

## Accreditation Council for Graduate Medical Education

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## Evaluating Professionalism and Practice-Based Learning and Improvement: An Example from the Field

*Jefri Palermo, MA*

The ACGME's standards set this expectation for professionalism: "Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population."

In addition, to achieve competency in practice-based learning and improvement (PBL&I), residents are expected to take primary responsibility for lifelong learning through attendance at conferences, analyze their practice experience and participate in a quality improvement activity; be evaluated on their teaching abilities; and document an individual learning plan.

At Children's Hospital of Iowa in the University of Iowa Pediatric Residency Program, one of a number of tools we have developed to evaluate resident professionalism and PBL&I is a "scorecard" that assigns points for completion of required elements and professional responsibilities.

To create the score card, we developed an initial list of all of the tasks and responsibilities that residents were expected to do and assigned points to each item. The program director, Tom George, MD and the chief resident, Sam Kinzer, MD, expanded the listing and wrestled with the relative values of each item with resident input. After the Resident Education Committee gave its approval, the new scorecard was implemented in 2005.

Three times in each year, (October, April and June) the Education Office determines the total points earned by each resident and posts the results into their portfolio. Their preceptors review this information with residents. At the end of the first year, residents' total scores are compared to performance benchmarks that were developed by the program. If a resident's score falls below the benchmark for the year, the resident receives a letter from the program director that details the expectations for improvement and a grade of "unsatisfactory" in these competency areas is given; this does not preclude advancement in the program if performance in the global competency evaluations are positive. However, it does ensure that attention is paid to these areas. For residents whose scores remain below the benchmark, the residents are advised that they may receive a rating of unsatisfactory in professionalism on the final verification of training form that is sent to the American Board of Pediatrics (ABP), and that this might jeopardize their ability to take their ABP Board Exam after completion of training. This system provides the program with added leverage to influence resident behavior in completing the requirements.

The scorecard is shown as *Exhibit 1*, and could be adapted to meet any program's needs. In the Children's Hospital of Iowa Pediatric Residency Program, it was designed to make it easy to reach the goal of compliance, although some residents still find it difficult to achieve the benchmarks. The clear expectations and consequences for unsatisfactory performance in professionalism have helped document and track resident performance in these two important competency areas.

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**Exhibit 1**
**Professionalism and Practice-Based Learning & Improvement Metric**

Criteria	Explanation	Max. Value Per Year	Benchmark Per Year	05–06 TOTAL
1. Attendance at Journal Club	5 pts for each session attended per year	60	30	
2. Attendance at Pediatric Personal and Professional Development	5 pts for each session attended each year	60	30	
3. Attendance at conferences	<25% = 25 pts, 25–50% = 50 pts, 51–75% = 75 pts, >75% = 100 pts	100		
4. Satisfactory completion of CQI project	partial pts for progress, max 40 per year	40	40	
5. Completion of Individual Learning Plans (ILPs)	yes or no – once per year by Oct. 1	20	20	
6. Presentation of cases at morning report	# presented x 2, max of 10 per year	20	20	
7. Satisfactory completion of duty hour surveys	5 points per quarter if done on time and is complete	20	20	
8. Conscious sedation training	yes or no – completed before July 31 of intern year	10	10	
9. Intubation competency	5 points each – 2 total before graduation	10	10	
10. Procedures documented	reduced to 10 points if less than 20 procedures are documented per year	20	20	
11. No delinquent charts	5 points deducted each time name appears on discharge dictation delinquency report	30	30	
12. Completion of faculty and rotation evaluations	2 points per month – 1 for rotation evaluation, 1 for faculty evaluation each month per year	25	25	
13. Participation in resident retreat	yes or no	10	10	
14. Sick time reported and leave forms completed correctly and on time	10 points per year	10	10	
15. Compliance with institutional requirements, e.g., annual TB testing, mandatory reporter training	points deducted for delinquency (yearly)	20	20	

## Exhibit 1 (continued)

**Professionalism and Practice-Based Learning & Improvement Metric**

Criteria	Explanation	Max. Value Per Year	Benchmark Per Year	05-06 TOTAL
16. CPR/NRP certification maintained	yes or no	10	10	
17. Participation in Institutional Resident Symposium	yes or no – applies to PL-1s only	10	10	
18. Participation in Career Day	yes or no – applies to PL-2s only	10	10	
19. Satisfactory completion of M & M	yes or no – applies to PL-2s only	20	20	
20. Satisfactory completion of Case Conference	yes or no – applies to PL-3s only	20	20	
<b>Annual Total Points</b>	<b>PL-1</b>	475	365	
<b>Annual Total Points</b>	<b>PL-2</b>	495	385	
<b>Annual Total Points</b>	<b>PL-3</b>	485	375	

Preceptors have multiple opportunities to discuss low scores with their preceptees, and residents receive formative feedback starting early in their training. This scorecard to evaluate professionalism and PBL&I is used in conjunction with 360-degree evaluations on most rotations and a global evaluation form on every rotation with 12 questions specific to professionalism.

Since implementation of this tool, residents have become more aware of the importance of fulfilling their educational requirements. Conference attendance has improved, more evaluations are completed, forms are turned in on time and there are fewer delinquent medical records. The consistent use of this metric has created a heightened awareness that part of becoming a professional is fulfilling the many obligations physicians have that relate to and also go beyond patient care.

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## **ACGME Forms New Committee to Improve Requirements Development Process**

*Kathy Malloy*

To assist its Review Committees (RCs) in developing requirements and program information forms (PIFs), the ACGME has formed an internal Requirement Development Committee (RDC), composed of staff with expertise in item writing, competency-based assessment, accreditation standards, editing, information technology and data analysis. Key anticipated benefits include streamlining the requirements and PIF development process and ensuring consistency among the 27 RCs.

The RDC has developed a worksheet to be used by RCs as they develop requirements (new or revised) and will provide assistance to RCs in this process. The RC will be asked to indicate for each requirement:

- Does the requirement relate to process or outcome;
- Is the requirement measurable;
- How often has this requirement been cited in the past;
- Does the requirement belong in the specialty specific requirements, or is it addressed in the common program requirements; and
- What PIF question or other data collection mechanism will be used to assess compliance.

Once a review committee notifies the RDC of their plan to revise program requirements, the RDC begins with a review of the current PIF, and prepares an initial draft revision of the PIF. The RDC will also provide assistance in the development of PIF questions for new requirements.

The RDC plans to develop standard language that will be used across many of the specialty specific requirements, which can be modified to fit the specialty. The RDC will also develop standard citations based on the common program requirements and will work with the RCs to develop standard citation text that is based on the specialty program requirements. The ACGME expects that the work of the RDC will contribute to its strategic priority of enhancing efficiency and reducing burden in accreditation.

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## ACGME Implements New Standard Format and Distribution System for Letters of Accreditation

*Jeanne Heard, MD, PhD*

The ACGME has developed a standard format and standard language for accreditation notification letters to be used by all review committees. These changes are effective for review committee meetings held on or after September 18, 2006.

In addition, the method for distribution of these letters has changed. Effective immediately, the ACGME will no longer mail hard copies of accreditation notification letters. Instead, letters will be posted to the ACGME Accreditation Data System (ADS) as PDF files and will be accessible to the program director by entering the program's user ID and password. Designated Institutional Officials (DIOs) also will be able to access notification letters for programs sponsored by the institution by entering the institution's user ID and password. Program directors and DIOs may print the letters as needed.

Program directors and DIOs will receive the following e-mail announcing the notification letter posting in ADS:

*"The letter of notification summarizing the Review Committee's recent consideration of your program will be posted in the ACGME Accreditation Data System by the next business day. Please follow the steps below to access the letter."*

### Instructions for Program Directors

1. Log-in to ADS
2. On the left hand menu – click ‘Notification Letters / Citations’ under the ‘Site Visit Documents’ heading.

### Instructions for DIOs

1. Log-in to ADS
2. On the left hand menu – click ‘View and Update Sponsored Programs’ under the ‘Program & Resident Information’ heading.

The ‘key’ to the standard format for the letter regarding continued accreditation status is posted on the ACGME website at [www.acgme.org](http://www.acgme.org), in the Program Directors & Coordinators and DIOs sections.

Program directors and DIOs should contact the review committee executive director for questions regarding the *content* of the letter of notification and their ADS representatives if they encounter difficulties with accessing the letters in ADS. Programs with withheld accreditation and withdrawn accreditation will not have access to ADS. In these situations, a PDF of the notification letter will be attached to the e-mail sent to the program director. In addition, the DIO and core program directors (for subspecialties) can obtain electronic access.

### ADS Program Implements New “Respond to Citations” Feature

Concurrent with the new method of posting notification letters described above, a new “Respond to Citations” feature has been added to the Accreditation Data System (ADS). Within the program or institutional section of ADS, program directors and DIOs can click on the icon for the last notification text, and locate a new “Respond to Citations” icon next to the notification letter on the subsequent screen. By clicking on this icon, a program director or DIO can view the citations from the most recent notification letter. This feature also can be used to prepare an electronic response to the citations at the time of the next accreditation site visit.

The new feature will make it easier to complete the section for the PIF that requests that the program or institution:

*“List each of the citations, if any, from the notification letter that was sent following the last survey and review of the program, and which contained an accreditation action, and briefly and concisely describe the steps that have been taken to correct the problem.”*

The *Respond to Citations* feature is shown to increase program directors’ convenience in preparing electronic responses to citations, with the aim of reducing the burden of accreditation. Programs are not currently required to respond to citations unless a change in resident complement is requested (for some specialties), the program is participating in a pilot project, or the program is acting as a core program for an Internal Medicine-Pediatrics program applying for accreditation. Typically, response to citations is expected at the time of site visit (and the electronic response will be phased-in).

*Progress Report* and *Proposed Adverse Action* responses will not be handled electronically. For these communications, please provide directly to the RRC written responses using the mail.

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## The ACGME Resident/Fellow Survey and Its Use in Program Reviews

*Ingrid Philibert, MHA, MBA, Rebecca Miller, MS, Jeanne Heard, MD, PhD*

In 2003 the ACGME introduced a web-based resident survey for all accredited programs with four or more residents or fellows as an additional method to monitor their clinical education and to provide early warning of potential non-compliance with ACGME accreditation standards. The survey was piloted during 2003 and fully implemented in January 2004 to one-third of all eligible programs. After three years of data collection, the survey design and implementation strategy were reassessed.

In 2006, the ACGME developed a revised resident survey, with extensive input from its multiple constituencies. Beginning in 2007 each core specialty program regardless of size and subspecialty programs with four (4) or more residents will be surveyed every other year. The survey period for programs will occur between January and May, with the dates staggered by specialty.

### The Survey from the Resident's Perspective

Residents and fellows will log into a secure page and complete the survey on-line, by selecting responses to selected items excerpted directly from the common program requirements. Review committees (RCs) may add a limited number of specialty-specific questions to the survey. To date several RCs have taken advantage of this option; they include Emergency Medicine, Family Medicine, Internal Medicine, Ophthalmology and Pathology. In addition, residents and fellows may add comments using free text.

The survey instructions indicate that no accreditation decisions will be made based on the results of the survey without further validation, such as during an on-site visit. The data from the Resident Survey Data are intended as a diagnostic tool to focus the field staff's questions during the on-site visit.

The ACGME assures residents and fellows that the information they provide is confidential and that no individual responses or their free text comments will be shared with their program director, faculty, staff of the sponsoring institution, or the residency review committee. The program director and the sponsoring institution's DIO receive aggregate information (the Resident Survey Data Summary), *without* the comments sections, for programs with four or more residents/fellows where at least 70% of the residents or fellows completed the survey. Responses suggesting potential non-compliance are shaded in grey in the summary, making the survey a diagnostic tool for program directors and DIOs.

### What Happens during the Accreditation Site Visit?

The ACGME site visitor uses the aggregate data and the comments from residents/fellows to focus the questions during the site visit, to verify and clarify the information from them. Comments provided in the summary are used only as a tool to identify patterns and to focus the questions during the resident interview, and are not disclosed to the residents/fellows. The site visitor will have access to all resident survey reports regardless of the program's size and response rate.

It is the role of the site visitor to probe and clarify all responses that suggest potential non-compliance with the ACGME's common program requirements (the shaded areas in the Survey Summary), and pay particular attention to the duty hour items and to items with a substantial number of non-compliant responses. In their reports, the site visitors verify and clarify the information in the ACGME resident survey, which includes sections on these common program requirements:

- The quantity and quality of faculty teaching and interaction with the residents;
- Formative evaluation on the residents/fellows and residents' evaluation of the faculty and program;
- Education and evaluation using the six general competencies;
- Extent to which didactic and clinical education have priority in the allotment of their time and energy;
- Resident participation in scholarly activity;
- Compliance with all common and specialty specific limits on resident duty hours, including program monitoring of resident hours;
- Education of the residents in recognizing the signs of fatigue sleep deprivation and efforts to prevent and counteract its potential negative effects on patient care and learning;
- An educational and work environment in which residents may raise and resolve issues without fear of intimidation or retaliation.

Often, site visitors find that past problem areas that appear as negative responses to the survey have been corrected, suggesting that the program and its institution has used the survey summary to improve these areas. The site visitor will document this in his/her report. The site visitor's report also contains a section that collects information on which survey questions or phrases were potentially misunderstood by the residents/fellows. Over time, this information will allow the ACGME to make additional improvements to the survey.

### **What Happens at an RRC Meeting?**

The Resident Survey Data Summary from the most recent survey administration is included in the program file, along with the PIF, site visitor report and other program information. RRC members will review the summary, along with the site visitor's report, which includes a section that clarifies and verifies the summary data from the survey.

### **The Resident Survey as an Early Warning of Potential Areas of Non-Compliance**

Because of the national focus on duty hours, survey data is also used by the ACGME and its review committees as an early warning for potential non-compliance of duty hour standards. The ACGME provides reports about potential non-compliance in this area, and the review committees follow-up with programs in the following categories:

- Programs granted the exception to the 80-hour workweek standard (allowing them to go to 88 weekly hours), with at least one resident reporting working greater than 88 hours in the previous four weeks.
- Programs with at least 15% or at least 10 residents responding outside the standard on at last three duty hour items (in the previous four weeks).

Follow-up usually takes the form of a request for a progress report from the program/institution or an early site visit, most likely for programs that have had repeated surveys indicating non-compliance.

### **The Resident Survey as a Tool for Program Evaluation and Improvement**

Each residency program must conduct a formal evaluation at least annually using various types and sources of data about the program, including input by residents about areas that need improvement. The program director, who receives the Resident Survey Data Summary, which is available when at least 70% of the residents/fellows complete the survey, can use the results in the program evaluation and improvement process. Some programs may use their own form of the ACGME survey annually as part of these annual improvement efforts.

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## **ACGME Releases 2005–06 Summary of Compliance with the Common Duty Hour Standards**

In September, the ACGME released its summary of compliance with its duty hour requirements, which provides a comprehensive picture of the third year under the common duty hour standards. Highlights include the fact that less than three percent of physicians in residency programs reported working more than 80 hours a week in the previous four weeks during academic year 2005–06.

The summary showed that the percentage of residents responding that they were on duty more than 80 hours a week in the previous four weeks has dropped steadily since the ACGME instituted the common duty hour standards and began surveying residents three years ago. In other data from the report, the number of programs reviewed receiving at least one citation for duty hour violations has increased since 2003. In academic year 2005–06, 187 programs (7.9%) of the 2,363 programs reviewed (out of a total of 8,186 programs) received at least one duty hour citation, compared with 147 programs (7.3%) of programs reviewed in academic year 2004–05 and 101 programs (5%) of programs reviewed in 2003–04.

The ACGME tracks compliance with the duty hour standards in several ways. ACGME site visitors interview program directors, faculty and residents and review documents tracking resident duty hours. Sections of the ACGME Resident Survey also measure programs' compliance with standards for duty hours, curriculum, supervision, and other aspects of residency education. In academic year 2005–06, the ACGME surveyed 48,176 residents in 4,703 programs with an 88.9% response rate. Since 2003, the Council has collected survey data from 101,250 residents. Residents may also file confidential, written complaints about programs, and the ACGME received seven complaints of duty hour violations in 2005–06.

The ACGME takes a substantial compliance approach to program adherence to the duty hour standards when deciding whether to issue citations or pursue adverse accreditation actions. The Council distinguishes between programs in which just one or two residents out of dozens report working beyond the duty hour limits, which may reflect individual time management problems, and programs in which at least 15% of residents report violations of the duty hour standards.

The summary is posted on-line at [http://www.acgme.org/acWebsite/dutyHours/dh\\_index.asp](http://www.acgme.org/acWebsite/dutyHours/dh_index.asp)

The ACGME also recently updated its annotated bibliography on duty hours and related matters, including articles on the effect of sleep loss on performance. The 108-page literature review is posted on the ACGME's web site at [http://www.acgme.org/acWebsite/dutyHours/dh\\_articles2.pdf](http://www.acgme.org/acWebsite/dutyHours/dh_articles2.pdf)



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## Selected Posters from the Poster Session at the ABMS/ACGME Joint Conference on Assessing and Improving Patient Care

On November 2 and 3, the American Board of Medical Specialties and the ACGME held a joint conference devoted to assessing and improving patient care provided by residents in training and physicians in practice. The meeting, held in Rosemont, Illinois, included presentations, panel discussions, small group breakout sessions and a poster session. This meeting constituted the sixth in a series of joint ABMS/ACGME conferences on the six general competencies.

Below are selected posters from the meeting's poster session, of interest to program directors and designated institutional officials.

### **Assessing and Improving Hand-offs: The University of Chicago Standard Hand-off Protocols for Residency Programs**

*Vineet Arora MD, MA, Julie Johnson, MSPH, PhD*

Hand-offs of patients from one physician to another in the hospital presents a “vulnerable gap”— a period in which poor or inadequate communication can lead to patient harm. Although JCAHO requires hospitals to adopt a “standardized approach to hand-off communications,” there is little direction on how to educate residents to assess and improve hand-offs. The purpose of this study was to create a method to teach and improve hand-offs that could be generalized across residency programs.

We developed an interactive 90-minute workshop (“Hand-off Clinic”) to create a standard hand-off protocol for all residencies that take in-house call on an inpatient service. The workshop employs a semi-structured interview of residents to: 1) develop a standard process for the hand-off using a process mapping methodology; 2) create a checklist of critical patient content; and 3) plan for dissemination and training. Process analysis was used to highlight similarities, differences, and areas for improvement among protocols.

To date, eight of 10 residency programs have participated. Analysis of these protocols demonstrates that the hand-off process is highly variable and discipline-specific. Although four programs had a designated hand-off location, three programs conducted hand-offs wherever convenient. Although all disciplines required a verbal hand-off, all residents acknowledged that due to competing demands (operating room, clinic, etc.), verbal communication at times did not occur. Only two programs had senior residents present at the hand-off, although all stated that senior residents and/or attendings provided input to the content of written sign-outs used at the time of the hand-off. In some cases, the transfer of professional responsibility was separated in time and space from the transfer of information. In one program, departing residents forward their pager to the on-call resident after they provide a verbal hand-off; in another program, the on-call resident transfers a virtual pager to their own pager at a designated time which often occurs before they receive a verbal hand-off.

In two programs, patient tasks were assigned to other team members to facilitate timely departure of a post-call resident (to meet resident duty hour restrictions), but results of these tasks were not formally communicated to the on-call resident. During the Hand-Off Clinic, these residents realized the need for “closed-loop” communication and now require that follow-up on these tasks are conveyed to the on-call resident.

The hand-off is discipline-specific with a high degree of variation in the process. This method to standardize hand-offs can be used to assess and improve patient care during hand-offs.

*Arora V, Johnson J. A model for building a standardized hand-off protocol. Jt Comm J Qual Patient Saf. 2006 Nov;32(11):646–55.*

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### **Improving Quality of Care and Patient Satisfaction through a Comprehensive Diabetes Management System in a Family Medicine Residency**

*Richard S.E. Kim, MD, MPH, Cynthia Glasgow, RN, MSN, CFNP, CPHQ, Jamie Osborn, MD, Loma Linda University Department of Family Medicine*

The study sought to show that developing a diabetes management system using multidisciplinary teams can implement changes which improve diabetes quality measures and result in improved patient satisfaction, even without the use of special data management software or electronic medical records

During April to June, 2005, documentation of whether or not clinicians obtained several diabetes quality indicators – hemoglobin A1c, foot exam using monofilament, fasting lipid profile, and microalbuminuria – during past year was reviewed on randomly selected charts of patients with diabetes in family medicine clinic. AMGA patient satisfaction surveys were amended to include questions about diabetes. After the baseline data was gathered, several interventions were implemented to include: designating a part-time diabetes care coordinator who organized pre-planned visits; specific diabetes flow sheet and diabetes progress note; clinician and staff education; interdisciplinary QI teams; rapid-cycle Plan-Do-Study-Act (PDSA) team projects led by clinic nurses; individual feedback to clinicians. One year later, documentation of same quality indicators were reviewed and patient satisfaction survey was repeated.

Follow-up study done in 2006 showed increased documentation of all four quality indicators. There was increase in annual check of hemoglobin A1c from 97.1 percent to 98.7 percent, increase in annual foot exam using monofilament from 44.1 percent to 94.8 percent, increase in annual check of fasting lipid profile from 85.3 percent to 96.1 percent, and increase in annual check of microalbuminuria from 63.6 percent to 76.6 percent. Trends show improvement in average hemoglobin A1c in both faculty and residency patients. Documentation of appropriate diabetic eye exams improved from 2% to 50%. Diabetic patient satisfaction scores with their overall care in the clinic also improved.

Based on the results, it was concluded that changing the system of diabetes care in a resident program results in improved quality indicators and patient satisfaction.

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### **Using a Healthcare Matrix to Assess Care in Terms of the IOM Aims and the ACGME Competencies**

*Doris Quinn PhD, John Bingham MHA, Vanderbilt University Medical Center*

The study assessed how residents and faculty are using the HealthCare Matrix to assess and improve care. Whether care is safe, timely, effective, efficient, equitable, or patient-centered is juxtaposed against the ACGME competencies. When care is assessed in this manner, learning the competencies becomes very relevant to the outcomes of care. It presented the work of internal medicine residents who on their

Ambulatory Rotation: 1) utilized the Matrix to assess the care of their patients; 2) demonstrated use of QI tools to improve care; and 3) improved publicly reported metrics for AMI and CHF by focusing in particular, system-based practice and practice-based learning and improvement.

Residents first utilize the Matrix to assess care of one of their patient's. Then, as a group, they choose a publicly reported metric and complete matrices for a panel of patients. The data from the matrices informs residents as to where more information or improvement is needed. This becomes the basis for an improvement project which is ultimately presented to senior leaders.

To date, residents have improved the care of patients with pneumonia, coronary artery disease, diabetes, and processes including obtaining consults, the VA phone Rx system and others. Public metrics of quality from CMS, JCAHO, and Leapfrog are utilized in the assessment.

When the ACGME competencies are combined with the IOM aims and used to assess and improve care of patients in "real time", developing the competencies becomes "the way residents learn" and not a burden or "add on". This process allows residents, who are the most knowledgeable about workarounds and flaws in the system, to use their experience to improve care. Residents, faculty, the institution, and most importantly, the patients benefit.

*Bingham, J, Quinn, D., et al. (2005) Using a Healthcare Matrix to Assess Patient Care in Terms of Aims for Improvement and ACGME Core Competencies. JC Journal on Quality and Patient Safety, 32(2), 98-105.*

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### **A Valid and Reliable Method for Assessing Resident Physicians' Quality Improvement Proposals**

*James L. Leenstra, MD, Thomas J. Beckman, MD, Darcy A. Reed, MD., MPH, Joseph C. Kolars, MD, Furman S. McDonald, MD, MPH, Internal Medicine Residency Program, Mayo Clinic College of Medicine*

The Accreditation Council on Graduate Medical Education (ACGME) mandates resident physician competency in systems-based practice (SBP) and practice-based learning and improvement (PBLI). Residents may demonstrate competency in these areas by completing quality improvement (QI) projects. We are unaware of valid methods for assessing resident QI proposals. We sought to determine the validity and reliability of scores from an instrument for assessing resident QI proposals.

Quality Improvement Proposal Assessment Tool (QUIPAT-7) content was initially obtained from a national panel of QI experts. Through an iterative process the instrument was refined, pilot tested, and revised. Seven raters used the instrument to assess 45 resident QI proposals. Principal factor analysis was used to reveal the dimensionality of instrument scores. Cronbach's alpha and intraclass correlations were calculated to determine internal consistency and interrater reliability respectively.

QUIPAT-7 items comprised a single factor (Eigenvalue = 3.4). Item mean scores were generally low to average (range 1.9 to 3.4 on a 5-point scale). Interrater reliability for each item (range 0.79 to 0.93) and internal consistency reliability among the items (Cronbach alpha = 0.87) were excellent.

Our method for assessing resident physician QI proposals is strongly supported by content and internal structure validity evidence. We anticipate that the QUIPAT-7 will be a useful aid in assessing resident QI proposals. Future research should determine the reliability of QUIPAT-7 scores in other educational settings and correlations between assessment scores and criteria for QI proposal success such as implementation of QI proposals, resident scholarly productivity, and improved patient outcomes.

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## **Integrating Clinical Practice, Quality Improvement and the ACGME Competencies into the Morbidity and Mortality Conference – Results of the 2005–2006 Academic Year**

*Julie M. Stausmire, MSN, CNS, Imran Andrabi, MD, Mercy Family Medicine Residency Program, Mercy Health Partners, Toledo, OH*

Our goal was to use the resident's monthly Morbidity and Mortality conference to establish an educational and professional expectation that residents need to take an active role in practice-based learning and improving. This expectation included identifying and suggesting actual changes to systems of care that would improve patient safety and improve quality of care.

Residents meet with a faculty mentor who assists them in identifying a practice or systems-based problem that occurred during their inpatient family medicine rotation. Residents are coached on how to lead a discussion with their peers focusing on the issue, how it applies to the ACGME competencies, and what could be done to prevent a reoccurrence. During the M&M residents complete a Quality Improvement Peer Case Review evaluation tool similar to the institutional QI tool. A summary of comments from the QI tool including suggestions for improvement are sent to all program residents and faculty, the DIO, and the chairs of the institutional QI committees. Residents are updated to any changes that occur as a result of the M&M. The senior resident is responsible for presenting the results at the program's QI committee meeting to promote active involvement and leadership skill with professional medical organizations.

Over the past academic year the M&M conferences have evolved from an academic exercise to becoming an integral part of our institution's quality improvement program. The residency program has initiated its own QI committee meetings, and several system changes have occurred as a direct result of the M&M presentations at the individual, program, and institutional levels.

The M&M conferences promote application of evidence based practice, scholarly activity, and leadership roles with professional medical organizations for residents in addition to improving patient safety and quality of care. Residents receive positive feedback and reinforcement of their ability to affect actual changes in clinical practice and patient safety as a direct result of their observations and suggestions for quality improvement.

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## **Functional Outcome Assessment of Patient Care as a Tool for Resident Education**

*Marc F. Swiontkowski, MD, Julie Agel, Orthopaedic Surgery Residency Program, University of Minnesota, Minneapolis*

Residency experience should provide an opportunity to learn the impact of treatment on patient function. Use of a validated HRQOL instrument will familiarize residents with the process of patient outcomes assessment which will be useful in future MOC and P4P efforts.

GY-4 orthopaedic surgery residents approached 20 patients prior to operative treatment of their musculoskeletal condition to complete a Short Form Musculoskeletal Assessment. This validated 46-item questionnaire allowed patients to document their function. At three months, patients were mailed a follow-up questionnaire to document their short term functional change.

Over four years, 19 residents handed out 335 questionnaires. The majority of patients were from a VA Hospital, the most common diagnoses were degenerative joint disease of the hip or knee or Carpal Tunnel Syndrome. Fifty-six percent of the patients returned their second questionnaire. SMFA scores for the three largest patient population groups were:

	Baseline SMFA	Post-Op SMFA
Hip Arthritis	47	35
Knee Arthritis	40	30
Carpal Tunnel	42	42

Residents often do not see the patients over the long-term recovery process. These questionnaires were returned to the treating resident to give them a sense of the quality of short-term recovery for a small group of patients. The results are reported to individual residents along with aggregate data in an annual grand rounds format. The discussions which follow regarding the relative improvement of groups of patients with similar diagnoses, as well as individual patients have been revealing. Residents have appreciated the opportunity to learn how co-morbidity has a large impact on functional outcome, and that lower extremity conditions have greater group related functional impact than upper extremity conditions due to weight bearing mobility issues and the lack of contra-lateral extremity adaptability for specific functions. The exercise requires setting up a system to support the collection of data forms and patient contact for the post-intervention functional assessment.

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