2017-18 CCHMC Pediatric Emergency Medicine guide to resident evaluations in the ED

Competencies: Patient Care, Interpersonal & Communication Skills		
Key Milestone	Patient Care: Gathers essential and accurate information about the patient	
Additional Mapped Milestones	Interpersonal & Communication Skills: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds	
Novice	Early	Gathers too much or too little information and has difficulty forming differential diagnosis
Beginner		Identifies pertinent positives/negatives but differential diagnosis is too broad
Competent	Intermediate	Gathers and filters information to develop appropriate differential diagnosis
Proficient		Arrives at precise diagnosis except in complex or uncommon problems
Expert	Advanced	Always discriminates among diagnoses with subtle distinguishing features

Notes

Early learners rely on basic pathophysiology and use analytic reasoning to generate mental maps to try to link history and exam. The history can be overly extensive and convoluted due to the lack of a filter. Limited experience may result in neglecting potentially important factors.

Intermediate residents can link signs and symptoms in the current patient to ones they've seen in the past. They filter information into diagnosis lists and develop illness scripts. These scripts are unique to each individual and are based on recognizing patterns of signs and symptoms relying on the experience gained from previous encounters to build "mental scaffolding representing characteristic features of specific illnesses." An example would be Strep pharyngitis. Early residents may jump to a diagnosis of strep if they see a patient with fever, throat pain, and oropharnygeal exudates. With more experience they will have also seen patients with headache, abdominal pain, malaise, tender anterior cervical nodes and palatal petechiae.
Even more experienced learners may recognize Pastia's lines and circumoral pallor and be able to differentiate strep from mono (and maybe even diphtheria...).

Advanced trainees use well developed illness scripts to help recognize variations in disease within patients. Their well defined "instance scripts" help recognize subtle differentiating features between similar conditions. Essentially, they are functioning autonomously at a very high level.

In order to effectively assess this milestone we suggest that you:
- Don't assume that the resident is only using pattern recognition if they jump to a diagnosis quickly. Seek to understand their thought processes and you may find that they arrived at precisely the right diagnosis because of their advanced filtering skills.

Competencies: Patient Care, Interpersonal & Communication Skills, Systems-Based Practice		
Key Milestone	Patient Care: Organizes and prioritizes responsibilities to provide patient care that is safe, effective and efficient	
Additional Mapped Milestones	Patient Care: Provide transfer of care that insures seamless transitions	
	Systems-Based Practice: Coordinate patient care within the health care system relevant to their clinical specialty	
Novice	Early	Only able to focus on single patients
Beginner		Cares for 2-3 patients simultaneously, but struggles to prioritize
Competent	Intermediate	Prioritizes when caring for multiple straightforward patients
Proficient		Prioritizes when caring for multiple levels of acuity, but only their own patients
Expert	Advanced	Prioritizes own patients while simultaneously considering the needs of the ED as a supervising physician might

Notes

This question focuses on time management, multitasking and dealing with interruptions. In the ED we experience frequent interruptions that lead to lapses in information processing. Basically, if you are interrupted more and get distracted by these interruptions you'll have to multitask more. Experienced emergency medicine attendings will respond to interruptions then go back to their pre-interruption task. This efficiency is enhanced by clinical experience and the ability to multitask. Inexperienced residents may be interrupted but fail to return to the pre-interrupted task.

Earlier in their clinical development residents are more likely to have prolonged or permanent breaks in task completion in response to an interruption even when the interruption is less important. Advanced trainees are more likely to respond to an interruption with a brief break and return to the pre-interruption task. They are also more likely to prioritize interruptions and address them in order of importance.

In order to effectively assess this milestone we suggest that you:
- Try to understand how a resident is prioritizing their work.
- Direct nurses and other care providers to the resident first with questions/issue about patients, then assess how the resident dealt with the interruption.
- Attempt to discern what makes a resident less efficient. Is it volume? Acuity? Interruptions? All of the above?

Competencies: Patient Care, Medical Knowledge		
Key Milestone	Patient Care: Develops and carries out management plans	
Additional Mapped Milestones	Patient Care: Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment	
	Medical Knowledge: Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems	
Novice	Early	Plans are based solely on direction from supervisor
Beginner		Develops plan with heavy reliance on supervisor input
Competent	Intermediate	Develops plan independently for most common conditions
Proficient		Develops plan independently for all common conditions and some complex ones
Expert	Advanced	Develops plan independently for all conditions

Notes
This milestone is all about what we do multiple times a day. Namely, we develop a plan of care, and then carry it out. Early residents rely on theoretical knowledge that they gained in medical school. Having not seen the condition, especially in the context of the ED they lack the previous experience and knowledge of intermediate and advanced learners. In addition Focusing the most inexperienced clinicians can't sift through information to arrive at key details. Therefore clinical judgment seems arbitrary. An example is the patient with multiple medical problems presenting today with a seizure. Experience allows trainees to focus in on the key problem and not worry about other issues like a leaking gastrostomy tube.

Another very important component of this milestone is an assessment of whether or not a resident is practicing in a manner that is primarily due to prompts and direction from supervisors, or the hospital as a whole. Novice physicians make decisions based on directives from their supervisor or what is "usually done at this institution." Essentially they have a lack of understanding of the rationale or importance to the patient.

In order to effectively assess this milestone we suggest that you:
- Try to provide as much autonomy in decision making as possible.
- Avoid consciously "prompting" residents so that they arrive at the plan that you prefer.
- Attempt to understand why the resident has made certain decisions about patient care, and provide education when there are gaps in their knowledge.
- Accept that sometimes the resident's plan may be different from yours. And allow variation when supported by the literature, and when it is safe to do so within the context of the individual patient's care and the climate of the ED as a whole. |

Competencies: Professionalism, Practice-Based Learning & Improvement

Key Milestone	Professionalism: Demonstrates trustworthiness that makes colleagues feel secure when one is responsible for the care of patients
Additional Mapped Milestones	Practice-Based Learning & Improvement: Identify strengths, deficiencies, and limits in one's knowledge and expertise
	Professionalism: Self-awareness of one's own knowledge, skill, and emotional limitations that leads to appropriate help-seeking behaviors
	Professionalism: The capacity to accept that ambiguity is part of clinical medicine and to recognize the need for and to utilize appropriate resources in dealing with uncertainty

Novice	Early	Unaware of own limitations, usually requires prompting to complete tasks
Beginner		Only sometimes aware of limitations, doesn't always know when to seek help, frequently requires prompting to complete tasks
Competent	Intermediate	Has insight into limitations, seeks help appropriately, only occasionally requires prompting to complete tasks
Proficient		Openly communicates limitations, needs help only for complex problems, rarely requires prompting to complete tasks
Expert	Advanced	Consistently uses limitations to improve, supervises and helps others, proactively completes tasks without prompting based on extensive experience

Notes

The pediatrics milestones project authors define trustworthiness as "the combination of clinical knowledge/skill, discernment, conscientiousness and truthfulness that allows supervisors and care team members to be more certain that the individual is responsible and capable of providing competent patient care without direct supervision." We want to know if you can count on a resident to carry out a given task, make decisions or follow-through on any other aspect of clinical care in the ED with minimal or no supervision by the end of their training. Trustworthy residents are generally aware of their own limitations, conscientious (thorough and dependable in follow-through of tasks), and truthful.

This milestone therefore relies on the provision of graded responsibility. There are multiple ways to supervise residents. Some supervisors are very hands-on and provide immediate course correction offering prompts and corrections to steer the resident into their line of thinking. Others supervise and provide oversight only during case presentations and then "check-in" on things after some time has passed, either via face-to face follow-up, or by checking labs, orders, speaking with nurses and other assorted methods of "backstage supervision."

In reality neither of the aforementioned styles is "right," and the situation dictates which is appropriate. A coding child will require significantly more direction than a patient with a mild to moderate asthma exacerbation. Responsive oversight is practiced when the resident is allowed to raise issues requiring further clarification or escalation of care, while the supervisor provides backstage supervision and meters out increasing levels of autonomy.

In order to effectively assess this milestone we suggest that you:
- Review the patient care to-do lists constructed by the resident.
- Make sure residents know you are always available to help if they get in over their head. Some will avoid asking questions because they don't want to bother you. Don't mistake this for confidence. Know that some early residents are still "afraid to be wrong" as a consequence of their achievement based training in medical school.
- Use backstage supervision to cross-check/double-check data reported verbally by a resident by looking at orders, labs, notes, asking nurses/parents after discussing initially with trainee
- Provide as much autonomy as you can within the confines of safe patient care by consciously avoiding the "guess what the attending is thinking" game whereby the resident makes decisions based on what they think you would do, rather than what they want to do
- Foster a culture where early learners are not pressured to be autonomous before they're ready while allowing intermediate/advanced learners to cope with uncertainty.
- Be transparent in your communication regarding how much autonomy you are providing in a given scenario.