

Cincinnati Children's Hospital Medical Center
Emergency Department Rotation
Goals, Objectives, Teaching And Evaluation Methods
For Junior And Senior Residents

The rotation in pediatric emergency medicine is intended to develop the resident's clinical skills including succinct history taking, complaint-focused examination, concise presentation, and development of procedural skills. It is also intended to enhance the fund of knowledge in the evaluation and management of children presenting with an acute illness or injury, and to teach and practice evidence-based and family-centered care.

GOALS AND OBJECTIVES:

1. Patient Care and Medical Knowledge:
 - a. Understand the basic principles of emergency medical services for children and how to rapidly assess, resuscitate and stabilize a critically ill or injured child in the emergency department setting. Understand how to evaluate and manage common signs and symptoms in children presenting to an emergency department and how to manage common illness and injuries that present emergently. Appreciate the evolution of rapidly progressive acute illness and injury.
 - b. Discuss and implement rapid assessment and stabilizing treatment, including specialized exams which include pelvic exams, forensic exams and trauma patient evaluations in either actual patient encounters, through workshops, mock trauma and videotape tools, mock codes, and through human patient simulator sessions.
 - c. Demonstrate proficiency in performing the rapid cardiopulmonary assessment in the shock trauma suite
 - d. Demonstrate proficiency in performing bag-valve-mask ventilation in patient encounters or thru PALS certification.
 - e. Demonstrate proficiency in, but not limited to, splinting for fracture stabilization, suturing and basic wound care, acute pain management and procedural sedation, peripheral vein cannulation, abscess incision and drainage and lumbar puncture by actual patient encounter, lecture series, workshops, procedural shifts, or through use of simulation.
 - f. Understand, recognize and discuss treatment of common illnesses and injuries that present emergently such as otitis media, asthma, skin infections, soft tissue abscesses, complications of sickle cell disease, epistaxis and gait disturbances.
 - g. Understand, recognize and discuss treatment of common signs and symptoms that present emergently such as fever, difficulty

breathing, abdominal pain, limp, rash, depression, headache, and altered mental status.

- h. Understand how to use and interpret laboratory, imaging and other commonly employed diagnostic testing and procedures in the emergency setting.
- i. Work well within the healthcare team and jointly with that team educate and counsel patients and families.

2. Practice Based Learning

- a. Demonstrate the ability to investigate, reflect upon, and critically evaluate patient care practices, appraise and assimilate scientific evidence, and improve patient care practices in the emergency department setting.
- b. Analyze the pediatric emergency medicine rotation experience and demonstrate the ability to identify personal areas needing improvement and implement a plan for that improvement.
- c. Locate, appraise, and assimilate evidence from scientific studies related to health problems of those patients encountered in the emergency department.
- d. Use information technology to manage information, access on-line medical information, and support medical education.
- e. Apply a basic knowledge of study design and statistical methods to the appraisal of clinical studies and other information of diagnostic and therapeutic effectiveness.
- f. Facilitate the learning of students, fellow residents and other health care professionals.

3. Intrapersonal and Communication Skills

- a. Understand and demonstrate effective communication and interpersonal skills with parents, patients and professional associates.
- b. Create and sustain a therapeutic and ethically sound relationship with patients and their family throughout the emergency department encounter.
- c. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning and documentation skills.
- d. Understand how to provide sensitive support to patients and families in the acute management of children and adolescents, and arrange for on-going support and /or preventive services if needed.
- e. Use consultants appropriately and communicate effectively with them by provision of a focused clinical question to be answered by the consultant.

- f. Communicate effectively through medical record documentation and by phone with referring and primary physician as indicated
- g. Consistently maintains accurate, timely, and legally appropriate medical records.

4. Professionalism

- a. Understand and demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population
- b. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society and the profession; and a commitment to excellence and on-going professional development.
- c. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practices.
- d. Demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities.
- e. Attend all scheduled educational activities as duty hours compliance allows.

5. Systems Based Practice

- a. 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.
- b. Understand how patient care and other professional practices affect other health care professionals, the health care organization, and the larger society and how these elements of the system affect resident practices.
- c. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources.
- d. Practice cost-effective health care and resource allocation that does not compromise quality of care.
- e. Advocate for quality patient care and assist patients in dealing with system complexities.

EXPECTATIONS:

1. Perform an appropriate problem-oriented history and physical examination by gathering essential and accurate information about the patient.
 - a. This will lead to the development of an appropriately thorough differential diagnosis, with appropriate prioritization, recognizing patients with possible life-threatening conditions such as shock, respiratory failure, sepsis, and anaphylaxis.
 - b. This also involves effective communication with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
 - i. Junior residents should be able to accomplish the following:
 1. Gather information from the patient
 2. Recognize pertinent positives and negatives
 3. Begin to form a differential diagnosis
 - ii. Senior residents should be able to accomplish the following:
 1. Identify pertinent positives and negatives during the process of gathering information from the patient
 2. Filter this information to independently develop an appropriate differential diagnosis
 3. Arrive at the precise diagnosis, except in complex or uncommon problems
2. Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient.
 - a. Understand the importance of reassessment in patient care and recognize appropriate and inappropriate responses to urgent and emergent therapeutic interventions.
 - b. This also involves providing care that insures seamless transitions and coordinating patient care within the health care system
 - i. Junior residents should be able to accomplish the following
 1. Focus on the care of a single patient initially:
 2. After becoming familiar with the Emergency Department, care for 2-3 patients simultaneously
 - ii. Senior residents should be able to accomplish the following:
 1. Care for multiple (>3) straightforward patients concurrently
 2. Care for multiple patients of multiple levels of acuity at varying stages of evaluation, management, and disposition
3. Develop and carry out a plan of care in an autonomous fashion that reflects well-informed diagnostic and therapeutic choices, and assimilates evidence from the scientific literature and evidence based

medicine guidelines and algorithms for conditions such as asthma, the febrile neonate, head injury and appendicitis.

- i. Junior residents should be able to accomplish the following:
 1. Develop a plan of care independently for some of their patients, but still recognize that input from their supervisor is necessary for optimal learning
 - ii. Senior residents should be able to accomplish the following:
 1. Develop a plan of care independently for most common conditions (bronchiolitis, asthma exacerbation, gastroenteritis) and some complex ones (prolonged fever, sepsis, multi-system trauma)
4. Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients.
- a. This is supported by the identification of strengths, deficiencies, and limits in one's knowledge and expertise.
 - b. Self-awareness of these areas for improvement will lead to appropriate help-seeking behaviors, and the recognition that ambiguity and uncertainty is part of clinical medicine.
 - i. Junior residents should be able to accomplish the following:
 1. Begin to identify one's own limitations and seek help appropriately
 2. Follow through on patient care tasks with limited to no prompting
 - ii. Senior residents should be able to accomplish the following:
 1. Consistently identify one's own limitations and actively develop a plan for improvement
 2. Rarely, if ever, require prompting for completion of patient care tasks

TEACHING METHODS AND EVALUATION METHODS:

Multiple teaching methods are employed in the emergency department setting for instruction in the emergency department goals and objectives as outlined above.

1. Bedside, one-on-one teaching by emergency department staff, which includes attending staff and pediatric emergency medicine fellows. Assignment to specific care areas includes ED teams and the Shock Trauma Suite (for critical emergencies).
2. Senior residents will, during select shifts serve in the preceptor role for fourth year medical students and pediatric interns. After the presentation, they will examine the patient, develop a plan with the student or junior resident, and then report directly to their supervising attending. In cases

where a medical student is precepted the senior resident is required to document a full history and physical note. A reassessment note will suffice for patients presented by pediatric junior residents.

3. Regularly scheduled ED conferences on emergency medicine topics and common illnesses and injuries that present emergently. Residents are excused from clinical responsibilities in the ED to attend these conferences. The conferences include didactic teaching sessions, skills evaluation (e.g. bag-valve-mask competency), and simulation sessions.
4. Clinical Guidelines and Pathways developed and distributed by CCHMC
5. Internet or software based materials, e.g. *PubMed*, *Cochrane Database*, *MD Consult*, *Up To Date*.
6. Quarterly resident noon conferences provided by Division of Pediatric Emergency Medicine faculty on emergency medicine topics.
7. Monthly trauma and medical videotape case reviews from the Shock Trauma Suite and in-situ pediatric cases with the human patient pediatric simulator (that are pre-scheduled and may occur during a resident's shift).
8. Bedside teaching of procedures by patient services staff including IV placement and simple bladder catheterization.
9. Participation of Division Emergency Medicine faculty in Senior Rounds, Morning Report, Morbidity and Mortality Conference, and FIRMs Rounds to increase acute care input to case discussions
10. Informal formative feedback given throughout the rotation by preceptors, which includes ED attending staff and fellows, to discuss strengths, weaknesses and progress.
11. Daily shift evaluations by Emergency Department faculty and fellows entered into the online survey designed specifically for direct observation of Pediatric Milestones based behaviors.
12. Monthly formal online rotation evaluations of residents completed by attending staff and fellows based on the Milestones and six core competencies are placed in the resident's permanent file.
13. Residents complete a formal evaluation of the emergency department rotation already developed into an on-line competency based format.

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