**Scholarship in Teaching Award Recipient**

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**TITLE:** A Clinical Skills Block for Interns

**1. Goals and objectives – what were you attempting to accomplish? (Please be as clear as possible.)**

Interns coming into internship have heterogeneous experiences in medical school regarding a wide range of clinical skills, including invasive procedures, physical examination, and patient interaction. Limitations in duty hours have made it challenging to teach some of these skills in the course of traditional rotations. We conducted a survey of our new PGY-2 residents, asking about their experience and comfort in various clinical skills. We also asked some of our faculty educational leadership to estimate how the residents responded and found that 1) many PGY-2 residents lack experience and comfort in clinical skills and 2) Faculty overestimate the comfort level of their residents with these skills. Based on these results, I wanted to devise a common rotation to be completed early in the intern experience to teach some basic skills to our interns. *The goals of my project were to present a uniform approach to clinical skills and to improve comfort in performing these skills.*

**2. Preparation – What kind of effort/resources did you bring to designing or implementing your project, including needs assessment, literature searching, faculty development courses, etc.**

I attended a workshop at an Association of Program Directors in Internal Medicine (APDIM) meeting on teaching procedures. This helped me to prioritize the components of the block and gave me some ideas on how to think about teaching procedures.

I toured simulation centers at two outside medical schools and also met with the director of the newly opened Mt. Sinai Skills and Simulation Center here at Case and discussed approaches to teaching using simulation.

I sent out a survey to residents that had just completed internship to gauge their experience and comfort with various clinical skills, as described above. This also helped me to focus on the gaps in our current teaching.

**3. Methods and concise narrative – describe what you did and how you did it.**

I divided the components of the block into procedure, examination, and communication skills. Procedure skills were taught at the Simulation Center and in the operating rooms at the Cleveland VA Medical Center. These included: ACLS protocols, shock

management, and common procedures (central lines, lumbar puncture, intravenous line placement, Foley catheter placement, endotracheal intubation). Examination skills included sessions with Harvey the heart sounds mannequin (precepted by faculty from the Division of Cardiology or specifically trained faculty from other divisions), physical findings rounds on inpatients, ophthalmologic exams supervised by optometry, electrocardiogram interpretation with Cardiology faculty, and radiograph interpretation with faculty from the Department of Radiology. Communication skills included: obtaining consent for procedures and for HIV testing, delivering bad news, and addressing screening issues in primary care. I carved out two weeks from the interns' schedules and assigned the chief resident on Ambulatory to be the day-to-day coordinator of the block. We recruited selected faculty with expertise in the chosen areas and arranged for lectures, radiology sessions, and anesthesia training. I worked with critical care faculty to develop code curriculum and with cardiology faculty to develop Harvey curriculum and ECG training sessions.

**4. Measures of quality/effectiveness – how do you know if you accomplished your goals? It is critical that this evaluation directly address the objectives in part 1.**

The chief resident solicited verbal feedback from the interns on the last day of the block. This allowed for immediate feedback and helped us with continuous quality improvement. We also distributed online surveys for interns to give more directed feedback, including formal evaluation and comments. The response rate was excellent (95% of all participants).

**5. Dissemination – Did you make the process/results available to colleagues? How? (Internet access, Department, SOM or national meetings, etc.)**

We presented a poster summarizing the block at the 2007 Spring APDIM meeting in San Diego. This included a detailed description of how the block was designed as well as the results of the verbal and online surveys. This presentation was very well received. We had several programs ask us for advice and had one offer for a collaborative effort in the future. We have had a second poster presentation accepted for the IAMSE conference this July. This poster deals with faculty perceptions of second-year resident comfort and experiences with clinical skills.

**6. Reflective critique – How did you reevaluate/modify your educational contribution based on feedback and reviews? This is also a critical and often under-appreciated activity – similar in spirit to an assessment of study limitations.**

There are three aspects to my reflective critique: improving the positives, revamping the negatives, and adding new experiences.
*Positives*: The components of the block that received the highest scores were the modules at the Mt. Sinai Skills and Simulation Center and the cardiac exam module with Harvey. This year, we have expanded the Harvey curriculum to include a pre- and post-test. This will help us to measure more objectively the impact of our efforts on intern heart exam skills and inform future development of the Harvey curriculum. For the

Simulation Center activities, we have become more involved in the development of the critical care curriculum and plan our own protocols, led by the fellows from the Division of Pulmonary, Critical Care, and Sleep Medicine.
*Negatives*: Anesthesia experiences at the VA received poor scores, and radiology reviews were mixed but primarily negative. For this year, we have changed the venue of the Anesthesia rotation to University Hospitals and have solicited input from the Director of the anesthesia residency program. We have also changed the format of radiology experiences to involve more personalized teaching from Radiology faculty. Previously, we had interns sit with attendings in radiology reading rooms as they went through their daily caseload, and this did not seem to allow for the type of learning we were seeking. Finally, we are planning a more standardized ECG curriculum.
*New Modules*: We have introduced an exciting new module on cultural competency, capitalizing on the local expertise of Dr. Carla Harwell. We have also incorporated standardized patient experiences into the block and will use this as a way to teach delivering bad news and other patient communication skills. We also intend to include a humanities aspect, which will likely involve reading a book like <u>And the Band Played On.</u>