Assessment for Learning and Feedback: Key Educator Skills for Fellows
Question: *Why Assess?*
Why Assess?

- Learner
  - Professional development
  - Assessment drives learning
- Program
  - Part of educational professionalism
  - Public accountability
- Intrinsic part of a competency-based medical educational program:
Traditional versus CBME: Start with System Needs

Frenk J. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010
# Process vs. Outcome Approach

<table>
<thead>
<tr>
<th>Variable</th>
<th>Educational Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure/Process</td>
<td>Outcome-based</td>
</tr>
<tr>
<td>Teacher</td>
<td>Learner</td>
</tr>
<tr>
<td>Hierarchical</td>
<td>Non-hierarchical</td>
</tr>
<tr>
<td>(Teacher→student)</td>
<td>(Teacher↔student)</td>
</tr>
<tr>
<td>Teacher</td>
<td>Student and Teacher</td>
</tr>
<tr>
<td>Knowledge acquisition</td>
<td>Knowledge application</td>
</tr>
<tr>
<td>Single subject measure</td>
<td>Multiple objective measures</td>
</tr>
<tr>
<td>Proxy</td>
<td>Authentic (mimics real tasks of profession)</td>
</tr>
<tr>
<td>Removed (gestalt)</td>
<td>Direct observation</td>
</tr>
<tr>
<td>Norm-referenced</td>
<td>Criterion-referenced</td>
</tr>
<tr>
<td>Emphasis on summative</td>
<td>Emphasis on formative</td>
</tr>
<tr>
<td>Fixed time</td>
<td>Variable time</td>
</tr>
</tbody>
</table>

Assessing for the Desired Outcome

- Knows (knowledge)
- Knows How (competence)
- Shows How (performance)
- Does (action)

Performance in Practice//Multi-source feedback/
Direct Observation

- Standardized Patients/Simulation
- Diagnostic Reasoning using clinical vignettes or CSR
- Multiple choice Questions

Work-based assessment is mostly accomplished through the observations and questions of faculty, team members, peers and other co-workers.
Small Group Discussion

- What assessment methods do you currently use to assess the competencies of the residents and students you work with?
  - How do you prepare to use these methods?
Assessment Basics:
Questions
Observing
Evaluation Forms
Clinical Reasoning Primer

- Patient HPI/PE
- Prior knowledge
  - Deficiencies on “hard drive”
  - Premature Closure
- Problem Representation
  - Synthesis errors
- Information Gathering
- Evaluation
- Context
- Action

Gruppen and Frohna, 2002
Open vs Closed Questions

- Closed
  - Simple response
  - Usually one word or phrase

- Open
  - Response is up to the person answering
  - Elicits more thinking and information
Question Types

- **Recall**
  - What, how, why?
    - What is the significance of dip stick positive hematuria in the absence of RBCs?

- **Analysis/synthesis**
  - Demonstrate reasoning
    - There are multiple causes for falls in the elderly, what features of this presentation suggest volume loss/anemia as opposed to drug side effect?

- **Application**
  - Apply knowledge/skills/attitudes to a specific presentation
    - In the setting of renal insufficiency with a history of diabetes, new NSAID use, and polymyositis, how would you distinguish/determine etiology?
Critical Thinking

- **Good Thinking**
  - Sensitivity
    - Interest in gaining more information
  - Seeking alternatives
  - Inclination
    - Willing to invest energy in thinking the matter through
  - Ability
    - Possess the cognitive ability

- **“Bad Thinking”** – “cognitive misers”
  - Chose to take mental shortcuts, engage in heuristic thinking,
  - without interest in “good thinking”

Krupat 2011
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
The One Minute Preceptor

- Clinical teaching strategy
- 5 microskills
  - Get a commitment
  - Probe for supporting evidence
  - Teach a general rule
  - Reinforce what was done right
  - Correct mistakes

Discussion

- How do you use questions as part of your teaching and assessment with residents and students?
Factors Influencing Observation

- Own competencies
- Different frameworks for judgments/ratings
  - Self-as-reference (predominant)
  - Trainee level, absolute standard, practicing MD
- Contextual factors
  - Encounter complexity, resident characteristic and institutional culture
- Emotions surrounding constructive feedback
- Inference

Who Watched You?

Being Observed
- How did it feel?
- Was it useful?

Have you done it?
- How did it feel?
- Was it useful?
Evaluation Forms

• Commonly used for longitudinal experiences
  • Clerkships, rotations or rotas, etc.

• Usually includes a rating scale
  • Variable number of gradations (e.g. 3-9)
  • Descriptors highly variable

• Space for comments often provided
  • But often used sparingly…
Why Do These Forms Not Work Well?

Because there is NO Evaluation Form that Completes Itself: The “Form” is Only as Effective as the Individual Using It!
Small Group Exercise

• Define, in behavioral terms, the descriptors that would denote a mid-year second year resident in your discipline who was on a appropriate trajectory of “competence” for:
  • Patient care and procedures
  • Medical Knowledge
Narrative Evaluation

• **Definition:** A spoken or written account of connected events; a story

• Given that the “numbers” fail to discriminate between dimensions of competence, does “narrative” comments provide additional insight in resident performance?
<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquires a general medical history</td>
<td>Acquires a basic physiatric history including medical, functional, and psychosocial elements</td>
<td>Acquires a comprehensive physiatric history integrating medical, functional, and psychosocial elements</td>
<td>Efficiently acquires and presents a relevant history in a prioritized and hypothesis driven fashion across a wide spectrum of ages and impairments</td>
<td>Gathers and synthesizes information in a highly efficient manner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seeks and obtains data from secondary sources when needed</td>
<td>Elicits subtleties and information that may not be readily volunteered by the patient</td>
<td>Rapidly focuses on presenting problem, and elicits key information in a prioritized fashion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Models the gathering of subtle and difficult information from the patient</td>
<td></td>
</tr>
</tbody>
</table>

**Specific Milestone**

- Elicits subtleties and information that may not be readily volunteered by the patient
Shared Mental Model Challenge

MILESTONES

* From TeamSTEPPS/AHRQ
Dreyfus & Dreyfus Development Model

Novice → Advanced Beginner → Competent → Proficient → Expert/Master

Time, Practice, Experience

Dreyfus SE and Dreyfus HL. 1980
Carraccio CL et al. Acad Med 2008;83:761-7

© 2014 Accreditation Council for Graduate Medical Education
Questions and Discussion
Contact Information

eholmboe@acgme.org