

## **First Place**

### **P33. IMPLEMENTATION OF A MULTI-RATER COMPETENCY-BASED VIDEOTAPE EVALUATION PROCESS**

Karla Hemesath, PhD, Mark Gennis, MD & Anthony Otters, MD  
Department of Internal Medicine, University of Wisconsin Medical School and the Aurora Internal Medicine Residency program.

**Purpose:** The purpose of this project was to implement a multi-rater evaluation of resident communication and interview skills in a videotaped clinic encounter. As we move toward complete competency assessment, evaluation methods must be based on observational data.

**Method:** Videotaped resident clinic encounters were reviewed in a group consisting of 2-3 members of Internal Medicine Residency Competency committee and the resident. The tool used for the faculty and resident assessment of the clinic visits is a 30-item checklist of behaviors essential for an ambulatory visit and is referenced to specific competencies in patient care, medical knowledge, professionalism, and communication skills<sup>1</sup>.

**Results:** Fourteen tape reviews were conducted and we are analyzing the data from these reviews to assess: 1) level of agreement between faculty raters, 2) congruence between resident self-assessment and faculty assessment of performance, and 3) relationships between this data to and other evaluation data.

**Conclusions:** The tape reviews provided excellent formative performance feedback. As we continue to modify the assessment tool we will be able to use this process as a summative assessment of resident skills and to investigate relationships between this data and to patient outcomes and other evaluation data. We plan to develop a process similar to that of Dyche and Swiderski<sup>2</sup> to link assessment data to patient feedback.

1. Hemesath, K., Gennis, M., & Otters, A. Development of a Competency-Based Video Review Checklist. Accreditation Council for Graduate Medical Education Annual Conference. Kissimmee, FL. March 2005.
2. Dyche, L. & Swiderski, D. (2005). The effect of physician solicitation approaches on ability to identify patient concerns. JGIM, 20, 267-270.

## **Second Place**

### **P11. A GRADUATE MEDICAL EDUCATION INITIATIVE TO PROMOTE PROFESSIONAL EXCELLENCE AMONG RESIDENCY PROGRAM COORDINATORS**

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Educational Development

Purpose: As the administrative, managerial, clerical, and educational roles of residency program coordinators (PCs) become more complex,<sup>1</sup> it is imperative that graduate medical education programs begin to assess and understand this change. To support its PCs, the College of Medicine at the University of Arkansas for Medical Sciences sponsors a PC-run Program Coordinators' Organization (PCO) for all residency and fellowship program coordinators. The PCO is designed to facilitate networking among PCs, promote excellence in the administration of residency and fellowship programs, and provide educational opportunities in graduate medical education program administration. The PCO provides a forum for positive collaboration among PCs who often are unsure of their actual job descriptions and of where to turn for guidance.<sup>2</sup> This exploratory study was conducted as a quality assurance activity to learn more about PCs' perceptions of the PCO.

Methods: A literature review of attendance barriers and residency program coordinators was conducted to inform construction of survey items. The research team developed a 23-item survey to assess PCs' perceptions of the PCO, barriers that prevent PCs from attending PCO meetings, and the perceived impact of the PCO on graduate medical education and on the PCs' professional development. IRB approval has been obtained and the survey will be administered in a paper-and-pencil format at the January 2006 PCO meeting, with the survey sent by email to PCs who are unable to attend.

Results: A summary of the survey results and implications will be presented in detail, including descriptive statistics. Qualitative data will be used to supplement the descriptive results.

Conclusions: This study will share lessons learned about implementing and sustaining a Residency Program Coordinators organization at our institution. Since there is national interest in PCs' professional development,<sup>3</sup> we anticipate these results will be of interest to academic medical centers.

<sup>1</sup> Collins, J. (2005). Importance of the radiology program coordinator. *Academic Radiology*, 12(8), 1033-1038.

<sup>2</sup> Cook, J., Ebnet, C., Enger, T., Merten, M., and Rink, G. Residency Coordinators' Network. Presented at the *Mastering the Accreditation Process* workshop. March 2-3, 2000, Chicago, IL.

<sup>3</sup> Training Administrators of Graduate Medical Education (TAGME) website. Retrieved 12/14/05 from <http://www.tagme.org/>

### **Third Place**

#### **P8. GENERAL SURGERY MORNING REPORT: A COMPETENCY-BASED CONFERENCE THAT ENHANCES PATIENT CARE AND RESIDENT EDUCATION**

Brendon M. Stiles, T. Brett Reece, Traci L. Hedrick, Robert A. Garwood, Michael G. Hughes, Joseph J. Dubose, Hilary A. Sanfey, Reid B. Adams, Bruce D. Schirmer, Robert G. Sawyer

**Purpose:** Our residency program initiated a daily morning report (MR) to discuss new consults and admissions. This is attended by all residents and students on the general surgery, transplant, and trauma services. While initially developed to facilitate transfer of patient information, we hypothesize that MR now also serves as a core competency-based resident education tool.

**Method:** An anonymous survey was distributed to residents (n=25). Questions were asked on a 5-point Likert scale regarding the value of the current MR, how it addresses the core competencies, and how it could be improved with regard to patient care and resident education. Respondents also ranked conferences (MR, morbidity and mortality, grand rounds, and specialty conferences) in terms of educational benefit derived.

**Results:** The majority of residents agreed that MR is an efficient method to sign out patient care (84%), that it provides an excellent educational experience (88%), and that it is presented in an evidence-based format (88%). Regarding the core competencies, residents all asserted that MR addresses "Patient care" (100%) and "Medical knowledge" (100%). Most agreed that it addresses "Professionalism" (60%), "Interpersonal skills and communication" (76%), and "Practice based learning and improvement" (92%). The four most important components identified with respect to both patient care and resident education were the presence of the on-call attending, a review of relevant radiology, provision of follow-up on select cases, and critical review of the literature. MR was regarded as our most educational conference, with 52% of residents ranking it first.

**Conclusions:** While MR is ubiquitous in primary care residency programs, such a conference has not typically been held on surgical services. Our MR conference has become an excellent tool for resident education, in addition to enhancing patient care. Importantly, we are also using MR to provide evidence of learning and assessment of the core competencies. This conference provides an example of how to tailor existing resident work sessions or conferences to meet ACGME competency requirements.

## **Judges Awards**

### **P3. A SYSTEMS BASED PRACTICE WORKSHOP FOR INTERNS**

Arnold R. Eiser, MD, Joanne Connaughton, MD.

Dept of Medical Education Mercy Catholic Medical Center & Drexel University College of Medicine, Philadelphia, PA

Purpose: Improve resident understanding of Systems Based Practice and the non-physician perspectives on healthcare delivery

Methodology & Results: We developed, implemented and analyzed a two-week Systems Based Practice Workshop wherein medical interns experience care delivery from the perspective of non-physician healthcare perspectives including pharmacy, hospice, home health, utilization management and the clinical laboratory. Each rotation has a preceptor in the designated area that mentors and certifies that the intern has successfully completed that portion of the rotation. Pre- and post-testing of the interns reveal that specific knowledge in each area increased.

Pharmacy: The proper techniques of drug level monitoring are better understood as well as renal dosing of medications and the role of the clinical pharmacist. Pharmacy-based patient safety initiatives are reviewed. Interns make home visits during both hospice and homecare rotations. From the hospice experience, the rules, policies, philosophy, goals and objectives of hospice are learned along with its interdisciplinary nature. The intern attends the hospice interdisciplinary conference led by the hospice director. From the visiting nurse, interns become aware of home wound care, ostomy care, catheter management, home physical therapy, home antibiotics and LMW heparins, awareness of support groups, and the role of social work in homecare. The trainees learn insurance policies regarding home care and hospice care. Laboratory knowledge includes aspects of quality control, specimen integrity, culturing and staining techniques. The utilization management experience occurs reviews utilization criteria, length of stay standards for common DRGs as well as discharge planning. Survey results reflect a greater understanding of the policy and procedures of these other non-physician medical disciplines.

Conclusions: An interdisciplinary workshop as described above fills a void in understanding the non-physician disciplines and helps orient international and American medical school graduates to the American healthcare system.

### **P30. SYSTEMS-BASED PRACTICE PROJECTS IN ANESTHESIA EDUCATION**

Melissa Davidson, MD and Ellise Delphin, MD, MPH;  
Department of Anesthesiology, UMDNJ-New Jersey Medical School

Purpose: Systems-Based Practice remains the most challenging competency to teach and learn. It is even more challenging in hospital based specialties with limited longitudinal patient care. We implemented an innovative method of teaching and learning SBP in our Department.

Method: Residents are required annually to complete one SBP project. All residents work in groups to enhance the concept of teamwork in the healthcare system. Teams begin by choosing an appropriate project topic from a group of categories that include access to anesthesia services, safety issues, medical economics and administration. Projects start with background research, with emphasis on governmental guidelines, local and regional standards, and institutional practice/policy. Residents then follow the process linearly, identifying enhancers and hindrances of the system, analyzing economic implications, and formulating next steps in system improvement. Projects are presented in a poster discussion session that is attended by faculty and residents. Posters detail a flow chart of the process followed and suggested improvements. An award is given by judges for the best project.

Results: The program has been in effect for two years. Learning is evidenced in the completion of the projects themselves, as well as in the impact they have had in the program. 5 of 15 projects have or will result in significant changes in departmental and/or hospital policy; 9 led to recommendations for improving existing systems; 5 included economic analysis leading to changes in standard department practice; 5 were used as teaching tools (examples - Table 1). Success is also measured in enthusiasm for the projects: 6 of 8 groups in year one chose topics from a provided list; by second year, 8 of 8 projects were independently chosen and developed or were continuations of previous year's projects.

Conclusion: Independent team projects provide a useful method for demonstrating competence in SBP in Anesthesiology.

Table 1 SBP Projects 2004-5

Project Name	Teaching Tool	Policy Change	Recommended Improvement in Existing Systems	Economic Analysis
"I am a Bag of Trash" - Guidelines for Medical Waste Management	x		x	x
The Approval Process of a University Hospital Standing Order Form			x	
Anesthesiology Coding and Billing System at UMDNJ	x			
Process Analysis of MRI Under Anesthesia		x	x	
OR Case Cancellation Charges and Billing	x		x	
Etomidate Usage and Utilization				x
Cost Effectiveness of Routine Daily Preparation of Atropine, Ephedrine, and Phenylephrine				x
Physician Credentialing at University Hospital, UMDNJ	x		x	

**P31. INCORPORATING PRACTICE-BASED LEARNING, FACE-TO-FACE FEEDBACK AND OBJECTIVE ASSESSMENT OF INTERPERSONAL AND COMMUNICATION SKILLS IN A BUSY AMBULATORY TEACHING CLINIC**

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Mayo Clinic College of Medicine, Rochester, MN.

**Purpose:** We developed a teaching model in our “Bone Clinic” for Endocrinology fellows to stimulate self-directed learning, provide face-to-face feedback, and assess interpersonal and communications skills via direct observation.

**Method:** The teaching model was developed by a group of faculty educators. Educational aspects of the model include: (1) an initial session reviewing learning goals and expectations for the rotation; (2) structured teaching sessions based on fellows’ self-directed learning; (3) face-to face feedback and review of goals for future learning and; (4) documentation of goals, learning resources used and key learning points acquired during the rotation are kept in the fellows’ portfolios for review quarterly with the program director. An objective checklist was also developed for faculty to directly observe and assess fellows’ interpersonal and communication skills when counseling patients. Currently, observation is unstructured and use of the checklist will be implemented in February 2006. Fellows and faculty were surveyed on the teaching model’s strengths and weaknesses.

**Summary of Results:** Trainees reported improved impetus for learning, were appreciative of the dedicated teaching time, valued the feedback provided after observation by staff and requested that this pilot get rolled out in each of the teaching clinics. Faculty found it easier to provide face-to-face feedback when objectives and expectations had been discussed up-front and assessment was more objective based on direct observation. Barriers to implementation included cancellation of some of the planned sessions due to busy schedules, and fellows trying to accomplish more than was practically feasible during the rotation.

**Conclusions:** Incorporating structured education time into a busy ambulatory clinic may increase self-directed learning and quality of feedback provided to learners. Future studies will include evaluation of fellows’ interpersonal and communications skills using an objective checklist.

## **Honorable Mentions**

### **P2. REDESIGNING THE MORBIDITY AND MORTALITY CONFERENCE- INTEGRATING CLINICAL PRACTICE, QUALITY IMPROVEMENT AND THE ACGME COMPETENCIES**

Julie M. Stausmire MSN, CNS, APRN-BC, Mercy Family Medicine Residency and Transitional Year Programs, Toledo, Ohio

Purpose: Our program's morbidity and mortality (M&M) conferences frequently resembled interesting case presentations that focused on disease pathology and not the underlying problems that compromised quality patient care. Our goal for this academic year was to change resident attitudes and behaviors from a disease-focus to a discussion of system and practice issues that affect patient care, and their role in quality improvement.

Methodology: A partnership was established between our program faculty, the quality improvement committee, and the vice-president and chief academic officer of Mercy Health Partners. The resident team responsible for the M&M prepares a preliminary presentation, then meets with a faculty mentor to ensure there is a clearly identified problem and are coached on how to lead and focus the discussion. Presentation slides are kept to a minimum to avoid a lecture format. After the M&M, residents complete a written evaluation tool similar to the hospital's quality improvement tool. A summary of the comments and suggestions for improvement are forwarded to the QI committee. The senior resident for the team is responsible for presenting the summary and any system-based response from the QI team at the monthly faculty meeting to promote leadership skills. Residents are updated to any system or practice changes that have occurred as a direct result of the M&M to reinforce their role in improving patient care and changing practice patterns.

Summary of Results/Conclusion: An historical look back at past M&M presentations and the current style of M&M presentations has been documented through the use of resident portfolios, comparisons of past and current evaluation forms, and documentation of the communication between the residency program and the institution's quality improvement program. A summary of identified issues, suggested solutions, and actual changes in systems-based practice has been maintained on an on-going basis.

## **P6. CLEVELAND CLINIC NEUROSURGERY RESIDENT COMPETENCY ASSESSMENT**

Edward C. Benzel, MD, Connie Murphy, Deborah Benzil, MD,

**Purpose:** To develop and perfect an objective, accurate and fair methodology for assessing Neurosurgery resident competency (employment of the six core competencies).

**Method:** The program is centered about the biannual evaluation. Clinical and surgical focus instruments facilitate the assessment of performance during a single clinical encounter, whether it is a surgical procedure, outpatient and/or inpatient encounter. Additional information required (operative logs, curriculum vitae, ethical summary report, evidence based methodology report, 360° evaluation, goals & objectives summary, evaluators comments, and other global resident assessment information) is presented by the resident and placed in his/her portfolio to be assessed and graded.

**Results:** The biannual evaluation and summary process is compiled of the aforementioned data. An overall performance score is derived. The Program Director then engages the resident in an interactive interview to review his/her performance, as well as comments from evaluators. This objective process facilitates the assessment of performance, provides structure (which the residents perceive as very positive), and provides direction. Finally, performance improvement measures, that are objectively based, are then instituted as indicated.

**Conclusions:** The advantages and positive attributes of this program include:

- (1) Incorporation of previously validated and modified assessment instruments;
- (2) Objective assessment of resident performance in a variety of arenas and by a variety of techniques;
- (3) Development of novel strategies and more effective instruments;
- (4) Increased resident satisfaction via the presentation and utilization of clearly defined and objective performance assessment parameters;
- (5) Development of a universal objective competency assessment
- (6) No additional personnel or resources;
- (7) Enhancement of educational skills through directed feedback using "biopsy" instruments, leading to
- (8) Improved faculty satisfaction.

## **P15. EVALUATING THE COMPETENCIES: A COMPREHENSIVE, LONGITUDINAL APPROACH**

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Carle Foundation, Nancy F. Barrett EdD, Education Specialist Family Medicine  
Residency Program, Carle Foundation Hospital

**Purpose:** Carle Foundation Hospital's Family Medicine Residency Program was dissatisfied with its existing evaluation process. The former evaluation system was limited in that it addressed resident performance primarily during rotations. These issues were discussed at a faculty retreat in April 2005.

**Method:** At the retreat, faculty identified all of the programmatic elements in resident education and assigned them to the appropriate ACGME competency category. Major categories included monthly rotations, resident clinic, resident presentations and participation in community clinics. The faculty also weighted each activity in the individual competency areas. A new resident evaluation system was developed to reflect the relative weights assigned to each category. Because the new evaluation is competency based rather than activity driven, the program is better able to assess elements that were previously not evaluated, such as Journal Club, and include them in the overall resident assessment.

**Summary of Results:** As a result, the program has developed a comprehensive, longitudinal, behaviorally-based approach to evaluating the ACGME competencies. Preliminary results are encouraging. Because the new system includes data from multiple sources, quarterly reports now more accurately reflect overall performance. By more clearly identifying resident strengths and weaknesses, we are also able to give feedback that is constructive and focused. Samples of current and former reports clearly highlight the differences.

**Conclusions:** The program plans to further refine the survey instruments based on additional faculty feedback. In addition, the program will add educational modules to address identified weaknesses. Other plans include the addition of a competency-based resident portfolio to supplement the existing system and expanding the system to evaluate all residents.

**P50. EXTENDING THE BOUNDARIES OF PROCEDURAL COMPETENCE:  
GETTING BEYOND MEDICAL KNOWLEDGE AND PATIENT CARE IN E-  
LEARNING**

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Purpose: Traditional procedural education tends to be technical in nature and focused purely on knowledge and care issues. The emergence of e-learning has created opportunities to preempt the “see one, do one, teach one” strategies of the past, but also tend to similarly focused. Practice based learning (PBLI) and systems based practice (SBP) are often marginalized and taught individually as lectures or focused e-learning with little clinical tie-in. In our institutional endeavor to increase the quality and safety of central venous access procedures, we decided to create an e-learning tool in the form of a CD-rom, to be coupled with didactic sessions including simulation. This created the opportunity to address more marginalized competencies like PBLI, SBP, and patient safety (the 7<sup>th</sup> competency!).

Methods: The *Pokes and Prods* interactive tutorial was developed by Henry Ford Hospital staff, in conjunction with graphics designers and residents from the Departments of General Surgery and Internal Medicine using Director (Adobe, San Jose, CA). The CD containing this program was distributed to residents from both departments, including a 22-question pre- and post-test. Information and questions contained in this tutorial addressed all six of the ACGME core competencies: patient care, medical knowledge, practice-based learning, interpersonal and communication skills, professionalism, and systems-based practice, and even patient safety. Resident scores were submitted automatically via the Internet after completion of the tutorial.

Summary of Results: Pre-test scores averaged only 71.4% (15.7/22 correct), while post-test scores averaged 89.5% (19.7/22), representing a statistically-significant difference using a paired t-test analysis ( $p < 0.0001$ ). Although four residents remediated because of post-test scores less than the required 80%, all residents demonstrated significant improvement over pre-test scores.

Conclusions: This work represents successful pilot data regarding development of a e-learning initiative for procedural competence designed with the full realm of competencies, safety in mind.