

Regions Emergency Medicine Residency

Report on Residency Performance Metrics to GMEC

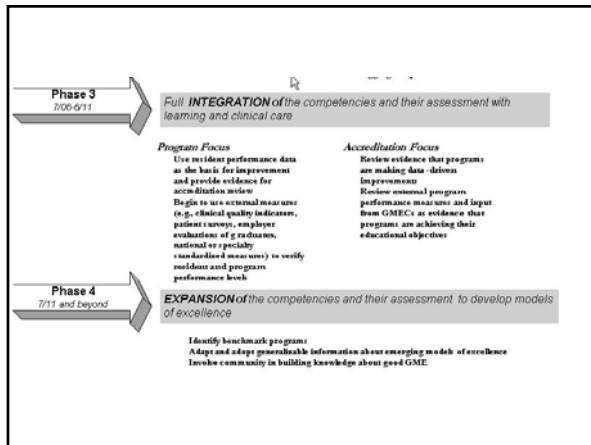
November 17, 2009

Felix Ankel, MD

I have added an agenda item for the November 17th GMEC meeting about Phase 3 of the ACGME Outcome Project. The timeline is found at: http://www.acgme.org/outcome/project/timeline/TIMELINE_index_frame.htm

Can you identify three or more metrics for your program that you use to assess resident and residency program performance? At the institutional review you will be asked to show that these measures are used to make improvements in the program.

For example: The ACGME says that external measures can be used such as clinical quality indicators, patient surveys, employer evaluations of graduates, national or specialty standardized measures.



Certification Examination Information: 2004 - 2008

Program Name: HealthPartners Institute for Medical Education Program #: 0079

Exam Year	Examination Scores			Examination Candidates # Total # Pass % Pass
	Low	High	Average	
Results of all bedside examination attempts				
2004	80	84	80	7 7 100%
2005	81	82	80	8 8 100%
2006	74	84	80	10 9 90%
2007	74	81	80	9 8 89%
2008	80	88	84	9 9 100%
Results of all repeat examination attempts				
2004	--	--	--	-- --
2005	--	--	--	-- --
2006	--	--	--	-- --
2007	82	82	82	1 1 100%
2008	84	84	84	1 1 100%

Exam Year	Examination Scores			Examination Candidates # Total # Pass % Pass
	Low	High	Average	
Results of all bedside examination attempts				
2004	5.57	6.29	6.0	8 7 88%
2005	5.65	6.43	6.1	8 8 100%
2006	5.58	6.24	6.0	8 8 100%
2007	5.65	6.15	5.9	9 8 89%
2008	5.47	6.69	5.9	9 8 89%
Results of all repeat examination attempts				
2004	--	--	--	-- --
2005	5.88	5.88	5.9	1 1 100%
2006	--	--	--	-- --
2007	--	--	--	-- --
2008	--	--	--	-- --

EM Graduate Survey 2008

1. How many years since your graduation?

Response	Response Percent	Response Count
1-3	34.2%	13
4-6	28.5%	11
>6	36.8%	14
answered question		38
skipped question		1

2. How would you describe your current main practice site? (check all that apply)

Response	Response Percent	Response Count
Urban	60.5%	23
Suburban	28.9%	11

Institutional Requirement IV.A.4.g. Annual program improvement efforts

- Resident performance using aggregated resident data
- Faculty development
- Graduate performance, including performance of program graduates on the certification examination
- Program quality (common program requirements, V.C.)

Resident performance using aggregated resident data

- EM resident self evaluation
- EM faculty evaluation
- ED nursing evaluation
- Off-service evaluation
- Oral examinations
- ABEM In-training exam results
- Procedure log
- Shift audit

Resident performance using aggregated resident data (cont.)

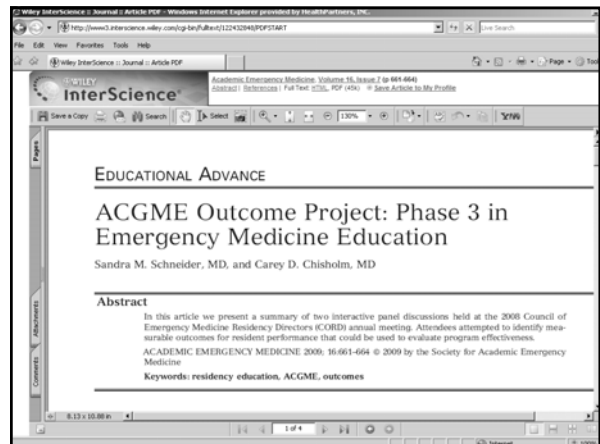
- Patient follow-up
- Conference attendance
- Core content exams
- Faculty evaluations
- Program evaluation
- Delinquent charts

Other

- ABEM certification pass rate
- ACGME annual survey
- ACGME - RRC review
- Patient satisfaction scores

Res	Confidencetrust in MDP/Pass?			Informed of timing?		Recommend Regions to family/friends?			N	
	No	Yes-sometimes	Yes-always	No	Yes-always	No	Uncore	Yes-always		
4	0%	0%	100%	0%	0%	100%	0%	0%	100%	11
5	0%	10%	82%	0%	30%	64%	0%	0%	82%	11
6	0%	0%	92%	4%	22%	74%	0%	4%	96%	23
7	0%	3%	97%	2%	10%	88%	0%	5%	95%	69
8	0%	0%	100%	0%	25%	75%	0%	0%	100%	12
10	0%	8%	92%	4%	17%	79%	4%	0%	96%	26
11	0%	0%	100%	5%	5%	89%	0%	5%	95%	19
12	0%	7%	93%	4%	19%	79%	0%	11%	89%	29
13	0%	8%	92%	0%	19%	81%	0%	4%	96%	26
14	0%	0%	100%	6%	6%	88%	0%	6%	94%	18
21	0%	0%	100%	0%	0%	100%	0%	0%	100%	4
22	0%	0%	100%	20%	20%	60%	0%	17%	83%	6
26	0%	0%	100%	0%	0%	100%	0%	0%	100%	1
27	0%	0%	100%	20%	20%	60%	0%	17%	83%	6
28	0%	0%	100%	0%	50%	50%	0%	17%	83%	6
29	13%	13%	75%	13%	25%	62%	13%	0%	88%	8
30	3%	7%	90%	0%	23%	77%	3%	3%	93%	30
31	0%	9%	91%	6%	6%	88%	3%	6%	91%	34
32	0%	10%	90%	0%	20%	80%	0%	10%	90%	10

What are the next steps?



Initial Toolbox to Evaluate Outcomes of EM Training by Competency

	PC	Prof	SBP	PBL	IC
Employer surveys	X	X	X	X	X
Patient satisfaction	X	X	X	X	X
RVUs	X	X	X	X	X
Throughput times	X	X	X	X	X
CMS quality measures	X	X	X	X	X
360 evaluations	X	X	X	X	X

IC = interpersonal and communication skills; PBL = practice based learning and improvement; PC = patient care; Prof = professional; RVU = relative value units; SBP = systems based practice.

Table 3
Additional Toolbox Items Available With Electronic Medical Records

	PC	Prof	SBP	PBL	IC
Patients per hour	X	X	X	X	X
Use of tests	X	X	X	X	X
Use of consultants	X	X	X	X	X
Diagnosis specific treatment	X	X	X	X	X
Length of stay	X	X	X	X	X
Decision to admit time	X	X	X	X	X
Complication rate (eg, for procedural sedation)	X	X	X	X	X
Patients returning to ED	X	X	X	X	X

IC = interpersonal and communication skills; PBL = practice based learning and improvement; PC = patient care; Prof = professional; SBP = systems based practice.

Using Patient Care Quality Measures to Assess Educational Outcomes

Susan R. Swing, PhD, Sandra Schneider, MD, Ken Birosi, MD, Dane Chapman, MD, PhD, Louis G. Graff, MD, Cheri Holbrook, MD, Thomas Lukens, MD, PhD, Martha J. Radford, MD, Arthur Sanders, MD, Rebecca Smith-Coggins, MD, Linda Spillane, MD, Laura Huska, MEd, Robert L. Wears, MD

Abstract

Objectives: To report the results of a project designed to develop and implement a prototype methodology for identifying candidate patient care quality measures for potential use in assessing the outcomes and effectiveness of graduate medical education in emergency medicine.

Methods: A workgroup composed of experts in emergency medicine residency education and patient care quality measurement was convened. Workgroup members performed a modified Delphi process that included iterative review of potential measures, individual expert rating of the measures on four dimensions, including measures quality of care and educational effectiveness, development of consensus on measures to be retained, external stakeholder rating of measures followed by a final workgroup review, and a post hoc stratification of measures. The workgroup completed a structured exercise to examine the linkage of patient care process and outcome measures to educational effectiveness.

Results: The workgroup selected 62 measures for inclusion in its final list, including 43 measures for 21 clinical conditions, eight medication measures, seven measures for procedures, and four measures for department efficiency. Twenty-six measures met the more stringent criteria applied post hoc to further identify and prioritize measures for development. Nineteen of these exposures received high ratings from 75% of the workgroup.

Swing et al. • PATIENT CARE QUALITY MEASURES

Table 1
Summary of Measure Ratings across Critical Dimensions

Clinical condition	Agree		Moderate
	High	Moderate	
Acute myocardial infarction	Appropriate initial antibiotic	Percent high risk admitted (Pneumonia Severity Index class 4 or 5)	Percent administered aspirin within 24 hours*
Pneumonia	Percent administered anti-inflammatory drugs (corticosteroids)*	Percent administered relievers* (unscheduled return with ruptured ectopic pregnancy within 72 hours)	
Asthma	Percent administered relievers* (unscheduled return with ruptured ectopic pregnancy within 72 hours)	Percent subarachnoid hemorrhage (diagnosis missed (first 72 hours))	Electrocardiography for patients older than 50 years
Abdominal pain	Percent of patients with deep vein thrombosis/pulmonary embolism receiving anticoagulation in the ED*	Pretest probability assessed	Conformance with Canadian C-spine or NEXUS rules
Headache	Percent of patients with deep vein thrombosis/pulmonary embolism receiving anticoagulation in the ED*	Pretest probability assessed	Conformance with Canadian C-spine or NEXUS rules
Syncope/dizziness/shortness of breath	Percent of patients with deep vein thrombosis/pulmonary embolism receiving anticoagulation in the ED*	Pretest probability assessed	Conformance with Canadian C-spine or NEXUS rules
Deep vein thrombosis/pulmonary embolism	Percent of patients with deep vein thrombosis/pulmonary embolism receiving anticoagulation in the ED*	Pretest probability assessed	Conformance with Canadian C-spine or NEXUS rules
C-spine	Percent of patients with deep vein thrombosis/pulmonary embolism receiving anticoagulation in the ED*	Pretest probability assessed	Conformance with Canadian C-spine or NEXUS rules
Meningitis	Percent of patients with deep vein thrombosis/pulmonary embolism receiving anticoagulation in the ED*	Pretest probability assessed	Conformance with Canadian C-spine or NEXUS rules

Swing et al. • PATIENT CARE QUALITY MEASURES

Table 3
Evidence and Support for Patient Care Quality Measures

Clinical Conditions	Support for Use	
	Used Nationally for Hospital Performance Measurement	Published Literature Review
Acute myocardial infarction	CMS, HGA, JCAHO, APU	
Percent administered aspirin within 24 hours	CMS, HGA, JCAHO, APU	
Percent administered beta-blockers within 24 hours	CMS, HGA, JCAHO	
Percent administered thrombolysis within half an hour	CMS, JCAHO, HGA (120 minutes)	
Percent undergoing percutaneous coronary intervention within 90 minutes		
Pneumonia	CMS, JCAHO, HGA	Mandell et al. ¹⁷
Appropriate initial antibiotic	CMS, JCAHO, HGA, APU	
Time to antibiotic (percent less than four hours)		
Percent high risk admitted (Pneumonia Severity Index class 4 or 5)		
Asthma	JCAHO candidate measure	Williams et al. ¹⁸
Percent administered anti-inflammatory drugs (corticosteroids)	JCAHO candidate measure	
Percent administered relievers		
Percent measured lung function (peak flow, forced expiratory volume in 1 second)		

National Initiative

Improving Patient Care through CRE: A National Initiative of Independent Academic Medical Centers

PHASE II PARTICIPANTS ANNOUNCED

Thirty-five hospitals and health systems will participate in phase II of the ASAC National Initiative, representing more than half of our member institutions. These 35 members span the United States from Seattle to Miami and include 17 participants from phase I of the National Initiative. We are thrilled by this positive response and are confident that phase II will yield outstanding results. Congratulations are extended to the participating members as follows:

Advocate Illinois Masonic Medical Center - Chicago, IL
Advocate Lutheran General Hospital - Park Ridge, IL
Alton General Medical Center - Alton, OH
Albert Einstein Medical Center - Philadelphia, PA
Atlantic Health - Harrison, NJ
Aurora Healthcare - Milwaukee, WI
Bryant Medical Center - Springfield, IL
Carolina Healthcare - Levine Children's Hospital - Charlotte, NC
Christiana Care Health Services - Newark, DE
Franklin Square Hospital Center - Baltimore, MD
Georgetown University Hospital - Washington, DC
Good Samaritan Hospital - Baltimore, MD
Gwinnett Robert Wood Johnson Hospital - Atlanta, GA
Harbor Hospital - Baltimore, MD
HealthPartners Institute for Medical Education - Minneapolis, MN
Henry Ford Health System - Detroit, MI
Inova Health - Dan Monize - Fort Worth, TX
JPS Health Network - Fort Worth, TX
Maine Medical Center - Portland, ME
Hennepin Medical Center - Long Beach, NJ
National Rehabilitation Hospital - Washington, DC
Ochsner Health System - New Orleans, LA
Owensboro Regional Healthcare - Owensboro, KY
Reading Hospital and Medical Center - Reading, PA
Sovereign Medical Hospital - Columbus, OH
Saint Barnabas Medical Center - Livingston, NJ

regionquality / FrontPage

Welcome to the EM Residency Quality Wiki. I would like to use this tool to be the repository for the EM residency quality program. I suggest the following:

- Develop guiding principles for the residency quality program.
- Open the wiki to others.
- Determine content experts by EM topic.
- Develop process for EM residency projects.

I have attached some of the files from the 2008 Residency Retreat and files from a quality course that may be of interest to you. I'm looking forward to your feedback.

Files:

- Quality Binder Fall08.pdf
- GME Knowledge Translation from AEM.pdf
- Begin to Use Clinical Outcomes from Acad Med.pdf
- Using PI Care Quality Measures from AEM.pdf
- 2008 06 26 Building a quality educational program (2).pdf
- Kim Q Project.pdf
- 2008 10 22 quality GME integration.xls

NAME
DASHBOARD FOR SEMI-ANNUAL EVALUATION MEETING
DATE

Assessment Tool	General Competencies						Definition	Resident's Performance		Benchmark / Residency Aver. (SD)	Performance relative to Benchmark (Meets / Does Not Meet / Not Applicable)
	MK	PC	ICS	Prof	SBP	PBLI					
ED End of Shift Cards							Dichotomous evaluation completed after each ED shift	MK	ME	ME	ME
								PC	ME	ME	ME
								ICS	ME	ME	ME
								Prof.	ME	ME	ME
								SBP	ME	ME	ME
								PBLI	ME	ME	ME
Self Assessment							9-option items completed at end of each off service rotation	MK	6	5/6.00 ± (0.00)	ME
								PC	7	5/6.60 ± (0.55)	ME
								ICS	7	5/7.40 ± (0.55)	ME
								Prof.	7	5/7.00 ± (1.00)	ME
								SBP	6	5/5.80 ± (0.45)	ME
								PBLI	7	5/6.80 ± (0.45)	ME
Off-Service Global Assessment							9-option items completed semi-annually	MK	7.17	5/7.39 ± (1.09)	ME
								PC(O)	7.29	5/7.84 ± (0.97)	ME
								PC(PS)	7.00	5/7.76 ± (1.15)	ME
								ICS	7.43	5/7.91 ± (0.94)	ME
								Prof.	7.71	5/8.13 ± (0.86)	ME
								SBP	7.17	5/7.90 ± (1.06)	ME
								PBLI	7.40	5/7.85 ± (1.12)	ME
SDOT							26 item competency based checklist developed by CORD along with a 5-option global assessment	MK		3/4.40 (0.55)	
								PC		3/4.80 (0.45)	
								ICS		3/4.80 (0.45)	
								Prof.		3/5.00 (0.00)	
								SBP		3/4.40 (0.55)	
Patient Healthcare Matrix							6x6 grid addressing patient safety aims developed by Bingham & Quinn	ME	Completed	ME	
Follow-up Case Write-up							1 page clinical case description with clinical pearls	ME	Completed	ME	
QI Project							Completion of EM QI project		Completed	Must be completed prior to graduation	
Simulated Resusc							14 item checklist		Completed		

Assessment Tool	General Competencies						Definition	Resident's Performance	Benchmark % / Residency Aver. (SD)	Performance relative to Benchmark (Meets / Does Not Meet / Not Applicable)
	MK	PC	ICS	Prof	SBP	PBLI				
Airway Competency							17 item checklist		Competent	
Resusc Competency							14 item checklist	1	Competent	ME
Chief Complaint Competency										
Abdominal							Chart review with faculty member oversight	1	Completed	ME
Chest Pain								1	Completed	ME
Altered Mental Status									Completed	
CORD Tests										
Infectious Disease							Standardized MCQ test developed by CORD	83.33	75 / 68.80 ± 12.5	ME
Anesthesia								85.00	75 / 79.00 ± 11.1	ME
Urogenital-GYN								73.33	75 / 74.90 ± 10.6	DNM
Clinical Pharmacology								76.00	75 / 76.80 ± 12.1	ME
Psychobehavioral								80.00	75 /	ME
Oral Boards							Simulated Oral Boards Cases		Avg: 5.75 High/Low: 5.00	
Inservice Examination							Standardized MCQ test developed by ABEM		75	
Procedure write-up							Educational module for an assigned procedure		Completed	
Certifications										
BLS							Maintain current certifications	Exp. 6/2010	Current certification	ME
ACLS								Exp. 6/2010	Current certification	ME
APLS								Exp. 7/2010	Current certification	ME
ATLS								Exp. 12/2012	Current certification	ME
Medical Records							Chart completion	ME	100%	ME
Ambulance Ride Along							4 hours / year		Completed	
Sexual Assault							Complete 2 Forensic Exams		Completed	
Conference Attendance							Mandatory – excused for vacation / illness	100%	90%	ME

Outcomes				
Outcome	What level measured? (Resident, Residency, ED, Hospital)	Competencies measured? (PC, MK, PBL,ICS,Prof,SBP)	Importance (low, medium, high)	Feasibility (low, medium, high)
Patients seen per hour	Resident Residency ED	PC,SBP	High	High
Alumni survey	Resident Residency	PC,MK,PBL,ICS,Prof	High	?
Employer survey	Resident Residency	PC,MK,PBL,ICS,Prof	High	?
Patient satisfaction	Resident Residency ED	PC,ICS,Prof	High	Very institution dependent for resident High for ED
ASA in MI	Resident ED	PC	High	High but may be outcome of system and not individual
Intubation success	Resident Residency	PC	High	High
Appropriate US use	Resident Residency	PC	High	?
Central line complication	Resident Residency ED	PC	High	?
Correct ED diagnosis	Resident Residency ED	PC,MK	High	Low
QI Score	Resident Residency	PC, MK, SBP	High	Institution dependent
Pain management	Resident Residency ED	PC	High	?
Faculty evaluation/quarter				
Conference attendance				
Peer review publications				
Downcoded charts				
Documentation of reassessment	Resident			

Emergency Residency Scorecard					
PEOPLE	Current	Additional Data if Available			Notes
Resident-Support of residency, are you content here, would you recommend this program to others? (1-3 below, 4-6 meets, 7-9 exceeds)	8.1				
Resident-Overall program rating by residents (1-3 below, 4-6 meets, 7-9 exceeds)	7.7				
Resident-Overall quality of EM faculty (1-3 below, 4-6 meets, 7-9 exceeds)	7.7				
Faculty-Overall satisfaction with residency program	n/a				
Faculty-rate the overall quality of residency program (1-3 below, 4-6 meets, 7-9 exceeds)	7.8				
Board scores		Low	High	2007	2006
Qualifying Exam Info (average)	84.00	80.00	88.00	86.00	86.00
Oral Exam Info (average)	5.90	5.47	6.69	5.90	6.00
Resident skills base on faculty feedback (1-3 below, 4-6 meets, 7-9 exceeds)		G1	G2	G3	
Patient care-provide appropriate and effective treatment for patients	7.0	6.9	6.7	7.4	
Patient care-compassionate patient care	7.2	7.1	7.0	7.4	
Practice based learning-investigate & eval pt. care practices, appraises & assimilates scientific evidence (ie. evidence based test ordering)	6.9	6.7	6.7	7.4	
Medical knowledge-demonstrates knowledge of sciences & applies	6.9	6.7	6.6	7.3	
Interpersonal & communication skills-result in effective info exchange	7.1	7.1	6.8	7.4	
Resuscitation performance	7.0	6.7	6.7	7.5	
Overall evaluation of resident-has person progressed	7.0	6.9	6.7	7.4	
EXPERIENCE					
Patient satisfaction by resident		G1	G2	G3	
Would you recommend ED to family and friends (yes-definitely)	94%	94%	94%	95%	
Welcome by PA/Resident (yes-always)	96%	97%	94%	96%	
Confidence and trust in doctors/physician assistants (yes-always)	95%	94%	94%	96%	
Informed of timing (yes-always)	85%	91%	82%	87%	
Would you recommend ED to family and friends (no)	2%	6%	2%	1%	
Welcome by PA/Resident (no)	1%	3%	2%	1%	
Confidence and trust in doctors/physician assistants (no)	2%	6%	2%	2%	
Informed of timing (no)	4%	0%	7%	3%	
Complaints per 1000 ED visits	2.66				
QUALITY					
Patient Visits (6 months)	13,742	G1	G2	G3	
Patients per Hour (6 months)	1.03	2,065	4,965	6,712	
WRVUs/hour (6 months)	2.97	0.75	1.07	1.12	
Levels of billing	n/a	2.12	2.99	3.34	
Ultrasound billings by resident (# per 1000 ed visits)		G1	G2	G3	
Length of stay discharges (minutes)	242	255	249	222	
Length of stay admissions (minutes)	290	304	282	283	
ED return rates	n/a				
Consult rates per ed visit	n/a				
X-ray rates per 1000 ed visit	282.1				data by resident inaccurate due to EPIC flow whereby authorizing overrides ordering
CT rates per 1000 ed visits	107.2				
MR rates per 1000 ed visits	10.5				
Ultrasound rates per 1000 ed visits (non ED performed)	53.2				
Lab rates per ed visit (expand)	n/a				
Room ratios, resident to senior staff ratios					
resident to doc					
midlevel to doc					
rooms/resident					
rooms/midlevel					
STEWARDSHIP					
Residency funding per resident - to organizational entity	185,184				
Direct dept faculty funding/resident, \$ to dept to provide residency	43,148				
Resident salary & benefits/resident	66,945				
Other direct expenses/resident	12,733				
Indirect expenses/resident	62,358				
Marketing/Sales \$'s / resident per year					
Market research \$'s on resident selection process (last 4 years)					
Program development \$'s / resident per year					
Alumni donations per year (\$'s)					
Alumni time donations (hours)					
Applicant counts					
Interview counts					
Acceptance rate					