AAMC

Tomorrow's Doctors, Tomorrow's Cures

Learn

Serve

Lead

EPAs and Milestones: Integrating Competency Assessment into Authentic Clinical Practice

Robert Englander, MD MPH

APD Meeting

September 15th, 2012

Association of American Medical Colleges

Objectives

- Develop a working knowledge of milestones and Entrustable Professional Activities (EPAs)
- Understand how the milestones can hone our observation skills in assessing learners
- Understand how EPAs can make assessment of learners more meaningful
- Begin to create the future of education and training in dermatology

AAMC

Central Tenet of CBME

AAMC

The Vision for Physician Formation

Physicians will spend their careers (from entrance to UME to exit from practice) on a developmental trajectory, building mastery in:

- Patient Care
- Medical Knowledge
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice
- Practice-based Learning and Improvement
- Interprofessional Collaboration
- Personal and Professional Development

AAMC

Competencies for the Domain of Interprofessional Collaboration

- Work with individuals of other professions to maintain a climate of mutual respect and shared values
- Use knowledge of one's own and others' roles to assess and address health care needs of individuals and populations
- Communicate with patients, families, communities and other health professionals to optimize health maintenance and treatment of disease
- Perform effectively in different team roles to plan/deliver patient/population-centered care that meets the IOM quality aims

AAMC

Competencies for the Domain of Personal and Professional Development

- Engage in help-seeking behaviors
- Demonstrate a healthy response to stress
- Manage conflict between personal and professional responsibilities
- Practice flexibility and maturity in response to change
- Demonstrate trustworthiness
- Demonstrate leadership that ultimately improves patient care
- Demonstrate confidence
- Manage Uncertainty

AAMC

Starting with the End in Mind: How We Put It All Together is Key

- Sharing perspectives to get us to the same mental image of learner behaviors

- Sharpening our focus so that we can clearly see all that there is to see during direct observation

AAMC

Observational Skills

Honing faculty skills in observation of learners is critical to the implementation of the competencies and milestones, and to meaningful assessment

AAMC

Observation Skills Video

Global Rating: Patient Care

Patient Care *(Question 1 of 9 - Mandatory)*

- Incomplete, inaccurate medical interviews, physical examinations, and review of other data; incompetent performance of essential procedures; fails to analyze clinical data and consider patient preferences when making medical decisions.
- Incomplete, illogical, superficial
- Inept, careless, disregards risk and discomfort to patients
- Does not use information from technology or references to support patient care decisions and patient education
- Does not work effectively with other health care professionals

- Superb, accurate, comprehensive medical interviews, physical examinations, review of data, and procedural skills; always makes diagnostic and therapeutic decisions based on available evidence, sound judgment, and patient preferences
- Logical, thorough and efficient
- Proficient, minimizes patients' discomfort
- Uses information technology and references to support patient care decisions and patient education.
- Works effectively with other health care professionals

Not Applicable	1-3 = Unsatisfactory			Marginal	5 - 6 = Satisfactory		7 - 9 = Superior		
0	1	2	3	4	5	6	7	8	>> 9 <<

Trigger Encounter Video

An 18 month old child presents to the Pediatric Emergency Department with fever and a first seizure*

***Special thanks to Dan Schumacher and Brad Benson for the writing and producing of this video**

AAMC

Rate a 3rd Year Student Clerk Performance

1. Unsatisfactory
2. Unsatisfactory
3. Unsatisfactory
4. Marginal
5. Satisfactory
6. Satisfactory
7. Superior
8. Superior
9. Superior

AAMC

Rate a PGY-2 Performance

1. Unsatisfactory
2. Unsatisfactory
3. Unsatisfactory
4. Marginal
5. Satisfactory
6. Satisfactory
7. Superior
8. Superior
9. Superior

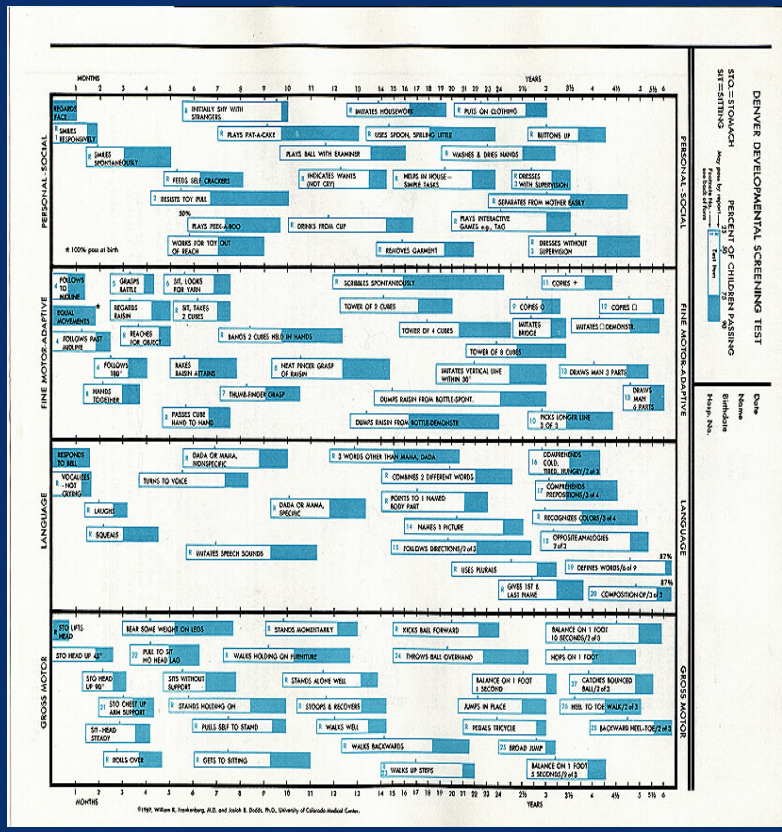
AAMC

How do we improve the validity and reliability of our assessments?

The Milestones!

AAMC

Pediatricians LOVE Milestones !!



AAMC

The Milestones Project Charge

- Refine the competencies in the context of the specialty
- Set Performance Standards
- Identify or develop tools for assessment of performance

AAMC

Guiding Principles

- The 6 domains of competence are necessary, but may not be sufficient
  - *National Program Director Survey → new sub-competencies*
- Milestones must be grounded in the literature
  - *Extensive literature review beyond the medical realm*
- Milestones describe sequential behaviors, providing a learning roadmap for trainees
- Milestones span the continuum from UME to CME

AAMC

Pediatrics Milestones: Process

"Succession of lenses"

Comb the literature

Build upon relevant models and theories

Revise to accommodate "lenses"

AAMC

The Product

A series of milestones for each of the 51 competencies

AAMC

Example Competency in the Domain of Patient Care

Making informed diagnostic and therapeutic decisions that result in optimal judgment

AAMC

"First level"

Recalls and presents clinical facts in the history and physical in the order they were elicited without filtering, reorganization or synthesis

Non-prioritized list of all diagnostic considerations rather than the development of working diagnostic considerations

Difficulty developing a therapeutic plan

Summary: Regurgitates history and physical and then looks to supervisor for synthesis and plan.

AAMC

"Second Level"

Focuses on features of the clinical presentation, making pattern recognition elusive and leading to a continual search for new diagnostic possibilities.

Often reorganizes clinical facts in the history and physical exam to help decide on clarifying tests to order rather than to develop and prioritize a differential.

This often results in a myriad of tests and therapies and unclear management plans since there is no unifying diagnosis

Summary: Jumps from information gathering to broad evaluation without focused differential

"Third Level"

Abstracts and reorganizes elicited clinical findings in memory, using semantic qualifiers to compare and contrast the diagnoses being considered when presenting or discussing the case.

Well synthesized and organized assessment of the focused differential diagnosis and management plan

Summary: Synthesizes information to allow a working diagnosis and differential diagnosis that informs the evaluation and management plan

.

AAMC

“Fourth Level”

Reorganized and stored clinical information leads to early directed diagnostic hypothesis training with subsequent history, physical, and tests used to confirm this initial schema

Able to identify discriminating features between similar patients and avoid premature closure

Therapies are focused and based on a unifying diagnosis, resulting in an effective and efficient diagnostic work-up and plan

Summary: Rapid focus on correct working and differential diagnosis allows efficient and accurate evaluation and management plan

AAMC

Rethinking the Trigger Encounter Using the Milestones

AAMC

Which Milestone best reflects the performance level for an MS 3? A PGY-2?

1. Milestone One
2. Milestone Two
3. Milestone Three
4. Milestone Four

AAMC

Advantages of Competencies

- Insure comprehensive conversation
  - Identify important physician attributes
  - Improvement over “the mist of holistic waffle about professional experience and the ineffability of…intuitive wisdom.”[1]
- Focus assessment on achievement of consensus competencies.

1. Cooke M, Irby DM, O'Brien BC. *Educating Physicians: A Call for Reform of Medical School and Residency.* San Francisco: Jossey-Bass; 2010.

AAMC

Advantages of the Milestones

- Provide a behaviorally-based roadmap of physician development
- Create a common mental model for learner, mentor and evaluator

AAMC

Disadvantages of the Competencies

- Perceived as abstract-not the way we commonly think or speak about the learner in the clinical setting
- How often have you asked a colleague how a resident is doing at “working effectively in various health care settings”? Or “showing responsiveness to patient needs that supersede self-interest”?

AAMC

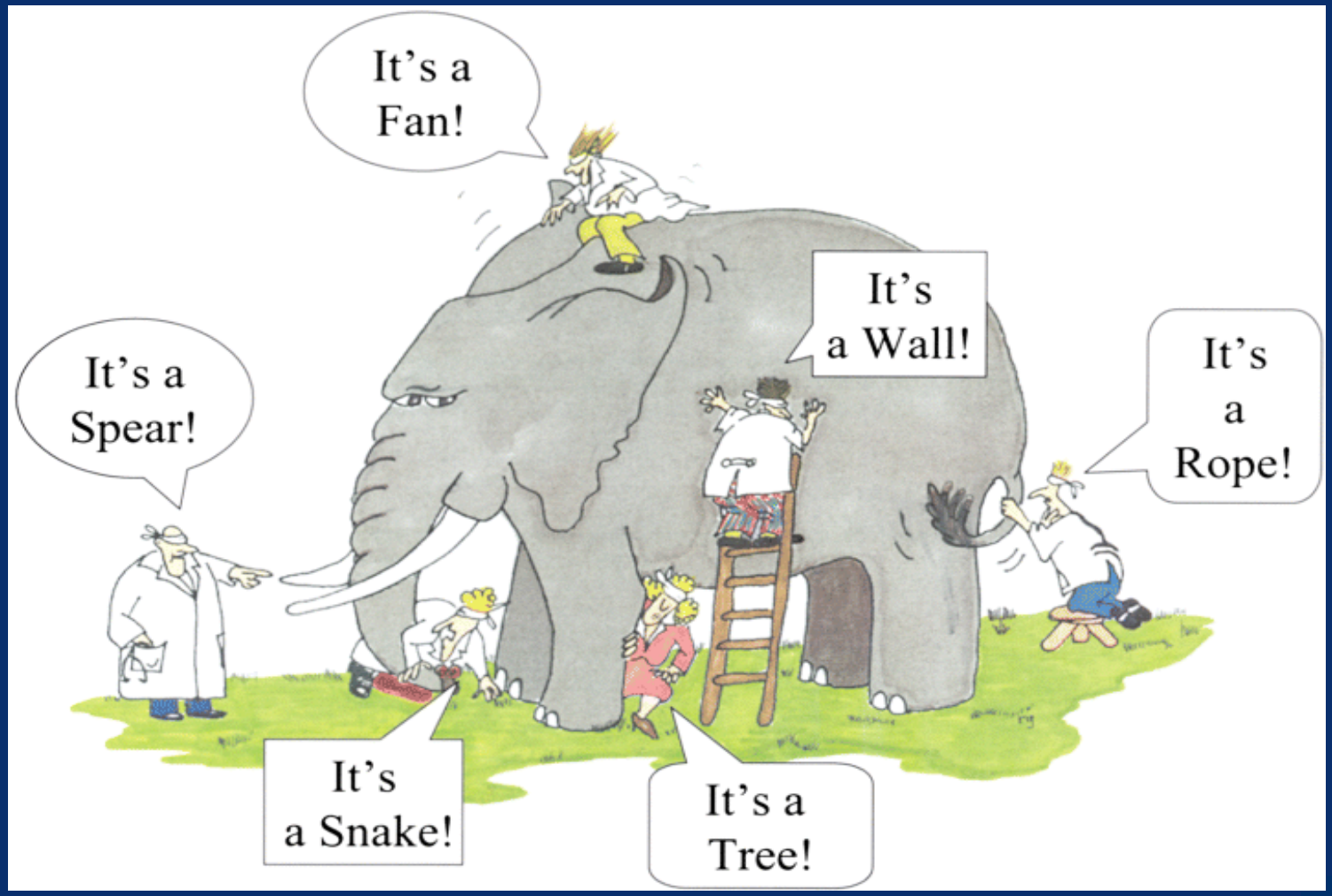
Disadvantages of the Competencies

- Frequently reduced to a “granular” level to allow measurement (the deconstructionist model)

- Have you ever had a learner who gets all the boxes checked on a SCO, but your gut says he still just “doesn’t get it?”

AAMC

Reductionist vs Holistic Paradigms



AAMC

Putting it back together....

EPAs: Giving the Milestones meaning as "Building Blocks" in the Context of Clinical Experience

AAMC

Entrustable Professional Activities

- In aggregate- represent the essential professional work that defines a discipline
- Lead to a recognized outcome
- Are observable and measurable
- Require integration of competencies (KSA) across domains
- Map to competencies and their milestones

AAMC

Why Focus on Entrustment?

It is more meaningful to ask faculty:

- "Do you trust this person to do an inpatient consult on a patient with a rash?"

Versus

- "Is this person competent in PBLI ?"

AAMC

Elements of Entrustment

- Trust is (should be) based on observed, consistently satisfactory performance over time

- Criterion for entrustment: ability to perform a function to a desired level of performance without direct supervision

AAMC

What Does "Entrustable" Mean?

- You won't find entrustable in the dictionary.
- The important concept is trust.
- Generally based on[1]:
  - Ability or level of KSA
  - Hard work and following through (conscientiousness)
  - Telling the truth-absence of deception (truthfulness)
  - Knowing one's limits (discernment)

1. Kennedy et al., Acad Med. 2008;83(10 Suppl):S89–S92

AAMC

Step 1: Identifying EPAs- Begin With the End in Mind

- What does (should) a dermatologist do in everyday practice?

  Translates into the EPAs for general dermatology training

AAMC

Global EPAs for all Physicians

- Provide consultation to other health care providers
- Facilitate handovers to another healthcare provider within or across settings
- Contribute to the fiscally sound and ethical management of a practice (e.g. through billing, scheduling, coding and record keeping practices)
- Lead an Interprofessional Health Care Team
- Apply quality improvement methods to improve care for a population of patients

AAMC

Dermatology-specific EPAs

- Provide care for adult patients with common dermatologic problems (such as…)
- Provide care for adult patients with uncommon dermatologic problems (such as…)
- Provide care for adult patients with complex dermatologic problems (such as…)
- Provide care for pediatric patients with dermatologic disease

AAMC

Dermatology-specific EPAs

- Perform common dermatologic in-office tests
- Provide surgical treatment of skin cancers managed by the general dermatologist
- Refer patients with dermatologic problems requiring sub-specialty care
- Interpret dermatopathology and apply findings to patient care

AAMC

Step 2: Identify the critical functions of the EPA

Example EPA: provide consultation

- Focus the clinical question
- Obtain essential information from the referring physician/practitioner, patient, (and family)
- Apply content expertise in one's specialty
- Take on a supportive role in the health care team

AAMC

Step 3: Mapping the EPAs to their Critical Competencies and Milestones

Mapping must be:

- **JUDICIOUS**
- **Linked to the functions**
- **Necessary for entrustment**

AAMC

EPAs **Judiciously** Mapped to Domains of Competence

	Domains of Competence						
EPAs	PC	MK	PBLI	ICS	Prof	SBP	PPD
Facilitate handovers	X			X		X	
Provide consultation to other health care providers	X	X		X			

AAMC

Example Mapping Process: Provide Consultation

Patient Care

- Gather essential information about the patient

Medical Knowledge

- Critically evaluate and apply scientific evidence to the patients' health problems

AAMC

Example Mapping Process: Provide Consultation

Interpersonal and Communication Skills

- Communicate effectively with other health care providers and agencies

- Work effectively as a member of a health care team

AAMC

Mapping is an Iterative Process

- Begin by identifying the routine work of a practicing dermatologist
- Map EPAs to those competencies and their milestones critical for an entrustment decision
- Review relationship between all expected outcomes/competencies and EPA maps. Note gaps!
- If gaps, create additional EPAs or educational opportunities, or both.

AAMC

Example Mapping Process

Create a table for each EPA that links critical competencies to their milestones:

- The *resultant rows* are the progression of the milestones for a single competency
- The *resultant columns* are the sum of behaviors for all of the critical competencies at a given level of performance

AAMC

EPA: Provide consultation to other healthcare providers	Milestone Series for a Given Competency		
Competencies	Milestone 1	Milestone 2	Milestone 3 …etc
PC:Gather information MK: Critically evaluate & apply evidence ICS: Communicate effectively with other providers Work in teams	Novice behaviors	Advanced beginner behaviors	Competent behaviors

AAMC

Step 4: Setting Performance Standards for Entrustment

- Garner consensus about which level of performance correlates with a decision to entrust a learner

Already essentially done for Dermatology. Just look at the graduating resident column in your milestones!

AAMC

Step 5: Faculty Development

- Create clinical vignettes from the integration of behaviors across competencies at each level of performance (a vignette for each column)

- Use the vignettes for faculty development- getting us all to the same mental model, focusing our observations

AAMC

Summary: Why EPAs?

- Make sense to faculty, trainees, and the public
- Situate competencies and milestones in the clinical context and thus *align what we assess with what we do*
- Make assessment more practical by clustering 28 (at least!) series of milestones into meaningful professional activities

AAMC

Milestones + EPAs: Both Are Critical for Assessment

- Milestones assess how well a learner can accomplish some small part of a competency and provide the diagnostics
  - A granular approach to assessment

- EPAs integrate competencies within a clinical context and assess clusters of behaviors that allow one to take care of patients
  - A holistic approach

AAMC

Objectives Revisited

- Develop a working knowledge of milestones and Entrustable Professional Activities (EPAs)
- Understand how the milestones can hone our observation skills in assessing learners
- Understand how EPAs can make assessment of learners more meaningful
- Begin to create the future of education and training in dermatology

AAMC

Thank You!
Questions?