



A Systems Approach to Evaluation

ACGME Workshop
March 2008



Workshop Objectives

- Define the important elements of a successful evaluation system
- Discuss importance of multi-modal approach to assessment
- Using portfolios as part of an evaluation system



Small Group Exercise

- In your small group, discuss:
 - What currently works well in your residency or fellowship's evaluation system?
 - Why does it work well?

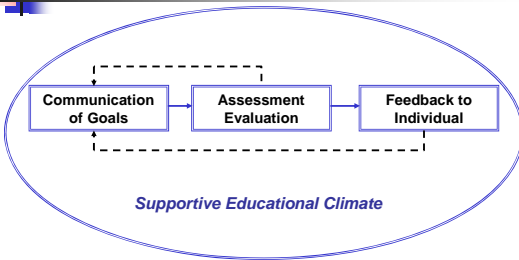


Systems Approach to Evaluation

What is an Evaluation System?



Evaluation System





Evaluation System

- An evaluation system is a group of people who work together on a regular basis to perform evaluation and provide feedback to a population of trainees over a defined period of time
- This system has a *structure* to carry out evaluation *processes* that produce an *outcome*

Adapted from Nelson, 2007



Evaluation System

- This group shares:
 - Educational goals and outcomes
 - Linked assessment and evaluation processes
 - Information about trainee performance
 - A desire to produce a trainee truly competent (at a *minimum*) to enter practice or fellowship at the end of training



Evaluation System

- The system must:
 - Involve the trainees in the evaluation structure and processes
 - Provide both formative and summative evaluation to the trainees
 - Provide a summative evaluation for the profession and public
 - Effective Evaluation = Professionalism



System Components

- Effective Leadership
- Clear communication of goals
 - Both trainees *and* faculty
- Evaluation of competencies is multi-faceted
- Transparency
 - Involvement of trainees
 - Self assessment and reflection by trainees
 - Trainees must have access to their "file"



System Components

- "Competency" committees
 - Need wisdom and perspectives of the group
- Continuous quality improvement
 - Need data on how the system is performing
 - Apply QI principles
 - PDSA cycles
 - Information access



Effective Leadership

- Who?
 - Program director at a minimum
 - Cannot simply "hand-off" evaluation tasks
- Lead by doing
 - Don't ask someone to do something in evaluation you are unwilling to do yourself.
- Be knowledgeable about evaluation and feedback methods
 - Will be dynamic, not static, over time



Effective Leadership

- Effective communicator/collaborator
 - Faculty, trainees, nurses, administrators, etc.
 - Support faculty development
- Apply quality improvements principles to evaluation system
 - Evaluations can always get better
- Take negative evaluations seriously
 - Failure to do so – untoward consequences
 - Both faculty and the trainee



Communication of Goals

- Define the goals
 - Facilitates understanding and evaluation
 - Best to involve faculty and residents
- Use the ACGME competencies as a framework
 - Same competencies used for maintenance of certification by ABMS
- Use multiple venues to communicate goals



Small Group Exercise

- How do you currently communicate the goals of evaluation to:
 - Faculty?
 - Trainees?
- How could you improve this process in your own training program?



Multi-modal Assessment

- No single "tool" sufficient to evaluate all components of competence
 - Pick best combination that meets your needs in context of local resources
- Evaluation tools and faculty
 - Nothing ever works perfectly
 - Embed CQI into evaluation system



Competence Defined

“Adequate for the purpose; properly or sufficiently qualified; having suitable or sufficient skill, knowledge, experience, etc; capable...”



“Competence” vs. “Performance”

- Competence:
 - What the learner *can* do under controlled conditions.
- Performance:
 - What the learner *does* habitually under day-to-day conditions
- Terms are often used interchangeably

Pangaro, CDIM, 2005



Competency-based Training

- Fundamental requirement:
 - You have to *know* the trainee is truly competent to progress to the next stage of their career
- Robust, multifaceted evaluation system
 - Most current systems not up to the task
 - Reform of fellowship evaluation just beginning
 - Portfolio process: the future of GME?

Competency-based Training: A Change in *Assessment*

Process-based:

- Proxy (tests)
- Removed (gestalt)
- Norm-referenced
- Emphasis on summative
- Fixed time for training

Competency-based:

- Authentic (real pts)
- Direct observation
- Criterion-referenced
- Emphasis on formative
 - Developmental
- Variable time

Carraccio, 2002

Patient Care

Trainees must provide Patient Care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

Patient Care: Themes

- Clinical skills *essential* to patient care
- Cannot make "good" decisions unless you work with good and accurate information
 - GIGO principle
- Evaluation of clinical skills *requires* direct observation

“You can observe a lot just by watchin’.”

Yogi Berra

Videotape Exercise

- Watch the following counseling session and rate the trainees performance on counseling skills

Then...

- Discuss in your small groups what you believe would constitute an effective counseling session

Key Basic Clinical Skills

- Medical interviewing
- Physical examinations
- Counseling/patient education
- Clinical judgment/reasoning
- Reflective practice
 - Self-directed learning
 - Professional growth and improvement

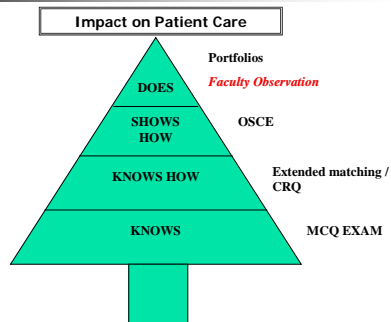
Clinical Skills: Trainees

- Stillman (1990)
 - Wide variability in MS4 clinical skills
- Sachdeva (1995)
 - Wide variability in surgery intern skills
- Mangione (1997)
 - Deficient cardiac auscultatory skills
 - Medical students, FP and IM residents

Importance of Faculty

- Northwestern Study
 - Lancet 2003
 - Reviewed 100 consecutive admissions
 - Faculty detected 26 PExam findings missed by house staff that changed management
- Wisconsin and USUHS Outpt. Studies
 - Faculty assessment disagreed with that of house officer in up to 30% of patients

Miller's Pyramid





Evaluation tools: Patient Care

- Direct observation by faculty
 - MiniCEX (ABIM)
 - Evidenced-based: 2 US reliability and feasibility studies (Norcini/ABIM)
 - Now required in UK for Foundation trainees
 - Structured clinical observation (SCO)
 - Checklists
 - Cambridge-Calgary and SEGUE for communication
- Standardized patients
- Multi-source feedback



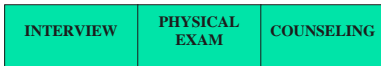
MiniCEX in the Outpatient Clinic

- One mini-CEX per trainee per day per week
 - One attending observes portion of first visit of the day
 - Minimizes disruption of clinic
 - Perform over course of *academic year*
 - *Easy to obtain 6-8 Mini-CEX's per year per trainee*



The Patient Encounter

- Sampling "parts" of the encounter:





Medical Knowledge

Residents must demonstrate Medical Knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care



Medical Knowledge: Methods

- In-training Examination (ITE)
- Questioning
 - Morning report
 - Rounds
 - Precepting
- Chart stimulated recall



ITE: Important Properties

- High reliability
 - IM ITE ≈ 0.9
 - Overall score > subsection scores
- Predictive validity: certification exam
 - Family Medicine, General Surgery, Internal Medicine, Radiology, Orthopaedic Surgery, Psychiatry
- Residents value feedback from ITE



ITE: Validity

- ITE versus faculty ratings
 - ITE significantly more accurate measure of global knowledge than faculty
 - Faculty ratings of knowledge have very poor predictive value for ITE/ABIMCE
 - Faculty mostly focused on "case-based" knowledge

Hawkins, et al. Am J Med 1998



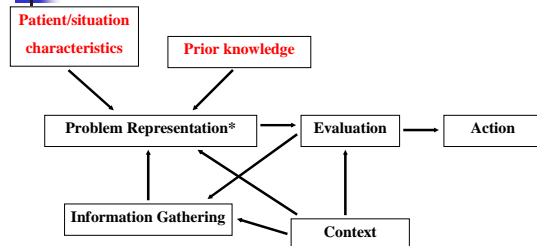
Medical Knowledge

Small Group Exercise:

How does your program utilize the results of the ITE?



Clinical Reasoning: A Primer



Gruppen and Frohna, International Handbook on Research, 2002



Promoting Clinical Reasoning

- Minimize overuse of recall questions
- Use compare and contrast learning
- Avoid “what am I thinking now?”
- Encourage identification of key features of an illness



Promoting Clinical Reasoning

- Use of information technology at the point of care
 - Clinical Evidence and Cochrane database
 - Green (2000): Two of every 3 questions go unanswered each clinic session
- Will require teaching a new set of skills: *Asking* the right questions and *finding* the information quickly



Chart-Stimulated Recall

- Uses the medical record as a reference point for questioning
- Specifically targets clinical reasoning
 - Rationale for choices made or *not* made
- May be particularly helpful for rotations with less direct supervision (night float)
- Opportunity to reinforce principles of documentation



Professionalism

Residents must demonstrate Professionalism, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population



Charter on Professionalism

- Fundamental principles
 - Primacy of patient welfare
 - Patient autonomy
 - Social justice



Charter on Professionalism

- Principle responsibilities and commitments:

<ul style="list-style-type: none"> - Competence - Patient confidentiality - Appropriate relations - Just distribution of finite resources - Professional responsibility 	<ul style="list-style-type: none"> - Honesty - Improve quality of care - Improve access to care - Scientific knowledge - Maintain trust/COI
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Interpersonal and Communication Skills

Residents must demonstrate Interpersonal and Communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals



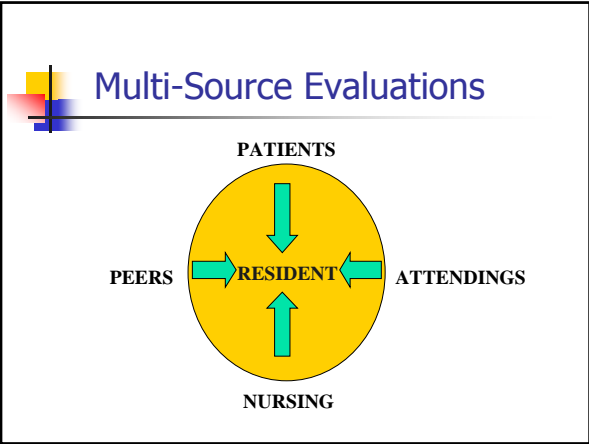
Communication and Professionalism

- Evaluation Tools
 - OSCE's and Standardized patients
 - Assess *capability*
 - Faculty direct observation
 - Assess *performance* with actual patients
 - Multi-source evaluation
 - Including patient surveys
 - Assess performance with other providers, not just patients

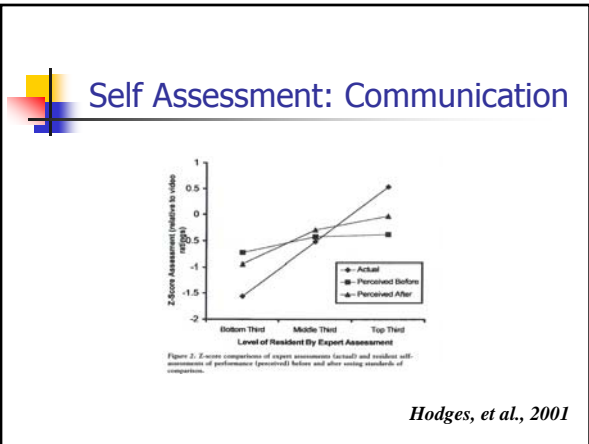


Multi-source Evaluations

- Definition
 - Also known as "360 degree" evaluations
 - Evaluation completed by multiple individuals, usually from different perspectives
 - Faculty, peers, nurses, students, patients, other health care providers (medical assistants, social workers, technicians, etc.)



- ## Self-Assessment
- Davis and Colleagues (JAMA, 2006*)
 - Although studies limited, physicians' ability to self-assess and self-evaluate poor
 - Lowest performers appear to be at greatest risk
 - Cannot perform self-assessment in isolation
 - Knowledge-performance discordance
 - Need *guidance* and *data*
 - McLeod, Klessig studies
 - Self ratings of humanism weakly related to others' ratings of humanism
- *JAMA. 2006; 296: 1094





Peer Assessment

- Advantages
 - Frequent, close contact
 - Probably good for:
 - Interpersonal relationship skills
 - Technical/cognitive skills
- Medical studies
 - Inter-rater peer reliability moderate
 - Learner-faculty reliability weak to moderate

Arnold, Acad Med, 2002; Norcini, Med Educ, 2003



Peer Assessment

Norcini: 5 step implementation process

1. Purpose of assessment should be stated, preferably in writing
2. Assessment criteria must be developed and communicated to participants
3. Participants should receive *training*
4. Monitor results throughout implementation
5. Provide feedback to all participants



Nurses

- Data suggests reasonable reliability with smaller number of nursing evaluations
 - Butterfield, et al.
 - 3-5 nursing evaluations could identify "outlier" physicians 90% of the time
 - Wenrich, et al; Wolliscroft, et al.
 - 10-15 nursing evals for sufficient reliability



Patients

- Need anywhere from 20-80 patient ratings for sufficient reliability
 - Provider-level CAHPS requires 45 surveys
 - Nationally endorsed quality measure (NQF)
 - Patients, like faculty, unable to discriminate between the different dimensions of competence
 - Patient satisfaction surveys probably best used as a formative assessment tool



Patients and Humanism

Issues affecting ratings:

- Gender of patient and trainee
 - Women patients: male MDs more humane in 1 study
- Ethnicity
- Age
- Health status of patient:
 - Older, less ill patients tend to rate trainee humanism higher



Professionalism: Key Issues

- Ginsburg:
 - Should evaluate behaviors rather than personal characteristics based on abstract idealized definitions
 - Must consider "clash of values"
 - Managed care versus medical care
 - Conflicts inevitable
 - How a trainee solves/handles the conflict may be the most important skill



Professionalism: Key Issues

- Professionalism is not a static concept with “permanent” rules – evolves
- Often context dependent
 - One study showed that “negative” behaviors more likely to be reported on teams where the leader was either absent or laissez-faire



Professionalism: Key Issues

- Hidden Curriculum
 - “Do as I say and not as I do”
 - May be most profound factor in shaping trainee professionalism
 - Reluctance to report unprofessional behavior
 - Medical students: High degree of cynicism by graduation



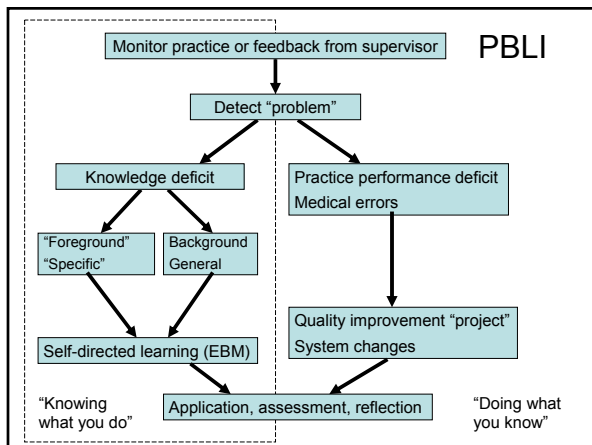
Practiced-based Learning and Improvement

Residents must engage in Practice-Based Learning and Improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care



PBL and I

- Two major themes:
 - Effective application of EBP to patient care
 - Diagnostics, therapeutics, etc
 - Includes clinical skills!
 - Quality improvement
 - Individual improvement: reflective practice
 - Systems improvement: active participant



- It states the question
 - It specifies who is responsible for answering it
 - It reminds everyone of the deadline
 - It reminds everyone of the steps of searching, critically appraising and relating the answer back to the patient
- <http://www.cebm.utoronto.ca/practise/formulate/eduprescript.htm>

Rx Educational Prescription

Patient's Name: _____ Learner: _____

3-part Clinical Question

Target Question: _____

Intervention (or comparison): _____

Outcome: _____

Date and place to be filed: _____

Formulation and use:

1. search strategy
2. search results
3. the validity of the evidence
4. the applicability of the valid evidence
5. use the valid, appraised evidence on applied to your patient.
6. your evaluation of the process.



Systematic review of EBP evaluation instruments - 2006

- Development, description, learner levels, EBP evaluation domains, psychometric testing
- 104 unique instruments
- Good inter-rater reliability (Kappa 0.52 – 0.69)
- Instrument quality classification
 - Type, extent, methodology, and results of psychometric testing
 - Suitability for different evaluation purposes

Shaneyfelt T, Green ML, et al. *JAMA*. 2006;296(9):1116-1127



Knowledge and Skills Evaluation

- Fresno Test
 - Case best test
 - All EBM steps
 - Formulate focused question
 - Identify most appropriate study design
 - Show knowledge of electronic database searching
 - Identify issues for relevance and validity of an article
 - Discuss the magnitude and importance of results

Ramos, et al, *BMJ* 2003;326:319-21



EBM "Portfolios"

- Collection of "filled" EBM prescriptions¹
- Web-based compendium of clinical questions²
- Computerized automated learning analysis (KOALA)³
 - 41 residents at 4 programs recorded 7049 patient encounters and 1460 learning incidents
 - Residents with prior exposure has higher SDLRS
- RCPSC "PC Diary"⁴
- ABIM Point of care clinical question module (2008)

¹Rucker L, *Acad Med* 2000;75:527-8

²Crowley SD, *Acad Med* 2003;78:270-274

³Fung, et al, *Med Educ*. 2000;34(6):474-479

⁴Parboosingh J, *J contin educ health prof*, 1996;16(2):75-81.



EBM Performance Evaluation

- Audiotape of ambulatory teaching sessions¹
- Record Audit
- Portfolios
 - Collection of EBM seminar presentations
 - Yale Day-float rotation portfolio
 - Web-based compendium of clinical questions²

¹Flynn C, et al, *Acad Med* 1997;72:454-5. ²Crowley SD, *Acad Med* 2003;78:270-274.



Resident "Competency": PBL&I

- Customer knowledge: Able to identify needs within resident's patient population
- Measurement: Use balanced measures to show changes have improved patient care
- Making change: Demonstrate how to use several cycles of change to improve care delivery
- Developing local knowledge: Apply CQI to discrete population or different subpopulations

Ogrinc Acad Med, 2003



Residents and QI skills

- Understand key definitions
- Defining aim and mission statement
- How to measure quality
- Understand micro-systems
- Process tools:
 - PDSA
 - Flowcharts



Residents and QI skills

- Role of physician leadership
 - What is a physician opinion leader/champion?
- Working in inter-disciplinary teams
 - Move beyond the ward team concept



Measuring Quality

Donabedian Model

1. Structure: the way a health care system is set up and the conditions under which care is provided



Measuring Quality

Donabedian Model

2. Process: the activities that constitute health care
 - Diagnosis, treatment, prevention, education, etc.



Measuring Quality

Donabedian Model

3. **Outcomes:** the changes (desired or undesired) in individuals that can be attributed to healthcare
 - Change in health status
 - Change in knowledge among patients
 - Change in patient behavior
 - Patient satisfaction



Performance Measures

- Use nationally endorsed performance measures with your trainees:
 - Performance measures clearinghouse on AHRQ website
 - National Quality Forum (NQF)
 - National Committee for Quality Assurance
 - Physician Consortium for Performance Improvement (PCPI)
 - Ambulatory Quality Alliance (AQA)



Approaches to QI Learning

- Embed in existing local QI teams
- Individual QI projects
- Longitudinal resident QI initiatives
- Practice improvement modules (PIMs)



Existing QI Teams

- Embed the resident(s) into existing QI teams
 - Usually hospital-based
 - Peri-operative beta-blocker use at SIU
 - Rotation approach
 - Difficult logistically to involve residents over continuous periods of time
 - Little empiric data regarding impact
 - Residents helpful in identifying errors and suggesting approaches to reducing errors



Individual QI Projects

- Residents learn QI by developing QI projects with faculty mentor
 - Learn PDSA cycle, flowcharting, etc.
 - Multiple studies have demonstrated residents like experience*
 - Improves QI knowledge
 - Limitations
 - Cannot implement all projects
 - Little information on benefit for patients

**Headrick, Ogrinc, Djuricich, Weingart, Moore*



Longitudinal QI Projects

- Residents participate in ongoing initiative
 - Rotate "in and out" of QI initiative/program
 - Continue to use learned skills in own practice
 - Contribute to ongoing adjustments and changes in QI initiatives

Yale PC Program QI Study

- Self-directed curriculum in quality improvement for PGY-2 residents
 - Four week block during ambulatory rotation
 - Longitudinal design
 - "Standard" experience for all residents
 - Patient focus consistent over time: diabetes and prevention
 - Potential to "build" on previous learning and data
 - Allows for sustainability

Yale PC Program QI Study

- Components:
 - Syllabus: Key chapters from IOM reports, instruction in medical record audits, key QI approaches
 - Data collection: Performed self audit of care for their own diabetic patients
 - Reflection: Met weekly with faculty member to review reading, reflect on data, and plan for change
 - Commitment to change: Self chosen areas for self-improvement
 - Follow-up: Repeat reflection 6 months later

Results: DM Processes

Test	PGY2 (N = 43)		PGY3 (N = 48)	
	Baseline	Follow-up	Baseline	Follow-up
Urine microalbumin	54%	59% [†]	52%	32% [†]
Monofilament test once	14%	26%*	6%	8%*
Pneumovax ever	35%	63%	27%	48%
Baseline ECG ever	33%	67%*	19%	31%*

*p < .05; †p < .10

Yale QI Study: Outcomes

Commitment to Change:

- Categories of change:
 - Individual or self change
 - "Check everyone's feet and document"
 - Patient change
 - "Nutrition referral for new diabetes patients"
 - Systems change
 - "Ask medical assistant to place a diabetes flow sheet in front of the chart"

Results: Commitment to Change

Category	Number of changes	Level of implementation		
		Fully	Partial	None
Individual/self change	39	23	12	4
Patient change	3	2	1	0
Systems change	12	4	4	4

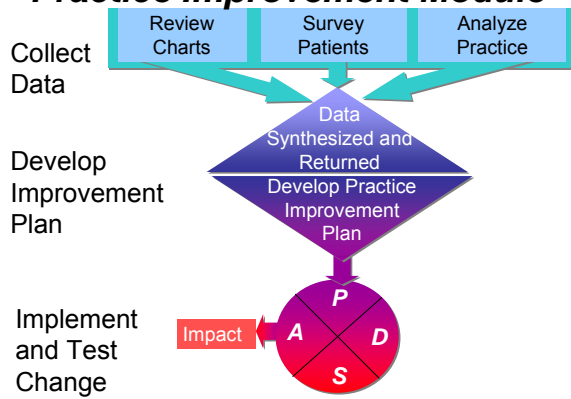
Practice Improvement Modules

- Web-based tool originally developed for maintenance of certification by ABIM
- Walks physicians through a quality improvement cycle
- Feasibility study in 15 residency programs completed 2004-2005.

Current ABIM PIM Model

- 5 Components
 - Medical record abstraction (10-25 charts)
 - Patient survey
 - Assessment of office micro-system
 - Data reflection / QI plan
 - Impact assessment

Practice Improvement Module



PIM Demo Website

www.abim.org/online/pim/demo.aspx



Study Design

- Pre-post feasibility trial
- 15 residency programs stratified by location, type, and size
- Two day training session at ABIM
 - QI champion for each site
- Coaching teams
 - QI "coach" worked with group of 5 programs
 - Monthly team phone calls



Demographics

- 15 programs
- 23 "clinics"
- 736 residents enrolled



Medical Record Audit

<i>Outcome measure</i>	Practicum (N = 4790)	Diplomates (N = 2696)
Sys BP >140	33%	28%
Dias BP > 90	14%	10%
LDL >100	60%	46%
<i>Limitations</i>		
Psychiatric cond	15%	4%
Adherence	25%	13%
Social factors	27%	9%



Patient Survey

Measure	Practicum (N = 3092)	Diplomates (N = 3370)
Mean age	54	65
Self rating health (VG-E)	27%	31%
Practice answer my question*	39%	61%
Diet, exercise, med: prev MI*	33%	52%
Side effects of meds*	32%	43%
Overall rating: Prev card*	37%	63%

* Rating of excellent



Information Management*

Measure	Practicum (N = 29)	Diplomates (N = 107)
Problem List	55%	80%
Med List	66%	97%
Follow trends	41%	41%
Integrated TX plan	31%	60%
Hx/PE Template	59%	83%
Post MI reminders	7%	36%
Med Problem template	17%	80%

*Working well in the practice



Other Lessons

- Medical record audit easy for residents
- Patient surveys a challenge
 - However, data from patients invaluable
 - Many programs targeting communication as one of their interventions
- Effective local champion a must



Small Group Exercise

- In your small group discuss how you currently involve residents in quality improvement
 - How could you improve this process?



Systems-based Practice

Residents must incorporate Systems-Based Practice, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value



Micro-system: Definition

- Small group of people who work together on a regular basis to provide care to discrete subpopulations of patients
- Shares:
 - Clinical and business aims
 - Linked processes
 - Information
 - Produces performance outcomes

Nelson, 2003



Teaching Systems: Ogrinc

- Based on the Tufts HC Institute and the Dreyfus model of skill acquisition
- Three SBP domains:
 - *Health care as a system*
 - *Collaboration*
 - *Social context and accountability*



SBP: The Beginning Resident

Advanced Beginner =

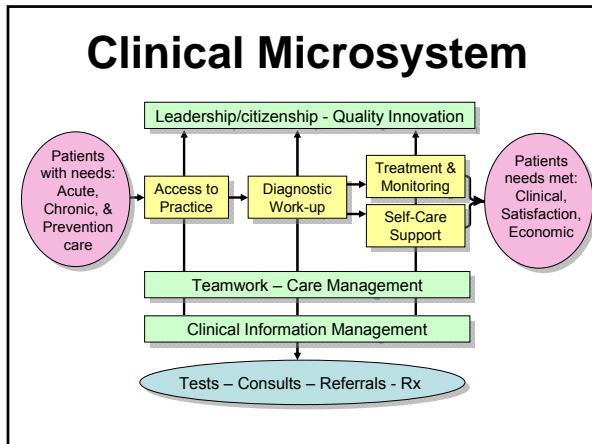
- Be able to describe the system of care for a population of patients with which the resident interacts
- Describe how an effective interdisciplinary team functions
- Describe business case for quality
- Identify methods to improve care for the populations in their practice

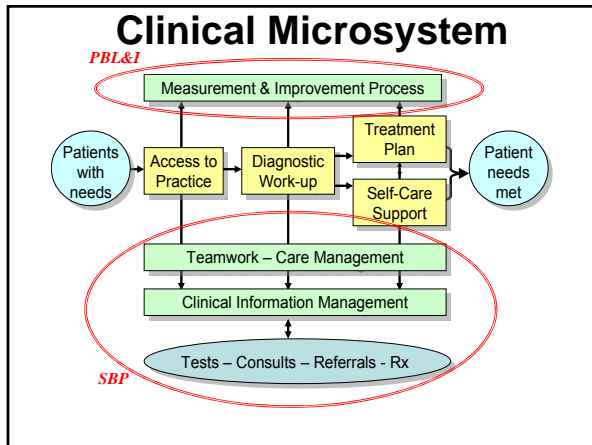


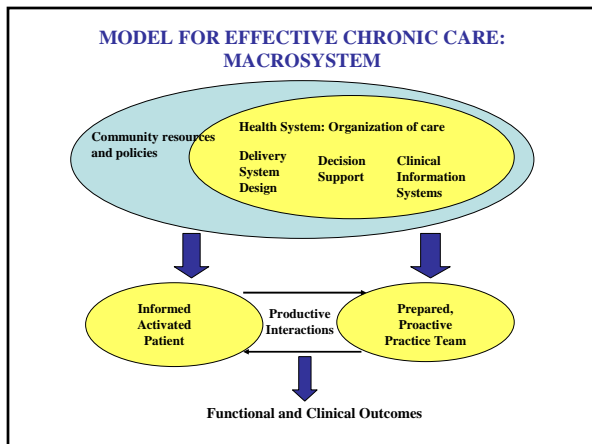
SBP: The Advanced Resident

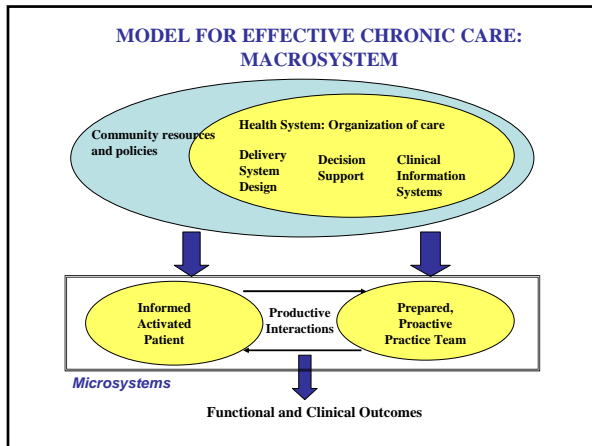
Competence =

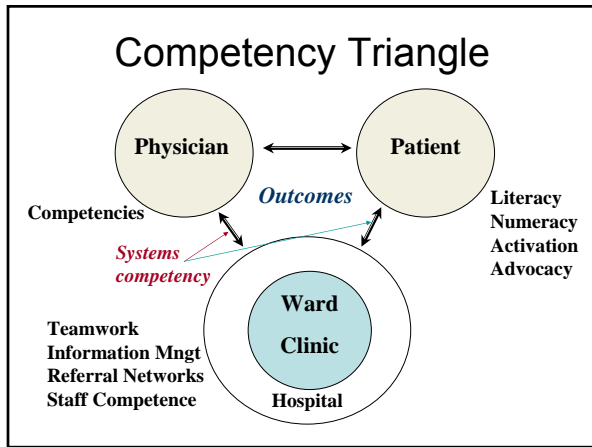
- Understand and describe reactions of a system when perturbed by change initiated by the resident
- Contribute to an interdisciplinary team
- Demonstrate business case for quality in their own practice
- Identify community resources to improve care for individuals within practice

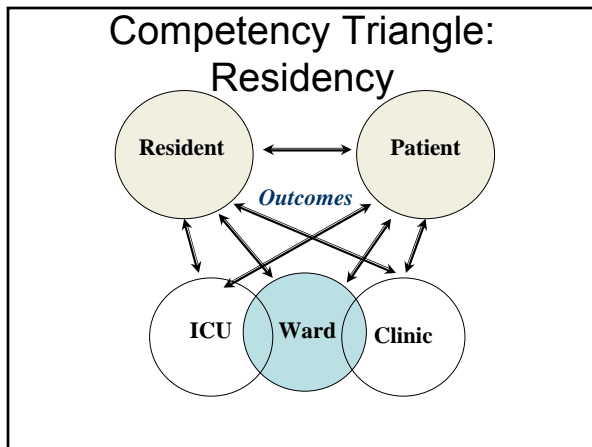














Your Program's Microsystems

- In your small groups, discuss:
- How do your residents integrate into the following microsystems?:
 - Inpatient ward
 - Outpatient longitudinal clinic
 - Intensive care unit
- How could your residents help to improve your program's microsystems?



Working in Teams

- Multi-disciplinary
 - Each discipline contributes its particular expertise independently to an individual patient's care
 - Physician responsible for determining contribution of other disciplines and coordination of services
 - Parallel structure

Hall and Weaver, 2001



Working in Teams

- Inter-disciplinary
 - Team members work closely together and communicate frequently to optimize patient care
 - Team organized around solving common set of problems
 - Frequent consultation
 - Matrix structure

Hall and Weaver, 2001



Approaches to Teaching SBP

- Embed in ongoing project as part of an interdisciplinary team
- Create interdisciplinary rounds
- Resident QI projects under guidance
 - Learning content and processes
 - Continuous versus intermittent
 - Continuity clinic versus block approach



Approaches to Evaluating SBP

- Multi-source evaluations
 - Anyone involved in healthcare and exposed to the residents
- Medical record audits
 - Discharges processes
 - Eric Coleman's CTM-3 discharge tool
 - Utilization of other services, e.g. PT
 - Chart stimulated recall



Challenges in SBP

- Residents often working in dysfunctional "micro-systems"
 - Learning work-arounds instead of optimal practice models
- Not clear how best to incorporate house staff into day to day interdisciplinary teams
 - Traditional model: Oncology and ICU



Conclusions: SBP

- Major shift in focus to systems of care in the training environment
- Multiple opportunities to assess competency in systems
 - Example: discharge processes in both inpatient and outpatient



Portfolios

- What is a portfolio?
 - Portfolio as a "verb"
- Why should we use a portfolio approach in training?
- How could you use a portfolio in your own program?



Portfolios: Definitions

A portfolio is:

- Martin-Kneip (2000): a collection of work that exhibit's the trainee's efforts, progress, and achievements in one or more areas...and represents a personal investment on the part of the trainee...
- Wilkinson (2002): a dossier of evidence collected over time that demonstrates a physician's education and practice achievements.



Portfolio Elements: Medicine

A portfolio should encompass*:

1. Evidence covering the domains of patient care, personal development, and context management
2. Evidence that the doctor continually undertakes critical assessment of performance; identifies, and prioritizes, areas requiring enhanced performance; and takes actions to improve them as appropriate

*Wilkinson, Med Educ, 2002



Portfolio Elements: Medicine

A portfolio should encompass:

3. Evidence that has been generated by assessments that are acceptably reliable
4. Evidence, which taken in its entirety, is sufficient, current, valid and authentic.
 - Authentic (Archibald): *the extent to which the outcomes measured represent appropriate, meaningful, significant, and worthwhile forms of accomplishments*

Wilkinson, Med Educ, 2002



Key Components*

1. Creative component that is learner (practicing physician) driven
 - Crucial to reflective practice and professional growth
 - Relevance tied to actual practice

*Carraccio and Englander, TLM, 2004



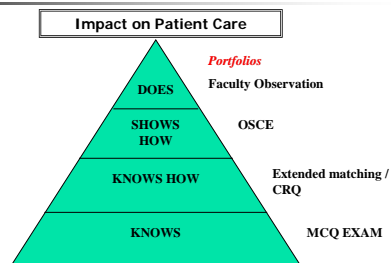
Key Components*

2. Quantitative assessment of learner (practicing physician) performance
 - Friedman, et al: should also include some form of qualitative assessment
 - Importance balance to learner driven aspect of portfolios

*Carraccio and Englander, TLM, 2004



Miller's Pyramid





Portfolio Steps

Portfolio Step	Responsible party
1. Collect Evidence	Program and Trainee
2. Reflection	Trainee
3. Evaluation <ul style="list-style-type: none"> ▪ Evidence/reflection 	PD, Advisor, Committee, Trainee
4. Defense	Trainee to PD, Program
5. Decision	Program

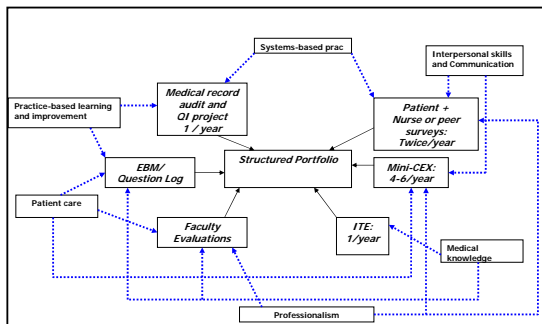
Web-Based Technology Makes Portfolio Possible

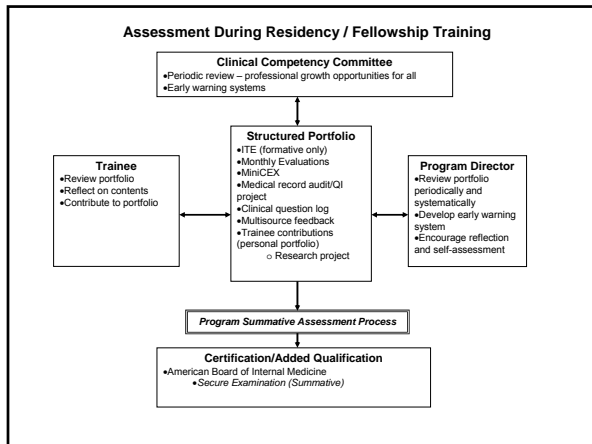
- Some residency programs using now
- ACGME
 - Resident procedure (CPT) and experience (ICD-9) web-based log available now
 - Testing Web-based Portfolio for use in residency
 - Alpha testing in progress
 - Beta tests planned for later in 2008


Portfolio advantages


- Robust assessment of practice outcomes, learning and improvement
- Evidence of actual performance in practice
- Record of reflection and continuous professional development
- Evidence collected over a period of time
 - Not just a cross-section at one point in time
- Measurable progression toward ABIM specified practice and learning outcomes for focused recognition
- Summative *and* formative assessment
- Does not require complex educational and direct observation infrastructure

Multi-faceted Evaluation





-  **Committees and Information**
- Evaluation (“competency”) committees can be invaluable
 - Develop group goals
 - “Real-time” faculty development
 - Key for dealing with difficult residents
 - Accessible information
 - Evaluation information needs to be accessible to both faculty and residents in timely fashion

 **Questions?**

Thank you.
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