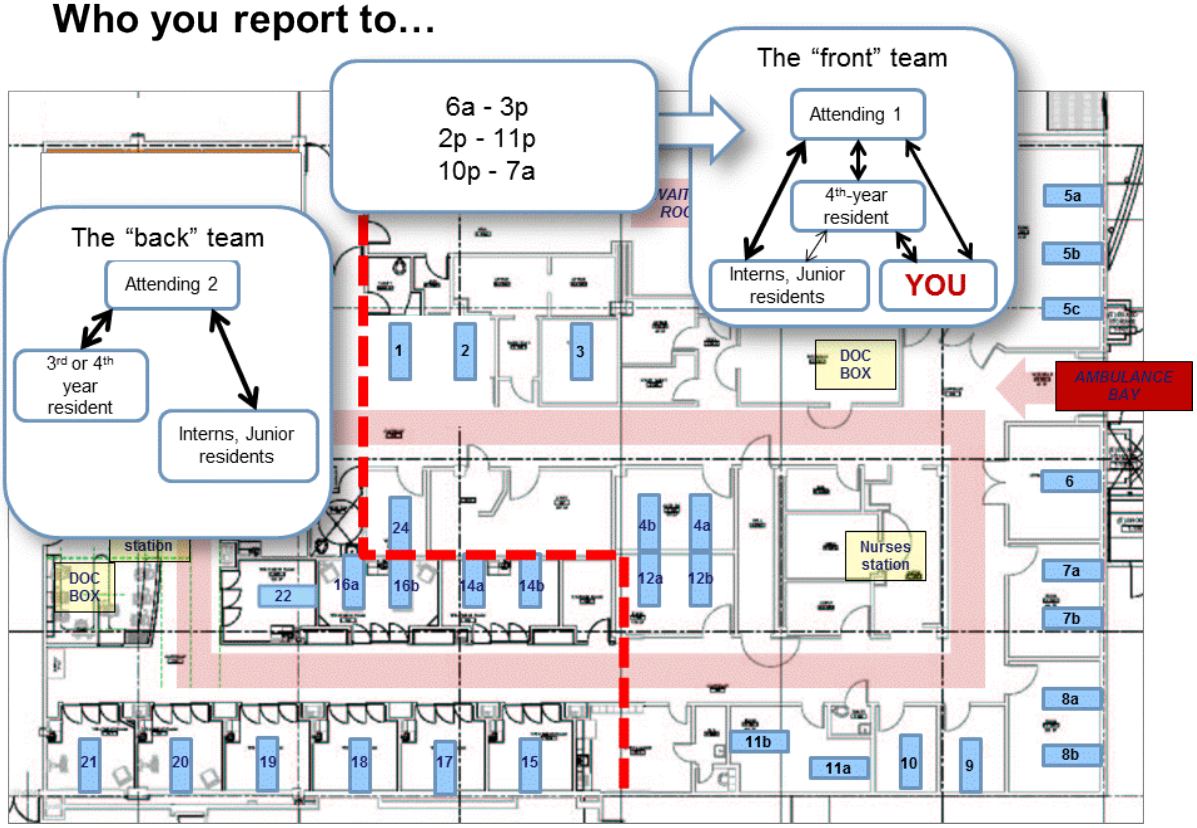
YOUR ROLE AS A MEDICAL STUDENT:

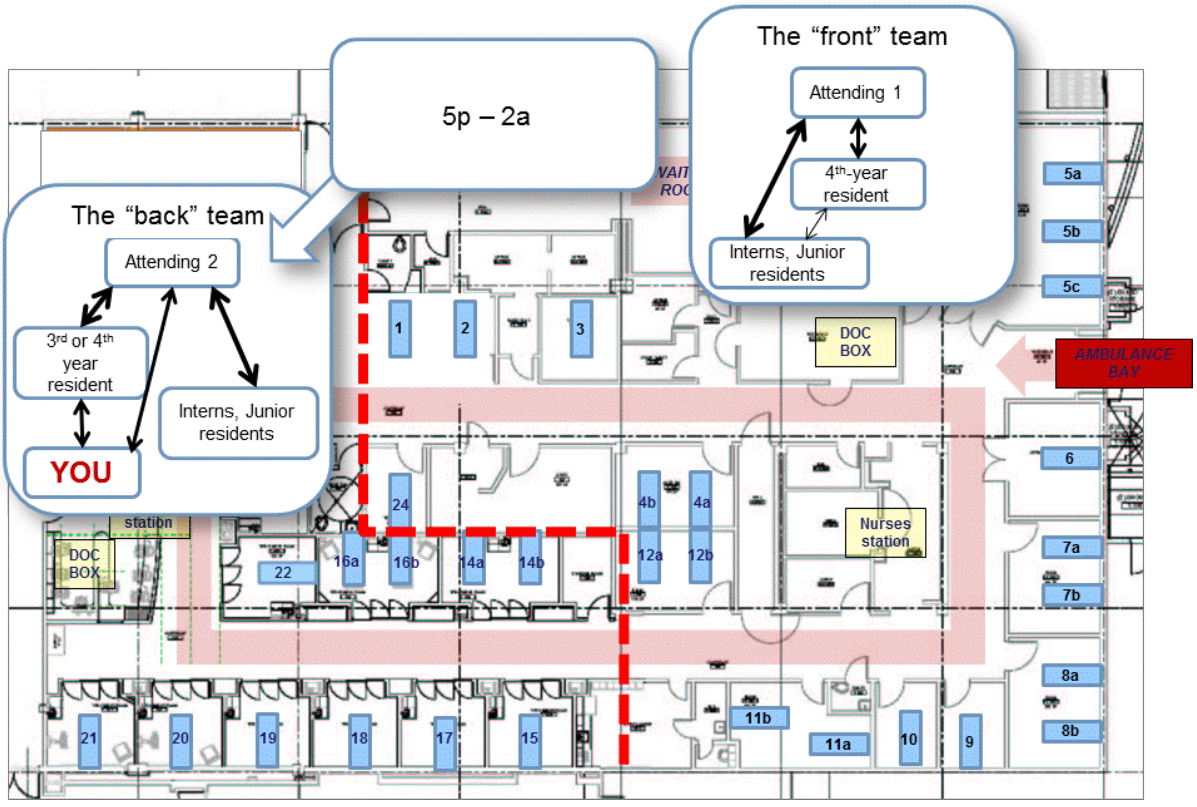
The rotation in the ED is a valuable experience because you will be able to see a large variety of patients, injuries and illnesses. This rotation will give you the opportunity to learn about things other than just what you may be specializing in. You should strive to encounter all kinds of patients and avoid seeking out those with complaints most related to your area of specialty. In particular, aim to see a wide variety of classic acute chief complaints (eg. Chest pain, headache, altered mental status, abdominal pain, vaginal bleeding, fever, orthopedic injuries, etc).

Patients are signed in to the computer by a first-come, first-served basis. All patients presenting to the ED are evaluated initially by a triage nurse. Following a triage evaluation, the patient will be brought back to a room as quickly as possible, based on his or her triage classification. If a patient warrants immediate attention, the nurse will notify an MD to come evaluate the patient immediately.

Working with the team:
The Attending Physician and Senior EM Resident are there to assist you with whatever questions you have, either with patient management or ED procedures. Who you report to in the ED will be dependent on which shift you are working, as per the following figures:

Who you report to…





Regular communication with the nurses is highly encouraged. The use of the computers can allow you to complete a shift in the ED without ever having to speak to a nurse face to face (which is not encouraged). It is recommended that you introduce yourself to the nurse taking care of your patient - especially when you place orders. This will improve efficiency and strengthen the physician/nurse relationship. This is very important since patient care in our department is a team effort.

At any time, if a problem arises with a member of the staff, you are encouraged to discuss the issue with the Senior Resident and/or Attending.

Seeing patients:
When treating patients in the ED, the student should identify him or herself as Medical Student and then proceed to obtain a history and perform a physical exam. The physical exam, *with the exception of the pelvic exam,* should be completed prior to presenting the case to your supervising resident and/or attending. Students are expected to formulate an independent differential diagnosis as well as a proposed diagnostic and therapeutic plan prior to review by a supervising physician.

All patients must be ultimately presented to the Senior EM Resident and the Attending physician. While it may be very busy at times, it is important that you try not to delay presentation of the patient to the Senior Resident & Attending. All patients should be presented within 15-30 minutes following your initial evaluation. It is important to make your supervising physician(s) immediately aware of any seriously ill patients (e.g., patients with unstable vital signs, acute problems breathing, stroke-like symptoms) prior to completing a complete initial evaluation. Do not delay getting your supervising physicians involved in these cases! All orders (whether medications or diagnostic tests) should be discussed with the supervising physicians; either the Senior Resident or Attending must electronically cosign orders initially placed by students.

Consultations:
While specialty consultations can be called by a medical student, it is prudent to first briefly review the case with the EM Resident or the Attending, to ensure that specialty consultation is required, and clarify the clinical question or issue for which the consultation is needed. Make sure to also document in EPIC when you call a consult (by placing an order: “Consult…).

Procedures:
Part of the experience in EM is doing procedures. Please be cognizant of the following key principles involving all procedures: **1**) all procedures require consent from the patient; **2)** all procedures must be supervised in person by the Senior Resident and/or Attending; **3**) appropriate technique and materials must be used at all times; **4**) all sharps need to be disposed of; **5**) the procedure area/bedside should be cleaned of instruments, empty packaging, vials, and other material after the procedure is completed; **6)** a detailed procedure note must be documented in EPIC (even if the procedure is unsuccessful).

CHARTING

Documentation:

All charting in the ED is done on computer workstations in the ED, in an Electronic Medical Record (EMR) called EPIC. You will have been trained on the ED interface of this program before using it. The use of the program is intuitive and easily learned after a few actual patient encounters. The way to sign up for patients is by adding yourself to the TREATMENT TEAM, not by using the 'sign in' button. The way to do this is to highlight the patient you want to pick up then click the button named "Tx Team." A pop-up window will appear. Type your last name into the area in the treatment team section, then add yourself. After you sign up for the patient, notify the Senior Resident that you have done so. If you encounter any problems, such as your name not appearing when you type it into the treatment team field, please contact the course coordinator.

The key elements of the standard medical evaluation should be documented in EPIC including Chief Complaint, History (HPI), Past Medical History, Meds/Allergies, Family History, Social History, Review of Systems, Physical Examination, Medical Decision-Making (MDM) and Plan of Care. At any time, you can update your original Provider Note and/or write an additional 'Progress Note' during the patient's stay. All sections of the standard medical evaluation are to be completed for each patient. There are smart phrases and an area with procedure templates that can help to facilitate charting in an efficient manner. The key to charting well is to document the entire encounter as completely as you can, in particular the HPI & MDM sections. HPIs should follow the following template: OPQRST, exacerbating/alleviating factors, associated pertinent symptoms, history of similar as well as prior work-up/results. There is a browse function to view recent clinical encounters; this is highly encouraged in general.

All procedures should be documented using EPIC templates.

When you complete any data entry (eg. Note writing, orders) in EPIC, ***be sure to "share" that entry*** with your supervising physician. Also, be sure to log-off the computer when not in use for security reasons.

Orders:

Orders are generated in EPIC with automatic prompts to the administrative and nursing staff once they are signed. Interventions such as IV, Foley, and NG tube should be ordered. Medications, including IV fluids, are also ordered through an EPIC pick list. Only if a medicine is NOT on the pick list may it be entered as a free text order. Consults should also be ordered in EPIC in order to timestamp the call (but you also will have to contact the consultant separately using a separate computer program on each desktop called WEBPAGING)

EKGs:
Any EKGs ordered should ideally be done within 5 minutes. If you do not see it in that time frame, track it down and review it immediately with a Senior Resident or Attending! Results of EKG (and any point of care studies) should be documented in your note.

LABS

All typical laboratory studies are ordered & run STAT by the lab including hematology, chemistry, urinalysis, and toxicology analysis. Cultures are followed up by the pharmacists in concert with the attendings. Results of laboratory studies can be found in the 'results' section.

Within the ED itself, there is a small lab which is equipped to perform the following bedside tests:

1. Urine dip stick (UA dip)
2. Urine HCG (UPT)
3. Hemaccue Hgb (finger stick Hemoglobin)
4. FSG (finger stick POC glucose)
5. Stool GUAIAC Hematest (physician/student performed)

These tests are routinely performed by the ED techs or ED nurses, and the results will be recorded in the Nursing Notes or in Results under "Point of Care"

RADIOLOGY

X-rays are ordered directly through EPIC using a pick list. This generates a paperless request directly to the radiology technician. Most X-rays will be performed in the ED X-ray Suite. Although this area is close to most exam rooms, regardless, never send patients back to X-ray that are hemodynamically unstable or have a potential airway problem: those studies should be performed portably.

Completed radiology images can be viewed on the IMPAX radiology view station in the ED XR suite technician room, or using the IMPAX program on any ED workstation. Radiology reads will also appear as text within the IMPAX program, as a "wet-read", or "I-box" read if preliminarily read by a radiology resident or fellow (note this "wet-read" cannot be seen using EPIC); or, as a formal finalized dictation once read by a radiology attending (at which point the dictation will cross over into EPIC as a radiology result). IMPAX is easily viewable on any ED workstation. All ED physicians can access this system by their specific ID and password. After reading the film, check to see if the radiologist has already provided a preliminary interpretation or a formal dictation. The radiologist's interpretation is noted either in the I-box (that pops up when the study is opened), or by transcribed report (a text document icon is noted). If there is no preliminary radiology interpretation, the ED physician MUST write a preliminary interpretation

in the I-box (after discussion with the Senior Resident or Attending). This action is a critical quality assurance tool and must be completed to ensure that the ED and radiology departments are aware of each other's interpretations of radiology studies. If you have any questions, please ask either the Senior Resident or Attending.

ULTRASOUND

Formal Ultrasound (via Radiology) is available 24 hours a day. However, ED bedside ultrasound is available, and focused ED ultrasound studies are frequently used in decision-making by certified faculty & residents. You will be taught to perform these bedside ultrasounds to facilitate the care of your patients, under supervision. Since the images and video clips obtained are automatically uploaded to the IMPAX system, studies should be performed together with the Senior Resident and/or Attending so as to A) ensure proper technique (and learning of technique) and B) ensure that the appropriate images are stored and uploaded in the proper manner.

PATIENT DISPOSITIONS

Admitting a patient

All patients who meet criteria for admission should be admitted without delay, especially critical and unstable patients. In these patients, it is important to call the admitting team early to help expedite admission to the hospital. The earlier you contact the admitting team, the earlier you can put in the admission order into EPIC, to get the process started. This admit order will reserve a bed for the patient and enable nursing staff to prepare.

Once the decision to admit a patient has been made, the next step is to call the relevant admitting team, ask who the admit Attending will be, then admit the patient via EPIC. This will reserve a bed for the patient and initiate relevant admission procedures. The sooner this order is placed, the sooner the patient will be sent upstairs. Make sure to discuss and agree upon level of care for the admission (ICU vs IMU vs Tele vs Floor) with the admitting team.

Putting a patient in “ED Observation”

At times, a patient may meet criteria for being placed under “ED Observation status”, which will typically involve a situation in which more time, or more data, is needed before a decision can be made as to whether to admit or discharge the patient. Discuss these cases with the Senior Resident and Attending, and they will be able to guide you through the process, which involves putting in a short ED Observation HPI note, and ED Observation orders in EPIC. While consulting services may ask if a patient can be put into ED Observation, the final decision as to whether a patient is appropriate for ED Observation rests solely with the ED Attending.

Discharging a patient

At time of discharge, the Discharge Screen must be completed and is restricted only to Providers. After-care instructions must be provided to all patients, particularly regarding follow-up and any prescriptions written. Please note that patients being evaluated for work-related illnesses or injury must have additional instructions concerning their care and follow-up.

If the decision is made to discharge the patient, the discharge process involves six primary actions:

1) The patient needs to be provided with a **clinical impression/diagnosis** (You have been diagnosed with…")
2) The patient needs to be provided with **typed discharge instructions** (typically found pre-made in EPIC) that pertain to each discharge diagnosis
3) The patient's **medication list needs to be reconciled** ("medication reconciliation", or "med-rec") such that he or she knows whether or not he or she should continue or stop taking each of the medications he or she is already on, based on any change in health status that may have occurred.
4) **New medications** need to be prescribed for the patient
5) The patient needs to be **appropriately referred** to someone (either to his or her primary care provider, or a specialist, or both) who can assume care of his or her clinical issues.
6) The **specific "discharge" order** ("To home", "AMA", etc…) has to be placed by a resident or attending.

Referral to subsequent healthcare providers may be influenced by certain fiscal considerations.

a. Patients enrolled in Managed Care Programs (e.g., Health Net) can only be referred to their Primary Care Physician. Referral to a specialty clinic requires completion of an authorization form and approval by the attending physician. Please refer all suture removals and wound checks to the patient's PCP.

b. Patients covered under the County Medical Services ("CMS") contract or who lack health care coverage should be referred to a community clinic (such as Family Health Centers) when follow-up is required. Referral to a UCSD clinic should be reserved for cases where urgent follow-up is necessary. All referrals to UCSD clinics require Attending approval.

c. Patients without health care coverage are typically referred to community clinics (such as Family Health Centers or local free clinics) for their follow-up. They are provided information about applying for CMS or Medi-Cal at the time of registration.

d. Patients covered by a carrier restricting care to another facility (i.e., Kaiser) should be referred to that institution for follow up.

The above being said, if a patient needs definitive, time-sensitive follow up with a specialist, one can always refer him or her to a UCSD specialist and inform the patient that he or she should check with the insurance provider first – to see if an alternative in-system referral is available - before following through with the UCSD referral. These referrals are easily accessible in the Discharge screen in EPIC under Discharge Orders.

If the person is a Workers' Compensation ("Work Comp") patient, make sure that you give him or her discharge instructions that specify any work restrictions he or she may have. The patient needs this sheet to give to his or her employer. There is a separate Work Comp form in EPIC that does this. Therefore, after the instructions are printed out, it is necessary to fill out the work limitations prior to the nurse discharging the patient.

CONFERENCES

Conferences are typically on Tuesdays, and generally start at 7AM, with a typical conference day consisting of a case conference, a core curriculum lecture, and more, depending on the day. The content is dynamic, so it is important to check with the Department of Emergency Medicine office for the exact schedule and content the month you are rotating, but in general, the conference structure is as follows:

The first Tuesday of the month:		
TIME	***TYPE***	***LOCATION***
0700-0800	Core curriculum	ACTRI in La Jolla (across from the ED)
0800-0900	Adult case conference	
0900-1000	Core curriculum	ACTRI
1000-1100	EKG Conference	ACTRI
1100-13:00	Residency Advisor Committee	No students
The second Tuesday of the month ("Grand Rounds Tuesday"):		
TIME	***TYPE***	***LOCATION***
0700-0755	Core curriculum	HC (Hillcrest hospital) Main Auditorium
0800-0910	Adult case conference	HC Main Auditorium
0915-1015	Pediatric case conference	HC Main Auditorium
1030-1130	Board Review	HC Main Auditorium
1200-1300	Grand Rounds	HC Main Auditorium

The third Tuesday of the month ("Sim Tuesday") at the UCSD School of Medicine "MET" (Medical Education and Telemedicine) building, La Jolla:		
TIME	***TYPE***	***LOCATION***
0715 - 0815	Critical care conference	Med Ed SIM Ctr Room L145
0815-1215	SIMULATION (adult, peds, & small group workshops)	Med Ed SIM Ctr lower level (LL) rooms (e.g., LL133, LL152, LL161)
The fourth Tuesday of the month ("Journal Club Tuesday"), which starts later in the morning:		
TIME	***TYPE***	***LOCATION***
1100-1155	Ortho lecture	Zoom
1200-1255	Adult case conference	Zoom
1300-1355	Core curriculum	Zoom
1400-1455	Research conference	Zoom
1500-1555	EM radiology conference	Zoom
1600-1655	EM trauma conference	Zoom
1800-2030	Journal Club	TBD (typically at a faculty member's house)

In addition, rotating medical students have additional required small group learning activities on Thursday mornings. These will be noted on the conference schedule distributed at the beginning of each rotation block.

At any time, if you have any questions, please do not hesitate to ask!

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