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a more focused assessment of resident performance with specific written feedback.

Table 1. IATs versus standard EOS evaluations.

Resident	# Sub-competencies (IAT)	# Milestones (IAT)	# IATs Completed	# Shift evaluations Completed
1	11	20	19	12
2	11	20	11	4
3	4	6	20	14
4	10	16	12	12
5	10	16	14	7

67 The EMR Playground as a Platform to Train Novice Learners in Safely Ordering Weight Based Medications

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Background: Medication Error remains one of the most frequent problems plaguing patient care especially in pediatric patients requiring weight based dosing. Appropriate weight based dosing is a difficult skill to acquire because of a lack of specific training using an EMR, poor system architecture design for practical ordering and novice learners unaware of potential pitfalls of the EMR. Based on the observations of faculty, nurses and ED pharmacists, we identified common sources of errors and designed a curriculum to address these inadequacies in training.

Educational Objectives: Provide residents with the skills required to safely order weight based medications in realistic volumes and doses using the EMR. In addition, we wanted to emphasize the concepts of safety gaps inherent to an order entry system.

Curricular Design: Patient scenarios were developed in which learners were asked to order commonly prescribed pediatric weight based medications that had been identified as “at risk for error” orders. A virtual learning environment was created within the EMR “Playground”. Learners completed 6 cases in small groups with each learner responsible for a single order entry. At the conclusion of the session, faculty led a review of all orders, types of errors commonly encountered, and demonstrated correct order entry techniques emphasizing systems based issues and strategies to avoid errors. The content was reinforced through a time lapsed review of the learning objectives

Impact/Effectiveness: Pediatric faculty, nurses and pharmacists described a decrease in the numbers of errors frequently made when prescribing pediatric weight based medications. They noted a decrease need to clarify minimum and maximum doses and less time correcting impractical

medication orders. Residents felt that they were more confident in ordering pediatric weight based medications using the EMR. This workshop highlighted the danger inherent in using a weight based medication order entry system in the pediatric population. The principles can be extrapolated to a wide range of medications not covered specifically in the scenarios. Future goals would include increasing the time allocated for the workshop, availability of the workshop to non-EM resident learners and implementation of a formal milestone based assessment of competency.

68 The Long Path of Milestones

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Background: Over the last few years, we have improved the metrics that help guide resident progression and overall competence but we have no great measurement of how we, the faculty are evaluated and evaluating. Often we hear about the tools that we are using to help us evaluate residents appropriately and which method is best to achieve that evaluation but no model exists for the evaluators to be educated and evaluated, We propose a faculty development curriculum to improve the ability our staff to appropriately evaluate residents. We held our first if several sessions to determine if we can all agree on the specific milestone being evaluated in a simulated patient care module and which level that resident achieved.

Educational Objectives: The objectives are to improve the understanding of milestones to the entire faculty, from recent graduates to long term physicians.

To introduce objective items that all attendings can use as a guide to help them rank the residents progression thru the milestone correctly.

Curricular Design: Our course consisted of a four hour didactics course that consistent of a guest speaker that introduced the evolution of the milestones and their role in resident education and progression.

Next we used four videos of clinical scenarios that highlighted two appropriate interactions of patient care and two inappropriate interactions. The attending group from 2 campuses (approximately 30) then had small group discussions on which milestones were being judged and which level they were achieving thru the simulated encounter.

The session concluded with a summary of which aspects to focus on when evaluating residents and the importance of sending more evals to have a broader data base.

Impact/Effectiveness: Since the completion of this session our attending submission rate for end of shift eval forms has increased. The residents are getting more feedback and are content to get more comments as a source of input than just a standard form submitted to corresponding milestones.

We recognize the path of a standard resident evaluation is a long one, but we are all moving down the journey together.

69 The Senior Retreat - Turning Learners Into Leaders

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Background: Senior Emergency Medicine (EM) residents take on new roles and responsibilities - they are role models, intermediaries between administration and residents, and chiefs are selected from their ranks - but professional development needs may be unmet. 4th year residents at our program serve as Resident-in-Charge (RIC) of an ED Pod, supervising junior residents and functioning as a pre-attending. A resident/faculty poll conducted at our program revealed that expectations of the RIC were unclear and preparation for this role was perceived as lacking.

Educational Objectives: Goal: To prepare rising PGY4 residents for their clinical role in the ED and for the next step in their careers.

Objectives:

Residents will:

- Understand and describe the role of the RIC in the ED
- Reflect on the transition from learner to supervisor/teacher
- Demonstrate an ability to utilize bedside teaching strategies and to provide feedback
- Evaluate and debrief team function
- Discuss CV's with faculty
- Discuss fellowship and clinical career pathways
- Understand the job application timeline

Curricular Design: We created a novel 1-day retreat using Kern's Six Steps for Curriculum Development. Specific needs assessment of graduating residents and rising seniors led to the Goals & Objectives listed above. The inaugural retreat covered: Becoming a RIC/Attending (team management, debriefing, teaching, communication), Career Pathways, Job Search, Fellowships, CV, Contracts. It was conducted offsite during the usual resident conference day. Strategies included: a leadership game, small group workshop, reflection, faculty discussion, role-play. The next year, responding to post-retreat feedback, we focused the retreat on RIC preparation and moved career planning to a separate meeting.

Impact/Effectiveness: The Senior Retreat is effective preparation for the PGY4 year. 100% found it to be Very Useful and said a retreat should be conducted every year; 100% stated they understood what was expected of the RIC. A follow up poll 5 months after the second cycle showed that: 67% of residents felt the retreat prepared them Well or Very Well for the RIC role; 50% stated there were gaps between

the retreat and the RIC role in practice. Specific comments identified gaps that will be addressed in the next cycle. This intervention provides seniors with clarity and prepares them for the pre-attending role.

70 The Use of OSCE to Assess Patient Care, Professionalism and Interpersonal Communication Milestones in EM residents

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Background: Residents' achievement of Emergency Medicine (EM) milestones can be difficult to reliably evaluate in the clinical setting. Faculty tend to overestimate residents' achievement in the clinical setting and reply in the affirmative when asked questions based on milestones.

The Standardized Direct Observation Tool (SDOT) has been shown to be a reliable method of evaluating residents' clinical performance. The SDOT is not based on milestones and is challenging to administer in the clinical setting. The SDOT is also dependent on the patients who are available in the ED and clinical encounters can vary widely. We found the need for an evaluation tool based on the EM Milestones which would create a standardized experience for each resident. We developed an Observed Standardized Clinical Encounter (OSCE) to evaluate residents' performance of several of the EM Milestones.

Educational Objectives:

1. Evaluate residents' performance of EM Milestones in a standardized format
2. Provide residents with feedback on their performance of EM Milestones.
3. Provide residents with feedback on their communication skills and professionalism

Curricular Design: Four 20-minute OSCE scenarios were developed by a group of EM educators. One scenario was developed for each EM training year and included a checklist based on EM Milestones.

The OSCE was administered to residents by a faculty observer. The patients were played by standardized patients (SPs). Consultants were played by a faculty member or a senior resident. At the end of the scenario, there was a five minute period for feedback on performance of the EM Milestones and overall clinical performance, which was provided by the faculty member. The SP and faculty member provided feedback on patient communication and professionalism.

Impact/Effectiveness: This educational innovation allowed the administration of a standardized patient encounter with a Milestone-based evaluation. The OSCE allowed assessment of the Milestones that are more difficult to evaluate in the clinical setting, such as professionalism and