Leaving On A Jet Plane

Milestones and EPAs in The NAS (Next Accreditation System)

Craig Noronha MD
Rachel Simmons MD

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Learning Objectives

• Description of the current evaluation system and future evaluation system

• Illustrate the use of milestones and EPAs in the evaluation of trainees

• Prioritize milestones for a EPA
Current Evaluation System

6 Core Competencies

Patient Care
Medical Knowledge
Professionalism
Practice Based Learning and Improvement
Interpersonal and Communication Skills
System Based Learning
A Tale of 2 Residents

Medical Knowledge – Scale of 1-9

1 = Limited knowledge of basic and clinical sciences. Does not understand complex relations. Minimal interest in learning.

9 = Exceptional knowledge of basic and clinical sciences; comprehensive understanding of complex relationships, works to enhance knowledge through independent reading.
A Tale of 2 Learners

Resident A
Received an average of an 8 in medical knowledge on evaluations. Wants to go into GI.

Resident B
Received an average of 8 in medical knowledge on evaluations. Not sure what he wants to do, but likes inpatient medicine.

Who is the more advanced learner?
Medical Knowledge

Scale of 1-9

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A Tale of 2 Residents

Resident A
Received an average of 8 in medical knowledge on evaluations
- PGY3 resident who is graduating next month and starting a hospitalist job while applying for GI

Resident B
Received an average of 8 in medical knowledge on evaluations
- PGY1 resident evaluation after 1st month of residency
Questions for you?

• Who is ready to practice independently?

• Who do you think is ready to care for your mom without any supervision?
A Tale of Two Other Learners

• Student 1- Can recognize numbers up to 20 and can count up to 10 without help. Enjoys coloring with crayons and watching Sesame Street

• Student 2- Can do advanced algebra and use integration to solve complex math problems. Enjoys texting on cell phone and watching Breaking Bad

Who is the more advanced learner?

Observed Measurable Behaviors!
How are Residency and Fellowship Programs going to be accredited?

ACGME Developed System- Input from several groups

July 1st, 2013 - 7 core specialties (internal medicine)

July 1st, 2014 - ALL Residents and Fellowships
NAS

1) Enhance the ability of peer-review system

2) Accreditation based on educational outcomes

3) Reduce current Administrative Burden

NAS

1) Enhance the ability of peer-review system

2) Accreditation based on educational outcomes
   Competency-Based Medical Education

3) Reduce current Administrative Burden

Competency-Based Medical Education

• An outcome-based approach to the design implementation, assessment and evaluation of a medical education program using an organizing framework of competencies

The International CBME Collaborators, 2009
ACGME General Competencies

Patient Care
Medical Knowledge
Professionalism
Practice Based Learning and Improvement
Interpersonal and Communication Skills
System Based Learning
Concepts

- **Competency**: an *observable* ability of a health professional, integrating multiple components such as knowledge, skills, values and attitudes

- **Competent**: *Possessing the required abilities* in all domains in a certain context at a defined stage of medical training

- **Competence**: Competence entails more than the possession of knowledge, skills, and attitudes; it requires one ... *to apply these [abilities]* in the clinical environment to achieve optimal results

*The International CBME Collaborators, 2009
^ten Cate, Med Teach, 2010
Competemglish

• Competency – the thing(s) they need to do

• Competent – can do all of the things

• Competence – does all of the things consistently, adapting to contextual and situational needs
Patient Care: Performing an LP

**Novice**
- Possesses insufficient skills
- Novice

**Adequate skills, Enough to get by**
- Washes hands
- Performs time out
- Identifies landmarks
- Obtains CSF
- Adequate skills, Enough to get by

**Master**
- Maximizes comfort and safety
- Teaches and supervises LPs for junior members
- Master Exceptional skill

Adapted from E Reynolds
Milestone

• **Observable** developmental steps moving from Novice to Expert

• Milestones identify the discrete knowledge, skills, and attitudes expected of learners as they progress through training.

• Organized under 6 domains of clinical competency
IM Curricular Milestones

142 developmentally based, specialty specific achievements that residents are expected to demonstrate at established intervals as they progress through training. All are linked to specific competencies.

Examples in Patient Care:
6 months of training- Acquire accurate and relevant history from the patient in an efficiently customized, prioritized, and hypothesis driven fashion.

30 months of training- Role model gathering subtle and reliable information from the patient for junior members of the health care team.
<table>
<thead>
<tr>
<th>Curricular Milestones in Medical Knowledge</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand the relevant pathophysiology and basic science for common medical conditions</td>
<td>6</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge to evaluate common ambulatory conditions</td>
<td>12</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge to evaluate common ambulatory conditions</td>
<td>18</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge to diagnose and treat undifferentiated and emergent conditions</td>
<td>18</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge to provide preventive care</td>
<td>18</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge to identify and treat medical conditions that require intensive care</td>
<td>24</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge to evaluate complex or rare medical conditions and multiple coexistent conditions</td>
<td>36</td>
</tr>
<tr>
<td>Understand the relevant pathophysiology and basic science for uncommon or complex medical conditions</td>
<td>36</td>
</tr>
<tr>
<td>Demonstrate sufficient knowledge of socio-behavioral sciences including but not limited to health care economics, medical ethics and medical education</td>
<td>36</td>
</tr>
<tr>
<td>Understand indications for and basic interpretation of common diagnostic testing, including but not limited to routine blood chemistries, hematologic studies, coagulation studies, arterial blood gases, ECG, chest radiographs, pulmonary function tests, urinalysis and other body fluids</td>
<td>12</td>
</tr>
<tr>
<td>Understand indications for and has basic skills in interpreting more advanced diagnostic tests</td>
<td>18</td>
</tr>
<tr>
<td>Understand prior probability and test performance characteristics</td>
<td>18</td>
</tr>
</tbody>
</table>
Entrustable professional activities (EPAs)

The specific knowledge, skills and attitudes acquired over the course of training that society and our profession believe are critical to performing as a physician. EPAs are defined by milestones in each competency.
An Entrustable Professional Activity

- Part of essential work for a qualified professional
- Requires specific knowledge, skill, attitude
- Acquired through training
- Leads to recognized output
- Observable and measurable, leading to a conclusion
- Reflects the competencies expected
- EPAs together constitute the core of the profession

Cate et al.  
*Acad Med* 2007; 82: 542-4713
Entrustable Professional Activities

“... identify the critical activities that constitute a specialty ... the activities of which we would all agree should be only carried out by a trained specialist.”

Cate et al.

*Acad Med* 2007; 82: 542-47
**EPA- Entrustable Professional Activities**

1. Manage care of patients with acute common diseases across multiple care settings.
2. Manage care of patients with acute complex diseases across multiple care settings.
3. Manage care of patients with chronic diseases across multiple care settings.
4. Provide age-appropriate screening and preventative care.
5. Resuscitate, stabilize, and care for unstable or critically ill patients.
7. Provide general internal medicine consultation to nonmedical specialties.
8. Manage transitions of care.
10. Lead and work within interprofessional health care teams.
11. Facilitate the learning of patients, families, and members of the interdisciplinary team.
13. Improve the quality of health care at both the individual and systems level.
14. Advocate for individual patients.
15. Demonstrate personal habits of lifelong learning.
16. Demonstrate professional behavior.

****Entrustable is NOT a real English word, but ACGME has decided to use it anyways!!****
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Recognizes when to seek help (6 mos)

Actively seeks feedback (18 mos)

Considers alternative solutions provided by other team members (12 mos)

Modifies plan based on course and data (24 mos)

Negotiates patient-centered care (36 mos)

Caverzagie

EPA: Leads and works in professional teams
Hands on Training

1) As an individual you will rank milestones for one EPA – 10 minutes

2) As a group of 4-5 you will discuss your milestone rankings and generate a group ranking - 20 minutes

3) Large group discussion - Each group will discuss its rankings
Ranking

How would you rank the milestones in terms of importance, from your viewpoint.

• Please rank each milestone on a scale of 1-7

• 7 is the most important milestone

• 1 is the least important milestone
Q-Sort Exercise - Priority rank for each item:
7 = most important, 1 = least important
EPA: Manage care of patients with acute common diseases in the inpatient setting

Imagine an intern on the wards in December.

Your job as an evaluator is to demonstrate progress using milestones to achieve this EPA.
Areas of Uncertainty: When, Where, What, Who?

1) In the course of training *when/where* is the best opportunity to assess the chosen milestones?

2) **What** existing assessment(s) can be used or modified to capture resident performance of the chosen milestones? Do we need new assessment tools?

3) Can a particular milestone that is assessed in one EPA also be used to inform assessment of another EPA (and vice versa)?

4) **Who** can best perform this assessment? Will we capture assessment in varied clinical contexts?
Where are we going at BU?

• Several short evaluations vs. one large end of rotation evaluation

• Increased role of direct observation

• How do we make sure each resident achieves each milestone?
<table>
<thead>
<tr>
<th>History</th>
<th>Examination</th>
<th>Data</th>
<th>Clinical Reasoning</th>
<th>Patient Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ major elements missing</td>
<td>□ major elements missing/incorrect</td>
<td>□ major elements missing/incorrect</td>
<td>□ major elements missing or unclear or incorrect</td>
<td>□ Unsafe or incorrect management</td>
</tr>
<tr>
<td>□ major elements present</td>
<td>□ major elements present</td>
<td>□ major elements present, however, too much or too little information</td>
<td>□ Basic diagnostic tests appropriately interpreted. Clinical reasoning reasonable overall for patient’s central problem, some element of differential may be missing</td>
<td>□ Appropriate plan for patients with common and complex conditions. Recognize situations that need urgent or emergent care</td>
</tr>
<tr>
<td>□ major elements and subtle historical points</td>
<td>□ major elements and subtle findings elicited, appropriate maneuvers performed</td>
<td>□ All relevant data included</td>
<td>□ Advanced tests correctly interpreted. Physical exam and tests support diagnosis, clear clinical reasoning, recognize disease presentations that deviate from common patterns</td>
<td>□ Appropriate and timely interventions/additional tests for patients with complex and rare conditions, apply guidelines/EBM to patient</td>
</tr>
</tbody>
</table>

**Night Float Chart Audit**
The BIG picture

Curricular Milestones -> EPA -> Narratives -> NAS

Faculty
Thank You!