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Lakeland Healthcare

Mission, Vision and Values

Lakeland HealthCare Mission Statement

- To be the leader in high-quality, safe, patient-centered, compassionate, health-related services

Osteopathic Medical Education Mission Statement

- To provide osteopathic training programs that prepare quality physicians who provide excellent health care and healing—“Each Patient First”

Vision

- Quality osteopathic Medical Education programs that support our mission statement of excellence in the science and art of health care and healing
- Flexible, responsive and innovative osteopathic Medical Education programs that anticipate the evolution of the health care environment

Values and Behaviors

- Integrity
- Respect and support for all people and life in all of its phases
- High performance and accountability
- Scholarship and collegiality
- Learning and continuous improvement
- A social conscience
Program Overview
Program Mission Statement and Philosophy

The Emergency Medicine Residency Program of Lakeland Healthcare is dedicated to excellence in the training of Emergency Medicine residents. The goal of the training program is to provide graduating residents with the tools, skills and knowledge to practice Emergency Medicine in an institution of the resident’s choosing after graduation. The program is committed to furthering the understanding of the basic science and clinical practice of Emergency Medicine by supporting research conducted by the faculty and residents. The residency strives to improve upon its clinical experience, training facilities and academic program to achieve the ultimate goal of the Department of Emergency Medicine: excellence in patient care.

Seven areas of General Competency define the framework around which the residency curriculum is developed. Residents will be evaluated in these seven areas on a regular basis. These seven competencies are:

**Patient Care:** Residents are expected to provide patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health.

**Medical Knowledge:** Residents are expected to gain medical knowledge about established and evolving biomedical, clinical and cognate (epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

**Practice-Based Learning and Improvement:** Residents are expected to demonstrate practice-based learning and improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care.

**Interpersonal and Communication Skills:** Residents will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families and other health professionals.

**Professionalism:** Residents must demonstrate professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diverse populations.

**Systems-Based Practice:** Residents are expected to engage in systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

**Osteopathic Philosophy and Osteopathic Manipulative Medicine:** Residents will integrate osteopathic principles into the diagnosis and management of patients. In their continued evaluation of clinical presentations, residents will be expected to apply osteopathic manipulative therapy along with the above listed six core competencies in patient management, where applicable.
Program History and Description

The Emergency Medicine Residency Program is located at Lakeland HealthCare in St. Joseph and Niles, Michigan. The first residency class initiated training in July of 2011.

The Emergency Department in St. Joseph has recently undergone an extensive renovation, more than doubling in size. The Department is divided into three main geographic areas and has a total of 46 beds. There are 24 emergency medicine patient beds, four trauma beds, an adjacent six-bed observation area that houses the Cardiac Rapid Diagnostic Unit, a six-bed Rapid Medical Evaluation Unit that can be flexed to an overflow status, as well as a five-bed triage unit. The decontamination room has two accesses. The first is separately accessed from the ambulance bay after initial decontamination. The room is equipped with all necessary HAZMAT gear that would be required for a large external tent decontamination or individual decontamination. The trauma resuscitation rooms are fully equipped to care for the trauma patient. These are located in close proximity to the ambulance entrance and the Emergency Department’s CT and radiology suites. The Emergency Department controls all emergency medicine beds, observation beds, and cardiac rapid diagnostic care areas.

The Niles Emergency Department is currently under renovation with the anticipation of 21 new patient beds opening in 2013 and 2014.

The Emergency Medicine Residency Program is affiliated with the Michigan State University College of Osteopathic Medicine where faculty members hold academic appointments.

The Emergency Departments at Lakeland HealthCare treat more than 70,000 patients per year based out of two separate Emergency Departments. Approximately 18% of all ED patients are admitted to the hospital. Affiliations with DeVos Children’s Hospital in Grand Rapids for PICU, Spectrum Health Butterworth Hospital for Trauma, and Stroger Cook County Hospital for Toxicology will complete the resident’s emergency medicine training.
The Honor Code of the Emergency Medicine Residency Program is designed to promote individual responsibility, integrity, and professionalism and to promote an atmosphere conducive to proper maturation and development of the Emergency Medicine Resident. Professionalism and honor are among the general competencies in Emergency Medicine. The Honor Code applies to all clinical, academic and professional activities that the Emergency Medicine Resident engages in. The integrity and validity of the Honor Code cannot be maintained without the support and cooperation of each individual Emergency Medicine Resident. Each Emergency Medicine Resident signs the attestation below acknowledging their responsibility to the Honor Code.

By my signature, I pledge on my honor to uphold the principles described in the Emergency Medicine Residency Honor Code and to conduct myself in a manner consistent with the values of Lakeland Healthcare. I affirm that I will abide by the Honor Code in all of my professional duties and will report all suspected violations of the Honor Code to the Department Chair or Residency Program Director.

The Honor Code of the Emergency Medicine Residency Program contains the following elements:

Commitment to the truth

Commitment to and respect for the rules, regulations, policies and procedures of Lakeland Healthcare and the Emergency Medicine Residency Program

Commitment to the respectful interaction between the resident and patients, other residents, faculty and other members of the Lakeland Community

Commitment to providing compassionate, evidence-based medical care

Commitment to academic integrity

Commitment to scholarship and academic curiosity

Commitment to maintain the reputation of the Department and Residency

Commitment to constructive, productive feedback regarding the Department, Faculty and Residency

Commitment to fostering a healthy, supportive, non-judgmental, and non-discriminating work environment that is free of harassment and substance abuse

Commitment to the values of Lakeland Healthcare

Commitment to ensuring that all residents are fulfilling the responsibilities of the Honor Code by promptly reporting suspected violations of the Honor Code

________________________________________  ________________
Resident Signature  Date
Faculty

The faculty of the Emergency Medicine Residency Program is dedicated to the training of Emergency Medicine residents. Each faculty member is board certified or board prepared by the American Board of Emergency Medicine or the American Osteopathic Board of Emergency Medicine. All faculty members provide direct patient care, supervise Emergency Medicine residents and participate in the didactic training program. Many of the faculty participate in Emergency Medicine organizations on the state and national level. Each member of the faculty also performs other duties as part of their non-clinical responsibilities. Specific areas of expertise are developed by faculty members and include residency training, undergraduate Emergency Medicine training, research, Emergency Medical Services, quality assurance, and ultrasonography.

<table>
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<th>Board</th>
<th>Year</th>
<th>Recertification</th>
</tr>
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<td>Algis Baliunas, MD</td>
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<td>Jonathan Beyer, DO</td>
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<tr>
<td>Ernest Buck, MD</td>
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<td>Marc Headapohl, MD</td>
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<td>Matthew Hysell, MD*</td>
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<td>Peter Josimovich, DO</td>
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<td>Jesse Kellar, MD</td>
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<td>Jereme Long, DO*</td>
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<td>Michelino Mancini, DO*</td>
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<td>Robert Nolan, DO*</td>
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<tr>
<td>Sheila Philpott, MD</td>
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<tr>
<td>Bryan Staffin, DO</td>
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<td>Michael Westfall, DO</td>
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<td>Megan Schrader, DO</td>
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<tr>
<td>Christopher Trigger, MD*</td>
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<td>Vincent Blum, MD</td>
<td>ABEM</td>
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</table>

* Designates Core Faculty
Program Goals and Objectives

General Competencies and Objectives

Each resident is expected to master each of the seven general competencies throughout the training program. These general competencies are:

Patient Care: Residents are expected to provide patient care that is compassionate, appropriate and effective for the treatment of health problems and the promotion of health.

Medical Knowledge: Residents are expected to gain medical knowledge about established and evolving biomedical, clinical and cognate (epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Practice-Based Learning and Improvement: Residents are expected to demonstrate practice-based learning and improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care.

Interpersonal and Communication Skills: Residents will demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families and other health professionals. Residents will demonstrate integrity and respect in all oral/verbal communications during the residency.

Professionalism: Residents must demonstrate professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diverse populations. Residents will demonstrate integrity and respect in all verbal, written and electronic communications with patients, families, staff and health care professionals at all times during the residency.

Systems-Based Practice: Residents are expected to engage in systems-based practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Osteopathic Philosophy and Osteopathic Manipulative Medicine: Residents will integrate osteopathic principles into the diagnosis and management of patients. In their continued evaluation of clinical presentations, residents will be expected to apply osteopathic manipulative therapy along with the above listed six core competencies in patient management, where applicable.

Specific Training Year Objectives and Progressive Responsibility: These training objectives provide a reasonable set of expectations for various levels of residents. They are not meant to be restrictive in the separation of responsibility. Residents who exceed the expectations for the training year are permitted to assume greater responsibility provided that they are not competing with the senior resident’s responsibilities. Many residents can perform at levels higher than those dictated by the training objectives for the year. This well-defined responsibility based on year of training provides organization and direction to the Emergency Department and makes optimal use of skills previously acquired by the resident.
EM 1 Residents

The first-year resident will focus on developing his/her skills of evaluation of patients as well as developing his/her core medical knowledge base that allows for critical decision making in the Emergency Department. The resident will concentrate on becoming thorough in performing histories/physicals and develop the ability to use diagnostic testing, initiate treatment, request consultants, create treatment plans and arrange for follow-up care. The resident will learn to listen to complaints carefully in order to avoid delayed diagnoses or misdiagnoses of conditions which could be life threatening. As the resident progresses through the first year, he/she will be expected to develop efficiency and see a reasonable number of patients. This will result as the resident becomes familiar with patients having common presentations. The accuracy of patient evaluation will be stressed over the number of patients attended. The basic procedures to be mastered include: splint application, wound repair, incision and drainage and management of burns. The resident will also be expected to complete medical records and other documents accurately. The first-year residents will not have a supervisory role in the Emergency Department nor will they be responsible for teaching, but they will be responsible for case presentation to develop skills in preparing slides and presenting.

EM 2 Residents

During the second year, the resident will expand and refine his/her patient care skills and knowledge leading to efficiency that will allow for the management of several patients simultaneously as well as caring for more patients overall. The resident will participate in major trauma and medical resuscitations and will be introduced to other advanced procedures including conscious sedation, intubation, pericardiocentesis, tube thoracostomy and central venous access. The second-year residents will not be assigned to administrative duties or teaching/supervising students. Second-year residents will be responsible for case presentations and will be assigned a paper or similar scholarly project to develop their medical writing abilities.

EM 3 Residents

The third-year resident will continue to increase efficiency and be exposed to increasing numbers and patient presentations. These residents will now be expected to supervise, teach and share knowledge they have gained with junior residents and medical students. Third-year residents will become responsible for the most critically ill patients and direct medical resuscitations and also demonstrate mastery in airway management. Patient flow, throughput, and efficiency of the Emergency Department will become an area of focus for these residents. EMS will be introduced enabling the resident to develop radio communication skills. The third-year residents will be assigned presentations and a paper or scholarly project to further develop and refine their medical writing and presentation skills.

EM 4 Residents

The fourth-year resident will become more efficient in managing the Emergency Department involving oversight of the operation of the department and the assurance of appropriate medical care in a timely manner. The resident will become more aware of patient number and acuity in the waiting room, communications with admitting services and dealing with conflicts. Fourth-year residents will direct major trauma resuscitations and will supervise major medical resuscitations. Problem-solving, patient disposition, efficient medical care delivery and teaching will become a larger part of the resident’s responsibilities. The provision of presentations/lectures for faculty and junior residents will increase as well as the supervision of junior residents and medical students. The fourth-year residents will complete their research and submit a research paper for publication in order to fulfill compliance with AOA standards. These residents will also prepare and present at monthly conferences.
Chief Resident in Emergency Medicine

Roles and Responsibilities

There will be one Chief Resident selected at the end of the academic year from the OGME-3 class by the Program Director, all the Emergency Medicine Faculty, and the residents within the Emergency Medicine Residency Program. This resident will serve as Chief Resident for the OGME-4 year and will be responsible for the duties of Chief Resident for 12 months.

Purpose

The Chief Resident position provides the opportunity for residents in Emergency Medicine to assume administrative responsibilities, to develop professional and interpersonal skills, and to refine their academic abilities. The Chief Resident is of the highest character and demonstrates consistent excellence in academics and patient care. In addition, the Chief Resident has demonstrated the leadership skills necessary to organize and lead other Emergency Medicine residents. Within the Department and the Institution, the Chief Resident in Emergency Medicine will serve as a role model for others.

Duties

The Chief Resident’s responsibilities include the following activities:

1. Schedule Emergency Medicine residents for various duties and call schedules.
2. Provide for a backup schedule in the event of illness or disaster.
3. Assign residents to make academic presentations throughout the year.
4. Attend the following meetings:
   - Department and Faculty Meeting
   - Graduate Medical Education Meetings
   - Attend and act as the Resident Representative at all Faculty Meetings
   - Chair the Emergency Medicine Residents Meeting
5. Assist in coordinating the weekly Academic Conference.
6. Participate in and encourage resident interest in EMRA, ACOEP, AAEM, MCEP and SAEM.
7. Provide communicative pathways by serving as the liaison between the Administrative, Attending and Resident Staff.
8. Facilitate discussion among the residents about departmental and residency issues.
9. Assist in the resolution of intra/interdepartmental disputes where appropriate.
10. Provide advice and direction to other Emergency Medicine residents.
11. Organize resident social functions.
12. Serve as the RAC Representative for the Michigan State University – Statewide Campus System Emergency Medicine PAC.
13. Create the Medical Student, Intern and visiting resident’s work schedule and formally orient them to the Emergency Medicine Rotation.
14. Maintain and update the Orientation Packets, and the Core Article Review Packets, for visiting house staff.
15. Organize and maintain filing system within the resident’s lounge, which includes miscellaneous general articles, logs, evaluations, ACOEP policy statements, and licensing and board informational material for all the residents within the program.
16. Submit Journal Club minutes to the Program Director and Chair of the Department for all journal clubs presented within department. In addition, it is the Chief Resident’s responsibility to maintain communication with the American College of Osteopathic Emergency Physicians, and the Emergency Medicine Residents Association, and verify that the program submits regular columns for the college newsletter.
Residency Policies and Procedures
Residency Policies and Procedures

Preamble

Admission to Lakeland’s Emergency Medicine Residency Program is not influenced by race, gender, religion, creed, national origin, age, sexual orientation, marital status, veteran status, disability or other legally protected status.

The following policies and procedures described here are important. They clearly define expected behaviors and responsibilities of the resident in Emergency Medicine. Each resident is expected to be familiar with these policies and procedures and is encouraged to refer to this manual when a question arises. Adherence to and compliance with these policies and procedures are mandatory, and failure to follow them is unprofessional and inappropriate. That having been said, each resident may occasionally be in non-compliance for good reason. If it becomes impossible to conform to these policies and procedures, please discuss this with the Program Director or Assistant Director as soon as possible. The description of these policies is not all-inclusive and may be revised or added to periodically. Each resident is to be aware of these changes or additions.

Admission Requirements

The candidate shall provide evidence of graduation from a college of osteopathic medicine approved by the American Osteopathic Association.

The candidate shall provide evidence of interest in the field of emergency medicine and of fulfilling continuing medical education requirements in that field.

The candidate shall be licensed to practice medicine in the State of Michigan and be registered with the Federal and State Controlled Substances Bureau.

The candidate must be a member of the American College of Osteopathic Emergency Physicians or provide sufficient documentation that such membership has been applied for, and the candidate must maintain that membership throughout their training.

The candidate shall fulfill all such other requirements as may be determined by the Board of Directors of Lakeland HealthCare.

Attendance – General

Clinical Shifts

The clinical schedule is provided well in advance to allow residents adequate time to plan their activities. The schedule is designed to allow for adequate physician coverage in each Emergency Department. Attendance is, therefore, compulsory. Residents are expected to arrive at least 10 minutes prior to the beginning of the shift to prepare for patient sign-out. Residents who will be late must call the Emergency Department to inform the attending physician on duty. Tardiness will not be tolerated and must be accompanied by a reasonable excuse. Residents who have no replacement at shift sign-out may be required by the faculty to stay until the next scheduled resident arrives if the clinical circumstances warrant.
Off-Service Rotations

Residents are expected to conform to the rules and regulations of the service on which they are rotating. Any unexpected changes in a rotation’s schedule, particularly when a clinical preceptor becomes unavailable, should be reported to the Program Director. Although each rotation can grant permission for periodic excused absences, each of these absences must be reported to the Program Director or Assistant/Associate Program Director.

Other Academic Assignments

Other academic assignments are made throughout the year to assist the Program in meeting its various accreditation requirements. Examples of these activities include: ACLS, PALS, CPR instruction, paramedic instruction and medical student emergency medicine course activities. Residents are expected to be on time and well prepared to participate in these activities.

Conference

The didactic conference serves as an integral part of the resident’s Emergency Medicine training. Regular attendance is mandatory. Attendance will be monitored using sign-in sheets and longitudinal tracking. It is required by our accreditation organizations that adequate attendance be demonstrated. Each resident is expected to attend as many conferences as feasible or have an excused absence. It may be difficult to attend every conference because of the predetermined outside clinical rotations or other educational activities. In such situations, residents are not expected to attend 100% of the scheduled conferences. However, a minimum cumulative attendance of 70% is required for the program. Residents are not expected at conference during vacation or approved CME conferences. The ED schedule is designed to facilitate maximal attendance.

Attendance- Specific

Lecture Attendance Requirement

Each resident is responsible for attendance at Emergency Medicine Residency required lectures while on Emergency Department rotation and all other “in-house” rotations. Conferences are mandatory while on all rotations with the exception of the following: out-of-house elective rotations (must be excused) and PICU, Toxicology and Trauma rotations. Attendance at select meetings while on specific out rotations (i.e. Administration, County EMS, etc.) may be excused on an individual basis as determined by the Program Director. It is the resident’s responsibility to investigate these exceptions.

Emergency Department Physician Meetings

Emergency Department meetings are considered mandatory for all residents rotating in the Department of Emergency Medicine and on select in-house rotations.

Recourse for Residents Unexcused from Lectures or Meetings

It is the expectation of the Emergency Medicine Residency Program that all Residency Educational Days be considered mandatory attendance for residents in the department, and for select out rotations as outlined in the residency manual. The program director has the ability to include additional meetings or educational sessions as “mandatory” when opportunities arise. Excused absences are possible when PTO days are requested.
via the appropriate process. The following will be used as a guideline for individuals who have an unexcused absence or are tardy for a mandatory education session or meeting:

1st offense - Warning
2nd offense – Work one additional Emergency Department shift
3rd offense – Additional disciplinary action will occur

**Work Duty Hours**

Refer to the Lakeland House Staff Manual.

**Resident Scheduling**

Resident shifts are 10 hours in length. Shifts currently required vary for each academic year and are outlined as follows:

- EM 1  16-18/Block
- EM 2  16-18/Block
- EM 3  16-17/Block
- EM 4  16-17/Block
- EM 4  Chief Residents 16/Block

Shifts start and end times are subject to change.

Resident load and educational demands will determine scheduling on a monthly basis.

Monthly requests for days off will be accepted by the Program Coordinator prior to the completion of the final schedule. A maximum of two non-PTO days may be requested. Although every effort will be made to meet individual requests, these are not guaranteed. Residents needing specific days off are encouraged to request these as PTO days. No requests will be accepted if educational logs, administrative paperwork, or medical records are delinquent at the time of request. No PTO time may be requested once the deadline for submitting schedule requests has passed.

All scheduling is at the discretion of the Program Director and may be modified at any time to best suit the needs of the Emergency Medicine Program.

As a result of the nature of Emergency Medicine, it is at times necessary to work longer than a scheduled shift. Although rare, it may occur on occasion and therefore should be an expected resident responsibility. In all cases AOA work duty hour guidelines will be maintained.

Shift adjustments may occasionally be necessary.

Any scheduling changes may be done only with the prior approval of the Chief Resident/Program Director.
Scheduling and Time-Off Requests

Paid time off (PTO) for residents consists of 20 days which includes: vacation, sick time, scheduled holidays and conference time. PTO is non-cumulative for each contract year. PTO may only be taken while rotating in the Emergency Department. All PTO requests must be submitted to the Medical Education Department a minimum of 60 days prior to requested date. Requests not complying with this stipulation will be denied. All requests must be approved by the Chief Resident/Program Director and are approved on a first come, first served basis.

In the event that an excess of requests have been submitted for a particular time frame, consideration will be given toward seniority, and number of prior requests that have been made for that contract year. This program makes the distinction of PTO time, and schedule requests. PTO time may be requested and if approved will reduce the total monthly shift obligation by the amount requested. “Schedule requests” do not reduce the total monthly shifts, but will be accommodated when possible. It should be noted, however, that these requests are not guaranteed and therefore should not be expected. Schedule requests do not excuse a resident from participation in lectures or other mandatory educational sessions of meetings.

Vacation Time

There are three types of EM rotation blocks:

EM-VAC – The resident requested vacation during this block prior to the start of the academic year and has priority for vacation requests over those residents on EM-V
EM-V – The resident was assigned this vacation month and must take vacation in this rotation or forfeit five days of PTO
EM – A resident may not take vacation during this month

A maximum of ten consecutive days of PTO will be allowed in any one rotation. The ten consecutive days of PTO must be separated by at least thirty days from any additional PTO days. A resident must request ten consecutive days of PTO in a rotation prior to the academic year when submitting vacation “month” requests to the Program Director. Ten consecutive days of PTO will be equivalent to six Emergency Department shifts. This equivalence can vary based on the Program Director’s discretion.

OGME-1 residents are not permitted to take vacation/PTO during the month of July. No vacation requests may be submitted for the week of December 24 - January 1 unless approved by the Program Director. All vacation requests are subject to the Program Director’s discretion.

Conference Time

Conference time is included in the total number of paid time off days. These must be requested within the time frame consistent with all requests as noted above.

Sick Days

In the event of illness, a resident may use PTO time to account for multiple sequenced days of absence. Any sick days used will be deducted from total PTO time. A resident who is ill and unable to attend scheduled work duty, or a mandatory educational session/meeting, must notify the Program Director. In the event that the Program Director is not readily available, the resident must call the Program Director’s office and leave a message regarding the expected absence prior to the absence. Included with the message must be a phone number or alternate method of contacting the resident. If the resident is scheduled to work, he/she must also call the Emergency Department and speak directly with the attending on duty to inform him/her of the absence.
Appropriate PTO paperwork for absences must be completed and turned in within 24 hours of return to work duty. Lack of compliance with this procedure may result in an unexcused absence and requirement for extra work duty equivalent to the number of days of absence.

In all cases of illness it is preferred that the resident attempt to find coverage for his/her shift. The resident should notify the Chief Resident/EM Resident On-Call for assistance in coverage. For any single day of illness a PTO day may not be used, and the shift will be made up at a later time. For multiple sequential days of illness, PTO days may be used. Residents will be required to bring in documentation that they were evaluated by an attending physician for their illness prior to returning to work duty.

**Maternity Leave**

Please reference the Maternity Leave Policy outlined in the House Staff Manual.

**Conference Obligation**

Procedure for requested conference time will be the same as requesting PTO time. Listed below are the conferences residents are expected to attend during the four-year residency program. All scheduling is dependent on resident’s individual academic schedule:

OGME II - AOA/ACOEP conference, ACOEP Board Review Course  
OGME III - ACOEP conference (ACOEP Board Review course if not attended as an OGMEII)  
OGME IV - Any major emergency medicine conference approved by the Program Director is acceptable

At times the Program Director may modify this schedule for individual residents to accommodate for variances noted in specific resident rotation schedules. Additional conferences related to emergency medicine are encouraged.

**Moonlighting Specific**

The Emergency Medicine Residency at Lakeland HealthCare does not allow EM1 or EM2 residents in the first 6 months of the residency to moonlight. As Residents progress in their program, they are capable of obtaining the privilege of moonlighting under the following circumstances:

All appropriate Medical Education “Request for Moonlighting” forms must be completed and approved by the Program Director, Emergency Medicine Core Faculty and Medical Education Department prior to the start of any moonlighting activity.

Moonlighting will be allowed as long as academic requirements within the program are maintained. These standards shall be determined by the Program Director. If at any time there is a question about a resident’s performance (academic or otherwise), this privilege may be temporarily suspended or revoked.

Residents must complete and maintain certification in ACLS, PALS and ATLS. In addition, the resident must have documentation and have been credentialed in endotracheal intubation as recognized by Lakeland HealthCare Department of Medical Education prior to any moonlighting activity.

Residents must be knowledgeable with current AOA standards for work duty hours. It is the resident’s responsibility to monitor and comply with these regulations in regard to hours worked inclusive of Residency Duty Hours, Educational Duties and Moonlighting activity.
No more than 36 hours of moonlighting will be allowed during a calendar month. No shift should be scheduled longer than 12 hours in duration. Any shift must be separated by an equivalent length of time off prior to resuming any work activity.

Residents must complete a signed statement attesting to their understanding and compliance of this policy and the AOA standards for Moonlighting activity.

Moonlighting is a privilege. All moonlighting must be approved by the Program Director. Moonlighting schedules will be monitored by the Program Director and Core Faculty. Anyone violating the Moonlighting Policy will be subject to the following:

1st Offense: Loss of Moonlighting Privilege for 3 months.
2nd Offense: Loss of Moonlighting Privilege for a 12 month period of time.
3rd Offense: Removal from the residency program.

Moonlighting may not interfere with the resident’s responsibilities to the Residency Program. The Program Director has the ability to suspend this privilege if abused.

Moonlighting activity may only occur when no other academic or work responsibilities are occurring.

Acceptance of Transfer Residents

It is the policy of the Lakeland HealthCare Emergency Residency Program to accept the highest quality residents possible. The Emergency Medicine Residency discourages the acceptance of “transfer residents” who have initiated residency in another program and are requesting transfer into the Lakeland HealthCare Emergency Medicine Residency. We do recognize that there are times when extenuating circumstances necessitate such a transfer. Applicants requesting transfer will be considered only after the following criteria have been met:

1) The applicant has requested in writing consideration for program transfer to the Lakeland HealthCare Emergency Medicine Residency Program.

2) The applicant completes, in full, an application to the program through the Department of Medical Education.

3) The applicant gives written permission for the Lakeland HealthCare Emergency Medicine Program Director to contact the Resident’s current Program Director regarding the requested transfer.

4) Prior to consideration, the applicant provides a written letter from his/her current Program Director acknowledging the fact that the resident is pursuing an alternate site of training.

5) Any resident that is accepted may be eligible to obtain advanced standing in keeping with the policies of the AOA. Advanced standing is submitted to the appropriate agency by the Program Director. The Program Director will submit such requests based on the academic progress of the resident. Academic level is based on academic progress regardless of OGME year of training. Therefore, advanced standing requests will not be made for residents until such time that the resident is perceived to have attained the appropriate accomplishments of the specific academic year.

Outside Rotations
All outside rotations require that advance paperwork be completed a minimum of 60 days prior to the start of the rotation. Some rotations request even more time prior to the rotation. It is the resident’s responsibility to see that all appropriate paperwork is complete. Any elective rotations that are noted to have incomplete paperwork will result in an elective rotation chosen at the discretion of the Program Director. Any rotations that are delayed due to a deficiency in completing paperwork will result in an extension at the end of the resident’s program for that rotation.

Core Content for Emergency Medicine

The educational content of this program is based on core content of emergency medicine that has been outlined by both the AOA and ACOEP. The specific curriculum can be reviewed by referencing either of the corresponding websites at www.aobem.org and www.acoep.org.

Advancement to the Next Training Year/Graduation from the Program

At the end of the academic year, each resident will be considered for advancement to the next training level or for graduation if at the conclusion of the EM-4 year. The following conditions must be met to successfully move to the next training level or to graduate:

- Satisfactory completion of all monthly rotations, including appropriate degrees of progress.
- Satisfactory completion of the research requirement that conforms to the scheduled guidelines published in the Resident Manual and AOA standards.
- Satisfactory compliance with the policies, procedures and values of the Department of Emergency Medicine, the Emergency Medicine Residency Program and Lakeland HealthCare.
- Additional criteria as per institutional policy for approval and credentialing of residents and fellows.

For additional information, refer to the Lakeland House Staff Manual.

Adverse Actions, Disciplinary Procedures, and Due Process

Refer to the Lakeland House Staff Manual.

Remediation of Clinical Deficiencies

Refer to the Lakeland House Staff Manual.
Resident Responsibilities

The following responsibilities are an important part of the training program:

Rotation Patient Logs/Compliance

All residents are required to submit a log that summarizes all patients seen, procedures performed, and activity for every rotation. This log is vital to the accreditation and documentation of the residency program and is required of each resident for yearly advancement. Logs must be submitted to the Residency Coordinator within two weeks of the end of the previous rotation. Standardized log sheets are available in the Medical Education office but should be completed via New Innovations whenever possible. Non-clinical rotations require a brief, typewritten description of the resident’s activities for the month.

Each resident is generally expected to log an appropriate number of patients based on the appropriate OGME year. Based on ACEP/SAEM guidelines, OGME 1 residents should see 1-1.5 emergency medicine patients per hour, OGME 2 residents should see 1.5-2 patients per hour; OGME 3 residents should see 2-2.5 patients per hour; and OGME 4 residents should see at least 2.5 patients per hour. Each resident’s log will be compared with the others in the resident’s peer group, and residents falling below their peer group may be subject to remediation or sanction.

Lakeland residency programs require all residents to maintain procedure and diagnosis logs for each of their month or block rotations. Content and format of each log will be based on program requirements and based on current policy.

Resident responsibility - At the end of each rotation residents will submit their logs to the Program Director for review. The Emergency Medicine Resident Log should document:

a. Lists of Patients seen (HIPPA Compliant)
b. Lectures attended (May attach lecture schedules)
c. List of Staff, Department Meetings attended
d. Log all procedures

Program Director/Faculty will meet with residents at least quarterly to review logs for completeness and appropriate numbers.

Logs are due to the Program Director by the 15th of each month for the month prior. Delinquent logs will result in suspension of work duty and the loss of schedule requests for the following month. In addition, no vacation time or schedule requests will be approved if logs or administrative paper work is outstanding. Blank forms are available in Medical Education or from the Program Director.

No Lakeland resident will be promoted, given a new contract, or a certificate without a completed procedure and diagnosis log approved by the Program Director and the Core Faculty Advancement Committee.

Procedure Logs

Emergency Medicine residents will maintain monthly logs of their activities. The following is a list of minimum procedures that Emergency Medicine residents are expected to have accomplished prior to the completion of the Emergency Medicine Residency. Although this list represents a minimum number, it is expected that all procedures performed will be logged. It is understood that numerous critical procedures in Emergency Medicine are infrequent/rare. In consideration of this, some procedures may be completed after demonstrating proficiency in an animal lab setting or simulation lab. Such procedure requirements will be allowed with the
approval and at the discretion of the Program Director. All procedures should be logged via New Innovations. Procedure logs will be reviewed on a quarterly basis at the time of the resident’s routine evaluation and annually by the Core Faculty Annual Advancement Committee. Additionally, residents are required to become credentialed in certain procedures as outlined by Lakeland HealthCare.

### Minimum Procedure Requirements

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardioversion/Defibrillation</td>
<td>10</td>
</tr>
<tr>
<td>Central Venous Access</td>
<td>20</td>
</tr>
<tr>
<td>Chest Tube Insertion</td>
<td>10</td>
</tr>
<tr>
<td>Closed fracture Reduction</td>
<td>20</td>
</tr>
<tr>
<td>Dislocation Reduction</td>
<td>10</td>
</tr>
<tr>
<td>Splinting</td>
<td>20</td>
</tr>
<tr>
<td>Procedural Sedation</td>
<td>15</td>
</tr>
<tr>
<td>Cricothyroidotomy</td>
<td>3</td>
</tr>
<tr>
<td>Intraosseous Line</td>
<td>3</td>
</tr>
<tr>
<td>Intubation</td>
<td>35</td>
</tr>
<tr>
<td>Laceration Repair</td>
<td>50</td>
</tr>
<tr>
<td>Lumbar Puncture</td>
<td>15</td>
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<tr>
<td>Osteopathic Manipulative Therapy</td>
<td>30</td>
</tr>
<tr>
<td>Pediatric Medical Stabilizations</td>
<td>15</td>
</tr>
<tr>
<td>Pediatric Trauma Stabilizations</td>
<td>10</td>
</tr>
<tr>
<td>Transvenous Cardiac Pacing</td>
<td>2</td>
</tr>
<tr>
<td>Thoracotomy</td>
<td>1</td>
</tr>
<tr>
<td>Pericardiocentesis</td>
<td>3</td>
</tr>
<tr>
<td>Ultrasound - Bedside</td>
<td>40</td>
</tr>
<tr>
<td>Vaginal Deliveries</td>
<td>10</td>
</tr>
</tbody>
</table>

### Major Resuscitations (Adult and Pediatric)

Each resident must have sufficient opportunities to perform invasive procedures, monitor unstable patients, and direct major resuscitations of all types on all age groups. A major resuscitation is patient care for which prolonged physician attention is needed and interventions such as defibrillation, cardiac pacing, treatment of shock, intravenous use of drugs (e.g., thrombolytics, vasopressors, neuromuscular blocking agents), or invasive procedures (e.g., central line insertion, chest tubes, endotracheal intubation) are necessary for stabilization and treatment. The resident must have the opportunity to make admission recommendations and direct resuscitations.

### Patient Follow-up Activities

**Follow-up Logs**

Each resident is required to maintain a record of patients for which the resident obtains follow-up information. The purpose of this activity is to encourage the resident to appreciate the continuity of the disease process and to understand the complex interaction between the Emergency Department and the
patient’s outcome. Each resident is required to report at least five admitted and five discharged patients per month and submitted with the resident’s log for the Emergency Medicine rotation. Examples of follow-up activity might include discussing the case with another physician, visiting the patient in the hospital, calling the patient at home, reviewing the patient’s medical record or discussing the case with the Medical Examiner. The name, medical record number, age, chief complaint and nature of the follow-up are required.

**Scholarly Activity**

To promote scholarship and to develop lifelong habits of academic excellence, residents will participate in various scholarly activities throughout their training.

*Resident Research*

Each resident is required to complete at least one approved research project prior to residency commencement. Each resident will be assigned to a Research Mentor at Lakeland. It is encouraged that the resident and mentor meet on a regular basis and review formulation of a research question, study design, IRB approval process, study implementation, data collection, data analysis and manuscript preparation and presentation over a two year period. Activities are assigned and monitored by the faculty research mentors. Each resident/mentor team will work to accomplish the pertinent questions related to the development of research as well as the ongoing project that the resident will choose to pursue. Each resident must complete the online module “Research Training Course for Residents” by the end of the EM 1 year.

*Resident Paper*

All residents in the EM 2 year or higher will prepare a paper, suitable for publication, during the academic program. The paper’s topic should be a collective review or a presentation of the resident’s research project. All projects will be developed and proceed in accordance with the following schedule outline:

<table>
<thead>
<tr>
<th>Time Line</th>
<th>Project Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>July EM 1 - June EM 1</td>
<td>Develop Research Idea/Hypothesis with Faculty Mentor</td>
</tr>
<tr>
<td></td>
<td>Complete Literature Review for Validity</td>
</tr>
<tr>
<td></td>
<td>Present Research Hypothesis with Materials and Methods to EM Core Faculty Committee at Monthly Meeting</td>
</tr>
<tr>
<td></td>
<td>Present to Lakeland HealthCare Committee for IRB Approval</td>
</tr>
<tr>
<td>July EM 2 – May EM 3</td>
<td>Data Collection</td>
</tr>
<tr>
<td></td>
<td>Rough Draft</td>
</tr>
<tr>
<td>December EM 4</td>
<td>Completed Project for Core Faculty Review</td>
</tr>
</tbody>
</table>

The final manuscript must be typewritten and conform to the guidelines for authors published monthly in the *Annals of Emergency Medicine*. Although publication of the paper is not required, all residents are expected to submit their work to be published. A *completed draft of the paper must be submitted to the residency Program Director by May 15th of the EM 3 year*. Each paper will be reviewed by the Core Faculty for its content, appropriateness and style. Unsatisfactory papers will be returned for revision.

*Resident Presentations*

All residents will be scheduled to present a variety of lectures, journal clubs, case presentations and conferences throughout the year. These assignments are made at the start of the academic year. These presentations should be of the highest quality possible and reflect the Program’s commitment to excellence.
in academic Emergency Medicine. Significant presentations will be evaluated as part of the resident’s oral evaluation.

Professional Demeanor/Attire

In many cases the Emergency Department is the hospital’s first exposure to the public. You are an integral part of the image projected by our institution. Therefore, please comply with the following:

Knock before entering any patient room with a closed door.

Address all adult patients by “Mr., Mrs. Ms.” etc.

Introduce yourself to patient and all others in the room with solid eye contact and a handshake when appropriate to patient’s condition.

As a general rule, you should be seated during the patient interview.

Laboratory coats and scrubs are to be worn while on-duty in the Emergency Department. Scrubs may not be combined with sweat shirts, jeans, printed T-shirts or other non-medical clothing. Shoes are to be clean. No sandals are to be worn while on duty.

Eating is allowed in the lounge if it is not feasible to eat in the cafeteria. Please be sure to clean up after yourself. Attending Emergency physicians and residents are not allowed to bring food into patient care or work areas.

Lakeland hospital identification badges are to be worn at all times and must be clearly visible.

Completion of Medical Records

Incomplete medical records from the Medical Record Department: It is the expectation of the program that all residents comply with Lakeland’s Medical Record policy. Non-compliance will result in a suspension of work duty until such time that records are completed. Each day that the resident is on suspension will result in an additional work shift being assigned.

Completion of patient emergency medical charts within the Emergency Department: It is our expectation that all emergency medicine charts will be completed prior to the resident going off duty of his/her shift.

Communication

Effective communication between the Residency Program, the resident, faculty and other staff is critical. Residents are expected to respond promptly to electronic mail, pages, voicemail messages, memorandums or letters. Our primary method of communication is by electronic mail; please check your e-mail daily. This is extremely important when residents are on an “away” rotation.

Quality Assurance Programs

Satisfactory attendance at assigned Quality Assurance programs and meetings is required.

Chart Audits: In order to maintain quality assurance, a chart audit will periodically be conducted on Emergency Department charts. The Program Director or designee for the following will review the charts:
• Physician assigned appropriately
• Appropriate diagnosis
• Physician’s signature
• Discharge time and date
• All appropriate components for an emergency medical record as outlined by HCFA
• Lab/radiographic result documentation
• Complete medical decision making
• 

A selected chart audit will be conducted by the Program Director, Faculty and residents.

Mortality Reviews

In the interest of quality patient care, and in cooperation with regulations of the American Osteopathic Association and ACOEP, a Mortality Review report is completed for deaths that occur in the Emergency Department on a monthly basis. A formal report is presented and reviewed by the Department of Emergency Medicine at the monthly Department Meeting.

Emergency Medicine Residency Bedside Ultrasound Certification

This program recognizes the skills and techniques of bedside ultrasound to be a critical skill for the Emergency Physician to master. As such, we expect that each resident will have met the criteria for certification by the end of the four-year Emergency Medicine Residency.

The requirements for certification are:

Ultrasound program—MSU course (basic and advanced) or other approved course
150 total examinations approved by a credentialed emergency ultrasonographer of which at least 10% must be abnormal
Included in the 150 must be the performance of 25 approved FAST examinations including 3 abnormalities

An examination may be approved if:

1) Directly supervised by a credentialed emergency ultrasonographer and approved (the form will be initialed to indicate the approval.).
2) The hard-copy images are over read and found to be acceptable.
3) Confirmation of a correct examination by a corroborating study, i.e. CT, MRI, etc.
4) Confirmation by clinical outcome, i.e. placement of a central line by ultrasound that is successful.

Please reference the Lakeland HealthCare Emergency Medicine Residency Ultrasound Guidelines in the Appendix of this manual.
Curriculum
Didactic Activities

General Description

The didactic curriculum is the compilation of conferences, seminars, laboratories, Journal Clubs and case studies to enable the Emergency Medicine Resident to understand the basic science and clinical principles that govern Emergency Medicine. The first two months of each academic year is dedicated to an overview of topics relevant to the resident’s particular training year. These topics, because of their importance, will be repeated every year. The remainder of the didactic curriculum will be repeated every two years so that each resident will be exposed to a particular topic or learning exercise prior to graduation. The various pieces of the didactic curriculum are presented by the Emergency Medicine Faculty, guest lecturers and by the Emergency Medicine Residents.

The didactic activities are an important part of the training in the general competencies. The general competencies relevant to a particular activity are indicated as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Care</td>
<td>PC</td>
</tr>
<tr>
<td>Medical Knowledge</td>
<td>MK</td>
</tr>
<tr>
<td>Practice-Based Learning</td>
<td>PBL</td>
</tr>
<tr>
<td>Interpersonal and Communication Skills</td>
<td>ICS</td>
</tr>
<tr>
<td>Professionalism</td>
<td>P</td>
</tr>
<tr>
<td>Systems-Based Practice</td>
<td>SBP</td>
</tr>
<tr>
<td>Osteopathic Methods</td>
<td>OMM</td>
</tr>
</tbody>
</table>

Weekly Emergency Medicine Conference Format

The Resident Conferences are conducted weekly on Wednesdays in the medical education department at Lakeland Healthcare – St Joseph. These conferences represent the bulk of the didactic curriculum and are composed of various activities that are detailed below.

A brief description of the Wednesday conference activities is provided below.

Case Presentations (Patient Care, Medical Knowledge, Systems Based Practice):

The Emergency Medicine Resident and attendings will present case presentations at this conference. Presenters choose interesting cases to present to the group. Cases are assigned from one of three categories: Trauma, Medical, or Pediatric. Cases should be of educational value and are usually cases which are:

- Diagnostic Challenges
- Difficult to manage
- Unusual Presentations of common disease
- Uncommon diseases or injuries

General Guidelines

The case presentation must last no longer than 45 minutes (including discussion time)

While preparing the case for presentation, you should discuss this case and the conference format with the Chief Resident and/or Faculty member prior to presentation as needed for a quality review.

The faculty and residents using a standardized form will evaluate your presentation. Feedback will be provided to you after your presentation.
Presenting the Case

Begin by providing one individual learner with the Chief Complaint, age and sex. The chief complaint is used to generate an expansive differential diagnosis with the life threatening diagnoses listed first. The intent of these is to work through the entire case in an oral board type of format. This should include the testing of communication and interpersonal skills. In addition, the presenter should allow the learner the opportunity to work through the case in a similar situation as in the Emergency Department so also to challenge the learner in practice based management.

Encourage the learner to develop an expansive differential diagnosis; ask the audience to develop a prioritized differential diagnosis that begins with the life threats; ask the audience participant to detail what in the presented history and physical exam supports the offered diagnosis regardless of how obvious. This is of great educational benefit to the junior members of the audience.

Ask the audience to develop a prioritized list of diagnostic evaluations; ask the audience participant to tell you what the diagnostic test’s value is with regard to the differential diagnosis.

Develop a prioritized plan, starting with life-saving interventions first.

Briefly discuss the patient’s ED course and provide a brief discussion of the patient’s outcome.

Electrocardiograms and patient radiographs must be presented to the audience.

Autopsy reports, when applicable should be provided.

Core Lectures (Patient Care, Medical Knowledge, Systems Based Practice):

The Emergency Medicine faculty will provide the core lecture series. The topics for these lectures are selected from a list of core lecture topics that will be repeated every two years.

Resident Lectures (Patient Care, Medical Knowledge, Systems Based Practice):

Residents will be scheduled to provide advanced lectures. The topics for these lectures will be selected by the resident from a list of lecture topics provided. The purpose of these lecture are to:

Encourage an in-depth review of a select Emergency Medicine topic

Provide the resident with the opportunity to teach his/her peers

Expose the resident to various teaching techniques and tools and to encourage the use of power point and other presentation software available.

Guidelines

Formal lecture presentations are expected. Fellow residents and faculty members are counting on a quality educational experience. Residents should be dressed as if they are an invited lecturer and behave in a professional manner. Lecture handouts, if used, must be typed and photocopied for distribution. Slide presentations can be formatted using the hospital’s computer software and can be
projected through the video projector system in the Upton Conference Center or the medical education wing. Allow time to review your lecture content and format with your faculty mentor prior to presentation. The faculty has a great deal of experience in teaching and can assist in polishing resident lectures.

Journal Club (Patient Care, Medical Knowledge, Systems Based Practice):

The purpose of Journal Club is to encourage regular reading habits and to review the current literature in Emergency Medicine. In addition, research methodology and study design, biostatistics and critical analysis of the literature will be discussed. All residents will be expected to have read the material assigned for the month and be prepared to discuss the articles. A faculty member who will guide and focus the discussion of various articles will moderate the conference. Faculty members will also prepare lectures during this period to expound on any pertinent aspects particular to the material and methods, or statistical analysis that involve these cases. This will allow for increased understanding of statistics as it relays to the review of the medical literature. The MSUCOM Statewide Campus System online journal club module must be completed during the EM 1 year.

MSU-SCS Grand Rounds (Patient Care, Medical Knowledge, Systems Based Practice)

Grand Rounds are presented by nationally recognized speakers who are noted for their expertise in a particular subject area and are scheduled monthly. These speakers are invited because of their recognized expertise and provide our program with exposure to recognized experts in a specific field. All residents, regardless of their schedule, make every attempt to attend these presentations. These lectures are hosted through the Michigan State University Statewide Campus System, and are attended by all residents of the consortium. A wireless audience response system will be utilized during these sessions to assist in both audience participation, and in evaluation of the audiences acquired knowledge. These lectures are mandatory.

Procedures Laboratory or Workshops (Patient Care, Medical Knowledge, Systems Based Practice)

Procedure laboratories and hands-on workshops are scheduled throughout the 4 year curriculum at various times. Orientation labs and conferences are repeated each July and August. These labs are conducted by the faculty and are designed to provide the residents the experience and psychomotor skills needed to perform procedures for emergency patients. Labs are tailored to the educational needs of the junior and senior residents. Because of the great deal of effort that is involved in these labs and the enormous educational benefit to the resident, all residents are expected to attend and will be excused from other rotations when possible. These labs/workshops are presented in a small group format to maximize participation. Labs include: Ballistics lab, Advanced Airway Lab, Hazmat Lab, Basic Ultrasonography, Advance Ultrasonography, Cadaver Procedure Lab, Advanced Slit Lamp Lab, and Dental Lab. EM residents must attend each MSUCOM Statewide Campus System lab at least once during their 4 years in order to complete their residency training.

Mock Oral Board Simulation (Interpersonal and Communication Skills, Medical Knowledge, Practice Based Learning, Professionalism, Systems Based Practice)

The “Mock Oral Board Simulations” provides all residents cases in a format similar to the format used by the certifying boards in Emergency Medicine. Each year, the faculty provides a general discussion of the approach to these types of examinations. Mock Oral Board Simulations are then completed with residents quarterly. Summary score sheets with examiner comments are then reviewed with the individual residents, and a formal evaluation is then kept in the resident’s education file.
EKG Reviews (Medical Knowledge, Patient Care)

EKG reviews will be conducted a minimum of once a month. A sampling of 10-15 EKG’s will be provided to all participants a minimum of one week prior to the conference. It is anticipated each resident will completely analyze each EKG prior to the conference. The instructor will randomly call on residents to interpret EKG’s in detail. In addition, when indicated other information may be requested regarding treatment or stabilization that may be pertinent to a particular EKG.

Radiology Review (Medical Knowledge, Patient Care)

Radiology reviews are conducted once a month. The resident will choose an anatomical area of interest and obtain a series of radiographic images of this area. The resident will conduct a systematic overview of the study interpretation, pitfalls and appropriate analysis of reviewing these studies. The chief resident will assist the resident and faculty in selection of topics as well as lecture content to avoid any redundancy and maintain quality amongst the various presenters.

Visual Diagnosis Conference (Patient Care, Medical Knowledge)

The faculty presents this conference to all residents. The faculty will present visual images in Emergency Medicine along with a clinical vignette.

Program Curriculum

<table>
<thead>
<tr>
<th>EM 1</th>
<th>EM 2</th>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM Orientation Month</td>
<td>Emergency Medicine</td>
<td>ENT</td>
</tr>
<tr>
<td>Emergency Medicine</td>
<td>Radiology/Ultrasound ED</td>
<td>Ophthalmology</td>
</tr>
<tr>
<td>Hospital Cardiology</td>
<td>Neurology</td>
<td>Urology</td>
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<tr>
<td>Anesthesia</td>
<td>Neurosurgery</td>
<td>Dermatology</td>
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<tr>
<td>Internal Medicine</td>
<td>Pediatric Intensive Care</td>
<td>Dental/Oral Maxillo-</td>
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<tr>
<td>Obstetrics/Gynecology</td>
<td>Orthopedics</td>
<td>facial Surgery</td>
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<tr>
<td>General Surgery</td>
<td>Trauma 1</td>
<td>Additional Electives</td>
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<tr>
<td>Pediatric Medicine</td>
<td>Critical Care</td>
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<table>
<thead>
<tr>
<th>EM 3</th>
<th>EM 4</th>
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</thead>
<tbody>
<tr>
<td>Emergency Medicine</td>
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<td>Toxicology</td>
<td>Administrative/Medical Legal</td>
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<tr>
<td>Plastics</td>
<td>Critical Care</td>
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<td>Hand Surgery</td>
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<tr>
<td>Critical Care</td>
<td></td>
</tr>
<tr>
<td>Trauma 2</td>
<td></td>
</tr>
<tr>
<td>EM Clinical Investigation</td>
<td></td>
</tr>
</tbody>
</table>
Clinical Rotations (Core and Electives)
EM 1 Clinical Rotation Summary

Orientation Month

**Location:** Lakeland Healthcare
Saint Joseph MI

**Training Year:** EM 1

**Educational Objectives**

**General Goals**
To become familiar with the initial evaluation and management of common Emergency Department patients, including the preparation of the medical record. *(Patient Care, Medical Knowledge, Systems Based Practice)*:

To learn the basic procedural skills used in the treatment of Emergency Department patients. Special emphasis is placed on wound and airway management. *(Patient Care, Medical Knowledge, Systems Based Practice)*

To foster professional and personal relationships with other members of the EM intern class and to begin to develop these relationships with members of the faculty, other residents, ED personnel and others within the Medical Center. *(Interpersonal and Communications Skills, Professionalism)*

To become familiar with the Department and Residency’s Policies and Procedures. *(System Based Practice)*

**Specific Objectives**

The resident will learn the presenting signs and symptoms of common ED complaints and gain an understanding of the diagnostic and therapeutic approach to these complaints. Typically, the following complaints will be specifically addressed *(Patient Care, Medical Knowledge, Systems Based Practice)*:

- Approach to the Emergency Department patient
- Approach to the dyspneic patient
- Approach to the patient with chest pain
- Approach to the trauma patient
- Approach to gynecologic disorders
- A review of Pediatric Advanced Life Support
- A review of Advanced Cardiac Life Support
- Rapid Sequence Intubation
- Procedural Sedation
- Communication Skills, giving bad news
- Professionalism in Emergency Medicine
- Hands on Suture Lab/Wound Care Basics
- Introduction to Ultrasound
- Wellness /recognition of fatigue and related topics
- Code and Critical Scenario Etiquette
- Common ENT Presentations
- Slit lamp Clinic and common Ophthalmologic presentations
Specific instruction in the elements of the “T-system”, ED record are learned by the resident. ED records created in the month are saved and reviewed with the EM faculty in conference. *(Systems Based Practice)*

The resident will learn the principles applied to ED electrocardiogram and routine radiographs. *(Patient Care, Medical Knowledge)*

The resident will learn the indications, contraindications, complications and techniques for wound management and airway management. The resident will perform these skills in the training laboratory and when available in the ED. *(PC, MK)*

The resident will successfully complete the following courses in the first year of training, however, an overview of each of these will occur during the orientation month. *(PC, MK, SBP):*

- ACLS Provider Course
- Pediatric Advanced Life Support Course
- Advanced Trauma Life Support Provider Course

The resident will perform clinical duties as assigned in the ED and become familiar with the Department’s personnel, procedure and policies. Skills learned in the didactic portion of the rotation will be practiced. *(PC, MK)*

The resident will complete assigned readings prior to the applicable educational exercise. *(MK)*

**EM 1 Competency Objectives**

The first year Emergency Medicine Resident concentrates on developing skills in individual patient evaluation. Focusing on the basic principles of decision making in Emergency Medicine and acquiring a core knowledge base are the primary educational objectives. By the end of the first year of training the resident will:

1. Perform a thorough and efficient history and physical exam
2. Competently use diagnostic tests, develop a treatment plan, and initiate treatment.
3. Appropriately request consultation and arrange follow-up.
4. Demonstrate effective multi-patient management skills as they acquire the basic familiarity with common Emergency Department presentations.
5. Skill in incision and drainage, burn management, lumbar puncture, arterial puncture, EKG and radiographic interpretation, and orthopedic procedures including splint application and joint aspiration.
6. Effectively communicate with patients and their families concerning diagnoses, prognoses, therapeutic plans and alternatives, informed consent, and advanced directives and with other team members, consultants, and pre-hospital personnel.
7. Maintain a program of study sufficient to acquire the knowledge and skills necessary for successful practice in emergency medicine.
Evaluation Process

A written evaluation of the resident by the EM faculty will occur at the completion of the rotation. Evaluations will be completed via the *New Innovations Residency Management Suite*.

Evaluation of the resident’s knowledge and skills will occur throughout the training year as care is provided to ED patients under the supervision of EM faculty. The faculty will reflect their assessment of the resident on the EM rotation via *New Innovations* each quarter that the resident rotates in the ED.

Ad hoc evaluation of the experience as deemed appropriate by the Program Director.
Emergency Department Core Rotation EM 1

Introduction/Description

The LRHS Emergency Departments are staffed with EM Residency Faculty. Residents are assigned to faculty members all shifts to provide exposure to a broad range of clinical pathology and major trauma.

Over the course of the residency, and with increasing experience and responsibility, the resident will develop the skills, knowledge and attitudes necessary to handle a wide variety and number of cases in an efficient and professional manner.

In addition to the clinical experience, the ED Core rotation includes a series of didactic sessions intended to supplement and provide the broad based education, theory and practical aspects, of up-to-date Emergency Medicine.

Year of Training: EM 1

Contact Information: Michelino Mancini, DO
Program Director

Location: Lakeland Healthcare
Saint Joseph MI

Educational Objectives

General Goals:
To become knowledgeable of the principles of Emergency care and to become familiar with their application in the evaluation, diagnosis and management of patients presenting to the Emergency Department. (Patient Care, Medical Knowledge, Systems Based Practice):

To become knowledgeable with the indications for and interpretation of diagnostic modalities utilized in the evaluation of patients presenting to the Emergency Department. (Patient Care, Medical Knowledge, Systems Based Practice):

To learn to interact with attending physicians and residents from other disciplines in relation to the Emergency Department patients. (Interpersonal Communication Skills, Professionalism)

Specific Goals:
The resident will master the skills needed to elicit an adequate history and perform a complete examination on patients presenting to the Emergency Department with urgent and non-urgent complaints. (Patient Care, Medical Knowledge)

The resident will evaluate patients with multiple symptom complexes, and understand the pathophysiologic process, diagnosis and proper management of the following (Patient Care, Medical Knowledge, Systems Based Practice):
- Altered mental status
- Apnea
- Cardiac arrest
- Chemical Intoxication
Coma
Dizziness
Fever
Hypertension
Hypotension
Pain
Poisoning
Seizures
Syncope
Weakness
Chest Pain
Dyspnea
Wheezing
Abdominal Pain
Hematemesis
Hematochezia
Nausea/Vomiting
Deformity of the extremity
Swelling of the extremity

The resident will learn the indications, contraindications, complications and techniques for the following procedures. When possible, these procedures will be performed on Emergency Department patients. (Patient Care, Medical Knowledge, Systems Based Practice)

Intubation
Nasotracheal intubation
Orotracheal intubation
Local anesthesia
Nasogastric intubation
Urinary bladder catheterization
Laryngoscopy
Central venous access
   Femoral
   Jugular
   Subclavian
Fracture/dislocation
   Immobilization techniques
Spine immobilization backboard
Techniques
Cervical traction techniques
Spine immobilization backboard
Cervical traction techniques
Spine immobilization techniques
Osteopathic Manipulation techniques
Intestinal tube insertion
Suture techniques
Venipuncture
Arterial blood gas sampling
History and physical examination
EKG interpretation
Oxygen therapy
Cardiac resuscitation
Trauma resuscitation

Description of clinical experiences:
The resident will rotate for five months at the EM 1 level on the Emergency Medicine Service. The resident will work with senior Emergency Medicine residents under the direct supervision of the assigned Emergency Medicine Faculty.

Instruction in the proper method of patient evaluation and management in the Emergency Department will be provided by the assigned Emergency Medicine attending and senior residents.

The resident will examine and treat patients in the Emergency Department under the supervision and direction of the assigned attending Emergency physician.

Description of didactic objectives:
The resident will participate in resuscitations under the direct supervision of the assigned Emergency Medicine attending physician. The resident will participate in Advanced Cardiac Life Support course, the Advanced Trauma Life Support course, Pediatric Advanced Life Support course, the regional Base Station Command course and the MSU-SCS Emergency Medicine procedural laboratories under the direction of Emergency Medicine Faculty.

The resident will attend daily and weekly Emergency Medicine conferences and meetings while on the service.

The resident will be responsible for the list of suggested readings for the Emergency Medicine rotation.

Evaluation process:
Written evaluation of the resident by the attending Emergency Medicine physicians at the completion of the rotation. Please reference evaluation section of this program manual. Successful certification during the first year in the following courses: Advanced Life Support, Advanced Trauma Life Support, and Pediatric Advanced Life Support.

Performance on the annual resident’s in-service examination.

Feedback mechanisms:
Biannual review of the rotation evaluations at the Core Faculty Advancement Committee.

Ad hoc review as deemed appropriate by the Residency Program Director

Description of Didactic Educational Activities (See Curriculum: didactic activities section of this manual)

Schedule:
Resident schedule is individualized and will be determined once the rotation is scheduled.
EM 1 – 18 ten hour shifts/month
Housing: Not provided by hospital

Parking: Provided by hospital

Meals: Allowance provided by hospital

Readings:

1. **Core texts in Emergency Medicine:**

2. **Recommended References:**
   3. Medical Toxicology-Diagnosis and Treatment of Human Poisoning, M. Ellenhorn and D. Barceloux, Current Edition,
   4. EKG, Marrino, H.
   5. Paramedic Book - Caroline

3. **Reference Journals:**
   1. Annals of Emergency Medicine
   2. The Journal of Trauma
   3. Emergency Medicine Clinics of North America
Anesthesiology Rotation EM 1

Introduction/Description

This rotation will involve hands-on care of patients requiring airway stabilization in a controlled setting under the direct supervision of an Anesthesiologist.

The Resident will participate with the Anesthesiologist in providing care to operative patients. The resident will assist in procedures associated with the practice of Anesthesiology with emphasis on advance practices in airway control and management in a controlled environment.

At the end of the rotation the Resident will be expected to demonstrate proficiency in basic airway techniques as well as beginning to be exposed to advanced cases. Additionally, the resident will evaluate and establish vascular access in select patient cases.

In addition, the Resident will become proficient with the medications used in rapid sequence intubation for establishing emergency airway control.

Training Year: EM 1

Length: 1 Month

Contact Information: James Bevenour, DO

Location: Lakeland Healthcare
Saint Joseph MI

Rotation Goals:

1. Develop airway management skills
2. Develop familiarity with pharmacologic agents used in anesthesia
3. Learn standard patient monitoring techniques
4. Learn relevant pre-operative historical and physical exam considerations
5. Learn principles of pain management.

Rotation Learning Objectives:

1. Demonstrate correct use of the bag-valve-mask device. (PC/MK)
2. Demonstrate knowledge of the anatomy of the upper airway. (PC/MK)
3. Demonstrate basic familiarity with nasotracheal and endotracheal intubation as well as the indications and complications (PC/MK)
4. Have knowledge of the dosages, indications and contraindications for intravenous analgesic and anesthetics, and neuromuscular blocking agents pertinent to care of the emergency patient. (PC/MK)
5. Demonstrate ability to use standard monitoring techniques. (PC/MK)
6. Demonstrate ability to manage a patient on a ventilator. (PC/MK)
7. Recognize and manage an obstructed airway. (PC/MK)
8. Demonstrate appropriate judgment regarding the need for airway intervention. (PC/MK)
9. Demonstrate skill in the use of anesthetics and neuromuscular blocking agents including conscious sedation and rapid sequence intubation. (PC/MK)
10. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (ICS/P)

11. Demonstrate the ability to apply current principles of practice to the care of their patients. (PBL)

12. Demonstrate a professional and caring attitude with patients and their families. (ICS/P)

13. Demonstrate the ability to work in an efficient and timely manner. (ICS/P)

14. Demonstrate the ability to coordinate patient care with specialist physicians. (P)

15. Demonstrate the ability to use resources of the available system in a cost-effective manner. (BP)

**Content Areas:**

Airway anatomy
Airway devices
Airway techniques
  1. Cricothyroidotomy
  2. Intubation
     1. Nasotracheal
     2. Orotracheal

Use of paralytic agents

Mechanical ventilation

Rapid Sequence Intubation

Post intubation management

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily patient care and teaching rounds</td>
<td>Direct Observation of daily patient care and participation in rotation didactics.</td>
</tr>
</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.
D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents.”

**Attending Responsibilities:**
   Provide didactic and individual instruction to the resident.
   Provide timely feedback to the Program Director, and faculty regarding resident performance and evaluation.

**Evaluation:**
   Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above at the end of the rotation. Please reference evaluation section of this program manual.

**Schedule:**
   The resident will report to the Anesthesia rotation on a daily basis. The resident will be available Monday thru Friday starting at 6am or as instructed by the preceptor. The resident will participate in cases scheduled for that day.

**Parking:**
   Provided by hospital

**Meals:**
   Allowance provided by hospital
Cardiology Rotation EM 1

Introduction/Description

The purpose of this rotation is to allow the resident to be exposed to a variety of cardiovascular cases under the supervision of an attending cardiologist. Working with the attending physician the resident will develop the skills necessary to accurately and quickly evaluate, diagnose and initiate treatment in patients presenting with cardiovascular symptoms.

Appropriate use and interpretation of a variety of diagnostic modalities will also be covered.

Training Year: EM 1

Length: 1 month

Contact Information:

Attending Physician: Jerome Kuhnlein, MD

Location: Lakeland Healthcare
Saint Joseph MI

Rotation Goals:

1. Learn the anatomy, pathophysiology, presentation, and management of common cardiovascular disorders.
2. Develop skill in the performance of a screening and detailed cardiology evaluation.
3. Develop skill in the use and performance of diagnostic procedures in the evaluation of cardiovascular disorders.
4. Effectively utilize Electrocardiogram and Echocardiogram studies to diagnose cardiovascular disorders.
5. Diagnose, stabilize and provide initial treatment of cardiovascular disorders.

Rotation Learning Objectives:

1. The resident will develop the ability to perform a general history and physical examination pertinent to cardiology. (Patient Care / Medical Knowledge)
2. The resident will develop the skills necessary to formulate an appropriate differential diagnosis. (Patient Care / Medical Knowledge)
3. The resident will acquire an understanding of the basic laboratory tests necessary to pursue a suspected diagnosis including, but are not limited to: electrocardiogram, echocardiogram, diagnostic-imaging (i.e., CT, MRI, etc). (Patient Care / Medical Knowledge)
4. The resident will develop an understanding of the prognosis and treatment strategies for common cardiovascular illnesses. (Patient Care / Medical Knowledge)
5. The resident will develop a strong didactic background in basic cardiology and cardiovascular pathology that will allow a foundation for lifelong learning in this discipline of medicine. (Patient Care / Medical Knowledge)
6. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
7. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
8. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
9. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
10. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
11. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

**Content Areas:**

Normal cardiovascular anatomy and physiology
Cardiovascular exam
Acute Coronary Syndrome
Dysrhythmias
  1. Etiology and Treatment
  2. Implantable Cardiac Devices
Congestive Heart Failure/Pulmonary Edema
Cardiomyopathies
Deep Venous Thrombosis
Pulmonary Embolism
Pericardial Disorders
Myocarditis
Endocarditis
Thoracic Aortic Dissections and Aneurysms
Abdominal Aortic Dissections and Aneurysms
Hypertensive Emergencies
Valvular Heart Disease
Peripheral Arteriovascular Disease

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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</thead>
<tbody>
<tr>
<td>Care of in/outpatients being evaluated on the Cardiology Service</td>
<td>Daily observation of clinical duties by the preceptor</td>
</tr>
<tr>
<td>Teaching and patient care rounds</td>
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<tr>
<td>One-on-one precepting</td>
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<tr>
<td>Assigned readings</td>
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**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.
B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:
   
   Provide didactic and individual instruction to the resident.  
   Participate in teaching rounds with the resident  
   Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

Evaluation:
   Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above at the end of the rotation. Please reference evaluation section of this program manual.

Schedule:
   Variable and will be reviewed at the start of the service by the preceptor.

Parking:
   Provided by hospital  

Meals:
   Allowance provided by hospital  

Recommended Reading:
   “Braunwald Cardiology – Heart Disease Edition”  
“Textbook of Emergency Cardiovascular Care and CPR” Lippincott, Williams and Wilkin  
“ECGs for Emergency Physician 2” Mattu and Brady
Obstetrics Rotation EM 1

Introduction/Description

The purpose of the Obstetrics rotation is for the Resident to become knowledgeable in the assessment and initial stabilization of the patient with an obstetric emergency. Additionally, the Resident will be competent in the emergency resuscitation of the neonate, procedures and practices of spontaneous vaginal deliveries.

Residents will be on call according to the current obstetric schedule. The goal for the rotation is to manage deliveries in obstetric emergencies associated with pregnancy (i.e., eclampsia).

Training Year: EM1

Length: 1 month

Contact Information: Paula McEachen MD and John Bard MD

Location: Lakeland Healthcare
          Saint Joseph MI

Rotation Goals:

1. Learn the principle of contraception.
2. Develop expertise in the diagnosis and management of emergent complications of pregnancy.
3. Develop expertise in the management of uncomplicated and complicated labor and delivery.
4. Develop expertise in the management of sexual assault.
5. Learn the principles of management of gynecologic and obstetrical trauma.
7. Develop expertise in the diagnosis and management of abdominal pain in females.
8. Develop expertise in the diagnosis and management of vaginal bleeding.

Rotation Learning Objectives:

1. Demonstrate ability to correctly perform a complete gynecologic exam. (Patient Care / Medical Knowledge)
2. Discuss the differential diagnosis and demonstrate ability to evaluate and treat patients with vaginal discharge. (Patient Care / Medical Knowledge)
3. Discuss the differential diagnosis and demonstrate ability to evaluate and treat patients with pelvic pain. (Patient Care / Medical Knowledge)
4. Discuss the differential diagnosis and demonstrate ability to evaluate and treat vaginal bleeding in pregnant and non-pregnant women. (Patient Care / Medical Knowledge)
5. Discuss the differential diagnosis and demonstrate ability to evaluate and treat patients with dysmenorrhea. (Patient Care / Medical Knowledge)
6. Demonstrate ability to evaluate and treat patients with genitourinary infections including PID, UTI, STD, TOA and vaginitis. (Patient Care / Medical Knowledge)
7. Describe the symptoms and differential diagnosis of toxic shock syndrome. (Patient Care / Medical Knowledge)
8. Demonstrate ability to perform perinatal and neonatal resuscitations. (Patient Care / Medical Knowledge)
9. Describe the relative effectiveness and complications of various contraceptive methods, including post-coital douche, coitus interruptus, condoms, diaphragm, rhythm method, oral contraceptives, injectable hormonal agents and IUD.  (Patient Care / Medical Knowledge)
10. Demonstrate ability to evaluate and manage the care of patients with suspected ectopic pregnancy.  (Patient Care / Medical Knowledge)
11. Discuss the signs, symptoms and treatment of placenta previa.  (Patient Care / Medical Knowledge)
12. Discuss the signs, symptoms and treatment of abruptio placenta.  (Patient Care / Medical Knowledge)
13. Discuss the signs, symptoms and treatment of preeclampsia and eclampsia.  (Patient Care / Medical Knowledge)
14. Discuss the normal stages of labor and the time course for each.  (Patient Care / Medical Knowledge)
15. Demonstrate ability to determine the APGAR score and discuss the significance of different values.  (Patient Care / Medical Knowledge)
16. Define the following according to ACOG guidelines: rape, statutory rape, sexual molestation, and deviant sexual assault.  (Patient Care / Medical Knowledge)
17. Demonstrate ability to evaluate and treat sexual assault victims, including evidence collection, appropriate patient counseling and pregnancy prevention.  (Patient Care / Medical Knowledge)
18. Discuss the differential diagnosis and demonstrate ability to diagnose and treat genital ulcerations.  (Patient Care / Medical Knowledge)
19. Discuss the pathophysiology, differential diagnosis, signs, symptoms and treatment of ovarian torsion.  (Patient Care / Medical Knowledge)
20. Discuss the management of trauma during pregnancy.  (Patient Care / Medical Knowledge)
21. Discuss the indications for perimortem caesarian section and describe the technique.  (Patient Care / Medical Knowledge)
22. Demonstrate ability to perform uncomplicated full-term deliveries.  (Patient Care / Medical Knowledge)
23. Demonstrate ability to manage patients with hyperemesis gravidarum.  (Patient Care / Medical Knowledge)
24. Discuss the diagnosis and treatment of complicated labor including premature rupture of membranes, premature labor, failure to progress, fetal distress, and ruptured uterus.  (Patient Care / Medical Knowledge)
25. Describe the management of complicated deliveries, including prolapsed cord, uncommon presentations, dystocia, uterine inversion, multiple births and stillbirth.  (Patient Care / Medical Knowledge)
26. Demonstrate ability to diagnose and manage postpartum complications including retained products, endometritis and mastitis.  (Patient Care / Medical Knowledge)
27. Discuss RH incompatibility.  (Patient Care / Medical Knowledge)
28. Describe the presentation a patient with hydatidiform mole.  (Patient Care / Medical Knowledge)
29. Describe the classification scheme for abortion.  (Patient Care / Medical Knowledge)
30. Demonstrate the ability to work effectively and collaboratively with other members of the health care team.  (Interpersonal and Communication Skills / Professionalism)
31. Demonstrate the ability to apply current principles of practice to the care of their patients.  (Practice Based Learning and Improvement)
32. Demonstrate a professional and caring attitude with patients and their families.  (Interpersonal and Communication Skills / Professionalism)
33. Demonstrate the ability to work in an efficient and timely manner.  (Interpersonal and Communication Skills / Professionalism)
34. Demonstrate the ability to coordinate patient care with specialist physicians.  (Professionalism)
35. Demonstrate the ability to use resources of the available system in a cost-effective manner.  (Systems Based Practice)
Content Areas:

Treatment of STD's and pregnancy
Medication use in pregnancy
Normal Pregnancy
  1. Physiological changes
  2. Normal spontaneous vaginal delivery
     a. Presentation
     b. Position
     c. Lie
     d. Episiotomy
  3. Delivery, complicated
     a. Presentation
     b. Dystocia
     c. Prolapsed cord
     d. Retained placenta
     e. Uterine inversion
     f. Multiple births
     g. Stillbirth
Pregnancy - complications
  1. Ectopic
  2. Hyperemesis gravidarum
  3. Abortion
     a. Threatened
     b. Inevitable
     c. Incomplete
     d. Complete
     e. Septic
     f. Missed
  4. Abruptio placenta and Placenta previa
  5. Toxemia
     a. Pre-eclampsia
     b. Eclampsia
  6. Rh incompatibility
  7. Labor, complicated
     a. Premature rupture of membranes
     b. Premature labor
     c. Fetal distress
     d. Ruptured uterus
  8. Postpartum complications
     a. Retained placenta
     b. Endometritis
     c. Mastitis
Abnormal vaginal bleeding - Age related differential diagnosis
Trauma in pregnancy
Sexual assault and domestic violence
Emergency contraception
**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Care of the Obstetric Patient</td>
<td>Direct daily observation of care of patients.</td>
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<tr>
<td>Patient care and teaching rounds</td>
<td></td>
</tr>
<tr>
<td>One-on-one precepting</td>
<td></td>
</tr>
<tr>
<td>Assigned readings</td>
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</table>

**Resident Responsibilities:****

The resident is responsible for floor coverage and didactic sessions as defined by the OB schedule.

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. **Quality Assurance Programs:**
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.
Schedule:

   Resident schedule is individualized and will be determined by the OB department.

Parking:

   Provided by the hospital

Meals:

   Allowance provided by hospital

Recommended Readings:

   “Williams Obstetrics”
   “Gynecology”, 8th edition, Ralph Benson
General Internal Medicine Rotation EM 1

**Introduction/Description**

The Internal Medicine rotation will help the Resident expand and develop a more complete understanding of the basics in Internal Medicine. Proficiency at patient workup, and procedures in patient care will be expanded. Evaluation and treatment of central internal medicine problems such as: hypertension, emphysema, diabetes mellitus, coronary artery disease, gastrointestinal disorders will be emphasized.

The Resident will work one-on-one with the Medicine attending who will instruct and supervise the care and treatment of internal medicine patients. Patient load varies with service admissions.

**Training Year:** EM 1

**Length:** Two 1 Month Rotations

**Contact Information:**

**Attending:** Mark Smalley, DO

**Location:** Lakeland Healthcare
Saint Joseph MI

**Contact person:** Mark Smalley, DO

**Rotation Goals:**

1. To assimilate general concepts of internal medicine, history taking and physical examination skills to develop a systemic evaluation for patients presenting to the emergency department.
2. To learn the pathophysiology, presentation, and management of diseases related to the alimentary tract.
3. To develop knowledge of the pathophysiology, presentation, and management of common hematologic diseases.
4. To master the understanding of the components of the immune system, and the disorders of hyper- and hypofunction of the immune system.
5. To know the major systemic infectious disorders, their diagnosis and treatment.
6. To learn the pathophysiology, evaluation, and treatment of renal disorders.
7. To develop knowledge of the etiologies, manifestations, and treatment of endocrine and metabolic disorders.
8. To master an understanding of the diseases of the respiratory system, including pathophysiology, evaluation, and treatment.
9. To develop the skills for compassionate and effective communication with patients and their families.
10. To develop skills necessary for independent learning, continuing education and the application of EBM techniques.
11. To develop senior residents with the skills to supervise and teach junior residents and students.
Rotation Learning Objectives:

1. Demonstrate appropriate history taking skills for all patients presenting to the emergency department. (Patient Care / Medical Knowledge)
2. Demonstrate the ability, based on the history acquired, to do an immediate assessment and initial stabilization, followed by a complete directed examination. (Patient Care / Medical Knowledge)
3. Combine the knowledge defined in the objectives below with the history and physical examination, to develop an appropriate differential diagnosis for all presentations. (Patient Care / Medical Knowledge)
4. Demonstrate knowledge of the causes, presentation, and management of esophageal problems. (Patient Care / Medical Knowledge)
5. Describe the etiologic agents, pathophysiology, and management of infectious diarrhea. (Patient Care / Medical Knowledge)
6. Demonstrate the ability to evaluate, manage, and appropriately disposition patients with gallbladder and liver disorders. (Patient Care / Medical Knowledge)
7. Demonstrate knowledge of the presentation, diagnosis, and management of obstructive lesions of the alimentary tract. (Patient Care / Medical Knowledge)
8. Demonstrate the ability to perform intubation procedures of the alimentary tract, including, but not limited to, and NG tube insertion. (Patient Care / Medical Knowledge)
9. Describe the presentations, work-up, and appropriate treatment of patients with inflammatory processes of the alimentary tract. (Patient Care / Medical Knowledge)
10. Demonstrate familiarity with the evaluation, treatment, and appropriate disposition of patients with gastrointestinal bleeding. (Patient Care / Medical Knowledge)
11. Demonstrate knowledge of the proper evaluation and treatment of the patient with sickle cell disease. (Patient Care / Medical Knowledge)
12. Describe the appropriate steps in the assessment and treatment of the patient with bleeding disorders. (Patient Care / Medical Knowledge)
13. Demonstrate knowledge in the work-up, treatment, and appropriate disposition of the patient with anemia. (Patient Care / Medical Knowledge)
14. Demonstrate understanding of the appropriate use of transfusions of blood components, including diagnosis and treatment of transfusion reactions. (Patient Care / Medical Knowledge)
15. Demonstrate familiarity with the mechanism and manifestations of immune compromise, including that caused by infection with HIV. (Patient Care / Medical Knowledge)
16. Discuss and be able to differentiate non-AIDS causes of immune hypofunction. (Patient Care / Medical Knowledge)
17. Discuss the manifestations, initial treatment, and appropriate disposition of patients with rheumatologic and autoimmune diseases. (Patient Care / Medical Knowledge)
18. Demonstrate understanding of the work-up and treatment of patients with hypersensitivity reactions, including transplant rejection. (Patient Care / Medical Knowledge)
19. Demonstrate knowledge of the concepts of cellular and humoral immunity and the proper use of immunizations in patients presenting to the emergency department. (Patient Care / Medical Knowledge)
20. Demonstrate familiarity with the manifestations of, evaluation for, and treatment of bacterial infections, especially including gonorrhea, syphilis, tuberculosis, and tetanus. (Patient Care / Medical Knowledge)
21. Describe the diagnostic criteria for, and the treatment of, toxic shock syndrome. (Patient Care / Medical Knowledge)
22. Know the characteristics of sepsis in different age groups. (Patient Care / Medical Knowledge)
23. Demonstrate knowledge of the appropriate initial treatment of the patient with possible sepsis. (Patient Care / Medical Knowledge)
24. Demonstrate knowledge of the vector, predisposing factors, clinical course, work-up, and treatment of rickettsial diseases. (Patient Care / Medical Knowledge)
25. Discuss the manifestations of, treatment of, appropriate disposition for, and immunization (when appropriate) of patients with viral infections. (Patient Care / Medical Knowledge)
26. Demonstrate knowledge of the time course, vectors, and treatment of the more common protozoal diseases. (Patient Care / Medical Knowledge)
27. Demonstrate familiarity with the causes, presentation, initial management and disposition of patients with glomerular disorders. (Patient Care / Medical Knowledge)
28. Describe the common etiologic agents, and appropriate work-up and disposition of patients with infections of the renal system. (Patient Care / Medical Knowledge)
29. Discuss the common causes, metabolic manifestations, treatment (including dialysis) and disposition of patients with renal failure. (Patient Care / Medical Knowledge)
30. Describe the common complications of dialysis therapy and how they manifest in patients presenting to the emergency department. (Patient Care / Medical Knowledge)
31. Define the etiologies, and demonstrate understanding in the evaluation and treatment of patients with acid/base disorders. (Patient Care / Medical Knowledge)
32. Demonstrate understanding of the etiologies, manifestations, and treatment of fluid and electrolyte abnormalities. (Patient Care / Medical Knowledge)
33. Discuss the manifestations, work-up, treatment, and disposition of patients with disorders of glucose metabolism. (Patient Care / Medical Knowledge)
34. Demonstrate understanding of the common endocrine abnormalities, especially regarding presentation, initial evaluation and management, and disposition. (Patient Care / Medical Knowledge)
35. Discuss acute treatment for patients presenting with disorders of severe malnutrition. (Patient Care / Medical Knowledge)
36. Demonstrate knowledge in the etiologic agents causing, presentation and evaluation, and disposition of patients with infections of the respiratory system. (Patient Care / Medical Knowledge)
37. Describe the etiology, manifestation, and treatment of patients with acute and chronic airway disease. (Patient Care / Medical Knowledge)
38. Discuss the predisposing factors, presentation, and appropriate treatment of patients with pulmonary embolus. (Patient Care / Medical Knowledge)
39. Demonstrate knowledge of the potential presentation, work-up, treatment and appropriate disposition of patients with chest masses. (Patient Care / Medical Knowledge)
40. Demonstrate knowledge of the presentation, work-up, treatment, and disposition of patients with chronic granulomatous disease. (Patient Care / Medical Knowledge)
41. Demonstrate knowledge of the appropriate evaluation of patients with abnormalities of the lymphatic system. (Patient Care / Medical Knowledge)
42. Demonstrate knowledge of the presentation, treatment, and disposition of patients with malignancies of the hematopoietic system. (Patient Care/Medical Knowledge)
43. Demonstrate understanding of the etiologies, diagnosis, and treatment of adult respiratory distress syndrome and multisystem organ failure. (Patient Care/Medical Knowledge)
44. Demonstrate the ability to communicate effectively and compassionately with patients and families. (Interpersonal and Communication Skills / Professionalism)
45. Demonstrate the ability to work quickly and efficiently to assess patients according to the urgency of their problem(s). (Patient Care / Professionalism/Practice Based Learning and Improvement)
46. Demonstrate the ability to work in a professional and effective manner with members of the health care team. (Professionalism / Systems Based Practice)
47. Communicate with specialty physicians in an accurate and timely manner. (Patient Care/ Professionalism)
48. Discuss with the patient’s attending physician their patient’s treatment and disposition plans. (Patient Care / Professionalism)
49. Appropriately utilize system resources (discharge planning, social services, etc.) to facilitate patient treatment and disposition plans. (Professionalism/Systems Based Practice)
50. Demonstrate and promote a teaching and learning environment for fellow residents, students and other trainees working in the ED. (Patient Care/Medical Knowledge/Professionalism)
51. Maintain a professional appearance and manner at all times. (Patient Care/Professionalism)
52. Fulfill all responsibilities as listed in the resident manual including attendance at lectures, journal clubs and the development of an independent research project. (Patient Care/Medical Knowledge/Professionalism)
53. Demonstrate an understanding of OMM/OPP and apply them as part of the ED patient management. (Patient Care/Medical Knowledge/Professionalism)

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Patient care rounds.</td>
<td>Evaluation based on daily observation of patient care, clinical skills and interaction during teaching rounds</td>
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<tr>
<td>Teaching rounds with attending</td>
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<tr>
<td>One-on-one precepting with medicine attending and didactics</td>
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<tr>
<td>Independent Reading</td>
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</tbody>
</table>

**Resident Responsibilities**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

Schedule is variable and will be determined at the start of the rotation by the preceptor.

**Parking:**
- Provided by office or hospital

**Meals:**
- Allowance provided by hospital

**Recommended Reading:**

"Textbook of Internal Medicine"
"Cecil's Textbook", 17th edition,
"Water, Electrolyte and Acid Base Syndrome", 6th edition, Goldberger
Introduction/Description

The purpose of this rotation is to give the Resident the opportunity to become competent in the emergency care of the pediatric population. To develop expertise in emergency procedures needed in the care of these patients.

Training Year: EM 1

Length: 1 month

Attending Physicians: Barbara Boyd MD and Karen Dyer MD

Location: Lakeland Healthcare
Saint Joseph MI

Rotation Contact: Pediatric Hospitalist on call

Rotation Goals:

1. Develop skill in performance of appropriate pediatric history and physical exam.
2. Learn the etiologies, significance, and treatment of fever and infection in the child.
3. Learn the manifestations and significance of abdominal related complaints in the child.
4. Learn the etiologies and treatment of neurologic emergencies in the child.
5. Learn the physiology and derangements of fluid and electrolyte management in children.
6. Learn the manifestations and treatment of pediatric cardiac abnormalities.
7. Learn the pathophysiology, etiologies, and treatment of respiratory disorders of children.
8. Learn the pathophysiology, etiologies, and treatment of common endocrine and hematologic disorders of children.
9. Learn the pathophysiology, etiologies, and treatment of common serious gynecologic and urologic conditions of children.
10. Learn to recognize and provide appropriate treatment for orthopedic and soft tissue problems of childhood.
11. Learn to recognize and treat children with common and/or serious problems of the head and neck.
12. To develop the skills for compassionate and effective communication with patients and their families.

Rotation Learning Objectives:

Demonstrate knowledge of the significance of fever in children of various ages. (Patient Care / Medical Knowledge)

1. Demonstrate knowledge of common infectious diseases of childhood, including appropriate work-up and treatment of meningitis, sepsis, pneumonia, urinary tract infection, and bacteremia. (Patient Care / Medical Knowledge)
2. Demonstrate ability to properly perform a pediatric lumbar puncture. (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of the pathophysiology and manifestations of common and/or serious diseases of the gastrointestinal tract and abdominal cavity of children, including gastroenteritis, intussusception, volvulus, Meckel's, anaphylactoid purpura, and appendicitis. (Patient Care / Medical Knowledge)
4. State the appropriate management of children with seizures, both febrile and afebrile. (Patient Care / Medical Knowledge)
5. Demonstrate familiarity with the diagnosis and management of Reye's syndrome. (Patient Care / Medical Knowledge)
6. Calculate fluid and electrolyte requirements of a dehydrated child. (Patient Care / Medical Knowledge)
7. Discuss the diagnostic work-up and disposition when child abuse and/or neglect are suspected. (Patient Care / Medical Knowledge)
8. Demonstrate ability to perform a history and physical exam of an alleged victim of sexual abuse. (Patient Care / Medical Knowledge)
9. Interpret a series of pediatric EKG's, showing awareness of the normal physiologic differences from adult EKG's. (Patient Care / Medical Knowledge)
10. Discuss the common pediatric dysrhythmias, their diagnosis and treatment. (Patient Care / Medical Knowledge)
11. Discuss the types of congenital cyanotic and non-cyanotic heart disease, their complications and treatment. (Patient Care / Medical Knowledge)
12. Demonstrate ability to read pediatric chest x-rays. (Patient Care / Medical Knowledge)
13. Discuss the differential diagnosis of chest pain in children and adolescents, noting differences from adults, and demonstrating knowledge of proper work-up and treatment. (Patient Care / Medical Knowledge)
14. Discuss the differential of congestive failure in the pediatric patient and demonstrate knowledge of appropriate treatment. (Patient Care / Medical Knowledge)
15. Discuss the anatomy and physiology of the respiratory tract in children. (Patient Care / Medical Knowledge)
16. Demonstrate correct performance of peak expiratory flow measurement, pulse oximetry and end-tidal CO₂. (Patient Care / Medical Knowledge)
17. Demonstrate management of patients with upper airway infection suspected of having epiglottitis. (Patient Care / Medical Knowledge)
18. Correctly interpret soft tissue lateral neck x-rays in children. (Patient Care / Medical Knowledge)
19. Discuss the etiologies and demonstrate correct management of children with lower and upper airway diseases including asthma, bronchiolitis, cystic fibrosis, and pneumonia. (Patient Care / Medical Knowledge)
20. Demonstrate correct management of the pediatric patient with diabetes and/or diabetic ketoacidosis. (Patient Care / Medical Knowledge)
21. Demonstrate knowledge of the etiologies of anemia in children and the appropriate diagnostic evaluation. (Patient Care / Medical Knowledge)
22. Demonstrate knowledge of the differential diagnosis and work-up of the jaundiced child. (Patient Care / Medical Knowledge)
23. Discuss the differential diagnosis and work-up of the child with evidence of a bleeding disorder. (Patient Care / Medical Knowledge)
24. Demonstrate correct evaluation and treatment of a child with dysuria or a suspected urinary tract infection. (Patient Care / Medical Knowledge)
25. Demonstrate knowledge of the evaluation and treatment for phimosis, paraphimosis, balanitis. (Patient Care / Medical Knowledge)
26. Demonstrate knowledge of the evaluation and treatment of testicular disorders including torsion and epididymitis. (Patient Care / Medical Knowledge)
27. Discuss the findings and disposition of a patient with a suspected autoimmune syndrome such as juvenile arthritis, lupus, or dermatomyositis. (Patient Care / Medical Knowledge)
28. Discuss the etiology and treatment of acute soft tissue infections and perform an incision and drainage. (Patient Care / Medical Knowledge)
29. Correctly diagnose common pediatric exanthemas including varicella, measles, monilia, roseola, rubella, pityriasis, scabies, and erythema infectiosum. (Patient Care / Medical Knowledge)
30. Demonstrate knowledge of the differential diagnosis and evaluation of children with petechiae. (Patient Care / Medical Knowledge)
31. Demonstrate ability to correctly perform and interpret the exam of the ears, nose and throat. (Patient Care / Medical Knowledge)
32. Demonstrate knowledge of pediatric facial and orbital infections and their treatment. (Patient Care / Medical Knowledge)
33. Discuss the findings and differential of sudden infant death syndrome, and demonstrate knowledge of the proper legal steps and ability to support the family. (Patient Care / Medical Knowledge)
34. Discuss the differential diagnosis and acute treatment of the weak infant and child, including polio, botulism and the Landry-Guillain-Barré syndrome. (Patient Care / Medical Knowledge)
35. Demonstrate knowledge of the evaluation and treatment of children with diarrheal illness. (Patient Care / Medical Knowledge)
36. Demonstrate knowledge of the common poisonings of childhood and their treatments. (Patient Care / Medical Knowledge).
37. Demonstrate knowledge of the evaluation of a child with foreign body ingestion, discussing the complications, diagnostic steps and treatment. (Patient Care / Medical Knowledge)
38. State the differential diagnosis of a child with upper or lower GI bleeding, and discuss the evaluation and treatment. (Patient Care / Medical Knowledge)
39. Discuss the differential diagnosis and work-up of renal failure or anuria in children. (Patient Care / Medical Knowledge)
40. Demonstrate ability to evaluate children with syncope and discuss its differential diagnosis. (Patient Care / Medical Knowledge)
41. Discuss the signs, symptoms, treatment and complications of Kawasaki disease. (Patient Care / Medical Knowledge)
42. Discuss the risk factors associated with teenage suicide. (Patient Care / Medical Knowledge)
43. Discuss the differential of abnormal vaginal bleeding in childhood and demonstrate ability to perform a complete genital exam on children of various ages. (Patient Care / Medical Knowledge)
44. Demonstrate ability to evaluate and treat a child with altered mental status and interpret a pediatric cranial CT scan. (Patient Care / Medical Knowledge)
45. Discuss the technique for reducing an incarcerated inguinal hernia. (Patient Care / Medical Knowledge)
46. Discuss the common pediatric malignant tumors. (Patient Care / Medical Knowledge)
47. Differentiate between the presentation, diagnostic test results and treatment of transient synovitis and septic joint. (Patient Care / Medical Knowledge)
48. Demonstrate the ability to communicate properly with children and parents, including portrayal of a non-judgmental and supportive attitude toward parents in cases of suspected abuse. (Interpersonal and Communication Skills / Professionalism)
49. Demonstrate the ability to work quickly and efficiently to assess patients according to the urgency of their problem(s). (Patient Care / Professionalism / Practice Based Learning and Improvement)
50. Demonstrate the ability to work in a professional and effective manner with members of the ED department. (Professionalism / Systems Based Practice)
51. Communicate with specialty physicians in an accurate and timely manner. (Patient Care / Professionalism)
52. Discuss with the patient’s attending physician their patient’s treatment and disposition plans. (Patient Care / Professionalism)
53. Appropriately utilize system resources (discharge planning, social services, etc.) to facilitate patient treatment and disposition plans. (Professionalism / Systems Based Practice)
54. Demonstrate and promote a teaching and learning environment for fellow residents, students and other trainees working in the hospital. (Patient Care / Medical Knowledge / Professionalism)
55. Maintain a professional appearance and manner at all times while working in the hospital. (Professionalism)
56. Fulfill all responsibilities as listed in the resident manual including attendance at lectures, journal clubs and the development of an independent research project. (Patient Care / Medical Knowledge / Professionalism)
57. Demonstrate an understanding of OMM/OPP and apply them as part of hospital patient management. (Patient Care / Medical Knowledge / Professionalism)
Content Areas:

Abdominal, Gastrointestinal
1. Aganglionic megacolon (Hirschsprung’s Disease)
2. Anorectal fissures
3. Appendicitis
4. Foreign bodies
5. Gastroenteritis
   1. Viral
   2. Bacterial
6. Gastroesophageal reflux
7. Henoch-Schönlein purpura
8. Hernias
   1. Inguinal
   2. Umbilical
9. Intussusception
10. Meckel’s diverticulum
11. Pyloric stenosis
12. Tumors
   1. Neuroblastoma
   2. Wilm’s tumor

Cardiovascular - Dysrhythmias

Endocrine
1. Diabetic ketoacidosis
2. Hypoglycemia

Hematologic
1. Hemolytic uremic syndrome
2. Neonatal jaundice
3. Acute leukemia

Neurologic
1. Reye’s syndrome
2. Headache
3. Meningitis
   1. Aseptic
   2. Bacterial
4. Seizures
   1. Febrile
   2. Non febrile
   3. Neonatal
5. Shunt infection
6. Hydrocephalus

Orthopedic
1. Legg-Calve-Perthes disease
2. Septic joint
3. Osteomyelitis
4. Slipped capital femoral epiphysis
5. Osgood-Schlatter disease

**Head and neck**
1. Epiglottitis
2. Foreign bodies (non-airway)
3. Laryngotracheobronchitis
4. Nasopharyngitis (upper respiratory infection)
5. Otitis externa
6. Otitis media
7. Pharyngitis
8. Torticollis
9. Tracheitis, bacterial

**Psychiatric**
1. Abuse
   1. Neglect
   2. Physical
   3. Sexual
2. Eating disorders
3. Suicide

**Respiratory**
1. Bronchiolitis
2. Bronchopulmonary dysplasia
3. Cystic fibrosis (recognition)
4. Foreign bodies
5. Asthma
6. Pneumonia

**Rheumatologic**
1. Juvenile rheumatoid arthritis
2. Kawasaki’s disease

**Skin and soft tissue**
1. Bacterial
2. Infestations
3. Fungal
4. Viral exanthema

**Urologic**
1. Testicular
   1. Hydrocele
   2. Undescended testis

**Sudden infant death syndrome (SIDS)**

**Principles of Care**
1. Pre-hospital trauma care
2. Triage
3. Resuscitation and stabilization of infant and pediatric patients
4. Role of the emergency physician
5. Team response
6. Reassessment and monitoring
7. Diagnosis
8. Treatment
9. Consultation
10. Disposition
Radiologic evaluation
1. Plain radiographs (indications)
2. Contrast radiography
3. Computed tomography scan (indications)
4. Angiography
5. Ultrasonography
6. Mechanism of Injury

Instructional Methods:

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>One-on-one precepting with Peds Hospitalist attending</td>
<td>Evaluation for Peds rotation by attending based on daily interactions and didactics.</td>
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<tr>
<td>Didactics</td>
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</tr>
<tr>
<td>Independent reading</td>
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</table>

Resident Responsibilities:
In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:
Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

To be determined by the Preceptor at the start of the rotation.

**Parking:**

Provided by hospital

**Meals:**

Allowance provided by hospital

**Suggested Reading:**

"Pediatric Emergency Medicine", Residorff, Roberts and Weingenstein,
"Pediatrics", Nelson

**References:**

"Pediatric Radiology", Rabinowitz, current ed.
"Pediatric Antimicrobial Therapy" 5th edition, Wilson
"Pediatric Therapeutics", Harriet Lane
**Introduction/Description**

This rotation is designed to expose the Resident to a variety of cases in the evaluation and management of the surgical patient. The resident will have the opportunity to participate in both pre-operative and post-operative management as well as “scrub in” with the surgical team.

**Training Year:** EM 1

**Length:** 1 Month

**Attending Physician:** Michael Schuhknecht DO

**Location:** Lakeland Healthcare
               Niles and Saint Joseph MI

**Rotation Goals:**

The goal of this service is to provide the intern with the working knowledge, skills and attitudes necessary to establish a generalist’s foundation in the care of the surgical patient.

To develop competence in the diagnosis, management and disposition of common surgical disorders *(Patient Care, Medical Knowledge, Systems Based Practice)*

To gain a working knowledge of surgical procedures and equipment *(Patient Care, Medical Knowledge)*

To gain expertise in the preoperative and postoperative management of surgical patients *(Patient Care, Medical Knowledge, Systems Based Practice)*

To become familiar with the pathophysiology, presentation, diagnosis and management of the following general categories of surgical disorders *(Patient Care, Medical Knowledge, Systems Based Practice)*:

- Abdominal and Gastrointestinal
- Peripheral vascular disease
- Hemo/pneumothorax
- Principles of wound care

To gain expertise in the following skills *(Patient Care, Medical Knowledge)*:

- History and physical examination
- Fluid and electrolyte therapy
- Blood component therapy

- Wound closures and care
- Closed tube thoracostomy

To become knowledgeable of the indications, contraindications and complications of various diagnostic modalities *(Patient Care, Medical Knowledge)*:
Laboratory studies  
Radiographic studies  
CT scanning  
Ultrasound  
Endoscopy

**Rotation Learning Objectives:**

The main objective of this General Surgery Rotation is to aid in the development of basic surgical knowledge in the preoperative, intra-operative and postoperative settings.

1. Appropriately workup a surgical patient and develop a differential diagnosis utilizing the history, physical and pertinent diagnostic studies.
2. Deliver a case presentation in an organized and articulate fashion.
3. Gain an understanding of surgical approaches to disease processes.
4. Manage surgical patients pre and postoperatively.
5. Work on basic surgical skills.

**Content Areas:**

A. The acute abdomen  
B. Breast masses and cancer  
C. Colon and rectal disease: hemorrhoids, polyps, cancer and inflammatory bowel disease  
D. Biliary tract disease  
E. Hernias  
F. Soft tissue disease: skin cancer and benign tumors  
G. Post-operative complications  
H. Vascular disease  
I. Urological conditions: ureterolithiasis and the undescended testicle  
J. Peptic ulcer disease  
K. Perioperative nutrition  
L. Fluids and electrolytes in the surgical patient  
M. Endocrine masses

**General Surgery:**

**Duties and Expectations of the Resident**

**Rounds:**

1. Work in conjunction with the service’s other residents, interns, and students.  
2. Round at least twice daily on assigned service patients.  
3. Write morning notes using the S.O.A.P. note format.  
4. Outstanding laboratory, radiology, and pathology results should be checked routinely.  
5. Assist with other daily floor work, i.e. changing dressings, removing drains, etc..  
6. Check with service prior to leaving for the day.  
7. Completion of discharge paperwork including instructions, prescriptions and follow up appointments.
Operating room:
1. Scrub on service cases.
2. Participate in the preoperative evaluation, i.e. performing history and physical, checking laboratory and/or radiology results, and discussing the case with the attending. Pre-admission testing falls into this category as well.
3. Help the operating room ancillary staff in transferring patients to and from the pre/post anesthesia care units.
4. Complete the surgical skills checklist requirements.

Education:
1. Prepare for cases by becoming familiar with basic surgical principles in regards to anatomy, pathology and surgical indications.
2. Attend conferences and/or lectures required by Medical Education. Participate in Surgical Educational Conferences.
3. Complete the Surgical Skills Checklist

Resident Competencies:
Residents will achieve the following competencies as related to the above core content areas:

Describe key elements of the history and physical exam which help establish the diagnosis.
Develop and prioritize a differential diagnosis that includes the problems that may have a similar presentation.
Discuss any additional studies or procedures required to establish a final diagnosis.
Describe treatment options including benefits and risks

*Deliver pre-operative and post-operative care in a continuity manner*

Assist effectively in surgery
Communicate clearly with patients
Approach the patient holistically and utilize OMT as indicated.

Instructional Methods:

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<th>Method</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Office and in-house care of the surgical patient</td>
<td>Direct observation by the preceptor</td>
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<tr>
<td>Patient care and teaching rounds</td>
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</tr>
<tr>
<td>One-on-one precepting</td>
<td></td>
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<tr>
<td>Assigned readings</td>
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Resident Responsibilities

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings.
C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

**Attending Responsibilities:**
- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**
Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Parking:**
Provided by the hospital

**Meals:**
Allowance provided by the hospital

**Suggested Reading:**

**Core Reading Packet on the service**

**Bilious Vomiting in the Newborn: Rapid Diagnosis of Intestinal Obstruction**
American Family Physician; May 1, 2000
http://www.aafp.org/afp/20000501/2791.html

**Carotid Endarterectomy**
Postgraduate Medicine; May 15, 2000
http://www.postgradmed.com/issues/2000/05_00/ingall_dodick.htm

**Chronic Abdominal Pain in Childhood: Diagnosis and Management**
American Family Physician
http://www.aafp.org/afp/990401ap/1823.html

**Current Guidelines for Antibiotic Prophylaxis of Surgical Wounds**
American Family Physician; June 1998
http://www.aafp.org/afp/980600ap/woods.html

**Diagnosis and Treatment of Abdominal Aortic Aneurysms**
American Family Physician; September 15, 1997
http://www.aafp.org/afp/970915ap/santilli.html

**Evaluation of Incidental Renal and Adrenal Masses**
American Family Physician; January 15, 2001
Gastroesophageal Reflux Disease: Diagnosis and Management
American Family Physician; March 1, 1999
http://www.aafp.org/afp/990301ap/1161.html

Management of Gallstones and Their Complications
American Family Physician; March 15, 2000
http://www.aafp.org/afp/20000315/1673.html

Management of Inflammatory Bowel Disease
American Family Physician; January 1, 1998
http://www.aafp.org/afp/980101ap/botoman.html

Prevention and Early Detection of Malignant Melanoma
American Family Physician; November 15, 2000
http://www.aafp.org/afp/20001115/2277.html

A Primary Care Approach to the Patient with Claudication
American Family Physician; February 15, 2000
http://www.aafp.org/afp/20000215/1027.html

Surgical Options in the Management of Groin Hernias
American Family Physician; January 1, 1999
http://www.aafp.org/afp/990101ap/143.html

The Evaluation of Common Breast Problems
American Family Physician; April 15, 2000
http://www.aafp.org/afp/20000415/2371.html

The Undescended Testicle: Diagnosis and Management
American Family Physician; November 1, 2000
http://www.aafp.org/afp/20001101/2037.html

Thyroid Nodules and Cancer
Postgraduate Medicine; January 2000
http://www.postgradmed.com/issues/2000/01_00/castro.htm

Update on Colorectal Cancer
American Family Physician; 3/15/2000
http://www.aafp.org/afp/20000315/1759.html

What Could Be Causing Chronic Abdominal Pain?
Postgraduate Medicine; September 1999
Emergency Department Core Rotation EM 2

Introduction/Description

The LRHC Emergency Department at St Joseph and Niles are staffed with EM Residency Faculty. Residents are assigned to all shifts to provide exposure to a broad range of clinical pathology and major trauma.

Over the course of the residency, and with increasing experience and responsibility, the resident will develop the skills, knowledge and attitudes necessary to handle a wide variety and number of cases in an efficient and professional manner.

In addition to the clinical experience, the ED Core rotation includes a series of didactic sessions intended to supplement and provide the broad based education, theory and practical aspects, of up-to-date Emergency Medicine.

Training Year: EM 2

Contact Information: Lakeland HealthCare Niles and St. Joseph EM departments

Attending Physician: Michelino Mancini, DO
Program Director

Location: Lakeland HealthCare
Saint Joseph MI

Educational objectives:

General Goals:
To become competent in the evaluation, diagnosis and management of urgent and emergent patients presenting to the Emergency Department (*Patient Care Systems Based Practice*)

To become competent in the evaluation and resuscitation of critically ill patients and to function as an integral member of the Emergency Department resuscitation team (*Patient Care, Medical Knowledge, Systems Based Practice*)

To learn proper interaction with pre-hospital personnel in relation to transport of patients to the Emergency Department (*Interpersonal Communication Skills, Professionalism*)

Specific Goals:
The resident will learn the skills needed to properly evaluate and initiate management of patients presenting to the Emergency Department with the following urgent and emergent conditions (*Patient Care, Medical Knowledge, Systems Based Practice*):
- Cold injury
- Cyanosis
- Dehydration
- Drowning
- Heat illness
- Malaise
- Urticaria
- Loss of vision
Neck pain
Paralysis
Seizures
Tremor
Vertigo
Chest pain
Palpitations
Tachycardia
Abnormal vaginal bleeding
Food poisoning
Pregnancy

The resident will learn the indications, contraindications, complications and techniques for the following procedures. When possible, these procedures will be performed on Emergency Department patients. *(Patient Care, Systems Based Practice)*

- Regional nerve blocks
- Arthrocentesis
- Culdocentesis
- Tonometry
- Control of epistaxis
- Intraosseous infusion
- Pneumatic garment application and removal
- Transthoracic cardiac pacing
- Defibrillation / cardioversion
- Gastric lavage
- Incision and drainage
- Trephination nails

**Description of clinical experiences:**
The resident will rotate for six months at the EM-2 level on the Emergency Medicine Service. The resident will work with senior Emergency Medicine residents under the supervision of the Emergency Medicine Faculty.

Instruction in the proper evaluation and management of urgent and emergent patients in the Emergency Department will be provided by the Emergency Medicine attending and senior residents.

The resident will examine and treat patients under the supervision of senior Emergency Medicine residents and the attending Emergency physician.

**Description of didactic objectives:**
The resident will attend daily and weekly Emergency Medicine conferences and meetings as assigned while on this service.

The resident will be responsible for the list of suggested readings for the Emergency Medicine rotation.

**EM 2 Competency Objectives**
The second year Emergency Medicine Resident concentrates on expanding and refining patient care skills. The resident begins to focus on developing an efficient approach to patient care and learns the skills needed to manage several patients simultaneously. He/she is expected to see a larger number of
patients to broaden the base of expertise and to participate in major medical and trauma resuscitations. In addition to competencies expected from the previous year, by the end of the resident’s second year of training the resident will:

1. Demonstrate increasing competency with advanced procedural skills including endotracheal intubation, central venous access, tube thoracostomy and pericardiocentesis.
2. Provide on-line medical supervision of EMS providers and use effective radio communication skills.
3. Efficiently managing a larger number of patients simultaneously
4. Demonstrate improving skills in problem-solving, patient disposition, efficient delivery of emergency medical care
5. Effectively apply new and evidence-based knowledge to clinical practice
6. Maintain a program of study sufficient to acquire the knowledge and skills necessary for successful practice in emergency medicine

**Evaluation Process:**
Written quarterly evaluation of the resident by the Emergency Medicine Faculty upon the completion of the rotation. Please reference evaluation section of this program manual.

Performance on the annual resident’s in-service examination.

**Feedback mechanisms:**
Biannual review of the rotation by the Curriculum Committee

Ad hoc review of the rotation as deemed appropriate by the Residency Program Director

**Description of Didactic Educational Activities** (See Curriculum: didactic activities section of this manual)

**Schedule:**
Resident schedule is individualized and will be determined once the rotation is scheduled.
EM 2 – 18 shifts/month

**Housing:**
Not provided by hospital

**Parking:**
Provided by hospital

**Meals:**
Allowance provided by hospital

**Readings:**

**Core texts in Emergency Medicine:**

**Recommended References:**
Emergency Orthopedics-The Extremities, Current Edition, R. Simon, S. Koenigsknecht,
Medical Toxicology-Diagnosis and Treatment of Human Poisoning, M. Ellenhorn and D.
Barceloux, Current Edition,
EKG, Marrino, H.
Paramedic Book - Caroline

Reference Journals:
Annals of Emergency Medicine,
The Journal of Trauma,
Emergency Medicine Clinics of North America,
Radiology Rotation EM 2

Introduction/Description

The purpose of this rotation is to expose the resident the variety of methods of medical imaging and their use as related to Emergency Medicine. In addition, through this exposure, the resident will develop a strong foundation in radiological procedures and interpretation of this information as it relates to Emergency Medicine.

Training Year: EM 2

Length: 2 weeks

Contact Information: Lakeland Radiology

Attending Physician: Polya Samardar, MD

Location: Lakeland Healthcare
Saint Joseph MI

Rotation Goals:

1. Learn normal anatomy and x-ray presentation.
2. Develop skills in the use and interpretation of a variety of other imaging studies including:
   1. CT
   2. MR
   3. Ultrasound
   4. Nuclear medicine
   5. Angiography
3. Learn imaging indications for certain clinical situations including:
   1. PE
   2. CVA
   3. Focal neurologic findings
   4. Acute abdomen
   5. Renal colic
   6. Gallbladder disease

Rotation Learning Objectives:

1. The resident will be able to interpret basic x-ray imaging studies encountered in emergency medicine. (Patient Care / Medical Knowledge)
2. The resident will be able to determine the best imaging studies based on obtaining appropriate history and physical findings and developing differential diagnosis. (Patient Care / Medical Knowledge)
3. The resident will know the indications and contraindications for the various imaging modalities. (Patient Care / Medical Knowledge)
4. The resident will be able to interpret basic imaging studies for CT, MR, ultrasound, nuclear medicine and angiography. (Patient Care / Medical Knowledge)
5. The resident will be able to choose and interpret the correct imaging study based on a variety of clinical situations. (Patient Care / Medical Knowledge)
6. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
7. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)

8. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)

9. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)

10. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)

11. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

Principles of radiology and radiation

Plain Radiographs

1. Chest:
   1. Describe normal anatomy on PA, AP, and lateral films
   2. Abnormal - recognize on a chest x-ray the following:
      - airspace vs. interstitial patterns
      - pleural effusion
      - pneumothorax
      - pneumonia & location
      - changes of congestive heart failure
      - changes of chronic obstruction pulmonary disease
      - atelectasis
      - pulmonary nodules/masses
      - normal vs. abnormal mediastinum and mediastinal location of an abnormality

2. Four views of the abdomen:
   1. Describe normal anatomy
   2. Abnormal - recognize
      - ileus
      - mechanical obstruction
      - free air
      - calcifications (including AAA)

3. Bone
   1. Describe normal anatomy of the spine and long bone in adults and children
   2. Abnormal - recognize
      - fracture
      - degenerative joint disease
      - osteoporosis (including vertebral collapse)
      - primary and metastatic malignancy.

4. Contrast Studies
   1. Describe normal anatomy on IVP, BE, UGI CT

5. CT
   1. Describe how CT scanner works; differences between CT, MRI, and ultrasound
   2. Describe normal anatomy on CT head, spine, chest, abdomen/pelvis
   3. Abnormal:
   4. Head - recognize
      - acute hemorrhage (subarachnoid, subdural, parenchymal)
      - infarct
• edema/mass effect
• skull fractures
• hydrocephalus (infant & adult)
• describe when to use/not use contrast

5. Chest - recognize
• pulmonary nodules/mass
• mediastinal mass

6. Abdomen - recognize
• diverticular disease
• appendicitis
• bowel obstruction
• AAA
• hepatic mass
• pancreatic mass
• pancreatitis
• abscess
• bile duct lesions
• ascites
• renal mass/obstruction.

7. Spine - describe when to order CT vs. MRI; recognize
• dislocations
• metastatic disease
• DJD
• disc disease

MRI
1. Describe how MRI works and the difference between MRI & CT
2. Describe normal anatomy on MRI head and spine
3. Abnormal:
   1. Head - recognize
      • CNS infection
      • mass
      • stroke syndromes
      • MS
   2. Spine - recognize
      • disc disease
      • metastatic disease
      • cord compression

Nuclear Medicine
1. Describe general principles including therapeutic uses
2. Describe the mechanisms, indication and limitation of:
   1. gall bladder function tests
   2. bone scans
   3. tagged RBC scans
   4. renal scans for obstruction
   5. myocardial perfusion and function (gated blood pool) scans
   6. V/Q scans

Ultrasound
1. Discuss general principles including differences between 2D, Doppler flow and 3D
2. Describe normal anatomy on ultrasound of heart and female adnexa
3. Describe indications and limitations of ultrasound for specific

1. OB/Gyn situations
   - molar pregnancy
   - anencephalic pregnancy
   - placenta previa
   - viable pregnancy

2. Vascular Doppler ultrasound
   - aneurysm
   - DVT
   - carotid artery and
   - peripheral vascular

3. gall bladder/bile duct/liver

4. echocardiogram
   - describe normal anatomy
   - trans-thoracic vs. trans-esophageal
   - chamber size
   - valves
   - pericardial effusions

5. renal ultrasound for
   - cysts/tumors

Angiograms

1. Diagnostic:
   1. Describe general principles and indications
   2. Describe the use of MRA angiograms
   3. Describe normal anatomy of aorta, aortic arch, great vessels
   4. Describe indications for angiograms/MRA angiograms in
      - subarachnoid hemorrhage
      - berry aneurysms
      - vascular stenotic lesions
      - pulmonary angiogram for PE
      - aortic dissection
      - aortic trauma
      - GI bleeds

2. Therapeutic - Describe general principles

   Discuss the appropriate radiologic investigations - including sequencing, sensitivity, specificity, utility, patient preparation and complications for the following situations:
   1. Imaging work-up for Pulmonary Embolism
   2. Cardiac ischemia
   3. Acute abdomen
   4. Neck & back pain
   5. Neurologic syndromes
      Spinal cord impression
      Seizures
      CVA
      HA
      Focal neurologic findings
      Mental status changes
      Head trauma
6. Child abuse
7. Work-up for bone/joint pain
8. Use of ultrasound in normal and abnormal pregnancy
9. Hematuria/flank pain

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**Resident Responsibilities:**

Specific requirements for this rotation include the following:

1. The Resident is expected to be in the Department of Radiology from 7:00 am to 5:00 PM five (5) days a week to read appropriate films.

2. Resident is also expected to become familiar with the indications and technical aspects of performing emergency procedures (i.e., aortogram, ultrasound, CAT and MRI scanning).

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. **Quality Assurance Programs:**
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.
**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

Daily Monday thru Friday from 7 am – 5 pm in the Department of Radiology or as instructed by the preceptor.

**Parking:**

Provided by hospital

**Meals:**

Allowance provided by hospital

**Recommended Reading:**

"Textbook of Emergency Radiology", by Harris and Harris
"Emergency Radiology", by Mueller
"Radiology of the Acutely Ill or Injured Child", by Swischuk
"Radiology of Acute Cervical Spine Trauma", by Harris
"Atlas of Normal Roentgen Variants that May Stimulate Disease". 4th edition by Keats
"Pediatric Radiology" Medical Outline Series", by Ostrech,
Emergency Medicine Ultrasound EM 2

Introduction/Description

This rotation is a 2 week experience designed to educate the resident in the introduction and early skills into the use of ultrasonography. The resident will work with certified Emergency Medicine Ultrasonographers in the Emergency Department. The resident will have all work reviewed (live or via review of hard copies) for acceptable quality. All cases will be documented on the program’s form designed for detailing each case. The program recognizes the modality of bedside ultrasound as a beneficial skill to the emergency medicine physician, and places a priority on developing its use in the residency.

Year of Training: EM 2

Length: 2 Weeks

Contact Information:

Attending Physician: Michelino Mancini, DO

Location: Lakeland Healthcare
           Saint Joseph and Niles MI

Contact Person: TBD

Rotation Goals:

1. Learn the basic functions of the ultrasound hardware for emergency medicine
2. Learn the techniques of the fast exam.
3. Learn the techniques for basic emergency cardiac ultrasound
4. Learn the techniques for evaluation of the abdominal aortic aneurysm.
5. Learn the techniques for basic ultrasound imaging of pregnancy, the urologic/collecting system and the biliary tract.

Rotation Learning Objectives:

1. Discuss the basic physics involved in the process of ultrasound.
2. Complete 25 ultrasounds on 25 different patients.
3. Document the acquisition of successful ultrasound images by printing them and having them reviewed by the EM attending certified ultrasonographer or radiologist.
4. Discuss the use of various US probes as would be utilized in differing clinical situations.

The following are the minimum requirements for the 2 week rotation of Emergency Medicine residents in limited bedside ultrasound.

1. 25 U/S on 25 different patients with printed, labeled images in any of the following categories (all categories must be represented):
   - Trauma (FAST)
   - IUP
   - Emergency Cardiac
   - Procedural
2. Text:
   c. *Ultrasonography in Trauma; The FAST Exam*. ACEP, 2003

3. Demonstrated proficiency in the use of the current U/S unit including proper selection of probes, frequency, and manipulation of probe in order to obtain a high quality image.

4. The resident will turn in a log of US examinations to the rotation coordinator for final approval and a passing grade.

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. **Quality Assurance Programs:**
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

Variable will be given at the start of the rotation.
Parking:  
Provided by the hospital

Meals:  
Allowance provided by the hospital

Recommended Readings:

*Emergency Ultrasound* O.J. Ma, J.R. Mater; McGraw-Hill, 2002  
*Ultrasonography in Trauma; The FAST Exam.* ACEP, 2003
Orthopedic Rotation EM 2

Introduction/Description

The purpose of this rotation is to expose the resident to a variety of orthopedic cases under the supervision of an attending orthopedic surgeon. Through this exposure the resident will become proficient at orthopedic examination, various splinting techniques, and repair of tendon lacerations.

Rotation focus will be on Emergency Medicine and office orthopedics. The resident will gain experience and knowledge in the evaluation, diagnosis, initial treatment and stabilization of a variety of common orthopedic injuries encountered in emergency medicine.

Training Year: EM 2

Length: 1 month

Contact Information: Southwest Michigan Center for Orthopedics and Sports Medicine

Attending Physician: Ken Edwards, MD

Location: Lakeland Healthcare
          Saint Joseph MI

Contact Person: Ken Edwards, MD

Rotation Goals:

1. Develop appropriate orthopedic history and physical exam skills.
2. Learn use of the diagnostic imaging modalities available for the evaluation of orthopedic disorders.
3. Develop skill in the evaluation and management of musculoskeletal trauma.
4. Develop skill in the diagnosis and treatment of inflammatory and infectious disorders of the musculoskeletal system.
5. Learn principles of acute and chronic pain management in patients with musculoskeletal disorders.

Rotation Learning Objectives:

1. Develop ability to correctly perform a history and physical of patients with musculoskeletal disorders.  
   (Patient Care / Medical Knowledge)
2. Demonstrate ability to correctly order and interpret radiographs of patients with orthopedic injuries.  
   (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of standard orthopedic nomenclature. (Patient Care / Medical Knowledge)
4. Demonstrate knowledge of appropriate aftercare and rehabilitation of orthopedic injuries. (Patient Care / Medical Knowledge)
5. Demonstrate knowledge of the differences in pediatric and adult skeletal anatomy and indicate how those differences are manifest in clinical and radiographic presentations. (Patient Care / Medical Knowledge)
6. Demonstrate ability to apply orthopedic devices, including compressive dressings, splints and immobilizers. (Patient Care / Medical Knowledge)
7. Demonstrate skill in performance of the following procedures: fracture/dislocation immobilization and reduction, arthrocentesis, extensor tendon repair. (Patient Care / Medical Knowledge)
8. Demonstrate ability to prioritize and manage the treatment of orthopedic injuries in multiple trauma patients. (Patient Care / Medical Knowledge)
9. Describe the presentation of patients with inflammatory and infectious disorders and demonstrate ability to diagnose and treat them. (Patient Care / Medical Knowledge)
10. Demonstrate ability to diagnose and treat soft tissue foreign bodies. (Patient Care / Medical Knowledge)
11. Describe the presentations, complications, diagnosis, management and prognosis of patients with human and animal bites. (Patient Care / Medical Knowledge)
12. Describe the presentations, complications, diagnosis and management of compartment syndromes. (Patient Care / Medical Knowledge)
13. Demonstrate ability to provide regional anesthesia, including hematoma blocks, Bier blocks and radial, ulnar, median, axillary, posterior tibial and sural nerve blocks. (Patient Care / Medical Knowledge)
14. Discuss the dosages, indications, contraindications and side effects of standard analgesic and sedative agents used to treat patients with acute orthopedic trauma and demonstrate skills in their use. (Patient Care / Medical Knowledge)
15. Discuss the dosages, indications, contraindications, side effects and relative potency of standard oral analgesics used in treatment of patients with musculoskeletal disorders. (Patient Care / Medical Knowledge)
16. Discuss the differential diagnosis, historical features, physical and examination findings of patients with low back pain. (Patient Care / Medical Knowledge)
17. Demonstrate ability to recognize and treat soft tissue infections involving muscle, fascia, and tendons. (Patient Care / Medical Knowledge)
18. Describe diagnosis and treatment of overuse syndrome. (Patient Care / Medical Knowledge)
19. Describe how to evaluate and preserve amputated limb parts. (Patient Care / Medical Knowledge)
20. Demonstrate knowledge of joint injuries, evaluation and grading of joint injuries, treatment of joint injuries and prognosis. (Patient Care / Medical Knowledge)
21. Discuss evaluation and treatment of soft tissue injuries such as strains, penetrating soft tissue injuries, crush injuries, and high-pressure injection injuries. (Patient Care / Medical Knowledge)
22. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
23. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
24. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
25. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
26. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
27. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

1. Normal anatomy and physiology
2. Normal growth and development
3. Musculoskeletal history taking
4. Principles of musculoskeletal physical examination
5. Laboratory data including indications, contraindications and interpretation (e.g. joint fluid)
6. Testing
   1. Interpretation of common musculoskeletal radiographs
   2. Appropriate use of magnetic resonance imaging, computed tomographic scanning and bone scanning
   3. Procedures: indications and understanding of techniques
a. Arthrogram
b. Myelogram
c. Arthroscopy

7. Pathogenesis/pathophysiology/recognition
   1. Joint pain, swelling and erythema
   2. Muscular pain, swelling and injury
   3. Musculoskeletal trauma
   4. Fractures
   5. Dislocations
   6. Tendon injuries
   7. Nerve injuries
   8. Bone and joint infections
   9. Compartment syndrome
   10. Avascular necrosis
   11. Osteoporosis
   12. Overuse syndromes

8. Pediatric problems
   1. Hip dislocation
   2. Congenital hip dysplasia
   3. Legg Calvé-Perthes disease
   4. Osgood-Schlatters disease
   5. Slipped capitofemoral epiphysis
   6. “Clubfoot” (talipes)
   7. Intoeing (metatarsus adductus, tibial torsion, femoral anteversion)
   8. “Bow leg” (genu varum) and “knock knee” (genu valgum)
   9. Epiphyseal injuries in children according to the Salter-Harris classification
   10. Transient synovitis
   11. Child abuse

9. Basic Care
   1. Fractures (simple, stable, closed and nondisplaced)
      a. Metacarpal, metatarsal, phalangeal
      b. Forearm, single bone midshaft
      c. Humerus, midshaft
      d. Clavicle
      e. Ribs
      f. Vertebrae, lumbar or thoracic compression-type
      g. Pelvis, excluding interruption of the pelvic ring
      h. Patella
      i. Lower leg, single bone midshaft
      j. Unimalleolar ankle
      k. Calcaneus
   2. Sprains and strains
      a. Finger
      b. Toe
      c. Ankle
      d. Knee
      e. Vertebral column
      f. Wrist
      g. Elbow
      h. Shoulder
i. Neck
j. Muscular strains (e.g. hamstring, trapezius)

3. Other problems
   a. Costochondritis
   b. Bursitis/tendinitis/tenosynovitis
   d. Entrapment syndrome
   e. Baker’s cyst
   f. Chondromalacia patellae
   g. Osgood-Schlatter disease
   h. Osteochondroses/aseptic necrosis
   i. Osteoarthritis/crystalline-induced arthritis (e.g. gout/pseudo-gout)
   j. Metabolic bone disease (osteoporosis, Paget’s disease)
   k. Acute and chronic low back pain
   l. Osteomyelitis

10. Procedures (indications, contraindications and competency)
   1. Joint aspiration (arthrocentesis)
   2. Joint and musculoskeletal injection (local anesthesia, steroid)
   3. Wrapping and taping
      a. Elasticized bandage
      b. Ankle taping
      c. Clavicular figure-of-eight bandage
      d. Soft cervical collar
   4. Splints (upper and lower extremity)
   5. Plaster and fiberglass casts
      a. Short and long leg, with and without walker
      b. Short and long arm
      c. Thumb Spica
      d. Cast wedging
      e. Cast problems
   6. Dislocation reduction
      a. Simple anterior shoulder
      b. Radial head
      c. Simple posterior elbow
      d. Phalanges
      e. Patella
      f. Mandible

11. Orthopedic Emergency Recognition and Stabilization
   1. Compartment Syndrome
   2. Hip Dislocation
   3. Knee Dislocation
   4. Pelvis Fracture
   5. Cervical Spine Fracture
   6. Cord Injury
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**Resident Responsibilities:**

Specific requirements for this rotation include the following:

The resident is expected to be available to the Orthopedics Department. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.
**Schedule:**

The resident schedule is individualized and will be defined by the Orthopedic Attending.

**Parking:**

Provided by office or hospital

**Meals:**

Allowance provided by hospital

**Recommended Reading:**

For General Orthopedics:

"Campbell's Operative Orthopedics", current edition, Vol. 1 and 2,

"Fractures", Vol. 1 and 2, by Rockwood and Greden, current edition

"Fractures in Children", by Blount, current edition

"Fracture Management", by Hartman, current edition

For Hand:


"Primary Care of Hand Injuries", by Newmeyer
Pediatric Intensive Care Unit Rotation EM 2

**Introduction/Description**

The purpose of this rotation is to allow residents to evaluate and manage pediatric intensive care patients under direct supervision of the Pediatric Intensivist. During the service the resident will care for critical care pediatric patients on a daily basis, including the use of mechanical ventilation, exposure to surgical services and use of state-of-the-art monitoring equipment. The experience will include emergency resuscitation, etiology and management of respiratory failure and circulatory failure. The understanding of data derived from invasive pressure monitoring, evaluation and management of patient in multiple organ system failure and the practices of post-operative care including: pain and anxiety management, fluid and electrolyte balance and respiratory care.

Rounds incorporating teaching and patient management are held daily.

**Training Year:** EM 2

**Length:** 1 month

**Contact Information:**

**Attending Physician:** Jambunathan Krishnan, MD

**Location:** DeVos Children’s Hospital
Grand Rapids MI

**Contact Person:** TBD

**Rotation Goals:**

1. Develop the ability to rapidly evaluate, diagnose, stabilize, and disposition critically ill infants and pediatric patients.

2. Learn respiratory, cardiovascular, renal and neurologic physiology and the pathophysiology of trauma, toxins, shock, sepsis, cardiac failure, and respiratory failure that affect critically ill pediatric patients.

3. Learn the principles of medical instrumentation and hemodynamic monitoring and be able to utilize them in the care of critically ill pediatric patients.

4. Learn the indications and develop the technical skills needed to perform diagnostic and therapeutic interventions in critically ill pediatric patients.

5. Learn the rational use of laboratory, radiographic and other diagnostic tests in the management of critically ill pediatric patients.

6. Understand the etiologies and pathophysiology of cardiac arrest.

7. Learn to recognize the dysrhythmias associated with cardiac arrest and their treatment.

8. Learn the American Heart Association recommendations and develop skill in the performance of standard resuscitative procedures for infants and pediatric patients.

9. Learn the principles of pharmacotherapy and the routes and dosages of drugs recommended during cardiac arrest and following resuscitation of infants and pediatric patients.

**Rotation Learning Objectives:**
1. Demonstrate ability to rapidly perform history and physical exams in critically ill pediatric patients. (Patient Care / Medical Knowledge)

2. Demonstrate the ability to perform the following procedures: oral endotracheal intubation, nasotracheal intubation, cricothyrotomy, needle thoracotomy, tube thoracotomy, central intravenous placement, swan Ganz placement, transvenous cardiac pacing, arterial line placement, ABG, and Foley catheterization. (Patient Care / Medical Knowledge)

3. Demonstrate the ability to use and interpret data from ECG monitors, EKGs, cardiac outputs, hemodynamic monitoring, arterial blood gases, pulse oximetry, end tidal CO₂ monitors and respirators. (Patient Care / Medical Knowledge)

4. Describe the dosages, indications and contraindications of pharmacologic interventions for shock, cardiac failure, dysrhythmias, sepsis, trauma, toxins, respiratory failure, hepatic failure, renal failure, and neurologic illnesses. (Patient Care / Medical Knowledge)

5. Demonstrate the ability to manage a pediatric patient on a ventilator. (Patient Care / Medical Knowledge)

6. Demonstrate appropriate judgment in the management of critically ill pediatric patients. (Patient Care / Medical Knowledge)

7. Demonstrate appropriate prioritization of diagnostic and therapeutic interventions in critically ill pediatric patients. (Patient Care / Medical Knowledge)

8. Demonstrate ability to diagnose and treat shock, sepsis, fluid and electrolyte abnormalities, cardiac failure, cardiac dysrhythmias, renal failure, hepatic failure, and toxicologic emergencies. (Patient Care / Medical Knowledge)

9. Demonstrate an understanding of the appropriate use of consultants in critically ill pediatric patients. (Patient Care / Medical Knowledge)

10. Demonstrate an understanding of the ethical and legal principles applicable to the care of critically ill patients. (Patient Care / Medical Knowledge)

11. Demonstrate knowledge of the various etiologies of cardiac arrest and the corresponding therapeutic approaches in infants and pediatric patients. (Patient Care / Medical Knowledge)

12. Demonstrate knowledge of the factors affecting blood flow, oxygen delivery and oxygen consumption during cardiac arrest. (Patient Care / Medical Knowledge)

13. Demonstrate ability to recognize dysrhythmias associated with cardiac arrest and knowledge of ACLS protocols in infants and pediatric patients. (Patient Care / Medical Knowledge)

14. Demonstrate ability to manage the airway during cardiac arrest, including mouth-to-mouth ventilation, bag-valve-mask ventilation, endotracheal intubation, cricothyroidotomy, and recognition of the obstructed airway. (Patient Care / Medical Knowledge)

15. Demonstrate ability to perform external closed chest cardiopulmonary resuscitation. (Patient Care / Medical Knowledge)

16. Discuss the dosages, indications and contraindications for pharmacologic therapy during cardiac arrest and following resuscitation. Demonstrate knowledge of the techniques for drug administration including peripheral and central venous, endotracheal, and intraosseous administration. (Patient Care / Medical Knowledge)

17. Demonstrate ability to safely perform internal and external defibrillation. (Patient Care / Medical Knowledge)

18. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)

19. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)

20. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)

21. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
22. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
23. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

**Content Areas:**

Neonatal Resuscitation
Pediatric Resuscitation
Trauma - Evaluation, Management and Therapeutics
1. Abdominal injuries
2. Chest injuries
3. Cranial / Neurologic
4. Orthopedic

Fluid and Electrolyte Balance
1. Maintenance fluids:
   1. Pathophysiology of hypernatremic and hyponatremic dehydration.
   2. Daily water and electrolyte requirements.
   3. Factors which increase daily fluid requirements.
   4. Conditions in which fluid administration may need to be restricted (Syndrome of inappropriate ADH secretion--SIADH, congestive heart failure, renal failure)
2. Fluid deficit:
   1. Causes of excessive fluid loss leading to dehydration.
   2. Clinical complications of electrolyte disturbances, including hypernatremia, hyponatremia, hyperkalemia, and acidosis.
   3. Effect of pH on serum potassium levels.
   4. Electrolyte composition of standard oral and IV solutions.
   5. Appropriate laboratory studies and their interpretation

Shock
1. Sepsis
2. Meningococcemia
3. DKA
4. Dehydration
5. Burns
6. Anaphylaxis
7. Adrenal insufficiency (adrenogenital syndrome)
8. Ingestion

Ataxia
1. Ingestion
2. Infection
3. Tumor

Seizures
1. Febrile seizure
2. Status epilepticus
3. Epilepsy
4. Ingestion
5. Toxic encephalopathy
6. Increased intracranial pressure
7. Electrolyte disturbance (sodium, calcium, glucose)

Delirium / Coma
1. Head injury
2. Substance abuse
3. Infection (encephalitis, meningitis)
4. Hepatic failure
5. Reye syndrome
6. DKA
7. Hypoglycemia

Airway obstruction / Respiratory distress
1. Foreign body aspiration
2. Anaphylaxis
3. Epiglottitis
4. Croup
5. Asthma
6. Bronchiolitis
7. Pneumonia
8. Peritonsillar or retropharyngeal abscess

Apnea
1. SIDS (Sudden Infant Death Syndrome)
2. ALTE (Acute Life Threatening Event)
3. Seizure disorder
4. Cardiac arrhythmia

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-on-one precepting with attending physician in direct patient care</td>
<td>Direct observation of daily management activities by the PICU attending based on goals and objectives.</td>
</tr>
<tr>
<td>Daily rounds with pediatric intensivist</td>
<td></td>
</tr>
</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

**A. Rotation Completion:**
Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.
B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:

   Provide didactic and individual instruction to the resident.
   Participate in teaching rounds with the resident
   Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

Evaluation:

   Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

Schedule:

   Resident schedule is individualized and will be determined once the rotation is scheduled

Housing:

   Not provided

Parking:

   Provided by hospital

Meals:

   Not provided
Neurology Rotation EM 2

Introduction/Description

The purpose of this rotation is to allow the resident to be exposed to a variety of neurological patients under the supervision of an attending neurologist. Working with the attending physician the resident will develop the skills necessary to accurately and quickly evaluate, diagnose and initiate treatment in patients presenting with neurological symptoms.

Appropriate use and interpretation of a variety of diagnostic modalities will also be covered.

Training Year: EM 2

Length: 2 Weeks

Contact Information:

Attending Physician: Richard Frieden, MD

Location: Lakeland Healthcare
         Saint Joseph MI

Rotation Goals:

1. Learn the anatomy, pathophysiology, presentation, and management of common nervous system disorders and injuries.
2. Develop skill in the performance of a screening and detailed neurological evaluation.
3. Develop skill in the use and performance of diagnostic procedures in the evaluation of neurological disorders.
4. Effectively utilize radiologic studies to diagnose neurological disease or injury.
5. Diagnose, stabilize and provide initial treatment of injuries and diseases of the brain, spinal cord, bony spine and peripheral nerves.

Rotation Learning Objectives:

1. The resident will develop the ability to perform a general history and physical examination pertinent to neurology and establish localization of the neurologic lesion. (Patient Care / Medical Knowledge)
2. The resident will develop the skills necessary to formulate an appropriate differential diagnosis. (Patient Care / Medical Knowledge)
3. The resident will acquire an understanding of the basic laboratory tests necessary to pursue a suspected diagnosis including, but are not limited to: electrophysiology, neuro-imaging (i.e., CT, MRI, etc), cerebral spinal fluid analysis, hematology, metabolic analysis. (Patient Care / Medical Knowledge)
4. The resident will develop an understanding of the neuropathology prognosis and treatment strategies for common neurologic illnesses. (Patient Care / Medical Knowledge)
5. The resident will develop a strong didactic background in basic neurology, neurophysiology and neuropathology that will allow a foundation for lifelong learning in this discipline of medicine. (Patient Care / Medical Knowledge)
6. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
7. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
8. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
9. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
10. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
11. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

**Content Areas:**

Normal neuroanatomy and physiology
Neurologic exam
Cerebrovascular disorders
  1. Aneurysm
  2. Arteriovenous malformation
Stroke syndrome
  1. Hemorrhagic
  2. Ischemic
  3. Embolic
  4. Thrombotic
Subarachnoid hemorrhage
Cranial nerve disorders
  1. Bell’s Palsy
  2. Trigeminal neuralgia
Demyelinating disorders
  1. Amyotrophic lateral sclerosis
  2. Multiple sclerosis
Infections / Inflammatory disorders
  1. Abscess
  2. Encephalitis
  3. Meningitis
  4. Neuritis
Neuromuscular disorders
  1. Landry-Guillain-Barré Syndrome
  2. Myasthenia gravis
Peripheral neuropathies
Spinal cord compression
Central nervous system shunt malfunction
Seizure Disorders – Differential Dx
Common emergencies
  1. Head / Spinal cord trauma
  2. Increased Intracranial Pressure Syndrome
  3. Spinal Cord Compression Syndrome
  4. Headache – Differential Dx
  5. Coma / Altered mental status
**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of in/outpatients being evaluated on the Neurology Service</td>
<td>Daily observation of clinical duties by the preceptor</td>
</tr>
<tr>
<td>Teaching and patient care rounds</td>
<td></td>
</tr>
<tr>
<td>One-on-one precepting</td>
<td></td>
</tr>
<tr>
<td>Assigned readings</td>
<td></td>
</tr>
</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.
**Schedule:**

Variable and will be reviewed at the start of the service by the preceptor.

**Parking:**

Provided by hospital

**Meals:**

Allowance provided by hospital

**Recommended Reading:**

"Neurology for the House Office"
"Harrison's Principles of Medicine"
"Manter and Gatz"
Neurosurgery Rotation EM 2

**Introduction/Description**

The purpose of this rotation is to give the resident the opportunity to participate in the care of patients with neurosurgical emergencies and develop the skills necessary to recognize, work-up and initiate therapy in the patient with a neurosurgical emergency.

The resident will work with Neurosurgical consultants in the Emergency Department management of Neurosurgical emergencies and consultations to establish an understanding and proficiency at performing procedures such as spinal blocks, pain management and Neurosurgical emergency case stabilization.

In addition, the resident will assist in neurosurgical procedures and patient care.

**Training Year:** EM 2

**Length:** 2 Weeks

**Contact Information:**

**Attending Physician:** Dennis Szymanski, MD and Christian Sikorski, MD

**Location:** Lakeland Healthcare  
Saint Joseph MI

**Rotation Goals:**

1. Learn the anatomy, pathophysiology, presentation, and management of common nervous system disorders and injuries requiring surgical intervention.
2. Develop skill in the performance of a screening and detailed neurological evaluation.
3. Develop skill in the use and performance of diagnostic procedures in the evaluation of neurological disorders.
4. Effectively utilize radiologic studies to diagnose neurological disease or injury.
5. Diagnose, stabilize and provide initial treatment of injuries and diseases of the brain, spinal cord, vertebrae and peripheral nerves.
6. Learn how CSF shunts function and learn to evaluate patients with possible shunt malfunction.

**Rotation Learning Objectives:**

1. Demonstrate a brief and a complete neurological history and examination on patients with various levels of consciousness, including trauma patients.  
   (Patient Care / Medical Knowledge)
2. Demonstrate knowledge of neuroanatomy and application of this knowledge in the neurological examination to localize neurological disorders.  
   (Patient Care / Medical Knowledge)
3. Demonstrate the ability to recognize and manage cerebrovascular ischemic disorders, seizure disorders, headache, spinal cord compression, shunt malfunction, neurological infections, and neurological inflammatory states.  
   (Patient Care / Medical Knowledge)
4. Demonstrate the ability to recognize and manage cranial nerve disorders, demyelination disorders, neuromuscular disorders, pseudotumor cerebri, normal pressure hydrocephalus, and peripheral neuropathy.  
   (Patient Care / Medical Knowledge)
5. Demonstrate skill in the initial evaluation and management of blunt and penetrating traumatic injuries of the CNS. (Patient Care / Medical Knowledge)
6. Describe initial management of fractures, subluxations, and dislocations of the spine. (Patient Care / Medical Knowledge)
7. Demonstrate the ability to recognize and manage acute cerebrovascular and spinal cord disorders that are amenable to neurosurgical intervention. (Patient Care / Medical Knowledge)
8. Describe the main classifications of headaches and state the doses, indications, and contraindications for agents used to manage each of these types of headaches. (Patient Care / Medical Knowledge)
9. Describe the indications, techniques, and contraindications for neurological imaging procedures including plain radiographs, computerized tomographic scans, magnetic resonance imaging, tomography). (Patient Care / Medical Knowledge)
10. Demonstrate accurate interpretation of neurological imaging studies including plain radiographs and computerized tomographic scans. (Patient Care / Medical Knowledge)
11. Demonstrate spinal immobilization techniques. (Patient Care / Medical Knowledge)
12. Demonstrate ability to recognize and manage spinal cord compression due to non-traumatic causes. (Patient Care / Medical Knowledge)
13. Describe the indications and techniques for control of intracranial pressure. (Patient Care / Medical Knowledge)
14. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
15. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
16. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
17. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
18. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
19. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

Normal neuroanatomy and physiology
Neurologic exam
Cerebrovascular disorders
  1. Aneurysm
  2. Arteriovenous malformation
Stroke syndrome
  1. Hemorrhagic
  2. Ischemic
  3. Embolic
  4. Thrombotic
Subarachnoid hemorrhage
Infections / Inflammatory disorders
  1. Abscess
  2. Encephalitis
  3. Meningitis
Spinal cord compression
Central nervous system shunt malfunction
Common emergencies
1. Head / Spinal cord trauma
2. Increased Intracranial Pressure Syndrome
3. Spinal Cord Compression Syndrome
4. Headache - Differential Dx

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office and in-house care of the Neurosurgical patient</td>
<td></td>
</tr>
<tr>
<td>Patient care and teaching rounds</td>
<td></td>
</tr>
<tr>
<td>One-on-one precepting</td>
<td></td>
</tr>
<tr>
<td>Assigned readings</td>
<td>Direct observation by the preceptor</td>
</tr>
</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

Variable and will be determined by the preceptor at the start of the rotation.
Parking:
Provided by hospital

Meals:
Allowance provided by hospital

Recommended Reading:

"Stupor and Coma", by Plum and Posner
"Emergency Neurology", by Henry and Little
"Head Injury", by Cooper
"Neurological Emergencies"
Medical Intensive Care-1 Rotation EM 2

**Introduction/Description:**

The purpose of this rotation is to give the Resident the opportunity to provide the resident with a foundation on which to appreciate the presentation, pathophysiology, exam techniques, testing procedures and treatment guidelines that are associated with a variety of critical disease conditions seen in the medical intensive care patient.

**Training Year:** EM 2

**Length:** 1 Month

**Attending Physician:** Stephen Hempel, MD

**Location:** Lakeland Healthcare

Saint Joseph MI

**Rotation Goals:**

This rotation is one month in the Critical Care Unit. The Goal is to develop the knowledge and understanding of the principles and practice of critical care medicine. The Resident will be able to recognize a critically ill patient through the integration of the history and physical, laboratory and diagnostic tests. The Resident will develop a basic management plan which will include stabilization and treatment of the critically ill patient.

**Rotation Learning Objectives:**

1. To perform a complete but focused history and physical examination on critically ill patients. (Patient Care, Medical Knowledge)

2. To develop a differential diagnosis list integrating findings from the history and physical, and diagnostic tests. (Patient Care, Medical Knowledge)

3. To develop a treatment plan to stabilize and treat the critically ill patient based on the history and physical, laboratory and other diagnostic modalities available to the physician. (Patient Care, Medical Knowledge)

4. To understand the pathophysiology of critical illness and to develop strategies in treatment. (Patient Care, Medical Knowledge, Systems Based Practice)

   4a. To understand the risks/complications associated with critical illness. (Patient Care, Medical Knowledge, Systems Based Practice)

5. To incorporate principles and practices of osteopathic medicine in the diagnosis and treatment of critically ill patients. (Patient Care, Medical Knowledge, Osteopathic Manipulative Medicine)

6. Use library and computer sources in the diagnosis and treatment of critical care patients. (Patient Care, Medical Knowledge, Systems Based Practice)
7. To be able to succinctly but completely present cases to appropriate medical personnel. (Patient Care, Medical Knowledge, Systems Based Practice)

8. To understand the ethical and sociological issues involved in critical care, and death and dying. (Patient Care, Medical Knowledge, Systems Based Practice, Professionalism, Interpersonal and Communication Skills)

9. To develop motor or manual skills consistent with the level of training including, ventilator management, ABG interpretation, venous and arterial line access, swan-gantz catheter placement and interpretation, thrombolytic therapy, BCLS and ACLS protocol, common critical care medications and dosing. (Patient Care, Medical Knowledge, Systems Based Practice)

10. Participate in Critical Care didactic sessions with other house staff and attending physicians. (Patient Care, Medical Knowledge, Interpersonal and Communication Skills, Professionalism)

**Description and Expected Duties:**

The Critical Care rotation is a one month rotation working with the critical care intensivists.

The Resident will be completing admissions, daily program notes, transfer orders, lab/xray review, get past history from previous facility and other sources, obtain current literature relevant to patient care. Familiarize with indications, risks, and complications for any procedures on your patients. The Resident should participate in all procedures done in Critical Care Unit and respond to floor calls.

**Daily Schedule:**

First day contact in house intensivist who will determine schedule

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office and in-house care of the critical patient</td>
<td>Direct observation by the preceptor</td>
</tr>
<tr>
<td>Patient care and teaching rounds</td>
<td></td>
</tr>
<tr>
<td>One-on-one precepting</td>
<td></td>
</tr>
<tr>
<td>Assigned readings</td>
<td></td>
</tr>
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</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:
A. **Rotation Completion:**

Satisfactory completion of monthly rotations and logs. Completion of “Rotation Evaluation” form signed by Rotation Director.

B. **Assigned Readings Completion:**

This includes satisfactory and punctual completion of assigned readings.

C. **Attendance:**

Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**

Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

**Attending Responsibilities:**

- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Parking:**

Provided by hospital

**Meals:**

Allowance provided by hospital

**Reading Materials:**

Recommended Marino’s “ICU” book, articles will be distributed on service.
Trauma-1 Rotation EM 2

Introduction/Description

The purpose of this rotation is to give residents the opportunity to learn advanced resuscitation procedures/techniques such as closed tube thoracostomy, thoracotomy, advanced airway techniques (cricothyroidotomy), central line placement while managing the trauma patient.

Training Year: EM 2

Length: 1 Month

Contact Information: Trauma Department, Spectrum Health Butterworth Hospital, Grand Rapids, MI

Attending Physician: Carlos Rodriquez, MD

Rotation Goals:

1. To learn principles of trauma care.
2. To develop an organized approach to the assessment, resuscitation, stabilization and provision of definitive care for the trauma victim.
3. To learn use of the diagnostic imaging modalities available for evaluation of the trauma victim.
4. To develop procedural skills necessary in the evaluation and management of the trauma victim.
5. To learn to recognize and treat immediate life and limb threatening injuries in the trauma victim.
6. To learn special considerations in the evaluation and management of the pregnant trauma victim.
7. To learn special considerations in the evaluation and management of the pediatric trauma victim.
8. To learn special considerations in the evaluation and management of the geriatric trauma victim.
9. To learn the principles of disaster management.
10. To learn the principles of burn management.
11. To learn a systems approach to trauma management that includes statewide trauma systems and categorization of institutions and emergency department.
12. To learn the principles of pre-hospital trauma care including the role of BLS and ALS ambulance services and air transport services.

Rotation Learning Objectives:

1. Demonstrate ability to rapidly and thoroughly assess victims of major and minor trauma. (Patient Care / Medical Knowledge/Practice-Based Learning & Improvement)
2. Demonstrate ability to establish priorities in the initial management of victims of life-threatening trauma. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
3. Demonstrate ability to manage fluid resuscitation of trauma victims. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
4. Demonstrate ability to manage the airway of trauma victims. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
5. Discuss the continuing care of the trauma victim, including operative, post-operative and rehabilitative phases of care. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

6. Demonstrate ability to perform/describe the following procedures: oral and nasogastric intubation, venous cutdowns, insertion of large bore peripheral and central venous lines, insertion of arterial lines, tube thoracostomy, local wound exploration, peritoneal lavage, vessel ligation, repair of simple and complex lacerations, splinting of extremity fractures, and reduction and immobilization of joint dislocations, cricothyroidotomy, resuscitative thoracotomy, pericardiotomy, aortic cross-clamping, and extensor tendon repair. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

7. Demonstrate ability to interpret radiographs on trauma patients, including chest, cervical, thoracic and lumbar spine, pelvis and extremity films. (Patient Care / Medical Knowledge /Practice-Based Learning & Improvement)

8. Discuss the importance of mechanism of injury in the evaluation and treatment of the trauma victim. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

9. Demonstrate ability to calculate the Glasgow Coma Score and discuss its role in the evaluation and treatment of head injured patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

10. Demonstrate ability to use spine immobilization techniques in trauma victims. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)

11. Demonstrate ability to diagnose and manage trauma victims with extremity fractures, dislocations and subluxations. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

12. Demonstrate ability to manage soft tissue injuries including lacerations, avulsions and high-pressure injection injuries. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

13. Discuss the diagnosis and management of compartment syndromes. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

14. Discuss the diagnosis and management of urogenital injuries. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

15. Demonstrate appropriate use of analgesics and sedatives in trauma patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

16. Demonstrate appropriate use of antibiotics in trauma patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

17. Demonstrate ability to direct a trauma team during complex resuscitations. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

18. Demonstrate ability to coordinate consultants involved in the care of multiple trauma patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

19. Demonstrate ability to use and interpret imaging modalities in the evaluation of trauma patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

20. Demonstrate ability to arrange appropriate consultation and disposition of trauma patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

21. Demonstrate ability to direct the care of trauma victims in the pre-hospital setting. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

22. Discuss principle of disaster management and participate in disaster drills. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

23. Discuss the role of pre-hospital systems in the management of trauma patients. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

24. Discuss factors unique to the evaluation and management of pediatric trauma. (Patient Care / Medical Knowledge Practice-Based Learning & Improvement)

25. Demonstrate ability to direct pediatric trauma resuscitations. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)

26. Discuss factors unique to the evaluation and management of geriatric trauma. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
27. Demonstrate ability to direct geriatric trauma resuscitations. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
28. Discuss factors unique to the evaluation and management of trauma in pregnancy. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
29. Discuss the evaluation and management of spinal cord injuries. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
30. Demonstrate ability to diagnose and manage tendon injuries. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
31. Demonstrate ability to manage amputation injuries and discuss the potential for reimplantation. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
32. Demonstrate the ability to manage the acutely burned patient, including minor and major injuries. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
33. Demonstrate the ability to diagnose and treat smoke inhalation. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
34. Discuss indications and procedures for transfer of an injured patient to a center. (Patient Care / Medical Knowledge Practice-Based Learning & Improvement)
35. Demonstrate the ability to assess and manage facial trauma. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
36. Demonstrate the ability to evaluate and manage anterior neck injuries. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
37. Demonstrate the ability to assess and manage penetrating and blunt chest trauma. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
38. Demonstrate the ability to evaluate and manage blunt and penetrating abdominal trauma. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
39. Demonstrate the ability to diagnose and treat pelvic fractures. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
40. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism / Practice-Based Learning & Improvement / Patient Care / Medical Knowledge)
41. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement / Patient Care / Medical Knowledge)
42. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism / Practice-Based Learning & Improvement)
43. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism / Practice-Based Learning & Improvement)
44. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism / Practice-Based Learning & Improvement)
45. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

**Content Areas:**

**Principles of Care**
1. Pre-hospital trauma care
2. Triage
3. Resuscitation and stabilization

**Domestic Violence**

**Radiologic evaluation**
1. Plain radiographs
2. Contrast radiography
3. Computed tomography scan
4. Angiography
5. Ultrasonography

Head / Brain trauma
Spinal cord and peripheral nervous system trauma
Injuries of the spine and skull
Neck trauma
Chest trauma
Abdominal trauma
Upper extremity injuries
Lower extremity injuries
Pelvic fractures (open and closed)
Compartment syndromes
Amputations / reimplantation
Tendon injuries
Injuries to joints
Other soft tissue injuries
Crush injuries and crush syndrome
Cutaneous injuries
Principles of wound management
Burns
1. Thermal
2. Electrical
3. Chemical

Injuries to the genitalia

Trauma in pregnancy

ATLS
Instructional Methods:

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of Level I, II, III trauma cases upon initial presentation to the ED. One-on-one precepting as member of trauma team</td>
<td>Direct observation by rotation preceptor</td>
</tr>
<tr>
<td>Required lectures / presentations</td>
<td></td>
</tr>
<tr>
<td>EM/ Trauma grand rounds</td>
<td></td>
</tr>
</tbody>
</table>

Resident Responsibilities:

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.
**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

Resident schedule is individualized and will be determined once the rotation is scheduled. All scheduling will be compliant with current “Work Hour Guidelines”

**Housing:**

Provided by hospital

**Meals:**

Not Provided by hospital

**Parking:**

Provided by hospital

**Readings:**

"Textbook of Emergency Medicine", Rosen
Introduction / Description

The Lakeland HealthCare Emergency Department is staffed with EM Residency Faculty. Residents are assigned to all shifts to provide exposure to a broad range of clinical pathology and major trauma.

Over the course of the residency, and with increasing experience and responsibility, the resident will develop the skills, knowledge and attitudes necessary to handle a wide variety and number of cases in an efficient and professional manner.

In addition to the clinical experience, the ED Core rotation includes a series of didactic sessions intended to supplement and provide the broad based education, theory and practical aspects, of up-to-date Emergency Medicine.

Year of Training: EM 3

Contact Information:

Attending Physician: Michelino Mancini, DO
Program Director

Location: Lakeland HealthCare
Saint Joseph MI

Educational Objectives:

General Goals:
To become progressively more independent in evaluation and initial intervention of urgent and emergent patients presenting to the Emergency Department (Patient Care, Medical Knowledge, Systems Based Practice)

To become competent in the resuscitation and stabilization of critically injured trauma patients presenting to the Emergency Department (Patient Care, Medical Knowledge, Systems Based Practice)

To become competent in the diagnosis and management simultaneously of multiple patients in the Emergency Department. (Patient Care, Medical Knowledge, Systems Based Practice)

Specific Goals:
The resident will master the skills needed to properly evaluate, resuscitate, if necessary, and stabilize critically ill and injured patients in the Emergency Department with particular emphasis on the following (Patient Care, Medical Knowledge, Systems Based Practice)
- Hepatic / hepato-renal failure
- Acute gastrointestinal hemorrhage
- Small bowel obstruction
- Ileus
- Adynamic
- Pseudo obstruction
- Cardiac failure
Ischemic heart disease
Pericarditis
Arrhythmias
Conduction blocks
Circulatory augmentation
Indications of mechanical assistance
Acute hypertensive crisis
Thrombolytic therapy
Pharmacological agents
Acid-base disturbances
Metabolic
Respiratory Disease
Diabetes Mellitus
Diabetic ketoacidosis
Hyperosmolar coma
Hypoglycemic syndromes
Thyroid disorders
  Hyperthyroidism / thyroid storm
  Hypothyroidism / myxedema
  Thyroiditis
Burns
Smoke inhalation
Hemostatic disorders
Transfusions
Autotransfusion
Component therapy
Synthetic blood replacement
Hypersensitivity
Anaphylaxis / anaphylactoid reactions
Angioedema
Systemic bacterial infection
Gonococcemia
Gram-negative sepsis
Gram-positive sepsis
Meningococcemia
Tetanus
Toxic Shock Syndrome
Cerebrovascular disorders
Aneurysm
Stroke syndrome
Subarachnoid hemorrhage
Infections / inflammatory disorders
Spinal cord compression
Pregnancy, complicated
Ectopic pregnancy
Placenta previa
Toxemia
Psychiatry
  Sedatives / hypnotics
  Physical restraints
Management of violence
Acute and chronic renal failure
Complications of dialysis
Non-cardiogenic pulmonary edema
Primary pulmonary hypertension
Pulmonary embolism / infarct
Principles of drug interactions / adverse reactions
Pharmacokinetics
Antidotes
Gastric decontamination
Enhanced elimination
Principles of trauma care
Diagnosis of trauma
Treatment of trauma
Consultations in trauma
Mechanism of injury
Blunt trauma
Gunshot wounds / shotgun wounds
Stab wounds
Head trauma
Spinal cord and PNS trauma
Injuries of the spine
Anterior neck trauma
Chest trauma
Abdominal trauma
Upper extremity injuries
Dislocations / subluxations
Lower extremity fractures
Pelvic fractures
Injuries to joints
Trauma in pregnancy
OMM in the ED

The resident will learn the indications, contraindications, complications and techniques for the following procedures. When possible, these procedures will be performed on Emergency Department patients. (Patient Care, Medical Knowledge)

Airway techniques
Chest Tube
Cricothyrotomy
Intubation using paralytic agents
Percutaneous transtracheal ventilation
Regional IV anesthesia
Pericardiocentesis
Peritoneal lavage
Thoracentesis/Thoracotomy
Hemodynamic techniques
Arterial catheter insertion
Central venous access – venous cutdown
Peripheral venous cutdown
Swan-Ganz catheter insertion
Description of clinical experiences:

The resident will rotate for six months at the EM-3 level on the Emergency Medicine service.

The Emergency Medicine Faculty will provide instruction in the proper method of critical care resuscitation and stabilization techniques.

The resident will examine and treat emergent and critically ill and injured patients in the Emergency Department under the supervision of the attending Emergency physician.

Description of didactic objectives:

The resident will attend daily and weekly conferences and meetings while on the Emergency Medicine service.

The resident will be responsible for the list of suggested readings for the Emergency Medicine rotation.

EM 3 Competency Objectives

The third year Emergency Medicine Resident concentrates on broadening exposure and developing efficiency. The resident begins to mentor junior EM and off-service residents, medical students, and physician assistant students rotating in the department. The resident is primarily responsible for the most critically ill patients in the Emergency Department and directs medical resuscitations. In addition to competencies expected from the previous two years, by the end of the resident’s third year of training the resident will:

1. Demonstrate increasing competence in advanced clinical procedures, including advanced airway management, trauma procedures
2. Manage multiple critically ill patients simultaneously
3. Provide on-line medical supervision to affiliated EMS systems
4. Show skill in mentoring and teaching junior residents and medical students rotating in the department
5. Research, prepare and deliver lectures in core topics relevant to emergency medicine
6. Retrieving and apply new and evidence-based knowledge to clinical practice
7. Maintain a program of study sufficient to acquire the knowledge and skills necessary for successful practice in emergency medicine

Evaluation Process:

Written quarterly evaluation of the resident by the attending Emergency physicians upon completion of the rotation. Please reference evaluation section of this program manual.

Performance on the annual resident’s in-service examination
Feedback mechanisms:

Biannual review of the rotation by the Core Faculty Advancement Committee

Ad hoc review of the rotation as deemed appropriate by the Program Director

**Description of Didactic Educational Activities:** (See Curriculum: didactic activities section of this manual)

**Schedule:**

Resident schedule is individualized and will be determined once the rotation is scheduled.

EM 3 – 17-18 shifts/month

**Housing:**

Not provided by hospital

**Meals:**

Allowance provided by hospital

**Parking:**

Provided by hospital

**Readings:**

1. **Core texts in Emergency Medicine:**

2. **Recommended References:**
   3. Medical Toxicology-Diagnosis and Treatment of Human Poisoning, M. Ellenhorn and D. Barcelou, Current Edition,
   4. EKG, Marrino, H.
   5. Paramedic Book - Caroline

3. **Reference Journals:**
   1. Annals of Emergency Medicine,
   2. The Journal of Trauma,
   3. Emergency Medicine Clinics of North America,
Emergency Medical Services EM 3

Introduction / Description

A 1 month course designed to offer the Emergency Medicine Resident experience in the development, implementation of Emergency Medical Systems. During this period of time the Resident will have direct contact with Paramedics and Emergency Medical Technicians (EMTs) in the field. The rotation will be divided between both Medic 1 and Southwest Michigan Community Ambulance Services. In addition, the Resident will be exposed to various aspects of the administrative leg of the EMS system and will participate in Medical Control meetings, Quality Assurance and Protocol meetings for Berrien County. The Resident will also become proficient at communication with incoming EMS personnel, and gain familiarity with standard operating procedures.

The Program will provide training to develop the skills necessary to organize and record data such as: history, physical exam, diagnostic techniques and procedures and laboratory tests in the initiation of appropriate therapy in the Emergency pre-hospital setting.

Training Year: EM 3

Length: 1 Month

Contact Information:

Attending Physician: Bryan Staffin, DO FACOEP
Berrien Co. EMS Medical Director

Location: Lakeland Healthcare
St Joseph and Niles

Contact Person: Bryan Staffin DO, FACOEP

Rotation Goals:

1. Learn common organizational structures of emergency medical services.
2. Learn the educational requirements and skill levels of various EMS providers.
3. Learn principles of EMS system operations.
4. Learn basic principles of disaster management.
5. Learn principals of pre-hospital triage and emergency medical care delivery.
6. Learn basic principles of EMS research.
7. Learn medicolegal principals relating to EMS.

Rotation Learning Objectives:

1. Actively participate in EMS system. (Patient Care / Medical Knowledge)
2. Describe local, state and national components of EMS. (Patient Care / Medical Knowledge)
3. Demonstrate ability to use all elements of the EMS communication system. (Patient Care / Medical Knowledge)
4. Demonstrate ability to provide initial and continuing education to all levels of EMS personnel (Patient Care / Medical Knowledge)
5. Demonstrate familiarity with research methodologies relating to EMS and disaster management. (Patient Care / Medical Knowledge)
6. Discuss medicolegal liability issues relating to EMS. (Patient Care / Medical Knowledge)
7. Participate in EMS continuous quality improvement. (Patient Care / Medical Knowledge)
8. Participate as an observer or team member in ground and air medical transport systems. (Patient Care / Medical Knowledge)
9. Discuss development of EMS pre-hospital care protocols. (Patient Care / Medical Knowledge)
10. Discuss basic concepts of mass casualties. (Patient Care / Medical Knowledge)
11. Discuss basic concepts of disaster management. (Patient Care / Medical Knowledge)
12. Demonstrate understanding of appropriate utilization practices for ground and air medical services. (Patient Care / Medical Knowledge)
13. Discuss the process of disaster management notification, response, and medical care on a local, state and national level. (Patient Care / Medical Knowledge)
14. Discuss the importance of and methods for medical control in EMS systems. (Patient Care / Medical Knowledge)
15. Discuss the differences in education and skill level of various EMS providers. (Patient Care / Medical Knowledge)
16. Describe common environmental, toxicologic, and biological hazards encountered in the pre-hospital care setting as well as injury prevention techniques. (Patient Care / Medical Knowledge)
17. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
18. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
19. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
20. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
21. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

Medical control
   1. Off-line and on-line supervision
Disaster Medicine
   2. Definition of disaster
   3. Phases of disaster response
Triage
Hazardous materials
Mental health and behavioral consequences
   1. For disaster victims
   2. For professionals
   3. Critical incident stress debriefing
### Instructional Methods:

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<th>Method</th>
<th>Evaluation</th>
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<tr>
<td>Care of Pre-Hospital Patients</td>
<td>Evaluations by Providers</td>
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<tr>
<td>Education of Pre-hospital Providers</td>
<td>Evaluations by Providers</td>
</tr>
<tr>
<td>Participation in EMS Administrative Meetings</td>
<td>Input by EMS Administrator</td>
</tr>
</tbody>
</table>

### Resident Responsibilities:

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

**EMS**

- Become familiar with and have a good working knowledge of Berrien County EMS System.
- Understand and appreciate the role of EMS, and pre-hospital care providers
- Become comfortable and knowledgeable in the use of EMS/hospital radio communication
- Build a base of EMS lectures and presentations

**Requirements**

1. Complete and participate in paramedic ride-alongs as outlined below. You will be required to participate in a total of ten ride-alongs.

2. Prepare and present one lecture for the current paramedic, or EMT class. Topics will be assigned and varies with the rotation time frame. Due to rotation constraints, lectures may be prepared, but not given until a later time in the year.

3. Attend all county related EMS meetings with Bryan Staffin, DO. Contact Dr. Staffin at the start of the rotation for dates and details of these meetings.

4. Review and QA 25 sheets from area EMS Departments.

5. Read Rosen textbook of Emergency Medicine chapter on EMS.


7. Complete the following online training at: [www.training.fema.gov/emiweb/IS/crslist.asp](http://www.training.fema.gov/emiweb/IS/crslist.asp)

   IS100, IS200, IS700

**A. Rotation Completion:**

Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.
B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. **Quality Assurance Programs:**
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

   Provide didactic and individual instruction to the resident.
   Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

   Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

   Variable will be given at the start of the rotation.

**Parking:**

   Provided by the hospital

**Meals:**

   Allowance provided by hospital

**Recommended Readings:**

   Books:
   1. "Advanced Cardiac Life Support"
   2. "Advanced Trauma Life Support"
   4. "Pediatric Advanced Life Support"
   6. "Emergency Care in the Streets" by Caroline, Current Edition(Paramedics)
Medical Intensive Care 2 - EM 3

Introduction / Description

The purpose of this rotation is to give the Resident the opportunity to provide the resident with a foundation on which to appreciate the presentation, pathophysiology, exam techniques, testing procedures and treatment guidelines that are associated with a variety of critical disease conditions seen in the medical intensive care patient.

Training Year: EM 3

Length: 1 Month

Attending Physician: Stephen Hempel, MD

Location: Lakeland Healthcare
Saint Joseph MI

Rotation Goals:

This rotation is one month in the Critical Care Unit. The Goal is to develop the knowledge and understanding of the principles and practice of critical care medicine. The Resident will be able to recognize a critically ill patient through the integration of the history and physical, laboratory and diagnostic tests. The Resident will develop a basic management plan which will include stabilization and treatment of the critically ill patient.

Rotation Learning Objectives:

1. To perform a complete but focused history and physical examination on critically ill patients. (Patient Care, Medical Knowledge)

2. To develop a differential diagnosis list integrating findings from the history and physical, and diagnostic tests. (Patient Care, Medical Knowledge)

3. To develop a treatment plan to stabilize and treat the critically ill patient based on the history and physical, laboratory and other diagnostic modalities available to the physician. (Patient Care, Medical Knowledge)

4. To understand the pathophysiology of critical illness and to develop strategies in treatment. (Patient Care, Medical Knowledge, Systems Based Practice)

   4a. To understand the risks/complications associated with critical illness. (Patient Care, Medical Knowledge, Systems Based Practice)

5. To incorporate principles and practices of osteopathic medicine in the diagnosis and treatment of critically ill patients. (Patient Care, Medical Knowledge, Osteopathic Manipulative Medicine)

6. Use library and computer sources in the diagnosis and treatment of critical care patients. (Patient Care, Medical Knowledge, Systems Based Practice)
7. To be able to succinctly but completely present cases to appropriate medical personnel. (Patient Care, Medical Knowledge, Systems Based Practice)

8. To understand the ethical and sociological issues involved in critical care, and death and dying. (Patient Care, Medical Knowledge, Systems Based Practice, Professionalism, Interpersonal and Communication Skills)

9. To develop motor or manual skills consistent with the level of training including, ventilator management, ABG interpretation, venous and arterial line access, swan-gantz catheter placement and interpretation, thrombolytic therapy, BCLS and ACLS protocol, common critical care medications and dosing. (Patient Care, Medical Knowledge, Systems Based Practice)

10. Participate in Critical Care didactic sessions with other house staff and attending physicians. (Patient Care, Medical Knowledge, Interpersonal and Communication Skills, Professionalism)

**Description and Expected Duties:**

The Critical Care rotation is a one month rotation working with the critical care intensivists.

The Resident will be completing admissions, daily program notes, transfer orders, lab/xray review, get past history from previous facility and other sources, obtain current literature relevant to patient care. Familiarize with indications, risks, and complications for any procedures on your patients. The Resident should participate in all procedures done in unit and respond to floor calls.

**Daily Schedule:**

First day contact in house intensivist who will determine schedule

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office and in-house care of the critical patient</td>
<td>Direct observation by the preceptor</td>
</tr>
<tr>
<td>Patient care and teaching rounds</td>
<td></td>
</tr>
<tr>
<td>One-on-one precepting</td>
<td></td>
</tr>
<tr>
<td>Assigned readings</td>
<td></td>
</tr>
</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings.
C. **Attendance:**
Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident.
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Parking:**
Provided by the hospital

**Meals:**
Allowance provided by the hospital

**Reading Materials:**

Recommended Marino’s “ICU” book, articles will be distributed on service.
Toxicology Rotation EM 3

**Introduction / Description**
OGME-3 Emergency Medicine Residents will train in medical toxicology to experience and develop the requisite skill to evaluate and manage poisoned patients. This one month rotation provides residents the opportunity to develop clinical and academic skills as related to the field of toxicology. Supervision of the resident will be by the Medical Toxicology Fellows and Attending Physicians of The Toxikon Consortium.

**Training Year:** EM 3

**Length:** 1 Month

**Contact Information:** Division of Occupational Medicine, Section of Toxicology
Stroger Cook County Hospital
1900 W. Polk Street, Suite 500
Chicago, Illinois 60612

**Attending Physician:** Steve Aks, DO

**Rotation Goals:**
1. To learn principles of toxicology.
2. To develop an organized approach to the assessment, resuscitation, stabilization and definitive care for the toxidrome victim.
3. To learn use of the laboratory and diagnostic imaging modalities available for evaluation of the toxicology victim.
4. To learn to recognize and treat immediate life-threatening toxicology victims.
5. To learn special considerations in the evaluation and management of the child, pregnant or geriatric poison victim.
6. To learn a systems approach to toxicology management that includes statewide poison center systems and their role in pre-hospital care.

**Rotation Learning Objectives:**
1. Describe the features involved in toxi-drome recognition (Medical Knowledge, Patient Care)
2. Describe the major aspects of the general management of the poisoned patients (MK, PC).
3. Demonstrate knowledge of supportive care of poisoned patients (MK, PC).
4. Discuss the indications of gastric lavage, whole bowel irrigation, skin and eye decontamination, and the administration of activated charcoal (MK).
5. Demonstrate knowledge of basic principles of drug absorption, distribution, metabolism and elimination (MK).
6. Discuss the indications, contraindications, dosages, and side effects of currently available antivenoms (MK).
7. Demonstrate knowledge of the principles of hemodialysis and hemoperfusion and the toxicologic indications for these procedures. (MK, Systems Based Practice)
8. Demonstrate the ability to recognize common venomous animals and poisonous plants and their clinical presentations and treatments (MK, PC).
9. Demonstrate knowledge of the diagnostic laboratory including methods, limitations and costs (MK, SBP).
10. Demonstrate the proper technique for handling HAZMAT contaminated patient in the emergency department and the pre-hospital environment (MK, SBP).
11. Demonstrate knowledge and clinical skills necessary to manage the following toxins (MK, PC)
    a. Acetaminophen
b. Amphetamines
c. Anticholinergics
d. Aspirin
e. Barbiturates
f. Benzodiazepines
g. Beta blockers
h. Calcium channel blockers
i. CO
j. Caustics
k. Cocaine
l. Cyanide
m. Cyclic antidepressants
n. Digitalis
o. Ethanol
p. Ethylene glycol
q. INH
r. Iron
s. Lithium
t. Methanol
u. Opiates
v. Organophosphates
w. Phenytoin
x. Theophylline
y. Venomous animals

12. Demonstrate knowledge of miscellaneous poisons and their treatments, for example (MK, PC):
   a. Pesticides
   b. Hydrocarbons
   c. Metals

13. Differentiate a toxic from a non-toxic ingestion (MK, PC)

14. Demonstrate an understanding of the use of print and electronic resources to assist the management of the poisoned patient (SBP, Practice Based Learning).

15. Present at EM/Toxicology Case Conference a clinical case and discussion (MK, PBL, Interpersonal and Communication Skills).

16. Complete all written consultations on cases from Poison Center (ICS, PC, SBP)

17. Understand the interaction of the Emergency Department with the regional poison control center, and other public health agencies (SBP).

18. Interact with Specialists in Poison Information at the Poison Center, Toxicology Attendings, Emergency Medicine and consultants in other specialists. (ICS, SBP, Professionalism).
Instructional Methods:

Didactic Experiences
EM residents will participate in the following conferences: Department of Emergency Medicine journal club, University of Illinois Toxicology Conference, weekly case presentations, and divisional toxicology conferences. EM residents will present a half-hour case with review of topic at the monthly EM/Toxicology combined conference.

<table>
<thead>
<tr>
<th>Clinical Case Presentation/Rounds</th>
<th>9:00 – 12 PM M-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cook County EM/Toxicology Combined Conference</td>
<td>Every Third Wednesday</td>
</tr>
<tr>
<td>Present a case with lecture</td>
<td></td>
</tr>
<tr>
<td>University of Illinois EM/Toxicology Conference</td>
<td>Every Third Thursday</td>
</tr>
<tr>
<td>Journal Club, Department of Emergency Med</td>
<td>Last Tuesday of Rotation</td>
</tr>
</tbody>
</table>

Care of the Toxicology Patient
EM residents will review consultations, evaluations, management strategies and follow-ups on patients referred to the toxicology service at Stroger Cook County and the University of Illinois Hospitals. EM residents will take call every fourth night (from home) in conjunction with the toxicology fellows and attending physicians. They will provide back up to the poison specialists at the Illinois Poison Center and provide a direct phone link to physicians from regional hospitals with complicated toxicology management problems. EM residents will spend at least one day per week at the Illinois Poison Control Center participating with the poison specialists as medical back up.

Resident Responsibilities:
In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:
Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident.
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.
Evaluation:
Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. All written evaluations will be transmitted into New Innovations.

Schedule:
Resident schedule is individualized and will be determined once the rotation is scheduled. All scheduling will be compliant with current “Work Hour Guidelines”

Housing:
Not Provided.

Meals:
Not Provided.

Parking:
Not Provided.

Readings:
"Textbook of Emergency Medicine", Rosen

Trauma-2 Rotation EM 3

**Introduction / Description**

The purpose of this rotation is to give residents the opportunity to learn advanced resuscitation procedures/techniques such as closed tube thoracostomy, thoracotomy, advanced airway techniques (cricothyroidotomy), central line placement while managing the trauma patient.

**Training Year:** EM 3

**Length:** 1 Month

**Contact Information:** Trauma Department, Spectrum Health Butterworth Hospital, Grand Rapids, MI

**Attending Physician:** Carlos Rodriguez, MD

**Rotation Goals:**

1. To learn principles of trauma care.
2. To develop an organized approach to the assessment, resuscitation, stabilization and provision of definitive care for the trauma victim.
3. To learn use of the diagnostic imaging modalities available for evaluation of the trauma victim.
4. To develop procedural skills necessary in the evaluation and management of the trauma victim.
5. To learn to recognize and treat immediate life and limb threatening injuries in the trauma victim.
6. To learn special considerations in the evaluation and management of the pregnant trauma victim.
7. To learn special considerations in the evaluation and management of the pediatric trauma victim.
8. To learn special considerations in the evaluation and management of the geriatric trauma victim.
9. To learn the principles of disaster management.
10. To learn the principles of burn management.
11. To learn a systems approach to trauma management that includes statewide trauma systems and categorization of institutions and emergency department.
12. To learn the principles of pre-hospital trauma care including the role of BLS and ALS ambulance services and air transport services.

**Rotation Learning Objectives:**

1. Demonstrate ability to rapidly and thoroughly assess victims of major and minor trauma.  (Patient Care / Medical Knowledge/Practice-Based Learning & Improvement)
2. Demonstrate ability to establish priorities in the initial management of victims of life-threatening trauma.  (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
3. Demonstrate ability to manage fluid resuscitation of trauma victims.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
4. Demonstrate ability to manage the airway of trauma victims.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
5. Discuss the continuing care of the trauma victim, including operative, post-operative and rehabilitative phases of care.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
6. Demonstrate ability to perform/describe the following procedures: oral and nasogastric intubation, venous cutdowns, insertion of large bore peripheral and central venous lines, insertion of arterial lines, tube thoracostomy, local wound exploration, peritoneal lavage, vessel ligation, repair of simple and complex lacerations, splinting of extremity fractures, and reduction and immobilization of joint dislocations, cricothyroidotomy, resuscitative thoracotomy, pericardiotomy, aortic cross-clamping, and extensor tendon repair.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
7. Demonstrate ability to interpret radiographs on trauma patients, including chest, cervical, thoracic and lumbar spine, pelvis and extremity films.  (Patient Care / Medical Knowledge/Practice-Based Learning & Improvement)
8. Discuss the importance of mechanism of injury in the evaluation and treatment of the trauma victim.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
9. Demonstrate ability to calculate the Glasgow Coma Score and discuss its role in the evaluation and treatment of head injured patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
10. Demonstrate ability to use spine immobilization techniques in trauma victims.  (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
11. Demonstrate ability to diagnose and manage trauma victims with extremity fractures, dislocations and subluxations.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
12. Demonstrate ability to manage soft tissue injuries including lacerations, avulsions and high-pressure injection injuries.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
13. Discuss the diagnosis and management of compartment syndromes.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
14. Discuss the diagnosis and management of urogenital injuries.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
15. Demonstrate appropriate use of analgesics and sedatives in trauma patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
16. Demonstrate appropriate use of antibiotics in trauma patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
17. Demonstrate ability to direct a trauma team during complex resuscitations.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
18. Demonstrate ability to coordinate consultants involved in the care of multiple trauma patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
19. Demonstrate ability to use and interpret imaging modalities in the evaluation of trauma patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
20. Demonstrate ability to arrange appropriate consultation and disposition of trauma patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
21. Demonstrate ability to direct the care of trauma victims in the pre-hospital setting.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
22. Discuss principle of disaster management and participate in disaster drills.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
23. Discuss the role of pre-hospital systems in the management of trauma patients.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
24. Discuss factors unique to the evaluation and management of pediatric trauma.  (Patient Care / Medical Knowledge Practice-Based Learning & Improvement)
25. Demonstrate ability to direct pediatric trauma resuscitations.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
26. Discuss factors unique to the evaluation and management of geriatric trauma.  (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
27. Demonstrate ability to direct geriatric trauma resuscitations. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
28. Discuss factors unique to the evaluation and management of trauma in pregnancy. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
29. Discuss the evaluation and management of spinal cord injuries. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
30. Demonstrate ability to diagnose and manage tendon injuries. (Patient Care / Medical Knowledge / Practice-Based Learning & Improvement)
31. Demonstrate ability to manage amputation injuries and discuss the potential for reimplantation. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
32. Demonstrate the ability to manage the acutely burned patient, including minor and major injuries. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
33. Demonstrate the ability to diagnose and treat smoke inhalation. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
34. Discuss indications and procedures for transfer of an injured patient to a center. (Patient Care / Medical Knowledge Practice-Based Learning & Improvement)
35. Demonstrate the ability to assess and manage facial trauma. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
36. Demonstrate the ability to evaluate and manage anterior neck injuries. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
37. Demonstrate the ability to assess and manage penetrating and blunt chest trauma. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
38. Demonstrate the ability to evaluate and manage blunt and penetrating abdominal trauma. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
39. Demonstrate the ability to diagnose and treat pelvic fractures. (Patient Care / Medical Knowledge/ Practice-Based Learning & Improvement)
40. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism/ Practice-Based Learning & Improvement/ Patient Care / Medical Knowledge)
41. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement/ Patient Care / Medical Knowledge)
42. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism/ Practice-Based Learning & Improvement)
43. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism/ Practice-Based Learning & Improvement)
44. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism/ Practice-Based Learning & Improvement)
45. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:
Principles of Care
1. Pre-hospital trauma care
2. Triage
3. Resuscitation and stabilization
Domestic Violence

Radiologic evaluation
1. Plain radiographs
2. Contrast radiography
3. Computed tomography scan
4. Angiography
5. Ultrasonography

Head / Brain trauma

Spinal cord and peripheral nervous system trauma

Injuries of the spine and skull

Neck trauma

Chest trauma

Abdominal trauma

Upper extremity injuries

Lower extremity injuries

Pelvic fractures (open and closed)

Compartment syndromes

Amputations / reimplantation

Tendon injuries

Injuries to joints

Other soft tissue injuries

Crush injuries and crush syndrome

Cutaneous injuries

Principles of wound management

Burns
1. Thermal
2. Electrical
3. Chemical

Injuries to the genitalia

Trauma in pregnancy

ATLS
**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care of Level I, II, III trauma cases upon initial presentation to the ED. One-on-one precepting as member of trauma team</td>
<td>Direct observation by rotation preceptor</td>
</tr>
<tr>
<td>Required lectures / presentations</td>
<td></td>
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<tr>
<td>EM/ Trauma grand rounds</td>
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</tr>
</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. **Quality Assurance Programs:**
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident. Participate in teaching rounds with the resident. Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.
Schedule:

Resident schedule is individualized and will be determined once the rotation is scheduled. All scheduling will be compliant with current “Work Hour Guidelines”

Housing:
Provided by hospital

Meals:
Not Provided by hospital

Parking:
Provided by hospital

Readings:

"Textbook of Emergency Medicine", Rosen
Hand Orthopedic Surgery Rotation EM 3

Introduction/Description

The purpose of this rotation is to expose the resident to a variety of orthopedic cases specific to the hand under the supervision of an attending orthopedic hand surgeon. Through this exposure the resident will become proficient at orthopedic hand examinations, various splinting techniques, and repair of tendon lacerations.

Rotation focus will be on Emergency Medicine and office hand orthopedics. The resident will gain experience and knowledge in the evaluation, diagnosis, initial treatment and stabilization of a variety of common orthopedic hand injuries encountered in emergency medicine.

Training Year: EM 3

Length: 2 weeks

Contact Information:

Attending Physician: Michael Berry, MD

Location: Lakeland Healthcare
         Saint Joseph MI

Contact Person: Michael Berry, MD

Rotation Goals:

1. Develop appropriate orthopedic hand history and physical exam skills.
2. Learn use of the diagnostic imaging modalities available for the evaluation of orthopedic hand disorders.
3. Develop skill in the evaluation and management of musculoskeletal hand trauma.
4. Develop skill in the diagnosis and treatment of inflammatory and infectious disorders of the musculoskeletal hand system.
5. Learn principles of acute and chronic pain management in patients with musculoskeletal hand disorders.

Rotation Learning Objectives:

1. Develop ability to correctly perform a history and physical of patients with musculoskeletal hand disorders. (Patient Care / Medical Knowledge)
2. Demonstrate ability to correctly order and interpret radiographs of patients with orthopedic hand injuries. (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of standard orthopedic hand nomenclature. (Patient Care / Medical Knowledge)
4. Demonstrate knowledge of appropriate aftercare and rehabilitation of orthopedic hand injuries. (Patient Care / Medical Knowledge)
5. Demonstrate knowledge of the differences in pediatric and adult skeletal hand anatomy and indicate how those differences are manifested in clinical and radiographic presentations. (Patient Care / Medical Knowledge)
6. Demonstrate ability to apply orthopedic hand devices, including compressive dressings, splints and immobilizers. (Patient Care / Medical Knowledge)
7. Demonstrate skill in performance of the following procedures: fracture/dislocation immobilization and reduction, arthrocentesis, extensor tendon repair. (Patient Care / Medical Knowledge)
8. Describe the presentation of patients with inflammatory and infectious disorders and demonstrate ability to diagnose and treat them. (Patient Care / Medical Knowledge)
9. Demonstrate ability to diagnose and treat soft tissue hand foreign bodies. (Patient Care / Medical Knowledge)
10. Describe the presentations, complications, diagnosis, management and prognosis of patients with human and animal bites. (Patient Care / Medical Knowledge)
11. Describe the presentations, complications, diagnosis and management of compartment syndromes. (Patient Care / Medical Knowledge)
12. Demonstrate ability to provide regional and digital hand anesthesia (Patient Care / Medical Knowledge)
13. Discuss the dosages, indications, contraindications, side effects and relative potency of standard oral analgesics used in treatment of patients with musculoskeletal hand disorders. (Patient Care / Medical Knowledge)
14. Demonstrate ability to recognize and treat soft tissue infections involving muscle, fascia, and tendons. (Patient Care / Medical Knowledge)
15. Describe diagnosis and treatment of overuse syndrome. (Patient Care / Medical Knowledge)
16. Describe how to evaluate and preserve amputated limb parts. (Patient Care / Medical Knowledge)
17. Demonstrate knowledge of joint injuries, evaluation and grading of joint injuries, treatment of joint injuries and prognosis. (Patient Care / Medical Knowledge)
18. Discuss evaluation and treatment of soft tissue injuries such as strains, penetrating soft tissue injuries, crush injuries, and high-pressure injection injuries. (Patient Care / Medical Knowledge)
19. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
20. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
21. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
22. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
23. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
24. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

1. Normal hand anatomy and physiology
2. Normal hand growth and development
3. Musculoskeletal hand history taking
4. Principles of musculoskeletal hand physical examination
5. Laboratory data including indications, contraindications and interpretation (e.g. joint fluid)
6. Testing
   a. Interpretation of common musculoskeletal hand radiographs
   b. Appropriate use of magnetic resonance imaging, computed tomographic scanning and bone scanning
7. Procedures: indications and understanding of techniques
   a. Joint Aspiration
   b. I and D (Felon, etc..)
8. Pathogenesis/pathophysiology/recognition
   a. Joint pain, swelling and erythema
   b. Muscular pain, swelling and injury
   c. Musculoskeletal hand trauma
   d. Fractures
   e. Dislocations
   f. Tendon injuries
   g. Nerve injuries
   h. Bone and joint infections
   i. Compartment syndrome
   j. Osteoporosis
   k. Overuse syndromes
   l. Pediatric hand disorders
9. Basic Care
   1. Fractures (simple, stable, closed and nondisplaced)
      a. Metacarpal, phalangeal
      b. Wrist/Forearm, single bone midshaft
   2. Sprains and strains
      a. Finger
      b. Wrist
   3. Other problems
      a. Bursitis/tendinitis/tenosynovitis
10. Procedures (indications, contraindications and competency)
    1. Joint aspiration (arthrocentesis)
    2. Joint and musculoskeletal injection (local anesthesia, steroid)
    3. Wrapping and taping
       a. Elasticized bandage
    4. Splints
    5. Plaster and fiberglass casts
       a. Short and long arm
       b. Thumb Spica
       c. Cast wedging
       d. Cast problems
    6. Dislocation reduction
       a. Phalanges
       b. Wrist
11. Orthopedic Emergency Recognition and Stabilization
    1. Flexor Tenosynovitis
    2. Injection Injuries
**Instructional Methods:**

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<td>Didactic sessions</td>
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<tr>
<td>Assigned readings and presentations</td>
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</table>

**Resident Responsibilities:**

Specific requirements for this rotation include the following:

The resident is expected to be available to the Hand Orthopedics Department. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:  
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:  
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:  
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:  
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:  
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident.
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**
Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

The resident schedule is individualized and will be defined by the Orthopedic Hand Attending

**Parking:**
Provided by office or hospital.

**Meals:**
Provided by hospital.

**Recommended Reading:**


"Primary Care of Hand Injuries", by Newmeyer
Plastic Surgery Rotation EM 3

Introduction / Description

The purpose of this rotation is to expose the resident to a variety of plastic surgery cases under the supervision of an attending plastic surgeon. Through this exposure the resident will become proficient at musculoskeletal and skin examinations and various techniques for closure of complex wounds/lacerations.

Rotation focus will be on Emergency Medicine and office plastic surgery. The resident will gain experience and knowledge in the evaluation, diagnosis, initial treatment and stabilization of a variety of common complex wound and musculoskeletal injuries encountered in emergency medicine.

Training Year: EM 3

Length: 2 weeks

Contact Information:

Attending Physician: Samuel Logan, MD

Location: Lakeland Healthcare
Saint Joseph MI

Contact Person: Samuel Logan, MD

Rotation Goals:

1. Develop appropriate plastic surgery history and physical exam skills.
2. Learn use of the diagnostic imaging modalities available for the evaluation of reconstructive musculoskeletal injuries.
3. Develop skill in the evaluation and management of complex wounds, burns and craniofacial trauma.
4. Develop skill in the diagnosis and treatment of congenital anomalies that affect the musculoskeletal system.
5. Learn principles and complications of cosmetic and reconstructive surgery.

Rotation Learning Objectives:

1. Develop ability to correctly perform a history and physical of patients with musculoskeletal disorders. (Patient Care / Medical Knowledge)
2. Demonstrate ability to correctly order and interpret radiographs of patients with musculoskeletal injuries. (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of the differences in pediatric and adult skeletal anatomy and indicate how those differences are manifested in clinical and radiographic presentations. (Patient Care / Medical Knowledge)
4. Demonstrate ability to apply musculoskeletal devices, including compressive dressings, splints and immobilizers. (Patient Care / Medical Knowledge)
5. Demonstrate skill in performance of the following procedures: complex wound closure, ligament and extensor tendon repair. (Patient Care / Medical Knowledge)
6. Describe the presentation of patients with inflammatory and infectious disorders and demonstrate ability to diagnose and treat them. (Patient Care / Medical Knowledge)
7. Demonstrate ability to diagnose and treat soft tissue foreign bodies. (Patient Care / Medical Knowledge)
8. Demonstrate ability to diagnose and treat craniofacial trauma. (Patient Care / Medical Knowledge)
9. Demonstrate ability to diagnose and treat burns. (Patient Care / Medical Knowledge)
10. Describe the presentations, complications, diagnosis, management and prognosis of patients with human and animal bites. (Patient Care / Medical Knowledge)
11. Describe the presentations, complications, diagnosis and management of compartment syndromes. (Patient Care / Medical Knowledge)
12. Demonstrate ability to provide regional and local anesthesia (Patient Care / Medical Knowledge)
13. Demonstrate ability to recognize and treat soft tissue infections involving muscle, fascia, and tendons. (Patient Care / Medical Knowledge)
14. Describe how to evaluate and preserve amputated limb parts. (Patient Care / Medical Knowledge)
15. Demonstrate knowledge of joint injuries, evaluation and grading of joint injuries, treatment of joint injuries and prognosis. (Patient Care / Medical Knowledge)
16. Discuss evaluation and treatment of soft tissue injuries such as strains, penetrating soft tissue injuries, crush injuries, and high-pressure injection injuries. (Patient Care / Medical Knowledge)
17. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
18. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
19. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
20. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
21. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
22. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

**Content Areas:**

1. Normal musculoskeletal anatomy and physiology
2. Normal musculoskeletal growth and development
3. Musculoskeletal history taking
4. Principles of musculoskeletal plastic surgery physical examination
5. Laboratory data including indications, contraindications and interpretation
6. Testing
   a. Interpretation of common musculoskeletal radiographs
   b. Appropriate use of magnetic resonance imaging, computed tomographic scanning and bone scanning
   c. Procedures: indications and understanding of techniques
7. Pathogenesis/pathophysiology/recognition
   a. Complex Wounds
   b. Joint pain, swelling and erythema
   c. Muscular pain, swelling and injury
   d. Musculoskeletal trauma
   e. Craniofacial Trauma
   f. Tendon injuries
   g. Nerve injuries
   h. Bone and joint infections
   i. Compartment syndrome
   j. Burns
   k. Pediatric musculoskeletal disorders
8. Basic Care
   a. Wounds/Lacerations (simple, complex)
   b. Muscle
   c. Fascia
   d. Skin
   e. Ligament/Tendons

9. Burns
   a. Chemical
   b. Thermal

10. Other problems
    a. Soft tissue infections/Bursitis/tendinitis/tenosynovitis

11. Procedures (indications, contraindications and competency)
    a. Joint aspiration (arthrocentesis)
    b. Joint and musculoskeletal injection (local anesthesia, steroid)
    c. Wrapping and taping
       a. Elasticized bandage
    d. Laceration Repair
    e. Burn dressings and debridement

12. Plastic Surgery Emergency Recognition and Stabilization
    a. Flexor Tenosynovitis
    b. Injection Injuries
    c. Complicated Burns

**Instructional Methods:**

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</table>

**Resident Responsibilities:**

Specific requirements for this rotation include the following:

1. The resident is expected to be available to the Plastic Surgery Department. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.
C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:

   Provide didactic and individual instruction to the resident.
   Participate in teaching rounds with the resident
   Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

Evaluation:

   Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

Schedule:

   The resident schedule is individualized and will be defined by the Plastic Surgery Attending

Parking:
   Provided by office or hospital.

Meals:
   Provided by hospital.

Recommended Reading:


Emergency Medicine Clinical Investigation – EM 3

Introduction / Description

The Lakeland HealthCare Emergency Department is staffed with EM Residency Faculty. Residents are assigned to all shifts to provide exposure to a broad range of clinical pathology and major trauma.

Over the course of the residency, and with increasing experience and responsibility, the resident will develop the skills, knowledge and attitudes necessary to handle a wide variety and number of cases in an efficient and professional manner.

In addition to the clinical experience this month, this ED Core rotation includes a series of didactic sessions intended to supplement and provide the broad based education, theory and practical aspects, of up-to-date Emergency Medicine along with clinical investigation.

Clinical investigation will enable residents the ability to strengthen their analysis and preparation of each individual clinical research project. Resident will also build interactions with basic scientists and multidisciplinary research teams through MSUCOM.

Training Year: EM 3

Length: 1 month

Contact Information:

Attending Physicians: Michelino Mancini, DO, Program Director
Lakeland HealthCare Faculty

Location: Lakeland HealthCare
Saint Joseph MI

Educational Objectives:

General Goals:
To become competent in overall clinical management of multiple patients in a busy Emergency Department

To become competent in the direction of cardiac and trauma codes in the Emergency Department (Patient Care, Medical Knowledge/Systems Based Practice)

To become skilled in the teaching and supervision of medical students and junior residents in the Emergency Department (Patient Care/Systems Based Practice)

To become knowledgeable on clinical research design and statistical analysis (Medical Knowledge/Systems Based Practice)

To become experienced in utilizing research techniques and methods that would be applicable to the residents' future practice (Medical Knowledge/Systems Based Practice)
Specific Goals:
The resident will continue to hone their diagnostic and clinical skills while caring for Emergency Department patients and completing their research project. (Patient Care, Medical Knowledge, Systems Based Practice)

The resident will develop the skills needed to properly manage and supervise a busy Emergency Department including patient flow management, communication with consultants, teaching and supervision of medical students and junior residents and the mediation of intradepartmental and interdepartmental disputes. The resident will develop understanding of medical-legal aspects of Emergency medical care and Quality Assurance procedures ongoing in the Emergency Department (PC, MK, PBL, ICS, SBP, P):

- Medical Records / Documentation
- Personnel Management
- Public Relations
- Quality Assurance / Control
- Physician – Physician Relationships
- Teaching responsibilities
- Medicolegal aspects
- Consent
- Laws
- Liability
- Emergency Medical Services
- Emergency Department personnel
- Medical Control

Description of clinical experiences:
The resident will gain progressive responsibility for the overall clinical and operational management of the Emergency Department under the direct supervision of the Emergency Medicine Faculty. Under direct supervision of the Emergency Medicine Faculty, the resident will participate in daily administrative activities in the Emergency Department including regular chart audits, Quality Assurance reviews and interaction with other department attending physicians and residents concerning clinical and non-clinical activities in the Emergency Department. The resident will direct cardiac and trauma resuscitations with participation by junior residents and other members of the Emergency Department treatment team.

In consultation with the attending Emergency physician, the resident will be directly involved in the teaching and supervision of medical students and junior residents in the Emergency Department.

Also, with consultation of the resident’s research attending emergency physician, the resident will analyze his/her research data and determine its significance during their clinical encounters.

Description of didactic objectives:
The resident will attend and actively participate in all daily and weekly conferences and meetings while on service in the Emergency Department

The resident will present their clinical research project at a Lakeland HealthCare EM residency conference during this rotation month.

The resident will be responsible for the list of Suggested Readings for the Emergency Medicine Rotation.
EM 4 Competency Objectives

The fourth year Emergency Medicine resident concentrates on developing the managerial skills needed to run an Emergency Department. Overseeing the operation of the Emergency Department and ensuring that all patients receive appropriate care are of paramount importance. He or she shares precepts, teaches, and supervises the junior EM residents, medical students, and physician assistant students rotating in the department. In addition to competencies expected from the previous three years, by the end of the resident’s fourth year of training the resident will:

1. Demonstrate mastery and teaching of advanced clinical procedures, including advanced airway management, medical and trauma resuscitations and associated procedures
2. Simultaneously manage multiple critically ill medical or trauma patients and provide effective supervision of these kinds of cases primarily seen by junior residents
3. Effectively supervise and teach of multiple junior residents and students rotating in the department
4. Show mastery in researching, preparing, and delivering didactic lectures in advanced topics relevant to emergency medicine
5. Continue to apply new and evidence-based knowledge to clinical practice
6. Maintain a program of study sufficient to acquire the knowledge and skills necessary for successful practice in emergency medicine
7. Complete a clinical research project which meets the criteria set forth by the AOA and ACOEP.

Evaluation Process:
Evaluation of the resident will be done by the EM attending physicians based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

Performance on the presentation of the resident’s clinical research project at Lakeland HealthCare’s EM residency conference

Performance on the annual resident’s in-service examination

Feedback mechanisms:
Bi-Annual review of the rotation by the Core Faculty Advancement Committee

Ad hoc review of the rotation as deemed appropriate by the Program Director

Description of Didactic Educational Activities (See Curriculum: didactic activities section of this manual)

Schedule:

Resident schedule is individualized and will be determined once the rotation is scheduled.
EM 3 – 10 shifts

Housing:
Not provided by hospital.

Meals:
Provided by hospital
Parking:
Provided by hospital

Readings:

1. **Core texts in Emergency Medicine:**

2. **Recommended References:**
   3. Medical Toxicology-Diagnosis and Treatment of Human Poisoning, M. Ellenhorn and D. Barceloux, Current Edition
   4. EKG, Marrino, H.
   5. Paramedic Book – Caroline

3. **Reference Journals:**
   1. Annals of Emergency Medicine
   2. The Journal of Trauma
   3. Emergency Medicine Clinics of North America
Introduction/Description

The Lakeland HealthCare Emergency Department is staffed with EM Residency Faculty. Residents are assigned to all shifts to provide exposure to a broad range of clinical pathology and major trauma.

Over the course of the residency, and with increasing experience and responsibility, the resident will develop the skills, knowledge and attitudes necessary to handle a wide variety and number of cases in an efficient and professional manner.

In addition to the clinical experience, the ED Core rotation includes a series of didactic sessions intended to supplement and provide the broad based education, theory and practical aspects, of up-to-date Emergency Medicine.

Training Year: EM 4

Contact Information:

Attending Physician: Michelino Mancini, DO
Program Director

Location: Lakeland HealthCare
Saint Joseph MI

Educational Objectives:

General Goals:
To become competent in overall clinical management of multiple patients in a busy Emergency Department

To become competent in the direction of cardiac and trauma codes in the Emergency Department (Patient Care, Medical Knowledge, Systems Based Practice)

To become skilled in the teaching and supervision of medical students and junior residents in the Emergency Department (Patient Care, Systems Based Practice)

Specific Goals:
The resident will continue to hone their diagnostic and clinical skills while caring for Emergency Department patients. (Patient Care, Medical Knowledge, Systems Based Practice)

The resident will develop the skills needed to properly manage and supervise a busy Emergency Department including patient flow management, communication with consultants, teaching and supervision of medical students and junior residents and the mediation of intradepartmental and interdepartmental disputes. The resident will develop understanding of medical-legal aspects of Emergency medical care and Quality Assurance procedures ongoing in the Emergency Department (PC, MK, PBL, ICS, SBP, P):
Medical Records / Documentation
Personnel Management
Public Relations
Quality Assurance / Control
Physician – Physician Relationships
Teaching responsibilities
Medicolegal aspects
Consent
Laws
Liability
Emergency Medical Services
Emergency Department personnel
Medical Control

Description of clinical experiences:
The resident will rotate for eight months at the EM 4 level on the Emergency Medicine service. The resident will gain progressive responsibility for the overall clinical and operational management of the Emergency Department under the direct supervision of the Emergency Medicine Faculty. Under direct supervision of the Emergency Medicine Faculty, the resident will participate in daily administrative activities in the Emergency Department including regular chart audits, Quality Assurance reviews and interaction with other department attending physicians and residents concerning clinical and non-clinical activities in the Emergency Department. The resident will direct cardiac and trauma resuscitations with participation by junior residents and other members of the Emergency Department treatment team.

In consultation with the attending Emergency physician, the resident will be directly involved in the teaching and supervision of medical students and junior residents in the Emergency Department.

Description of didactic objectives:
The resident will attend and actively participate in all daily and weekly conferences and meetings while on service in the Emergency Department

The resident will be responsible for the list of Suggested Readings for the Emergency Medicine Rotation.

EM 4 Competency Objectives
The fourth year Emergency Medicine resident concentrates on developing the managerial skills needed to run an Emergency Department. Overseeing the operation of the Emergency Department and ensuring that all patients receive appropriate care are of paramount importance. He or she shares precepts, teaches, and supervises the junior EM residents, medical students, and physician assistant students rotating in the department. In addition to competencies expected from the previous three years, by the end of the resident’s fourth year of training the resident will:
1. Demonstrate mastery and teaching of advanced clinical procedures, including advanced airway management, medical and trauma resuscitations and associated procedures
2. Simultaneously manage multiple critically ill medical or trauma patients and provide effective supervision of these kinds of cases primarily seen by junior residents
3. Effectively supervise and teach multiple junior residents and students rotating in the department
4. Show mastery in researching, preparing, and delivering didactic lectures in advanced topics relevant to emergency medicine
5. Continue to apply new and evidence-based knowledge to clinical practice
6. Maintain a program of study sufficient to acquire the knowledge and skills necessary for successful practice in emergency medicine
Evaluation Process:
Written evaluation of the resident by the attending Emergency Department physicians at the end of the rotation. Please reference evaluation section of this program manual.

Performance on the annual resident’s in-service examination

Feedback mechanisms:
Biannual review of the rotation by the Core Faculty Advancement Committee
Ad hoc review of the rotation as deemed appropriate by the Program Director

Description of Didactic Educational Activities (See Curriculum: didactic activities section of this manual)

Schedule:
Resident schedule is individualized and will be determined once the rotation is scheduled.
EM 4 – 17-18 shifts/month

Housing:
Not provided by hospital

Parking:
Provided by hospital

Meals:
Provided by hospital

Readings:

1. Core texts in Emergency Medicine:

2. Recommended References:
   2. Medical Toxicology-Diagnosis and Treatment of Human Poisoning, M. Ellenhorn and D. Barceloux, Current Edition
   3. EKG, Marrino, H.
   4. Paramedic Book - Caroline

3. Reference Journals:
   1. Annals of Emergency Medicine
   2. The Journal of Trauma
   3. Emergency Medicine Clinics of North America
Administration / Medical / Legal Rotation EM 4

Introduction/Description

The purpose of this rotation is for the Resident to become familiar with various administrative aspects of Emergency Medicine, EMS activities and obtain exposure to medical/legal issues of Emergency Medicine.

The Resident will meet with the Director of the Emergency Department to obtain a schedule of meetings, clinical ED shifts, and on call duties that he/she must attend during the month. Meetings the Resident will attend during this rotation: House Staff Education Committee, County EMS Medical Control Board, Utilization Committee, Quality Assurance Committee, Disaster Committee, and other Administrative meetings as assigned to the Director of Emergency Services. The Resident is expected to accompany any Emergency Department Attending Physician testifying in court regarding Emergency Medicine matters.

Training Year: EM 4

Length: 1 month

Contact Information:

Attending Physician: Bryan Staffin DO, FACOEP
                    Robert Nolan DO

Location: Lakeland Healthcare
          Saint Joseph MI

Rotation Goals:

1. To help the resident understand the administrative and regulatory components of a functioning emergency room.
2. To develop skills and knowledge necessary to understand the medical-legal climate for practicing emergency medicine.
3. To understand the service and budgetary constraints of a functioning emergency room.
4. To understand the QA process as it applies to emergency medicine.

Rotation Learning Objectives:

Administration:
1. To understand the Hospital Administrative and ED Administrative hierarchy and reporting mechanism at this institution, and other institutional formats. (Systems Based Practice)
2. To obtain a broad understanding of the administrative functions of management of an ED. (Systems Based Practice)
3. To learn the development process of hospital bylaws, physician credentialing, and Emergency Services policies and protocols. (Systems Based Practice)

Medical/Legal:
1. To obtain a detailed understanding of medical/legal risks, and protections in the operation of Emergency Services including care plans, discharge instructions, patient and physician communication, order writing and patient education. (Interpersonal and Communication Skills / Professionalism)
2. To understand the medical/legal process of malpractice cases including terminology, chronology, testifying, expert witness, depositions, trial and data bank reporting. (Interpersonal and Communication Skills / Professionalism)

3. To understand medical malpractice insurance policy coverage. (Professionalism)

Federal-State Regulations:
1. To understand EMTALA, reportable diagnosis and other Federal and State legislation effecting Emergency Department operations. (Systems Based Practice)

EM Residency:
1. To obtain a general understanding of the Administration of an EM Residency Program. (Interpersonal and Communication Skills / Professionalism / Systems Based Practice)

Ancillary Services:
1. To understand the analysis process of creating an efficient, quality Emergency Department through efficiency studies of ancillary services, ED physicians, nursing and clerical staffing, etc. (Interpersonal and Communication Skills / Professionalism / Systems Based Practice / Patient Care)

Service Lines:
1. To understand the functioning of service line in Emergency Medicine such as Fast Track Care, Trauma Services, Chest Pain Units, Observation Units, and Occupational Health. (Systems Based Practice)

EMS:
1. To participate and learn the Emergency Medical Services Pre-hospital care system, including State and County Medical Control activities, protocol development, Quality Assurance, training programs, and lecturing. (Systems Based Practice)

Budget:
1. To obtain a general understanding of Emergency Department financial budgeting, capital equipment requests, staffing costs, supply costs, and tier charging. (Systems Based Practice)

Quality Assurance:
1. To understand the development of and detail of processing a Quality Improvement (QI) Program for Emergency Departments and Emergency Medicine physicians. (Systems Based Practice)
2. To understand the Emergency Medicine physician business exposure to recruitment contracting, employee vs. independent contractor, corporation, hospital contracting, and job type opportunities. (Systems Based Practice / Professionalism)
3. To understand and participate in complaint/concern investigations from patients, physicians, ancillary personnel and ED staff. (Systems Based Practice / Professionalism / Patient Care)
4. To develop an appreciation for the optimal characteristics of the professional Emergency Medicine physician as a physician, and team member of the Department, Corporation, hospital, and associations in Emergency Medicine. (Systems Based Practice / Professionalism)
5. To have a general understanding of the Emergency Services billing process, tier pricing, collections, inter-operation/contracting with HMOs’. And the selection process for choosing a billing and collections agency (Systems Based Practice)
6. To understand the differences of employee vs. corporation relationships in Emergency Medicine and the functions involved in physician Emergency Medicine corporations including hiring, firing, budgeting, payroll, pension and profit plans, bonuses, incentives, etc. (Systems Based Practice)
7. To obtain a general understanding of personal lifestyle decisions that optimize Emergency physician longevity in the work force including, shift work, circadian rhythm scheduling, total work hours, disability, life insurance policies, investing, health care plans, CME, etc. (Systems Based Practice)

8. To understand the inspection process by hospital and Emergency Department accrediting agencies such as JCAHO, AOA, ACS, MDCH. etc. (Systems Based Practice)

**Content Areas:**

Medical records / documentation
Quality assurance / control
Ethics
1. Physician - physician relationships
   - Impairment
2. Bio-Ethics
3. Medical - legal aspects
Consent
1. Expressed, implied
2. Informed
3. Uninformed
   - Incompetent patients
   - Minors
Laws
1. Patient transfer regulations
2. Transfusion restrictions
   - Liability
3. Duty to treat
4. Duty to third party
5. Intentional torts
   - Battery
   - False imprisonment
6. Malpractice
   - Patient related liability
7. Privileged communications
8. Research
9. Termination of patient care

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-on-one precepting Committee meetings attendance Assigned readings and tasks</td>
<td>Rotation evaluation by attending physician</td>
</tr>
</tbody>
</table>
Resident Responsibilities:

The resident is required to attend meetings as noted in the Description of the rotation.

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

Evaluation:

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

Schedule:

The resident will work clinical shifts with the Director of Emergency Services, attend all administrative meetings and be on call simultaneously with the Director of Emergency Services.

Parking:
Provided by hospital

Meals:
Allowance provided by the hospital
**Recommended Reading:**

**Texts:**
- Managing the Emergency Department by Hellstern, ACEP
- Emergency Medicine Risk Management by G. Henry, ACEP

**Journals:**
- American Journal of Law and Medicine
- Law and Medicine and Health Care

**ACEP Publications:**
- Comprehensive Guide to Effective Practice Management
- Independent Emergency Physician Billing
- Risk Management in Emergency Medicine
- Effective Patient Relations
- Personal Finance Planning
- Marketing Emergency Services
- Guidelines for Cost Containment in Emergency Medicine
- Marketing and Diversification Opportunities in Emergency Medicine
- Optimizing Revenues through Effective Reimbursement System
- Working Effectively with Managed Care Plans: Strategies for Success
- Quality Assurance Manual for Emergency Medicine
- Survey of Ambulatory Care Centers: Physician Characteristics, Compensation and Recruitment
- Independent Contractor vs. Employee Status: Tax Implications
- Diagnostic Coding for Emergency Medicine
- Procedure Coding for Emergency Medicine
- Emergency Department Violence: Prevention and Management
- Principles for EMS System
- PEER IV Physicians Evaluations and Educational Review
Introduction / Description

The purpose of this rotation is to give the Resident the opportunity to provide the resident with a foundation on which to appreciate the presentation, pathophysiology, exam techniques, testing procedures and treatment guidelines that are associated with a variety of critical disease conditions seen in the medical intensive care patient.

Training Year: EM 3

Length: 1 Month

Attending Physician: Stephen Hempel, MD

Location: Lakeland Healthcare
           Saint Joseph MI

Rotation Goals:

This rotation is four weeks (one month) in the Critical Care Unit. The Goal is to develop the knowledge and understanding of the principles and practice of critical care medicine. The Resident will be able to recognize a critically ill patient through the integration of the history and physical, laboratory and diagnostic tests. The Resident will develop a basic management plan which will include stabilization and treatment of the critically ill patient.

Rotation Learning Objectives:

11. To perform a complete but focused history and physical examination on critically ill patients. (Patient Care, Medical Knowledge)

12. To develop a differential diagnosis list integrating findings from the history and physical, and diagnostic tests. (Patient Care, Medical Knowledge)

13. To develop a treatment plan to stabilize and treat the critically ill patient based on the history and physical, laboratory and other diagnostic modalities available to the physician. (Patient Care, Medical Knowledge)

14. To understand the pathophysiology of critical illness and to develop strategies in treatment. (Patient Care, Medical Knowledge, Systems Based Practice)

   4a. To understand the risks/complications associated with critical illness. (Patient Care, Medical Knowledge, Systems Based Practice)

15. To incorporate principles and practices of osteopathic medicine in the diagnosis and treatment of critically ill patients. (Patient Care, Medical Knowledge, Osteopathic Manipulative Medicine)

16. Use library and computer sources in the diagnosis and treatment of critical care patients. (Patient Care, Medical Knowledge, Systems Based Practice)
17. To be able to succinctly but completely present cases to appropriate medical personnel. (Patient Care, Medical Knowledge, Systems Based Practice)

18. To understand the ethical and sociological issues involved in critical care, and death and dying. (Patient Care, Medical Knowledge, Systems Based Practice, Professionalism, Interpersonal and Communication Skills)

19. To develop motor or manual skills consistent with the level of training including, ventilator management, ABG interpretation, venous and arterial line access, swan-gantz catheter placement and interpretation, thrombolytic therapy, BCLS and ACLS protocol, common critical care medications and dosing. (Patient Care, Medical Knowledge, Systems Based Practice)

20. Participate in Critical Care didactic sessions with other house staff and attending physicians. (Patient Care, Medical Knowledge, Interpersonal and Communication Skills, Professionalism)

**Description and Expected Duties:**

The Critical Care rotation is a one month rotation working with the critical care intensivists.

The Resident will be completing admissions, daily program notes, transfer orders, lab/xray review, get past history from previous facility and other sources, obtain current literature relevant to patient care. Familiarize with indications, risks, and complications for any procedures on your patients. The Resident should participate in all procedures done in unit and respond to floor calls.

**Daily Schedule:**

First day contact in house intensivist who will determine schedule

**Instructional Methods:**

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Office and in-house care of the critical patient</td>
<td>Direct observation by the preceptor</td>
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<tr>
<td>Patient care and teaching rounds</td>
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<tr>
<td>One-on-one precepting</td>
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<tr>
<td>Assigned readings</td>
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</tbody>
</table>

**Resident Responsibilities:**

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings.
C. **Attendance:**
Satisfactory attendance required at lectures, conferences and meetings.

D. **Compliance:**
Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

**Attending Responsibilities:**

- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Parking:**
Provided by the hospital

**Meals:**
Allowance provided by the hospital

**Reading Materials:**

Recommended Marino’s “ICU” book, articles will be distributed on service.
**Elective Rotations**

**Dental/Oral Maxillofacial Surgery – Elective EM4**

**Introduction / Description**

The purpose of this rotation is to expose the resident to a variety of Dental and Oral Maxillofacial surgery cases under the supervision of an attending surgeon. Through this exposure the resident will become proficient at dental and oral examinations, various surgical techniques, and management of dental and facial injuries.

Rotation focus will be on Emergency Medicine, Oral Maxillofacial surgery and office dental. The resident will gain experience and knowledge in the evaluation, diagnosis, initial treatment and stabilization of a variety of common dental and oral cases encountered in emergency medicine.

**Training Year:** EM 4

**Length:** 1 month

**Contact Information:**

**Attending Physician:** Brad Logie, DDS, MD and Deborah Habenicht, MD

**Location:** Lakeland Healthcare
Saint Joseph MI

**Contact Person:** TBD

**Rotation Goals:**

1. Develop appropriate oral and dental history and physical exam skills.
2. Learn use of the diagnostic imaging modalities available for the evaluation of dental and oral maxillofacial disorders.
3. Develop skill in the evaluation and management of dental and oral maxillofacial trauma.
4. Develop skill in the diagnosis and treatment of inflammatory and infectious disorders of the oral maxillofacial system.

**Rotation Learning Objectives:**

1. Develop ability to correctly perform a history and physical on patients with dental and oral maxillofacial disorders. (Patient Care / Medical Knowledge)
2. Demonstrate ability to correctly order and interpret radiographs of patients with oral maxillofacial injuries. (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of standard dental and facial nomenclature. (Patient Care / Medical Knowledge)
4. Demonstrate knowledge of the differences in pediatric and adult dental anatomy and indicate how those differences are manifested in clinical and radiographic presentations. (Patient Care / Medical Knowledge)
5. Demonstrate ability to perform different types of reimplantation techniques when dealing with dental injuries. (Patient Care / Medical Knowledge)
6. Describe the presentation of patients with inflammatory and infectious disorders and demonstrate ability to diagnose and treat them. (Patient Care / Medical Knowledge)
7. Describe the presentations, complications, diagnosis, management and prognosis of patients with different types of soft tissue lesions within the oral cavity. (Patient Care / Medical Knowledge)
8. Describe the presentations, complications, diagnosis, management and prognosis of patients with oral maxillofacial trauma. (Patient Care / Medical Knowledge)
9. Demonstrate ability to diagnose dental fractures. (Patient Care / Medical Knowledge)
10. Describe the oral manifestations of systemic diseases. (Patient Care / Medical Knowledge)
11. Discuss the dosages, indications, contraindications, side effects and relative potency of standard medications used in treatment of patients with dental and oral maxillofacial disorders. (Patient Care / Medical Knowledge)
12. Describe the presentations, complications, diagnosis, management and prognosis of patients with Le Fort fractures. (Patient Care / Medical Knowledge)
13. Describe the presentations, complications, diagnosis, management and prognosis of patients with different types of orbital wall fractures. (Patient Care / Medical Knowledge)
14. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
15. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
16. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
17. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
18. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
19. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

1. Normal oral maxillofacial anatomy and physiology
2. Normal oral maxillofacial growth and development
3. Dental/oral maxillofacial history taking
4. Principles of oral maxillofacial physical examination
5. Laboratory data including indications, contraindications and interpretation
6. Testing
   1. Interpretation of common oral maxillofacial radiographs
   2. Appropriate use of magnetic resonance imaging and computed tomographic scanning
   3. Procedures: indications and understanding of techniques
      a. Dental reimplantation
      b. Complex Repair of Oral and Facial Lacerations
7. Pathogenesis/pathophysiology/recognition
   1. Dental Fractures, Avulsions, Luxations, Concussions
   2. Oral Maxillofacial Trauma
   3. Le Fort Fractures
   4. Oral and Maxillofacial infections
8. Basic Care
   1. Fractures (simple, complex)
      a. Dental
      b. Facial Bones (Le Fort)
   2. Dislocation/Luxation/Avulsion
a. Dental
b. Periodontal Abscess

9. Procedures (indications, contraindications and competency)
   1. I and D Periodontal Abscess
   2. Dental reimplantation

10. ENT Emergency Recognition and Stabilization
    1. Dental Avulsions
    2. Oral Maxillofacial Trauma

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<td>Participation in didactics</td>
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<tr>
<td>Assigned readings and presentations</td>
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**Resident Responsibilities:**

Specific requirements for this rotation include the following:

The resident is expected to be available to the Dental/Oral Maxillofacial Department. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.
**Attending Responsibilities:**

- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident.
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

The resident schedule is individualized and will be defined by the Dental/Oral Maxillofacial Attending Physician.

**Parking:**

Provided by office or hospital.

**Meals:**

Allowance provided by hospital.

**Recommended Reading:**

1. **Core texts in Emergency Medicine:**
Dermatology – Elective EM 4

Introduction / Description

The purpose of this rotation is to expose the resident to a variety of dermatology cases under the supervision of an attending dermatologist. Through this exposure the resident will become proficient at dermatological examinations, various surgical techniques, and management of dermatological emergencies.

Rotation focus will be on Emergency Medicine, inpatient and office dermatology. The resident will gain experience and knowledge in the evaluation, diagnosis, initial treatment and stabilization of a variety of common dermatological cases encountered in emergency medicine.

Training Year: EM 4

Length: 1 month

Contact Information:

Attending Physician: Mark Kuriata DO

Location: Lakeland Healthcare
Saint Joseph MI

Contact Person: TBD

Rotation Goals:

1. Develop appropriate Dermatological history and physical exam skills.
2. Learn use of the diagnostic imaging modalities available for the evaluation of dermatological disorders.
3. Develop skill in the evaluation and management of “Serious Generalized” skin disorders.
4. Develop skill in the diagnosis and treatment of skin disorders affecting different body parts such as face/scalp, hands/feet/extremities and groin/skin folds.
5. Develop skill in the evaluation and management of infestational skin disorders.

Rotation Learning Objectives:

1. Develop ability to correctly perform a history and physical on patients with skin disorders. (Patient Care / Medical Knowledge)
2. Demonstrate ability to correctly order and interpret diagnostic tests pertaining to dermatological disorders. (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of the differences in pediatric and adult skin anatomy and indicate how those differences are manifested in clinical presentations. (Patient Care / Medical Knowledge)
4. Describe the clinical presentation, diagnosis, treatment and prognosis of patients with “Serious Generalized” skin disorders such as Erythema Multiforme, Toxic Epidermal Necrolysis, Exfoliative Dermatitis, Toxic Infectious Erythemas, Disseminated Viral Infections, Disseminated Gonococcal Infections, RMSF, Meningococcemia, Purpura Fulminans and Bullous Diseases. (Patient Care / Medical Knowledge)
5. Describe the presentations, complications, diagnosis, management and prognosis of patients with facial and scalp skin disorders such as Acne, Herpes, Erysipelas and Lupus. (Patient Care / Medical Knowledge)
6. Describe the presentations, complications, diagnosis, management and prognosis of patients with extremity skin disorders such as Erythema Nodosum, Psoriasis and Tinea. (Patient Care / Medical Knowledge)

7. Describe the presentations, complications, diagnosis, management and prognosis of patients with skin fold disorders such as Candida and STDs. (Patient Care / Medical Knowledge)

8. Describe the presentations, complications, diagnosis, management and prognosis of patients with scabies. (Patient Care / Medical Knowledge)

9. Discuss the dosages, indications, contraindications, side effects and relative potency of standard medications used in treatment of patients with skin disorders. (Patient Care / Medical Knowledge)

10. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)

11. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)

12. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)

13. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)

14. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)

15. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

1. Normal skin anatomy and physiology
2. Normal skin growth and development
3. Dermatological history taking
4. Principles of the Skin physical examination
5. Laboratory data including indications, contraindications and interpretation
6. Testing
   a. Appropriate use of KOH preparation and Tzanck smears
   b. Procedures: indications and understanding of techniques
   c. Biopsy
7. Pathogenesis/pathophysiology/recognition
   a. Erythema Multiforme
   b. Toxic Epidermal Necrolysis
   c. Exfoliative Dermatitis
   d. Toxic Infectious Erythemas
   e. Disseminated Viral and Gonococcal infections
   f. RMSF
   g. Meningococcemia
   h. Purpura Fulminans
   i. Bullous Diseases
8. Basic Care
   a. Tinea infections
   b. Allergic Dermatitis
   c. Acne
   d. Yeast infections
9. Dermatological Emergency Recognition and Stabilization
10. Toxic Epidermal Necrolysis
11. Exfoliative Dermatitis
12. Toxic Infectious Erythemas  
13. Disseminated Viral and Gonococcal infections  
14. Meningococcemia

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</tbody>
</table>

**Resident Responsibilities:**

Specific requirements for this rotation include the following:

The resident is expected to be available to the Dermatological Department. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:  
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:  
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:  
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:  
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:  
   Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

**Attending Responsibilities:**

Provide didactic and individual instruction to the resident.  
Participate in teaching rounds with the resident.
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Schedule:**

The resident schedule is individualized and will be defined by the Attending Dermatologist

**Parking:**

Provided by office or hospital.

**Meals:**

Provided by hospital.

**Recommended Reading:**

Core texts in Emergency Medicine:


Ophthalmology Rotation EM 4

**Introduction/Description**

The purpose of this rotation is to give the Resident the opportunity to provide the resident with a foundation on which to appreciate the presentation, pathophysiology, exam techniques, testing procedures and treatment guidelines that are associated with the ophthalmologic disease.

**Training Year:** EM 4

**Length:** 1 Month

**Contact Information:** TBD

**Location:** Great Lakes Eye Care

Saint Joseph MI

**Rotation Goals:**

1. Demonstrate the ability to stabilize patients who presents with an ophthalmologic emergency. (Patient Care, Medical Knowledge, Systems Based Practice)
2. Develop skills in the evaluation of patients who present with an eye complaint. (Patient Care, Medical Knowledge)
3. Demonstrate the ability to evaluate, stabilize, treat, and arrange for appropriate disposition of patients with an ophthalmologic disease processes. (Patient Care, Medical Knowledge, Systems Based Practice)
4. Demonstrate the ability to develop a differential diagnosis for patients presenting with ophthalmologic symptomatology (eye pain, visual disturbance, ocular injury), etc. (Patient Care, Medical Knowledge)
5. Demonstrate skill in the interpretation of diagnostic modalities (ocular ultrasound, visual acuity, slit lamp examination, tonometry). (Patient Care, Medical Knowledge, Systems Based Practice)
6. Develop a familiarity with ophthalmologic pharmacologic agents. (Patient Care, Medical Knowledge)
7. Demonstrate skill at ophthalmologic related procedures: foreign body removal, slit lamp exam and ocular pressure monitoring. (Patient Care, Medical Knowledge)
8. Demonstrate the ability to diagnose, stabilize, and use thrombolytic therapy to patients presenting with an ophthalmologic emergency. (Patient Care, Medical Knowledge)

**Rotation Objectives:**

1. Demonstrate the ability to perform an appropriate history and physical examination on the patient presenting with ophthalmologic symptomatology.
2. List items elicited from the history of patient with ophthalmologic complaints to suggest a risk for ocular etiology.
3. Describe the pathophysiology of ocular trauma, ocular infection, glaucoma, retinal detachment, chemical exposure, and penetrating globe injury.
4. Describe the typical slit lamp findings of a patient with infection or injury requiring intervention.
5. Discuss differential diagnosis of ocular pain.
6. Discuss procedure of ocular foreign body removal.
7. Discuss the sensitivity and specificity of ancillary studies for the patient presenting with an ocular complaint.
8. Discuss the differential of eye pain including non-ophthalmologic causes.
10. Discuss the significance of bacterial vs. viral ocular infections.
11. Demonstrate knowledge of and recommendations for the evaluation and treatment of acute angle closure glaucoma.
12. Describe the clinical findings of acute traumatic hyphema and outline a therapy for this based on degree at presentation.
13. Differentiate the various presentations of sudden visual loss and their etiologies.
14. Describe the clinical presentation and differential for various ocular presentations of systemic disease.
15. Describe the ocular presentations for diabetes, atherosclerosis and hypertension as it relates to ocular disease.
16. Describe the clinical presentation, etiologies for pathophysiology of, and current therapy for herpetic keratitis.
17. Describe the anatomy of the eye.
18. Describe the clinical findings of an ocular disease as it relates to various immunosuppressive disorders.
19. List complications of ocular prosthetic devices and appropriate emergency department management.
20. List the possible complications seen with post-operative patients who present to the emergency department.
21. Define keratitis and describe the slit lamp findings and acute management of keratitis.
22. Discuss the pathophysiology of acute subconjunctival hemorrhage.
23. Discuss the pathophysiology and treatment as it relates to acid exposure to the eye.
24. Discuss the pathophysiology and treatment as it relates to alkali exposure to the eye.
25. Discuss the pathophysiology and treatment of acute vitreous hemorrhage.

Instructional Methods

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<tbody>
<tr>
<td>Office and in-house care of the Ophthalmologic patient</td>
<td>Direct observation by the preceptor</td>
</tr>
<tr>
<td>Patient care and teaching rounds</td>
<td></td>
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<tr>
<td>One-on-one precepting</td>
<td></td>
</tr>
<tr>
<td>Assigned readings</td>
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</tbody>
</table>

Resident Responsibilities

In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. **Rotation Completion:**
   Satisfactory completion of monthly rotations and logs. Completion of “Rotation Evaluation” form signed by Rotation Director.

B. **Assigned Readings Completion:**
   This includes satisfactory and punctual completion of assigned readings. Readings will be made available at the start of the rotation.

C. **Attendance:**
   Satisfactory attendance required at lectures, conferences and meetings.
D. **Compliance:**
Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

**Attending Responsibilities:**
- Provide didactic and individual instruction to the resident.
- Participate in teaching rounds with the resident.
- Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

**Evaluation:**
Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

**Parking:**
Provided by hospital

**Meals:**
Allowance provided by hospital
Urology – Elective EM4

Introduction/Description

The purpose of this rotation is to expose the resident to a variety of Urological cases under the supervision of an attending urologist. Through this exposure the resident will become proficient at genitourinary examinations, various surgical techniques, and management of urological emergencies.

Rotation focus will be on Emergency Medicine, inpatient urology and office urology. The resident will gain experience and knowledge in the evaluation, diagnosis, initial treatment and stabilization of a variety of common urological cases encountered in emergency medicine.

Training Year: EM 4

Length: 1 month

Contact Information:

Attending Physician: Benjamin Stockton MD

Location: Lakeland Healthcare
             Saint Joseph MI

Contact Person: TBD

Rotation Goals:

1. Develop appropriate GU history and physical exam skills.
2. Learn use of the diagnostic imaging modalities available for the evaluation of GU disorders.
3. Develop skill in the evaluation and management of GU trauma.
4. Develop skill in the diagnosis and treatment of inflammatory and infectious disorders of the GU system.
5. Develop skill in the evaluation and management of kidney stones, hematuria, testicular/penile disorders and urinary retention.

Rotation Learning Objectives:

1. Develop ability to correctly perform a history and physical on patients with GU disorders. (Patient Care / Medical Knowledge)
2. Demonstrate ability to correctly order and interpret diagnostic tests pertaining to GU disorders. (Patient Care / Medical Knowledge)
3. Demonstrate knowledge of the differences in pediatric and adult GU anatomy and indicate how those differences are manifested in clinical and radiographic presentations. (Patient Care / Medical Knowledge)
4. Describe the presentation of patients with inflammatory and infectious disorders and demonstrate ability to diagnose and treat them. (Patient Care / Medical Knowledge)
5. Describe the presentations, complications, diagnosis, management and prognosis of patients with priapism. (Patient Care / Medical Knowledge)
6. Describe the presentations, complications, diagnosis, management and prognosis of patients with testicular torsion. (Patient Care / Medical Knowledge)
7. Describe the presentations, complications, diagnosis, management and prognosis of patients with scrotal swelling. (Patient Care / Medical Knowledge)
8. Describe the presentations, complications, diagnosis, management and prognosis of patients with hematuria. (Patient Care / Medical Knowledge)
9. Discuss the dosages, indications, contraindications, side effects and relative potency of standard medications used in treatment of patients with kidney stones. (Patient Care / Medical Knowledge)
10. Discuss the complications of urological procedures and devices. (Patient Care / Medical Knowledge)
11. Differentiate the clinical presentation, diagnosis and treatment of phimosis and paraphimosis. (Patient Care / Medical Knowledge)
12. Differentiate the clinical presentation, diagnosis and treatment of patients with urinary tract like symptoms. (Patient Care / Medical Knowledge)
13. Describe the presentations, complications, diagnosis, management and prognosis of patients with urinary retention. (Patient Care / Medical Knowledge)
14. Demonstrate the ability to work effectively and collaboratively with other members of the health care team. (Interpersonal and Communication Skills / Professionalism)
15. Demonstrate the ability to apply current principles of practice to the care of their patients. (Practice Based Learning and Improvement)
16. Demonstrate a professional and caring attitude with patients and their families. (Interpersonal and Communication Skills / Professionalism)
17. Demonstrate the ability to work in an efficient and timely manner. (Interpersonal and Communication Skills / Professionalism)
18. Demonstrate the ability to coordinate patient care with specialist physicians. (Professionalism)
19. Demonstrate the ability to use resources of the available system in a cost-effective manner. (Systems Based Practice)

Content Areas:

1. Normal GU anatomy and physiology
2. Normal GU growth and development
3. GU history taking
4. Principles of GU physical examination
5. Laboratory data including indications, contraindications and interpretation (ie.. urinalysis)
6. Testing
   a. Interpretation of common GU radiographs (KUB, IVP)
   b. Appropriate use of ultrasound, magnetic resonance imaging and computed tomographic scanning
7. Procedures: indications and understanding of techniques
   a. Foley catheter
   b. Manual testicular detorsion
   c. Continuous bladder irrigation
   d. Paraphimosis reduction
   e. Corporal Priapism aspiration
8. Pathogenesis/pathophysiology/recognition
9. Kidney stones
10. GU Trauma
11. Scrotal/testicular swelling
12. GU infections
13. Penile Disorders
14. Basic Care
   a. Foley Catheter
      i. Simple
ii. Coude
iii. Continuous bladder irrigation
b. Priapism
   i. High and Low flow
c. Scrotal Abscess

15. Procedures (indications, contraindications and competency)
   a. Scrotal Abscess I and D
   b. Foley Catheter
c. Paraphimosis reduction
d. Corporal Priapism aspiration

16. GU Emergency Recognition and Stabilization
   a. Testicular Torsion
   b. Paraphimosis
c. Fournier gangrene
d. GU Trauma

**Instructional Methods:**

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<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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</thead>
<tbody>
<tr>
<td>One-on-one precepting</td>
<td>Rotation evaluation by attending physician</td>
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<tr>
<td>Patient care and teaching rounds</td>
<td>Direct observation of patient care</td>
</tr>
<tr>
<td>Didactic sessions</td>
<td>Participation in didactics</td>
</tr>
<tr>
<td>Assigned readings and presentations</td>
<td></td>
</tr>
</tbody>
</table>

**Resident Responsibilities:**

Specific requirements for this rotation include the following:

The resident is expected to be available to the Urological Department. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

A. Rotation Completion:
   Complete monthly rotations and logs. Completion of "Rotation Evaluation" form signed by Rotation Director.

B. Assigned Readings Completion:
   This includes satisfactory and punctual completion of assigned readings. This is demonstrated by the maintenance of weekly quiz scores.

C. Attendance:
   Satisfactory attendance required at lectures, conferences and meetings.

D. Compliance:
Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

E. Quality Assurance Programs:
Attend all required Quality Assurance Programs, audits, chart reviews and Morbidity and Mortality reviews as assigned.

Attending Responsibilities:

Provide didactic and individual instruction to the resident.
Participate in teaching rounds with the resident
Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation.

Evaluation:

Evaluation of the resident will be done by the designated attending physician based on the written and defined goals and objectives listed above. Please reference evaluation section of this program manual.

Schedule:

The resident schedule is individualized and will be defined by the Urological Attending Physician

Parking:
Provided by office or hospital.

Meals:
Provided by hospital.

Recommended Reading:

Core texts in Emergency Medicine:

“Smith’s General Urology”, Tanagho, Emil and McAninch, Jack.
Operational Emergency Medicine – Elective EM4

Introduction/Description

The Casualty Care Research Center (CCRC) is a part of the Department of Military and Emergency Medicine at the Uniformed Services University. Its mission is to serve as a unique national resource in the delivery of “good medicine in bad places”. The CCRC provides a one-month rotation for medical providers, primarily military medical providers: medical students, emergency medicine residents, attending physicians, as well as, active duty reserve and National Guard medics, interested in tactical medicine. This rotation incorporates the CCRC Medical Director’s Course then builds on the principles taught in the course to include actual Deployments For Training (DFTs), medical control of tactical teams and the provision of training programs for tactical medics and operators.

The CCRC has accrued a proven worldwide track record in tactical medicine because of its integrated curriculum in training, operational support, research and specialized expertise. Much of the educational syllabus is derived from operational experience that generated research questions which then lead to field testing and finally incorporation into the educational program.

The program is focused on the broad range of topics related to medical support of special operations, and the resident learns to adopt an approach to total medical mission management. The whole continuum of medical support is emphasized during the training:

Medical Threat Assessment Planning
Medical Surveillance of Team Members
Crisis Management Medical Response
Operation Medical Support
Liaison with Medical Resources
Post-operational Debrief and Support
Epidemiology

Length: 1 month

Prerequisites:

EMT-Tactical Course (58-hours). This course is a prerequisite for participation in this elective rotation. The Critical Care Research Center (CCRC) pays all course fees. The resident is responsible for transportation, lodging and meals.

Rotators must be in very good physical condition to meet the rigorous physical requirements of this elective.

Contact Information:
Leslie Sawyers
Administrative Officer
CCRC
Location: Uniformed Services University of Health Sciences (USUHS)
Critical Care Research Center
4301 Jones Bridge Road
Bethesda, MD 20814-4799
301-295-6262

Content Areas:

- Planning of out-of-hospital care systems
- Evaluation of operational medical equipment and logistics
- Development and exercise of medical control mechanisms
- Determining appropriate treatment regimens for applications under operational conditions
- Participating in pre-hospital and operational quality review
- Developing and executing training programs for operational pre-hospital providers

Rotation Goals:

The resident will gain experience in applying the above concepts to actual situations by participating in law enforcement operational medical support missions.

Rotation Learning Objectives:

Basic Orientation
1. To become familiar with the CCRC facility and personnel
2. To understand your role in operational medical support and OPSEC/COMSEC as they apply to you
3. To perform an evaluation of tactical equipment, logistics, and procedures
4. To obtain mission-essential uniforms and equipment
5. To describe and demonstrate the application of the Posse Comitatus Act to selected homeland security support activities

Medical Directors Course
1. To understand the basic definition and tenets of Tactical Emergency Medical Support (TEMS)
2. To learn the history of tactical EMS and its relevance to modern applications
3. To define the basic differences between TEMS and conventional EMS
4. To understand medical control of care provided in a tactical environment
5. To understand planning of out-of-hospital care systems
6. To understand the role of quality assurance for a tactical medicine program
7. To become familiar with the unique issues that impact the delivery of medical care in the tactical environment

Medical Threat Assessment
1. To collect, analyze, apply, format and present medical intelligence
2. To understand the role of medical intelligence to mission success

TEMS Operator Skills
1. To demonstrate basic tactical emergency medical support skills
2. To learn how to provide medical advice in operational settings
3. To understand the differences between traditional pre-hospital care and tactical emergency care
4. To demonstrate tactical medicine rescue and extraction techniques

Operational Medical Support
1. To determine appropriate treatment regimens for application under operational conditions
2. To collect and analyze medical intelligence then present the tactical commander with timely, relevant information
3. To provide supervised field medical support of law enforcement special operations
4. To practice the full spectrum of TEMS mission support

Educational Programs
1. To design and conduct training for tactical medical providers
2. To become thoroughly familiar with the material being taught

Quality Assurance Process
1. To describe the tactical EMS QA process
2. To demonstrate the conduct of QA for a tactical EMS service

Weapons of Mass Destruction (WMD)
1. To become familiar with WMD agents
2. To understand the nature of tactical operations in response to suspected WMD agents
3. To understand the approach to rapid decontamination
4. To become familiar with Personal Protection Equipment (PPE)
5. To understand field therapies for WMD agent exposure

Maritime Medicine
1. To understand the special concerns involved in maritime operations
2. To understand the fundamental syndromes associated with maritime medicine
3. To understand the fundamental approach to maritime medicine support of tactical operations

TEMS Rotator Project
1. To make a contribution to the advancement of tactical emergency medicine by;
   a. Preparation and presentation of case studies on medical issues in tactical operations, or
   b. Preparation and presentation of an operational medicine training module
   c. Completion of all or part of an operational medical system research or development project, resulting in a short white paper.

Instructional Methods:

<table>
<thead>
<tr>
<th>Method</th>
<th>Evaluation</th>
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<tbody>
<tr>
<td>Deployment for Training (DFT's)</td>
<td>Evaluation based on daily observation of individuals medical knowledge, technical skills, professional conduct, educational involvement, and role in operational medical support</td>
</tr>
<tr>
<td>Lectures</td>
<td></td>
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<tr>
<td>Research</td>
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<tr>
<td>Independent Reading</td>
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</table>
Resident Responsibilities:

A. The resident is expected after an initial period of orientation and training to perform as full members of the team with operational and educational responsibilities.

B. In addition to accomplishing the specific goals and objectives and instructional methods as defined above, the resident must complete the following general program requirements as outlined in the resident manual:

1. Rotation Completion:
   Satisfactory completion of monthly rotations and logs.

2. Rotation Evaluation:
   Completion of Casualty Care Research Center Rotator Evaluation Form signed by rotation director.

3. Attendance:
   All rotators are expected to arrive promptly each day and be present in the Center for the duration of the workday unless otherwise excused by the Medical Director.

4. Compliance:
   Maintaining criteria outlined in approval of residency training programs in emergency medicine under “Standards for Residents”.

Attending Responsibilities:

1. Provide didactic and individual instruction to the resident
2. Provide timely feedback to the Program Director and faculty regarding resident performance and evaluation

Evaluation:

Evaluation of the resident will be done by the designated chief medical officer based on the written and defined goals and objectives listed above, as clearly stated in the course handbook. Please reference evaluation section of this program manual.

Schedule:

Schedule is variable and will be determined at the start of the rotation by the Preceptor.

Costs:

There is no cost associated with the rotation training itself. All necessary supplies and equipment are provided, excluding uniform of the day (see CCRC manual)

Accommodations/Transportation:

Residents are responsible for transportation to and from Bethesda as well as to and from the base, lodging and meals while on rotation. The CCRC is responsible for travel costs of the resident related to mission deployment.

Parking:

Provided by USUHS
Meals:
Meals are not covered, but are significantly discounted when on base by showing the provided ID card.

Recommended Reading: (provided during the rotation)
- Tactical Casualty Care Guidelines
- CONTOMS Medical Director’s Manual
- CCRC Rotator Handbook
- CCRC Pre-Hospital Protocols
Casualty Care Research Center
Rotator Evaluation Form

Name ____________________________________________
Block ____________________________________________

I. Basic Training

A. General Medical Knowledge
1. ___ is unable to discuss disease or pathologic processes with any confidence or accuracy
2. ___ knowledge of disease is fair but has many obvious gaps in fundamental facts
3. ___ consistently demonstrates adequate knowledge of disease processes
4. ___ has considerable knowledge of disease and pathologic processes and is able to accurately discuss most areas of medicine
5. ___ has extensive knowledge of medicine, is aware of controversial and unsolved areas and has intelligently considered various aspects of the problems

B. Technical Skills
1. ___ lacks necessary psychomotor skills
2. ___ requires additional work to acquire necessary skills
3. ___ technical skills commensurate with level of training
4. ___ unusual technician capability compared to peer
5. ___ technical skills indicate an outstanding trainee with unique potential in the field

II. Professional Conduct

A. Attitude and Appearance
1. ___ slovenly, immature and often inappropriate in behavior
2. ___ occasionally boisterous or sullen; has little insight into problems of coworkers
3. ___ is aware of professional position and responsibilities; behavior and appearance are consistently appropriate
4. ___ is unusually mature in judgment and interpersonal relationships; is always courteous and well-groomed
5. ___ maturity, behavior integrity and grooming are consistent with the highest ideals of the profession
B. Self-Evaluation

1. ____ has no concept of inadequacies and has ignored counseling
2. ____ limitations in both knowledge and experience have frequently led to misuse of supervisory input
3. ____ recognizes limitations and assumes responsibilities proportionate to knowledge; seeks advice and feedback in an appropriate manner
4. ____ excellent insight into own limitations and uses the proper consultation to aid in completing tasks as well as to benefit personally
5. ____ consistently demonstrates excellent judgment in initiative, inquisitiveness, assumption of responsibility and solicitation of advice/feedback

C. Working with Others

1. ____ is the source of many complaints from others
2. ____ has little understanding of coworker problems; makes excessive demands and is not thoughtful of ways to make work groups function without friction
3. ____ thoughtful and considerate; respects the rights and problems of coworkers
4. ____ unusually cognizant of personnel and personality problems; insight is helpful in establishing and maintaining a harmonious milieu
5. ____ perception and understanding of interpersonal relationships allows anticipation and correction of potential problem areas, thereby establishing excellent working situation

III. Educational Role

A. Teaching in Educational Programs

1. ____ a totally ineffective teacher
2. ____ demonstrates a limited capacity to educate others
3. ____ does an effective job of teaching
4. ____ is an effective teacher of clinical material and seeks additional teaching responsibilities
5. ____ recognized as an effective teacher by those receiving supervision as well as by all members of the teaching staff

B. Interest in Continuing Medical Education

1. ____ no evidence of outside reading; frequently misses required conferences
2. ____ little evidence of even textbook knowledge of patient problems
3. ____ reads standard literature pertinent to current topic; attends required conferences
4. ____ consistently contributes to current knowledge in discussion
5. ____ an omnivorous reader; actively participates in conferences; supports statements with accurate references

C. TEMS Rotator Project

1. ____ did not complete project as assigned
2. ____ completed project of very poor quality and effort
3. ____ completed project of acceptable quality and effort
4. ____ completed project of above average quality and effort
5. ____ completed project that contributed to the TEMS base of knowledge in a manner that reflects significant effort and insight
IV. Operational Medical Support Role

A. Leadership and Responsibility

1. ____ totally passive; no initiative; refuses to accept responsibility
2. ____ assumes responsibility only when stimulated to do so
3. ____ readily assumes responsibility and initiative; is respected by team
4. ____ consistently demonstrates skill, initiative and capability as physician and team members enjoys responsibility in all spheres
5. ____ aggressively assumes medical responsibilities; devotes time and energy selflessly to all duties; respected by team

B. Support of Operational Missions

1. ____ shows no interest and provides no assistance in mission planning, preparation, execution or patient management issues in the field
2. ____ minimally assists in mission planning, preparation, execution and patient management issues in the field; provides assistance only when prompted extensively
3. ____ adequately assists in mission planning, preparation, execution and patient management issues in the field
4. ____ shows interest and initiative in assisting mission planning, preparation, execution and patient management issues in the field; provides competent assistance as needed
5. ____ goes above and beyond in showing interest and initiative with regard to mission planning, preparation, execution and patient management issues in the field; assertively and effectively provides support well above level of training

C. Patient Management

1. ____ completely unable to perform preventive medicine, injury control, performance decrement reduction and patient care in the tactical environment
2. ____ has occasional gaps in preventive medicine, injury control, performance decrement reduction and patient care in the tactical environment
3. ____ performs adequate preventive medicine, injury control, performance decrement reduction and patient care in the tactical environment
4. ____ intelligently relates tactical emergency medicine principles to preventive medicine, injury control, performance decrement reduction and patient care in the tactical environment
5. ____ demonstrates superior patient management in the tactical environment that reflects a seamless integration of tactical emergency medicine principles

V. Overall Rater Evaluation

____ Unsatisfactory – performance fails to meet standards; rehabilitation is doubtful
____ Marginal – lacks motivation, interest and capability; performance is limited; may not continue without substantial improvement
____ Below Average – may continue in program, but performance is below standards
____ Effective and Competent – satisfactorily meets the stated objectives
____ High Performer – a continuing level of high performance in most aspects of stated objectives
____ Outstanding – performs outstandingly in most aspects of job; initiative, leadership and personality are worthy of special notice
____ Exceptional – extremely rare; excellence in everything; performs far beyond level of training

COMMENTS

Rater ____________________________

Program Director ______________________

Director of Health Education ______________________

Trainee ____________________________
Evaluations
Evaluation Process

In an effort to provide a mechanism to identify our collective strengths and weaknesses, various aspects of the program will be evaluated frequently. The rotations, rotation directors, faculty and residents will be evaluated on a regular basis using standardized formats. The purpose of these evaluations is to identify the strengths and weaknesses of our program and to measure the impact of changes, improvements and additions. The residents and the faculty share in this responsibility; we must all strive to improve our program.

The Faculty and Core Faculty will be responsible for assisting the Program Director in the implementation of the Evaluation Process for Residents. Their structure and function is detailed below:

**Emergency Medicine Program Curriculum/Evaluation Process Core Curriculum:** Specific Goals, objectives, resident performance evaluations and rotation evaluations have been created for each core rotation.

**Process for Evaluation of Residents and of Rotation:**

1. Prior to the start of a rotation, Emergency Medicine residents will access their EM Program manual via the New Innovations Residency Management Suite [www.new-innov.com](http://www.new-innov.com), EM CD-ROM, or via the Lakeland Intranet for rotation specific curriculum and evaluation tools.

2. Residents will be evaluated by their supervising attending via [www.new-innov.com](http://www.new-innov.com) on all in house rotations. On out of house rotations residents should print out the evaluation listed with the pertinent curriculum for the out rotation and provide it to their attending. The completed forms should be returned directly to the Department of Medical Education at Lakeland by the supervising attending. The completed hard copy forms will be entered into the New Innovations system.

3. Emergency Medicine Residents will evaluate the rotation via [www.new-innov.com](http://www.new-innov.com) at the end of each rotation. Note: Evaluation of the rotation in the Emergency Department will be conducted at least twice each academic year (December and June) at the same scheduled time as evaluation of emergency medicine faculty members. This will also be completed via [www.new-innov.com](http://www.new-innov.com).

**Core Faculty Evaluation of the Emergency Medicine Residents:** EM faculty will assess each emergency medicine resident’s competence in the performance of the seven (7) core competencies (Medical knowledge, Osteopathic Principles/Practice and Manipulative Treatment, Patient Care, Practice Based Learning and Improvement, Interpersonal and communication skills, professionalism, and systems based practice) utilizing the New Innovations system. This will be completed on a quarterly basis. A summary report for each resident will be presented at the Quarterly Faculty Meeting for review, final comments, and approval.

**Emergency Medicine Resident Chart Reviews:** The Emergency Medicine Residents are formally evaluated for charting quality on a quarterly basis. Guidelines as outlined by HCFA for an appropriate Emergency Department record are used as a template for the chart review. A percentage scoring system is used as a method by which deficiencies can be monitored and progress reported. Consistent deficiencies (<80% rating) prompt monthly reviews until sufficiently corrected.
**Performance Feedback to Emergency Medicine Residents:** Following the Quarterly Faculty Meeting, the program director and/or associate program director will meet with each resident to provide feedback of their performance. This includes the summary evaluation from the Quarterly Faculty Meeting, rotation evaluations, procedure skills/documentation and other administrative responsibilities of the resident. All evaluations are maintained in the resident’s academic file located in the Medical Education Department.

**Evaluation of the Program Director:** The EM residents will complete an evaluation of the program director. This will be conducted in June of each year via [www.new-innov.com](http://www.new-innov.com). The anonymity of the resident will be protected. A summary report will be given to the Director of Medical Education who will meet with the program director to provide feedback annually.

**Biannual Review of EM Faculty:** EM Residents will evaluate the Core Faculty at least twice each academic year (December and June) via [www.new-innov.com](http://www.new-innov.com). Results are compiled, again maintaining resident anonymity, and a summary report will be given to the program director for review with each faculty member.

**Evaluation of the Program:** All Emergency Medicine Residents must complete a rotation evaluation form for each rotation and an annual program evaluation. Evaluations of the EM program will occur annually. It is policy to maintain the EM Resident’s anonymity in reporting feedback to supervising physicians. EM Core Faculty and EM Residents will review a summary report of rotation evaluations annually.
<table>
<thead>
<tr>
<th>EMERGENCY MEDICINE RESIDENCY EVALUATIONS</th>
<th>NEW INNOVATIONS UNLESS OTHERWISE STATED</th>
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<tr>
<td>EVALUATION</td>
<td>INTERVAL</td>
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<tr>
<td>1. ATTENDING EVALUATION OF RESIDENTS / NOT IN ED</td>
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<td>2. RESIDENT EVALUATION OF ATTENDINGS / NOT IN ED</td>
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<td>3. RESIDENT EVALUATION OF ROTATION / NOT ED</td>
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<td>4. ATTENDING EVALUATION OF RESIDENTS IN ED</td>
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<td>5. RESIDENT EVALUATION OF ED ROTATION</td>
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<td>6. RESIDENT EVALUATION OF ED ATTENDINGS</td>
<td>SEMI ANNUALLY - Dec. &amp; June</td>
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<td>7. RESIDENT SELF ASSESSMENT</td>
<td>ANNUALLY – October</td>
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<td>8. RESIDENT EVALUATION OF PROGRAM DIRECTOR</td>
<td>ANNUALLY - June</td>
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<tr>
<td>9. PROGRAM DIRECTOR EVALUATION OF CORE FACULTY</td>
<td>PAPER  ANNUALLY - June</td>
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<tr>
<td>10. RESIDENT ADVANCEMENT DOCUMENTS</td>
<td>PAPER  ANNUALLY - June</td>
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<td>11. RESIDENT EVALUATION OF EM TRAINING PROGRAM</td>
<td>ANNUALLY - June</td>
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<td>12. DUTY HOUR REPORTS</td>
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<td>13. PRAISE NOTE</td>
<td>VARIABLE</td>
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<tr>
<td>14. EARLY WARNING TO RESIDENT</td>
<td>VARIABLE</td>
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<tr>
<td>15. CRITICAL INCIDENT ENCOUNTER</td>
<td>VARIABLE</td>
</tr>
<tr>
<td>16. MEDICAL SIMULATION PROCEDURE EVALUATION</td>
<td>VARIABLE</td>
</tr>
</tbody>
</table>
Tutorial Series for COM Students, Residents and Other Affiliates at Hospitals

The tutorials described below were designed and created by MSU-COM’s Statewide Campus System and the MSU Libraries to provide assistance to COM students, residents and other affiliates located in hospitals across the state. They can be accessed at http://www2.lib.msu.edu/health/COM-tutorials.jsp. If you have questions or comments about these tutorials, please contact Heidi Schroeder (hschroed@msu.edu) at the MSU Libraries or Dr. Mark Cummings (cummin67@msu.edu) at the Statewide Campus System.

Accessing MSU Libraries’ Electronic Resources (6 min 50 seconds) Learn how to access electronic journals, databases, and books available through the MSU Libraries. -Created by Heidi Schroeder, MLIS (hschroed@msu.edu) Health Sciences Librarian, MSU Libraries

Database Descriptions (6 min 47 seconds) This tutorial briefly describes five medical databases: PubMed, the Cochrane Library, MDConsult, PsycINFO, and Web of Science. -Created by Heidi Schroeder, MLIS (hschroed@msu.edu) Health Sciences Librarian, MSU Libraries

Basic Search Strategies (6 min 0 seconds) This tutorial demonstrates basic search strategies, which will help you search medical databases. -Created by Heidi Schroeder, MLIS (hschroed@msu.edu) Health Sciences Librarian, MSU Libraries

SCS Resources
Links to SCS Multimedia Tutorials

Accessing the MSU Libraries’ Electronic Resources:

www.lib.msu.edu/hschroed/Tutorials/SCSTutorial1/SCSTutorial1.html (5 minutes)

Strategies for Searching the Medical Literature:

www.lib.msu.edu/hschroed/Tutorials/SCSTutorial2/SCSTutorial2.html (13 minutes)
Lakeland HealthCare Emergency Medicine Residency
Ultrasound Guidelines
SCOPE OF PRACTICE

The emergency ultrasound examination performed by emergency physicians is distinctly different from the evaluations of other specialties. It is usually performed at the bedside simultaneously with the clinical examination, resuscitation or procedure. The bedside US examination performed by emergency physicians usually attempts to answer a single focused clinical question within minutes. The following are primary applications in emergency ultrasound that can be used by emergency physicians.

Primary application for Emergency Ultrasound

Trauma Ultrasound (FAST Exam):
Indications for trauma ultrasound include blunt or penetrating trauma to the torso where there is suspicion of intraperitoneal hemorrhage, pericardial tamponade, and hemothorax. The minimum 4-view trauma ultrasound should include the right flank to visualize the hepatorenal space, left flank to include the perisplenic anatomy, subcostal to visualize the pericardium, and pelvis to visualize retrovesical or retrouterine fluid views. The flank views should also visualize the spaces above and below the diaphragm. Limitations of trauma ultrasound include the inability to identify injury to specific viscera (liver, spleen, etc.), bowel, or retroperitoneal structures and hemorrhage.

Pregnancy Ultrasound:
Indications for first-trimester pelvic ultrasounds include establishment of the location of the pregnancy and fetal heart rate in the symptomatic first-trimester pregnant patient with pain, bleeding, near-syncope, or shock or those with risk factors for ectopic pregnancy. The examination typically views all segments of the uterus and contents for gestational sac (decidual mantle, yolk sac, large fetal pole) to confirm intrauterine pregnancy. Limitations include pregnancy less than 4-5 weeks, lack of visualization of ectopic pregnancy and intrauterine abnormalities (fibroids, IUD’s) that may alter ultrasound interpretations.

Cardiac Echo Ultrasound:
Indications include suspicion of pericardial effusion or the detection of cardiac activity, usually in the hemodynamically unstable or symptomatic patient. The ultrasound is usually performed by the transthoracic method, common views include the subcostal, apical 4 chamber, and parasternal long and short views. 2-D Echo signs of tamponade may include right atrial collapse, RV diastolic collapse and noncollapsible inferior vena cava and hepatic veins. Limitations include body habitus and pathological air collections.

AAA Ultrasound:
Indications include syncope, shock, hypotension, abdominal pain, abdominal mass, flank pain or back pain especially in the elderly. The abdominal aorta is visualized in 2 planes (transverse and sagittal) continuously from the diaphragm to the bifurcation. The size of the aorta should always be measured.

Biliary RUQ Ultrasound:
Indications include suspicion of biliary etiology of epigastric, abdominal, flank or right shoulder pain. The gallbladder is visualized to detect echogenic material that may produce shadowing, gallbladder wall diameter, and presence of fluid around the gallbladder. Limitations include contracted gallbladder, bowel gas, and other pathology in the right upper quadrant.

Urinary Tract/Renal Ultrasound:
Indications include detection of hydronephrosis manifested by costovertebral pain, flank pain, or abdominal pain. Both kidneys should be visualized from upper to lower pole in coronal/long and transverse planes. Limitations include dehydration or early imaging which may result in false negative examinations.
**US guided vascular access:**
Indications include poor or inadequate venous access and central venous monitoring. Ultrasound guided vascular access demonstrates higher success rates when compared to landmark-based methods. Limitations include body habitus and vascular anatomy.

**CREDENTIALING**

Lakeland HealthCare Emergency Medicine Residency Ultrasound

Ultrasoundographer Info
Name: __________________________________________________________ Date: __________
Signature: ________________________________________________________
Training Level: Attending  PGY5  PGY4  PGY3  PGY2  PGY1

Patient Data
Last Name: __________________________ First Name: __________________________
Birth Date: ________________  Sex: M  F  Medical Record#: __________________________
Clinical Hx: _________________________________________________________________

Total Scan Time _________ min

CONFIRMATION (circle at least one)
(1) Directly supervised by a credentialed emergency ultrasonographer and approved
Credentialed Ultrasonographer ________________________________
   (signature) ______________________________________________________________________

(2) The hard-copy images are over read and found to be acceptable
Credentialed Ultrasonographer ________________________________
   (signature) ______________________________________________________________________

(3) Confirmation of a correct examination by a corroborating study, i.e. CT, MRI, US, etc. (attach
    confirmatory study results)

(4) Confirmation by clinical outcome, i.e. placement of a central line by ultrasound that is successful (attach
    comments)

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### Cardiac

<table>
<thead>
<tr>
<th>Indication:</th>
<th>Hypotension / Dyspnea / Cardiac Arrest / Suspected Effusion / Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sonographic Views:</strong></td>
<td>All / Subcostal / PSLA / PSSA / Apical 4 / IVC</td>
</tr>
<tr>
<td><strong>Findings:</strong> (normal options)</td>
<td>All Normal</td>
</tr>
<tr>
<td>If abnormalities, continue.</td>
<td></td>
</tr>
<tr>
<td><strong>Ventricular Activity (excludes agonal atrial or valvular activity)</strong></td>
<td>Present / Absent</td>
</tr>
<tr>
<td><strong>Pericardial fluid</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>small / large</td>
</tr>
<tr>
<td></td>
<td>tamponade</td>
</tr>
<tr>
<td><strong>RV size</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>RA enlargement</td>
</tr>
<tr>
<td></td>
<td>RV enlargement</td>
</tr>
<tr>
<td></td>
<td>RA collapse</td>
</tr>
<tr>
<td></td>
<td>RV diastolic collapse</td>
</tr>
<tr>
<td></td>
<td>Bowing of IVS towards LV</td>
</tr>
<tr>
<td><strong>LV Function</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Moderately depressed</td>
</tr>
<tr>
<td></td>
<td>Severely depressed</td>
</tr>
<tr>
<td></td>
<td>Hyperdynamic</td>
</tr>
<tr>
<td><strong>IVC Dynamics</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Flat with exaggerated resp variation</td>
</tr>
<tr>
<td></td>
<td>Dilated with minimal resp variation</td>
</tr>
<tr>
<td><strong>Impression:</strong></td>
<td>All Normal / Normal Cardiac / Normal IVC / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Sonographic Asystole</td>
</tr>
<tr>
<td></td>
<td>Pericardial Effusion</td>
</tr>
<tr>
<td></td>
<td>Pericardial Tamponade</td>
</tr>
<tr>
<td></td>
<td>RV enlargement</td>
</tr>
<tr>
<td></td>
<td>Left Ventricular dysfunction</td>
</tr>
<tr>
<td></td>
<td>Volume Depletion</td>
</tr>
</tbody>
</table>
**FAST**

<table>
<thead>
<tr>
<th>Indication:</th>
<th>Truncal Injury / Hypotension / Abd Pain / Chest Pain / Back Pain / Free Fluid Evaluation / Hypoxia / Abnormal Breath Sounds / Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sonographic Views:</strong></td>
<td>All / Morrison’s Pouch / Retrovesical / Perisplenic / Subcostal Cardiac / PSLA Cardiac / R Thorax / L Thorax</td>
</tr>
<tr>
<td><strong>Findings:</strong> (normal options)</td>
<td>ALL Normal</td>
</tr>
<tr>
<td>If abnormalities, continue.</td>
<td>Morrison’s Pouch: Positive / Negative / Indeterminate</td>
</tr>
<tr>
<td>Perisplenic</td>
<td>Positive / Negative / Indeterminate</td>
</tr>
<tr>
<td>Retrovesical</td>
<td>Positive / Negative / Indeterminate</td>
</tr>
<tr>
<td>Pericardium</td>
<td>Positive / Negative / Indeterminate</td>
</tr>
<tr>
<td>Right Thorax</td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td>Normal lung sliding sign</td>
<td>Anechoic pleural fluid collection</td>
</tr>
<tr>
<td>Left Thorax</td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td>Normal lung sliding sign</td>
<td>Anechoic pleural fluid collection</td>
</tr>
<tr>
<td>Impression:</td>
<td>FAST Normal / Indeterminate / Abnormal</td>
</tr>
<tr>
<td>Free Peritoneal Fluid</td>
<td>Pericardial effusion</td>
</tr>
<tr>
<td>Pericardial Tamponade</td>
<td>Right Pleural Effusion</td>
</tr>
<tr>
<td>Right Pneumothorax</td>
<td>Left Pleural Effusion</td>
</tr>
<tr>
<td>Left Pneumothorax</td>
<td></td>
</tr>
</tbody>
</table>

#
# Abdominal Aorta

<table>
<thead>
<tr>
<th>Indication:</th>
<th>Abdominal Pain / Flank Pain / Back Pain / Syncope / Hypotension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonographic Views:</td>
<td>Proximal Aorta / Mid- Aorta / Distal Aorta</td>
</tr>
<tr>
<td>Findings: (normal options)</td>
<td>All Normal (abdominal aortic aneurysm &lt; 3cm)</td>
</tr>
<tr>
<td>If abnormalities, continue.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proximal Aorta</th>
<th>Negative / Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transverse measurement ===</td>
<td></td>
</tr>
<tr>
<td>Sagittal measurement ===</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mid-Aorta</th>
<th>Negative / Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transverse measurement ===</td>
<td></td>
</tr>
<tr>
<td>Sagittal measurement ===</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distal Aorta</th>
<th>Negative / Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transverse measurement ===</td>
<td></td>
</tr>
<tr>
<td>Sagittal measurement ===</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Morrison’s Pouch</th>
<th>Negative / Positive</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Retrovesical View</th>
<th>Negative / Positive</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Other</th>
<th>Echogenic line / luminal hyperdensity / stent / iliac dilation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Impression:</th>
<th>Normal / Abnormal+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal aortic aneurysm &gt; 3cm</td>
<td></td>
</tr>
<tr>
<td>Aortic Dissection</td>
<td></td>
</tr>
<tr>
<td>Hemoperitoneum</td>
<td></td>
</tr>
<tr>
<td>Aortic Stents</td>
<td></td>
</tr>
<tr>
<td>Intraluminal Clot</td>
<td></td>
</tr>
</tbody>
</table>
# Pregnancy

<table>
<thead>
<tr>
<th><strong>Indication:</strong></th>
<th>Abdominal Pain / Pelvic Pain / Back Pain / Vaginal Bleeding / Syncope / Hypotension / Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sonographic Views:</strong></td>
<td>Endovaginal Sagittal / Endovaginal Coronal / Transabdominal Sagittal / Transabdominal Transverse / R Adnexa / L Adnexa / M-mode Fetal Cardiac Activity</td>
</tr>
<tr>
<td><strong>Findings:</strong> (normal options)</td>
<td>Normal IUP / Fetal Cardiac Activity / No adnexal masses</td>
</tr>
<tr>
<td>If abnormalities, continue.</td>
<td></td>
</tr>
<tr>
<td><strong>Endometrium</strong></td>
<td>Decidual reaction / Echogenic endometrium / Clean endometrial stripe / Non-specific fluid collection</td>
</tr>
<tr>
<td><strong>Gestational Sac</strong></td>
<td>Present / Absent</td>
</tr>
<tr>
<td><strong>Yolk Sac</strong></td>
<td>Present / Absent</td>
</tr>
<tr>
<td><strong>Fetal Pole</strong></td>
<td>Present / Absent</td>
</tr>
<tr>
<td><strong>M-mode Fetal Cardiac Act.</strong></td>
<td>Present+ / Absent</td>
</tr>
<tr>
<td></td>
<td>Fetal Heart Rate===</td>
</tr>
<tr>
<td><strong>Right Adnexa</strong></td>
<td>Normal / Indeterminate / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Ovarian cyst</td>
</tr>
<tr>
<td></td>
<td>Corpus Luteum cyst</td>
</tr>
<tr>
<td></td>
<td>Echogenic ring+</td>
</tr>
<tr>
<td></td>
<td>with gestational sac present.</td>
</tr>
<tr>
<td></td>
<td>with yolk sac present</td>
</tr>
<tr>
<td></td>
<td>with fetal cardiac activity</td>
</tr>
<tr>
<td><strong>Left Adnexa</strong></td>
<td>Normal / Indeterminate / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Ovarian cyst</td>
</tr>
<tr>
<td></td>
<td>Corpus Luteum cyst</td>
</tr>
<tr>
<td></td>
<td>Echogenic ring+</td>
</tr>
<tr>
<td></td>
<td>with gestational sac present.</td>
</tr>
<tr>
<td></td>
<td>with yolk sac present</td>
</tr>
<tr>
<td></td>
<td>with fetal cardiac activity</td>
</tr>
<tr>
<td><strong>Free Fluid</strong></td>
<td>Negative / Positive+</td>
</tr>
<tr>
<td></td>
<td>Sagittal EV Cul-de-sac</td>
</tr>
<tr>
<td></td>
<td>Coronal EV Cul-de-sac</td>
</tr>
<tr>
<td></td>
<td>Morrison’s Pouch</td>
</tr>
<tr>
<td></td>
<td>Retrovesical</td>
</tr>
<tr>
<td></td>
<td>Perisplenic</td>
</tr>
<tr>
<td><strong>Impression:</strong></td>
<td>IUP / Ectopic Pregnancy / Embryonic Demise / Molar Pregnancy / Indeterminate exam</td>
</tr>
</tbody>
</table>
**Biliary**

<table>
<thead>
<tr>
<th><strong>Indication:</strong></th>
<th>Abdominal pain / Flank pain / Shoulder pain / Jaundice / Fever / Nausea / Vomiting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sonographic Views:</strong></td>
<td>Transverse gallbladder / Sagittal gallbladder / CBD</td>
</tr>
<tr>
<td><strong>Findings: (normal options)</strong></td>
<td>All Normal</td>
</tr>
<tr>
<td>If abnormalities, continue.</td>
<td>Gallstones Present / Absent</td>
</tr>
<tr>
<td></td>
<td>Gallbladder wall Normal / Thickened &gt;3mm</td>
</tr>
<tr>
<td></td>
<td>Pericholecystic fluid Present / Absent</td>
</tr>
<tr>
<td></td>
<td>Sonographic murphy's sign Present / Absent</td>
</tr>
</tbody>
</table>
| | Common Bile Duct Normal / Abnormal+  
>6mm (age<60)  
>10mm (age>60)  
measurement== |
| **Impression:** | Normal exam / Cholelithiasis / Choledocholithiasis / Cholecystitis / Other |
## Urinary Tract

<table>
<thead>
<tr>
<th><strong>Indication:</strong></th>
<th>Flank pain / Back pain / Abdominal pain / Dysuria / Decreased urine output / Foley placement/other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sonographic Views:</strong></td>
<td>Right kidney longitudinal / Right kidney transverse / Left kidney longitudinal / Left kidney transverse / Bladder</td>
</tr>
<tr>
<td><strong>Findings:</strong> (normal options)</td>
<td>All Normal</td>
</tr>
<tr>
<td>If abnormalities, continue.</td>
<td></td>
</tr>
<tr>
<td><strong>Right kidney</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Echogenic focus in ureter, calyces, or renal pelvis</td>
</tr>
<tr>
<td></td>
<td>Dilation of renal pelvis</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td><strong>Left kidney</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Echogenic focus in ureter, calyces, or renal pelvis</td>
</tr>
<tr>
<td></td>
<td>Dilation of renal pelvis</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td><strong>Bladder</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Echogenic focus in bladder</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td></td>
<td>Distention</td>
</tr>
<tr>
<td></td>
<td>Abnormal post-void residual</td>
</tr>
<tr>
<td><strong>Impression:</strong></td>
<td>Normal / Abnormal+</td>
</tr>
<tr>
<td></td>
<td>Nephrolithiasis</td>
</tr>
<tr>
<td></td>
<td>Ureterolithiasis</td>
</tr>
<tr>
<td></td>
<td>Hydronephrosis</td>
</tr>
<tr>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td></td>
<td>Abnormal post-void residual</td>
</tr>
</tbody>
</table>
### US guided vascular access

<table>
<thead>
<tr>
<th><strong>Indication:</strong></th>
<th>Poor or inadequate venous access / central venous monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sonographic Views:</strong></td>
<td>Transverse/linear</td>
</tr>
<tr>
<td><strong>Findings: (normal options)</strong></td>
<td>All Normal</td>
</tr>
<tr>
<td></td>
<td>Internal Jugular / Subclavian / Femoral / brachial / basilica / cephalic/ antecubital/ other________</td>
</tr>
<tr>
<td><strong>Impression:</strong></td>
<td>Successful / Unsuccessful placement</td>
</tr>
</tbody>
</table>