



Emergency Medicine
Clerkship

ORIENTATION
HANDBOOK

MISSION STATEMENT

The Department of Emergency Medicine is committed to providing state-of-the-art, high quality, timely, multi-disciplinary emergency care for the entire service community in a compassionate, humanistic patient - centered environment.

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CONTACT LIST

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2545 Schoenersville Rd. 2nd floor
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17th & Chew Streets
Allentown, PA 18102

Welcome to the Emergency Medicine Rotation!

Congratulations on your acceptance into the EM rotation. This offers you a unique learning experience at two emergency departments of the Lehigh Valley Health Network.

Our commitment to you is to provide you a challenging curriculum with a robust educational experience in emergency medicine that includes:

- Trauma simulation with talented faculty
- Procedure self-study modules with emphasis on core procedures that all students should know before residency training
- EM focused procedures including cricothyrotomy, chest tube thoracostomy, intraosseous insertion and transvenous pacing among others
- Working with one of three board certified toxicologists, reviewing interesting cases and having interactive sessions on the assessment and management of the toxicologic patient
- An advanced ultrasound experience with lectures and hands on application with our dedicated EM ultrasound faculty
- The opportunity to observe an autopsy with a forensic pathologist
- Completing a series of online quizzes in emergency medicine that are open book which will help you prepare for your boards

This is all in addition to our existing strong didactics which include:

- Labs – airway, central line, lumbar puncture, suture, orthopedic
- Medical simulator rounds
- EMS ride along (optional)
- Autopsy observation (optional)
- Spend a day with our ultrasound resident (optional)
- Spend a day with a nurse
- Weekly core content lecture series
- Evidence based medicine lecture series
- Weekly grand rounds with a monthly nationally known speaker

This rotation has it **ALL** for that enthusiastic student who is looking for something more than what is customarily offered on other EM rotations. Upon successful completion of this rotation, you will not only be guaranteed an interview with our residency program, but you may greatly enhance your chances of getting into any competitive allopathic or osteopathic emergency medicine program. We look forward to working with you. *“With hard work comes great reward.”*

EM Faculty

Each student will have the opportunity to work clinically with a great EM faculty and our residency core faculty members, including some that sit on our interview committee.

Student Core Faculty

Alexandra Amaducci, DO	Kate Kane, MD
Gavin Barr, MD	Ken Katz, MD
Gillian Beauchamp, MD	Andrew Koons, DO
David Burmeister, DO	Brian Lovett, MD
Matt Cook, DO	Richard MacKenzie, MD
Nicole Elliott, DO	Andy Miller, DO
Elizabeth Evans, DO	Mike Nguyen, MD
Kim Fugok, DO	Shawn Quinn, DO
Jeff Gesell, DO	David Richardson, MD
Terry Goyke, DO	Kevin Roth, DO
Marna Greenberg, DO	Ryan Surmaitis, DO
Jeanne Jacoby, MD	Hanna Warren, DO
Steve Johnson, DO	Kevin Weaver, DO
Deepak Jayant, DO	Charles Worrilow, MD
Bryan Kane, MD	Susan Yaeger, MD

The following are key elements of the rotation:

1. Emergency Medicine Faculty

Each student in the rotation will be scheduled with not only a great EM faculty, but our Residency Core Faculty members as well. The chief resident will give each student a brief mid-rotation evaluation. The will be to review strengths, weaknesses, and areas of opportunity.

2. Toxicology Didactics

The Toxicology Didactics every weekday (except Wednesdays). This will be given by one of board certified toxicologists and/or the toxicology fellow.

3. Autopsy Day (optional)

Will be held every Wednesday and/or Thursday from 8 - 10am in the LVHN morgue which is located in the basement of the Kasych Pavilion. Not more than two students can be scheduled per day. This experience will provide the student with an opportunity to observe an autopsy with a forensic pathologist. If you are interested in attending, please let Dawn know for scheduling purposes.

4. Student Grand Rounds – Trauma Simulation Day

Will be held the 2nd Thursday of each month at DOE- Bldg. 1247 beginning at 8:30am. The session will last for 3 hours. This will be run by our core faculty members and senior residents. Emphasis will be on procedural competency in cricothyrotomy, intraosseus, and chest tube placement. Students will be encouraged to complete the Procedure Self-Study Modules on the LVHN intranet ahead of time including Cricothyrotomy, Needle Thoracostomy, and Tube Thoracostomy.

5. Advanced Emergency Ultrasound

Will be held the 2nd Tuesday of each month in the simulation center on the 4th floor at LVH-M. You are encouraged to use the ultrasound machines available to you in the emergency departments at LVHN under appropriate supervision. You will be provided with a hands on experience by our EM ultrasound faculty and/or senior residents. Please browse the six ultrasound lectures available to you on the student website under Lectures and Labs.

6. Procedure Self-Study Modules

Each student in the program have access to self-study modules on common procedures in emergency medicine on the LVHN intranet.

7. EM Tests

All major texts in emergency medicine will be available to you online through the LVHN intranet. At the end of your rotation, you must take a 50 question final exam. This counts as 10% of your final grade. This test must be completed prior to your last day of your rotation.

8. Case Presentations

Students will present one 15 minute case- based topic in emergency medicine. Try to make it interactive and use actual radiological images, ECG's, etc... from the case. Use as many references available to you. Typically this would be given during the last week of the rotation or a mutually agreeable time and date. This is 10% of your grade.

“Emergency Medicine Clerkship Primer, Manual for Medical Students”

In 2008 the leaders of medical education in emergency medicine created the Academy of Clerkship Directors in Emergency Medicine (CDEM). Their mission was to:

- ✓ advance the education of medical students as it pertains to the specialty of emergency and acute care medicine.
- ✓ serve as a unified voice for EM clerkship directors and medical student educators.
- ✓ provide a forum for EM clerkship directors and medical student educators to communicate, share ideas, and generate solutions to common problems.
- ✓ foster undergraduate medical education research.
- ✓ foster the professional development and career satisfaction of EM clerkship directors and medical student educators.
- ✓ foster relationships with other organizations to promote medical education.

The Emergency Medicine Clerkship Primer was created to produce a high-quality, professional guide that highlights the uniqueness of our specialty. It should provide the reader with a detail-oriented approach to thinking like an emergency physician— essentially a “how to” manual. The *Primer* can be considered a supplement to the many high-quality emergency medicine texts currently available. It focuses on aspects of our specialty that are often overlooked or under-represented in traditional texts. This *Primer* is **mandatory reading** for all medical students and visiting residents that are rotating in our department. It is recommended that you read this prior to the start of your rotation. We look forward to working with you. Below is an excerpt from the *Primer* that was sent to you via email (it is also available on the home page in New Innovations).

“As you prepare for your clerkship, please recognize our chosen specialty has several gifts in store for you. First, its faculty and residents recognize the responsibility we have to train you to understand and operate in our realm. Undergraduate medical education is a serious pursuit for emergency physicians, and your clerkship director holds a position of esteem in the department. We understand the potential impact of early intervention as well as or better than any other practitioner. In education, a shared truth or corrected perception can last a lifetime, and this is what we plan to offer each of you who spend time with us.

In addition, we offer a unique contribution to your medical education. We are not trying to sell our specialty to you or trying to ‘convert’ you from your chosen direction towards ours. What we have to offer is a unique environment and an opportunity to practice fundamental skills to which you have had limited exposure thus far in medical school. The most important of these is acute care decision-making. That is a unique moment, usually unanticipated, when a patient forces you to make a series of decisions surrounded by uncertainty but of great importance nonetheless. Time is not your friend, and you quickly find there is nothing ‘cookbook’ about having a well-organized and thoughtful plan of approach in such a circumstance. You will not only exercise new regions of the brain, you will also get to use your hands when working with us. Technical skills and accompanying virtuosity are critical elements in the day-in, day-out practice of emergency medicine. Many of these skills—vascular access, airway management, lumbar puncture, and suturing—are all a part of a reasonable skill set for a senior medical student. Commitment to learning these skills can be highly variable in medical school, and opportunities to practice them may be limited. However, in the emergency department, you should have the opportunity to put them to use every day, just as we do.

Lastly, think of working in an environment where more than 125 million undifferentiated patients come to see you or your equivalent over the course of each year. Patients’ illnesses and injuries are not always what they seem to be, and you will learn to respect that statement like never before. The approach to unraveling a voiced complaint on the part of a patient while thinking about all of the worst possibilities of potential origin is a very different way of thinking than most of your experiences to date. We believe that you will find this experience will serve you well, both with us and beyond.

Our specialty interacts with every other specialty, often at the raw interface of the unplanned admission on a 24-hour, 7-day clock. We know that most of you completing this clerkship will not choose emergency medicine, although more and more students do each year. We are excited for your future careers in primary care, surgery, pediatrics, medicine subspecialties, and others, but we know that we will see you again in one guise or another. Therefore, it is important to us that you are well treated, remember what goes on here, and leave with some degree of understanding and a modicum of respect and appreciation. Therefore, you should expect to be treated well but with discipline and high expectations.

One clear gesture in our effort to make your experience with us most rewarding is this Primer. Read it completely early in your experience with us, reread it as you see a wide variety of patients, and use it to help order and integrate the other teachings we will send your way. We are proud of what we do and the safety net role we play in our nation’s health care system. We welcome you while you are with us and look forward to a long-term relationship, day and night, no matter what specialty you may choose. Take care of yourselves and the people around you.”

Glenn C. Hamilton, M.D.
Professor and Chair
Department of Emergency Medicine
Wright State University School of Medicine

The Role of the Student-in-Training

Students assigned to this department will be expected to evaluate and treat *all* patients regardless of presenting complaint. You do not have to wait to be told to see a patient.

Setting priorities, “rapid” assessment, early intervention when warranted, and an expedient diagnosis and treatment are all vital components of your emergency department rotation. We would like you to strive to see at least one patient per hour.

While you may see more than one patient per hour, completeness in evaluation and follow through with lab studies, x-rays and communication with patients and families is more important at this stage of your career.

You will be expected to assess and ensure the stability of each patient you see within a reasonable period of time, based on your level of training. There are five emergency severity index (ESI) levels of triage (see appendix). Do not spend more than 15 – 20 minutes with ESI levels 2 –5 doing your history and physical exam prior to discussion with the appropriate emergency department (ED) supervising physician. **A supervising physician may be an attending physician, physician assistant (PA) or senior emergency medicine resident (PGY 3 or 4).** You must get the supervising physician involved immediately for any patient you perceive to be acutely ill or in severe pain (ESI 1). In other words, any delay in treatment for these patients would directly impact their life or limb. We rely upon you as part of our team to use your discretion in judging what you are able to handle before involving the attending. On occasion, we will require you to manage more than one patient at a time. You may carry up to 3 – 5 patients at a time, but no more than that. It is important for you to make appropriate prioritizations for each. We want you to learn through each patient encounter by taking an accurate and appropriate history and focused physical examination. *Our goal is to provide the best clinical and didactic experience of your graduate training.*

Orientation

Students are responsible for reviewing all of the orientation information provided on the website and in the welcoming emails. Should any problem arise during the course of the rotation, either personal or professional, students should feel free to contact Dr. Jayant or any of our chief residents. If you are unable to reach any of them, you should contact Dawn Yenser.

General Educational Objectives

1. Perform an accurate and appropriate history and focused physical examination on a patient presenting to the ED.
2. Practice the proper utilization of the clinical laboratory and the radiology department as they relate to emergency care and apply the principle of “*less is more*” using clinical decision rules and risk stratification.
3. Review all plain radiography and CT scans of your patients presenting to the ED.
4. Review all ECG’s of your patients and explain basic ECG interpretation.
5. Recognize the importance of the team concept in caring for a patient: paramedic, nurse, and physician working together for the patient’s benefit.
6. Describe the art of triage or determining priority of patient care, as well as ascertaining which problem gets priority treatment in a patient with multiple problems. Discuss the five ESI levels of triage.
7. We strongly encourage you to complete the Procedure Self-Study Modules in emergency medicine deemed essential for students to know. This will allow you to ***see one*** before you ***do one***. Perform emergency procedures including suturing, bandaging, splinting, wound care, peripheral and central venous access, lumbar punctures, and orthopedic manipulation, among others. *Each student should be able to perform a simple laceration repair upon completion of the rotation.* Emergency medicine residents have first priority in performing any ED procedures.

8. Explain the principles of pain management in the pediatric and adult patient and how to interact appropriately with these patients.
9. Discuss the indications and practice of procedural sedation and analgesia (PSA) in pediatric and adult patients.
10. Review the principles of difficult airway assessment along with basic and advanced airway management.
11. Recognize the generalities and specifics of care of the medical, surgical/ trauma, pediatric, OB/GYN, and psychiatric patients that present to our ED for treatment. By the end of the rotation, the student should have an enhanced understanding of the evaluation, diagnosis, and treatment of the most common emergency problems, including:
 - Cough, sore throat, sore ears, and other ENT problems.
 - Minor eye emergencies such as foreign body and corneal abrasion.
 - Abdominal pain (diff diagnosis in males and females, young and old).
 - Chest pain of any etiology.
 - Minor trauma including strains and sprains.
 - Significant trauma including the triage system of trauma patients (Trauma ED, Trauma Alert, and Code Red).
 - Urinary tract problems.
 - Pediatric problems (gastroenteritis, high fever, otitis, meningitis, and child abuse).
 - Simple wound and burn.
 - Psychiatric emergencies (i.e. the suicidal patient).
 - Surgical emergencies including AAA, aortic dissection, bowel obstruction, appendicitis, among others.
 - Medical emergencies including dermatologic, allergic, neurologic, cardiovascular, pulmonary, gastroenterologic, renal, rheumatologic, or endocrine presentations.
 - Toxicology including management of drug overdoses.

Guidelines

A. Work Schedule

You will be assigned a templated schedule at the start of your rotation. You are expected to work approximately 13 clinical shifts (17 for PA students) and 1 nursing shift. This will allow ample time to complete the self-study modules, journal club articles and topic exams. We will always attempt to have these hours distributed for the month between pods, times and locations. Please note that the shift names for Cedar Crest and Muhlenberg correspond with the pod you are assigned to.

Start your shift in the correct pod. Shift and pod assignments are as follows:

CLINICAL SCHEDULE KEY			
Shift name:	Hospital Site	Assignment	Shift Time:
CC7A-CCU	Cedar Crest	CCU	7 am - 4 pm
CC7A-6	Cedar Crest	POD 6	7 am - 4 pm
CC7a CHER	Cedar Crest	CHER	7 am – 4 pm
CC11A-1	Cedar Crest	POD 1	11 am – 9pm
CC3P-CCU	Cedar Crest	CCU	3 pm - Midnight
CC3P-6	Cedar Crest	POD 6	3 pm - Midnight
CC 3P CHER	Cedar Crest	CHER	3pm – 12am
CC11P-2	Cedar Crest	POD 2	11 pm - 8 am
CC11P-4	Cedar Crest	POD 4	11 pm - 8 am
CC11p-CCU	Cedar Crest	CCU	11 pm - 8 am
M 7A-1	Muhlenberg	POD 1	7 am - 4 pm
M 7A-3	Muhlenberg	POD 3	7 am - 4 pm
M 9A-2	Muhlenberg	POD 2	8 am – 5 pm
M 3P-1	Muhlenberg	POD 1	3 pm – Midnight
M 4P-2	Muhlenberg	POD 2	4 pm – Midnight
M 4P-3	Muhlenberg	POD 3	4 pm – Midnight
M 11P-2	Muhlenberg	POD 2	11 pm - 8 am

Trading with other students is permitted as long as it is within the templates assigned. Please email Dawn or call the residency regarding any schedule changes you wish to make 24 hours in advance.

B. EMS Experience (optional experience)

All students have the option to be scheduled for an eight-hour shift to spend with the city ambulance service. This shift is separate and in addition to your scheduled clinical time. Ask the supervisor of these experiences to sign your checklist with the date and time that this activity was completed. Please note that the local EMS has requested students wear a white or light colored shirt, dark pants, and sneakers (no clogs or heels allowed).

C. Requirements Prior to Emergency Department Rotation

The student will receive an email prior to the start of the rotation. At that time, please respond with any requests that will be needed during your rotation. CPR certification is required. ACLS certification is encouraged prior to the rotation. The student's program should process appropriate paperwork through VSAS/VSLO and the Division of Education. In addition, *please make sure an electronic photo is sent to the Residency office, so that it can be uploaded into our evaluation software.* Please complete the Chest Pain and EKG interactive Self-Study Modules on the student website under "Virtual Lectures" at the beginning of the rotation.

D. Responsibilities of Students while on Rotation

1. Patient care responsibilities

- The student shall wear a nametag and introduce him/herself to any patient he/she attends as well as all nursing staff, administrative partners, and physicians.
- All students are to act and dress in a professional manner. Wear your lab coats at all times.
- The student's main responsibility is to evaluate patients who present themselves to the emergency department and discuss these patients with the appropriate supervising physician.
- With the exception of immediately life saving procedures (i.e., CPR), all planned procedures and lab/x-ray studies shall be discussed with the appropriate supervising physician prior to ordering them or discussing them with the patient. It is important not to set expectations for the patient that cannot be delivered.
- The student rotating in the ED is encouraged to participate in all medical and trauma resuscitations. He/she may participate in any trauma resuscitation if the ED is not busy and has permission from the emergency and trauma attendings.

There are 2 levels of trauma resuscitation: Trauma Alert and Code Red (seen in the Trauma Bay OR by the trauma team).

- Students shall immediately notify the ED attending of any unstable patient in the ED. This team approach to the critically ill patient will ensure better care for the patient, more rapid evaluation and stabilization, and more rapid referral, if necessary, for definitive care.
 - No patient physically in the ED will be without an assigned physician during their stay. Students shall turn over their patients to another student or the appropriate supervising physician at the end of their shift. All documentation will be completed prior to the students leaving the department. This also applies to any other time a student may be leaving the department prior to the end of his/her shift. Please notify the ED attending any time you leave the department.
2. **Documentation.** Students are responsible for documenting the important historical and physical findings on paper H&P as well as recording diagnostic test results. We want you to complete the medical decision making portion at the end and generate an expanded differential diagnosis (approximately five diagnoses) in order to evaluate your thought processes. Document the date and the MR # of your patient on the sheet. A paper template will be provided to you for real time note taking, but these should be entered into New Innovations in the H&P log to be reviewed by the clerkship director and are not part of the permanent medical record. You are required to complete 4 of these per EM rotation.
 3. **What's the process?** The ED is divided into pods and each pod is staffed by an ED physician, resident(s), and nurses. Students should work in their assigned pod for the duration of their shift. Students should not spend more than 15 – 20 min performing their history and physical examination on their patients. Occasionally, a supervising physician may observe the student taking his/her history and exam. Students can obtain the nursing triage notes by accessing EPIC. They will present their patient to an attending physician, senior resident, or PA. Then the supervising physician and student will see the patient together. They will discuss the differential diagnosis and management of the patient outside the room. Occasionally, this discussion may occur in front of the patient.

The student will return to the patient's room and discuss the plan. It is the student's responsibility to keep the patient informed of their test results or any unforeseen delays. Computerized discharge instructions must be given to all patients being discharged and are to be reviewed with the supervising physician prior to final disposition of the patient. A nurse or physician

must sign these.

4. **Procedures** are to be directly supervised by the appropriate individual. Nursing may supervise placement of nasogastric tubes (NGT's), Foley catheters, IV's, and blood draws. Laceration repairs may be supervised by an attending physician, PA, or senior emergency medicine resident. All laceration repairs occurring in Express Care or Fast Track should be inspected by the appropriate attending physician before and after the repair. Lumbar punctures, central line and chest tube placements, and orthopedic manipulation should be supervised by the senior emergency medicine resident and/or attending physician. Airway management and procedural sedation and analgesia should always be under the supervision of an attending physician. A consent form must be signed prior to performing any invasive procedures. When in doubt, always consult the attending physician.

Don't forget to document all your procedures in the procedure log in New Innovations. Refer to the section on the Procedure Self-Study Modules on pages 20-21.

ALL PATIENTS seen in the ED are to be discussed and seen with either an attending physician, physician assistant, or senior emergency medicine resident. Diagnostic and therapeutic interventions should be made after consultation with the above. The attending physician is ultimately responsible for every patient seen in the ED.

5. Evaluations

Every student will be evaluated at the end of each shift by the supervising physician(s) with whom he/she spent any time discussing cases. Typically, this would be the pod physician, senior resident, both or the PA. Solicit feedback from your supervising physicians. *“What are some areas that I could improve upon?”...“How do you think I performed?”... “What did I do well today?”* These evaluations are to be completed by the supervising physician online through New Innovations. Each student should automatically request an evaluation for each supervising physician on New Innovations. This includes attending physicians and supervising residents.

Just simply:

- ✓ Log on to New Innovations and go to “Notifications”.
- ✓ Click on to request a person to evaluate you.
- ✓ Click on the name you want your evaluation sent to

Your final evaluation is based significantly upon a compilation of these impressions from the ED supervising staff. **It is your responsibility to remind the supervising physician to complete your evaluation online.**

Students Evaluation of Senior Resident (PGY3 or 4)

- ✓ Log on to New Innovations and go to “Notifications”.
- ✓ Click on to choose a person to evaluate.
- ✓ Click on the individuals name you want to evaluate

6. Logs

All students will maintain four logs in New Innovations:

Shift log. You are to log every patient you have seen during that shift. This will be tracked at the end of the rotation. You should strive to see between 100 – 125 patients for the month (9 patients/ shift or 1 patient /hour).

Patient follow-up log. Obtain follow-up on at least two patients admitted discharged from the hospital through the ED. You can call them at home, visit them on the floor, or check electronic medical records. Remember to document self-reflective learning for each patient.

Procedure log. Document all procedures observed, participated in or performed for the month in New Innovations. You will use Procedure Logger under the main menu; then add procedure logs. If you performed a procedure that's not listed, then document under "other". We will track the numbers of procedures you performed.

H&P log. Refer to page 14 of this manual.

Your final evaluations will be forwarded to your program only after successful completion of the above along. The students' written evaluations of the rotation will be discussed at our monthly committee meeting and will be used to modify future rotations.

7. Work Absence

The student must notify the office of the Emergency Medicine Residency (484-884-2888) of any absence due to illness, family crisis, etc. The student must also speak directly with the ED attending prior to missing any shift. The student's respective school is to be notified by the student of any absences during the Emergency Medicine rotation. Barring any extraordinary circumstances, it is expected that any shifts missed will be made up.

8. Nursing Care in the Emergency Department

The nurses are assigned to treatment areas in the ED (pods CCU, 1, 6, Express Care and Children's ER at CC; pods 1, 2, and 3 at LVH-M and 17th St.). Please assist the nurses as much as possible—starting IV's, moving patients, NGT placement, drawing labs, giving discharge instructions, etc. If a nurse asks you to do something, just do it. By helping them, you help yourself.

9. Dress Code

- ❑ You shall wear a clean and pressed white lab coat at all times.
- ❑ You shall wear socks/hose over your feet and wear shoes that cover your toes. Surgical clogs are acceptable if clean. "Flip-flops" are unacceptable.
- ❑ You will wear your identification badges at all times
- ❑ All male students will wear a shirt and tie with slacks. Matching *blue* scrubs are also acceptable if clean.
- ❑ All female students will wear appropriate professional attire. Matching *blue* scrubs are acceptable if clean.

10. Conduct of Personnel

- ❑ *All patients, their families, and ED staff will be treated with courtesy and respect.*
- ❑ Patients and families can hear what you say no matter where you are in the ED. Keep all inappropriate comments or joking to yourself. It will eventually get back to me and our Chairman.
- ❑ Eating and drinking in patient treatment areas is prohibited. Please use the staff lounge. You are always excused for lunch and dinner for 30 min.
- ❑ Put all your personal belongings and books in the staff lounge.
- ❑ Complaints regarding the unprofessional behavior of any student or ED staff member should be brought to the attention of Dr. Worriow.
- ❑ Unprofessional behavior from a student could be grounds for dismissal and/or failing the rotation depending on how egregious the behavior.
- ❑ Refer to the Press Ganey tips in Appendix E on improving your interactions with patients and their families.

Procedure Consult Self-Study Modules

4th Year Students and Visiting Residents:

- *Arterial line insertion
- *Basic airway management (adult)
- *Cardioversion
- *Central line placement (IJ)
- *Central line placement (SCL)
- *Defibrillation
- *Lumbar puncture
- *Orotracheal intubation
- *Transcutaneous pacing

Students and Visiting Residents are encouraged to complete these modules PRIOR to the Critical Care Simulation Day

(4th Tuesday of each month)

- **Foley insertion (female)
- **IV cannulation (adult)
- **Nasogastric tube insertion
- **Phlebotomy
- **Throat swab

Students are encouraged to complete these modules BEFORE/ WHILE on their "Day with a Nurse" shift

- ***Abscess I&D
- ***Local anesthesia
- ***Nerve block (digital)
- ***Wound management

Students are encouraged to complete these modules PRIOR to the Suture Lab (1st Tuesday of each month)

- ****Dislocation reduction (shoulder)
- ****General splinting techniques

Students are encouraged to complete these modules PRIOR to Ortho Lab (1st Tuesday of each month)

- *Cricothyrotomy
- *Needle thoracostomy
- *Tube thoracostomy #



Students are encouraged to complete these modules PRIOR to the Trauma Sim Lab (2nd Thursday of each month)

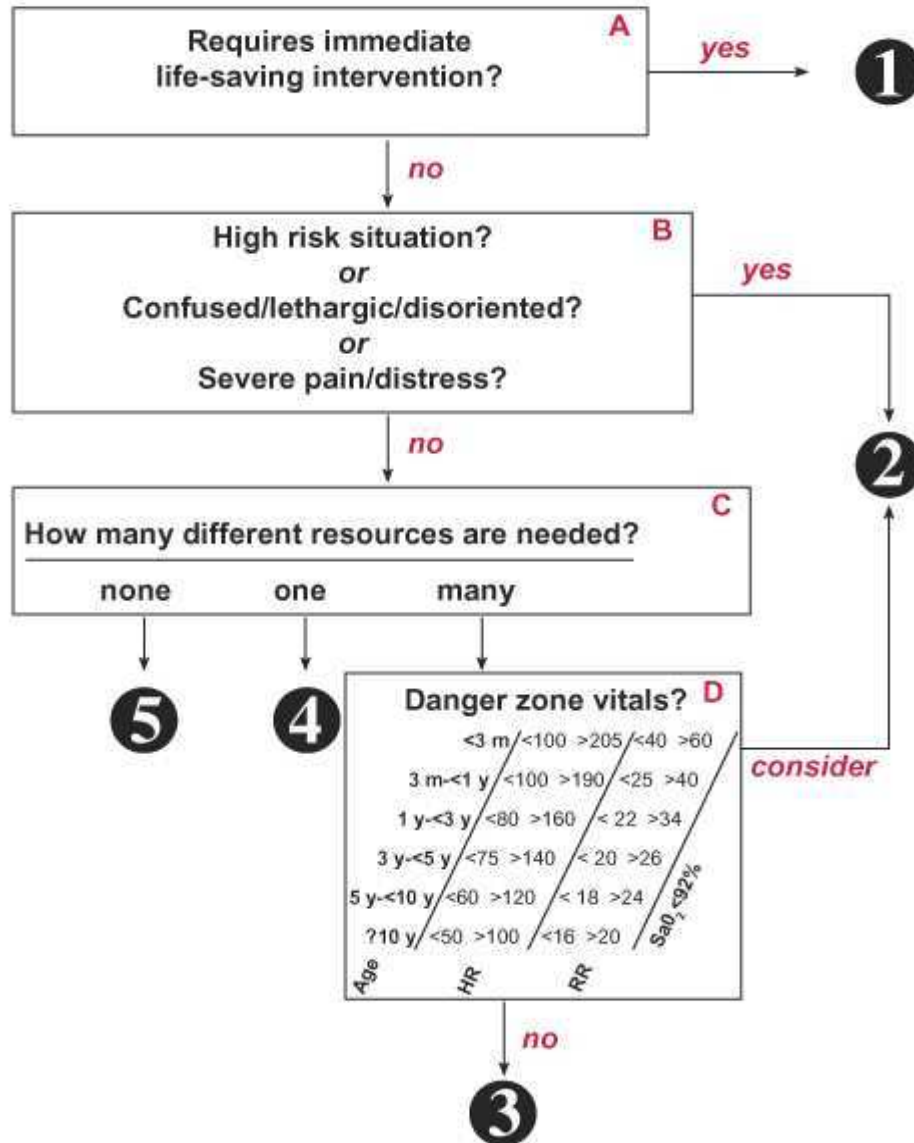
Additional optional modules

- Arthrocentesis (knee)
- Compartment syndrome evaluation
- Epistaxis management
- Intraosseus insertion
- Nursemaid's elbow reduction
- Transvenous pacing
- Tonopen use

Examinations

All major texts in emergency medicine will be accessible online through the hospital intranet. You will be shown how to access them. This is a great educational experience and will also help you prepare for your boards. At the end of the rotation you will be given the National EM M4 exam, a 50 question post-test, which will count as 10% toward your final grade. You must schedule a date and time with Dawn prior to your last week of rotation to take this exam.

ESI Triage Algorithm, v4R*



© ESI Triage Research Team 2007

*Research version for HRSA#H34MC04371-pediatric ESI study only

Notes

- A. **Immediate life-saving intervention required:** airway, medications, or other hemodynamic interventions; or any of the following clinical conditions: intubated, apneic, pulseless, severe respiratory distress, SpO₂<90%, acute mental status changes, or unresponsive.

Unresponsiveness is defined as a patient that is either:

- (1) nonverbal and not following commands (acutely); or
- (2) requires noxious stimulus (P) or unresponsive (U) on AVPU scale

- B. **High risk situation** is a patient you would put in your last open bed.

Consider ESI 2 for severe pain/distress, as determined by clinical observation and/or patient rating of greater than or equal to 7 on a 0-10 scale (or the equivalent on a pediatric scale).

- C. **Resources:** Count the number of *different types* of resources, not the individual tests or x-rays (e.g., CBC + electrolytes + coags is one resource, CBC + chest x-ray is two resources).

Resources	Not Resources
<ul style="list-style-type: none"> • Labs (blood, urine) • ECG, X-rays • CT-MRI-ultrasound-angiography 	<ul style="list-style-type: none"> • History & physical (including pelvic) • Point-of-care testing
<ul style="list-style-type: none"> • IV fluids (hydration) 	<ul style="list-style-type: none"> • Saline or heplock
<ul style="list-style-type: none"> • IV or IM or nebulized medications 	<ul style="list-style-type: none"> • PO medications • Tetanus immunization • Prescription refills
<ul style="list-style-type: none"> • Specialty consultation 	<ul style="list-style-type: none"> • Phone call to primary provider
<ul style="list-style-type: none"> • Simple procedure = 1 (lac repair, foley cath) • Complex procedure = 2 (conscious sedation) 	<ul style="list-style-type: none"> • Simple wound care (dressings, recheck) • Crutches, splints, slings

- D. **Danger Zone Vital Signs**

Consider up-triage to ESI 2 if **any** vital sign criterion is exceeded.

Pediatric Fever Considerations

1-28 days of age: assign at least ESI 2 if temp >38.0C (100.4 F)

1-3 months of age: *consider* assigning ESI 2 if temp >38.0C (100.4 F)

3 months to 3 yrs of age: consider assigning ESI 3 if temp >39.0C (102.2F), or incomplete immunizations, or no obvious source of fever.

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