Milestones for Today

Beyond Initial Implementation

Presented by:

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PARTNERS IN MEDICAL EDUCATION, INC.

Introducing Your Presenter…

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GME Consultant

- GME Director & DIO
- Seasoned speaker at ACGME & sub-specialty national meetings
- Institutional and Program accreditation experience
- 3 decades in education; Masters of Education in curriculum & evaluations, PhD concentration in secondary education & adult learning theories

Goals for Webinar

1. Briefly review the concept of ACGME milestone assessment

2. Describe to go beyond end-of-rotatic evaluations to create a robust milestone evaluation system

3. Discuss the current medic education literature about milestone assessment

4. Provide resources for milestone implementation support

Polling Question #1

What level of milestone implementation describes you?

1. Just starting with milestones
2. Have incorporated the milestones and CCC into program over the past year
3. Have integrated multiple evaluation methods that inform the CCC about milestones
4. I have mastered milestones and am looking for some ways to help my faculty/leadership understand milestones better

Brief Review of Milestones

Why Milestones

Initial Implementation

Guiding Principles

General Competency

Sub-competency

Developmental Progression or Set of Milestones

PC1. History (Appropriate for age and impairment)

Level 1	Level 2	Level 3	Level 4	Level 5
Acquires a general medical history	Acquires a basic physiatric history including medical, functional, and psychosocial elements	Acquires a comprehensive physiatric history integrating medical, functional, and psychosocial elements Seeks and obtains data from secondary sources when needed	Efficiently acquires and presents a relevant history in a prioritized and hypothesis driven fashion across a wide spectrum of pages and impairments Elicits subtleties and information that may not be readily volunteered by the patient	Gathers and synthesizes information in a highly efficient manner Rapidly focuses on presenting problem, and elicits key information in a prioritized fashion Models the gathering of subtle and difficult information from the patient

Milestone

Milestone Template

Competency and Sub-Competency illustrated

Milestone Description: Template				
Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**
What are the expectations for a beginning resident?	What are the expectations for a resident who has advanced over entry, but is performing as a lower level than expected at mid-residency	What are the key developmental milestones mid-residency? What should they be able to do well in the realm of the specialty at this point?	What does a graduating resident look like? What additional knowledge, skills and attitudes have they obtained? Are they ready for certification?	Stretch Goals – Exceeds expectations NOTE: For some specialties, Level 5 is a graduating resident
Comments:				

Milestones Background

ACGME

Accreditation – continuous monitoring of programs; lengthening of site visit cycles
Public Accountability – report at a national level on competency outcomes
Community of practice for evaluation and research, with focus on continuous improvement

Certification Boards

Potential use – ascertain whether individuals have demonstrated qualifications needed to sit for Board exams

Milestones

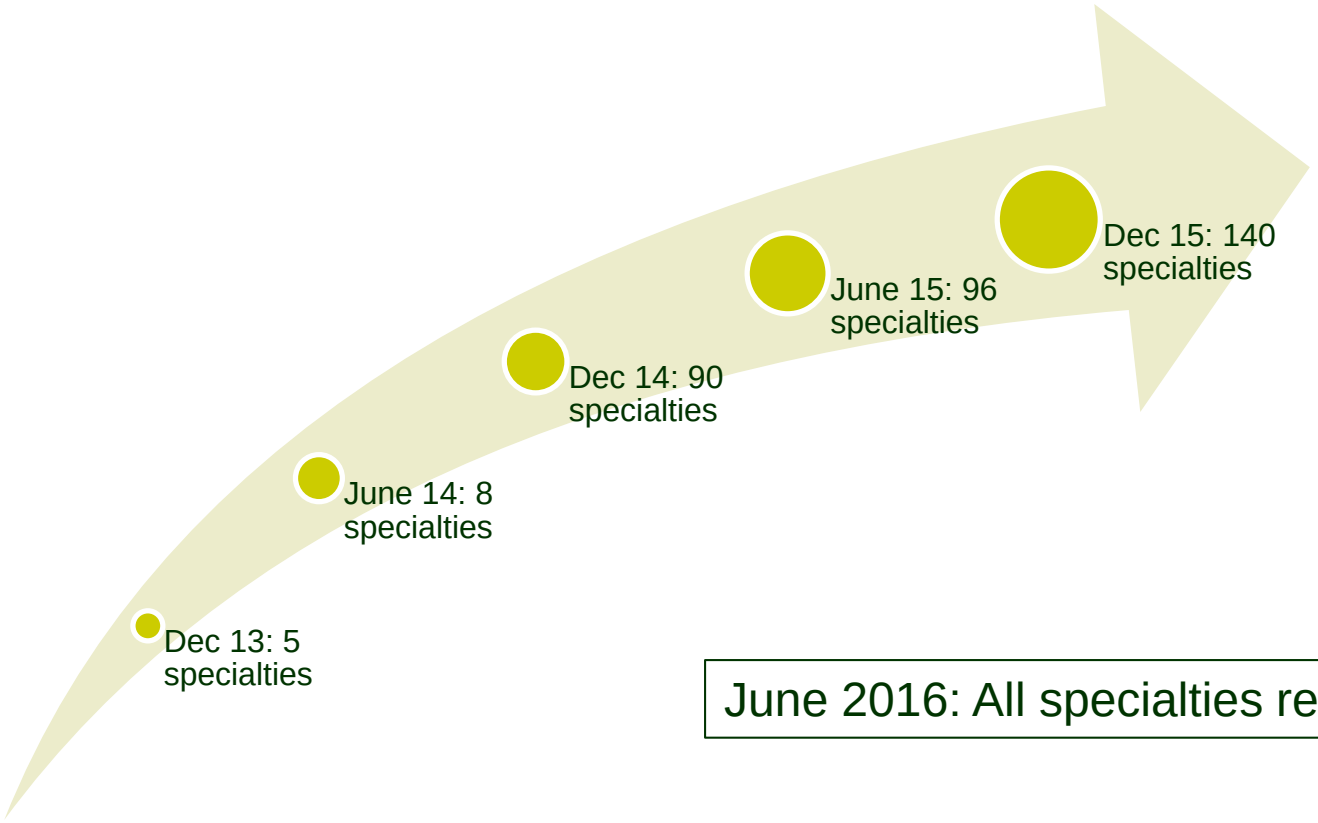
Residency Programs

Guide curriculum development
More explicit expectations of residents
Support better assessment
Enhanced opportunities for early identification of under-performers

Residents

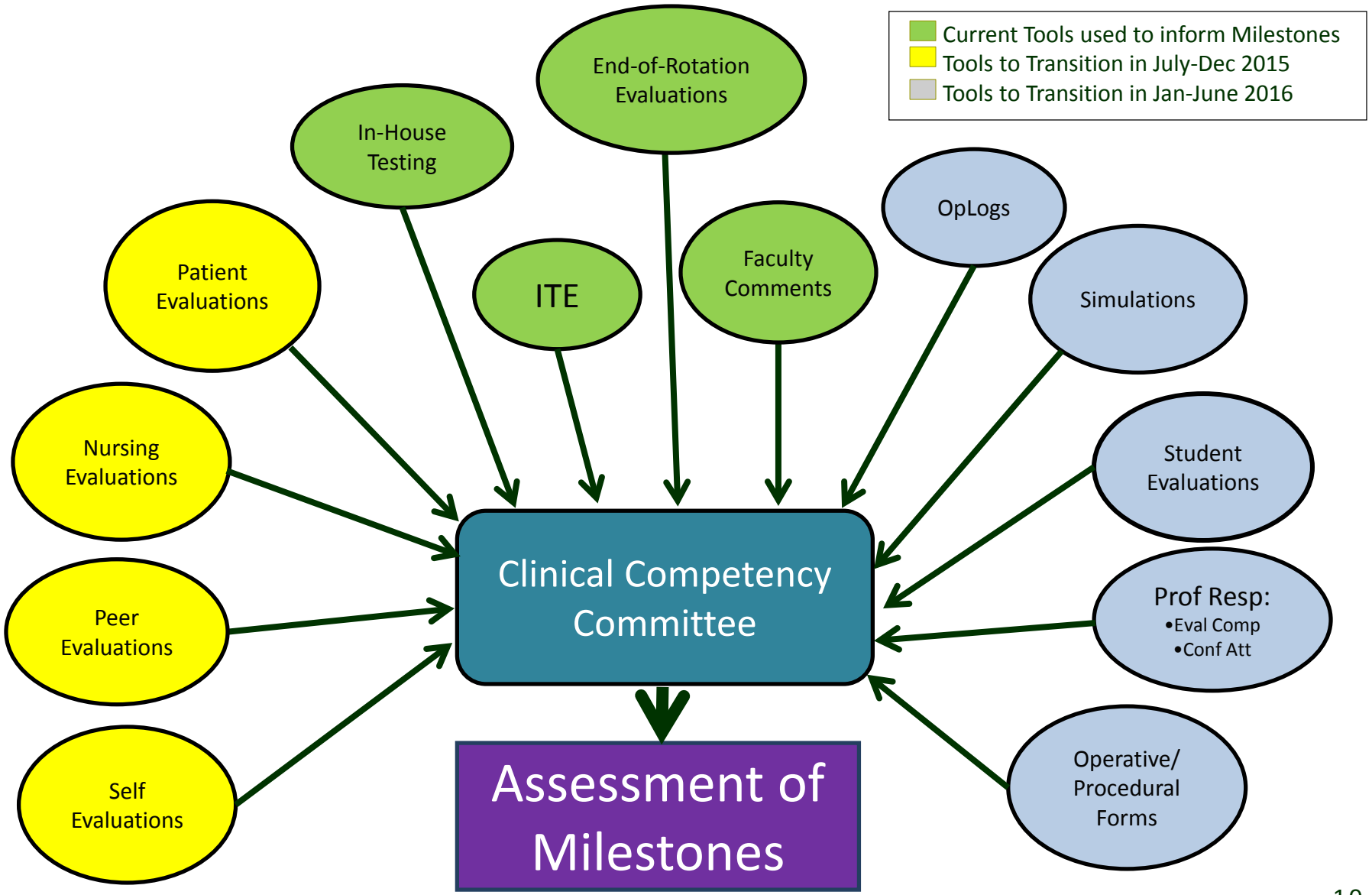
Increased transparency of performance requirements
Encourage resident self-assessment and self-directed learning
Better feedback to residents

Milestone Implementation



June 2016: All specialties reporting

OB/GYN Clinical Competency Committee



Guiding Principles

Feasibility	Quality	Applicable
• Manageable number of milestones • Meaningful • “Measurable”	• Convened by ACGME • Uniform template • Ongoing • Need to reassess and revise	• Developed by each specialty • ABMS Board • PD Society • Resident • RRC

Expected Benefits

Residents

- Explicit expectations of residents
- Identifies areas to work on
- Earlier identification of under-performers
- Provides aspirational goals for over-achievers

Program

- Guides curriculum development
- Earlier identification of under-performers
- Guide accreditation requirement revision

Public

- Better definition of graduating resident
- Use for program Accreditation
- Possible use for Board Certification

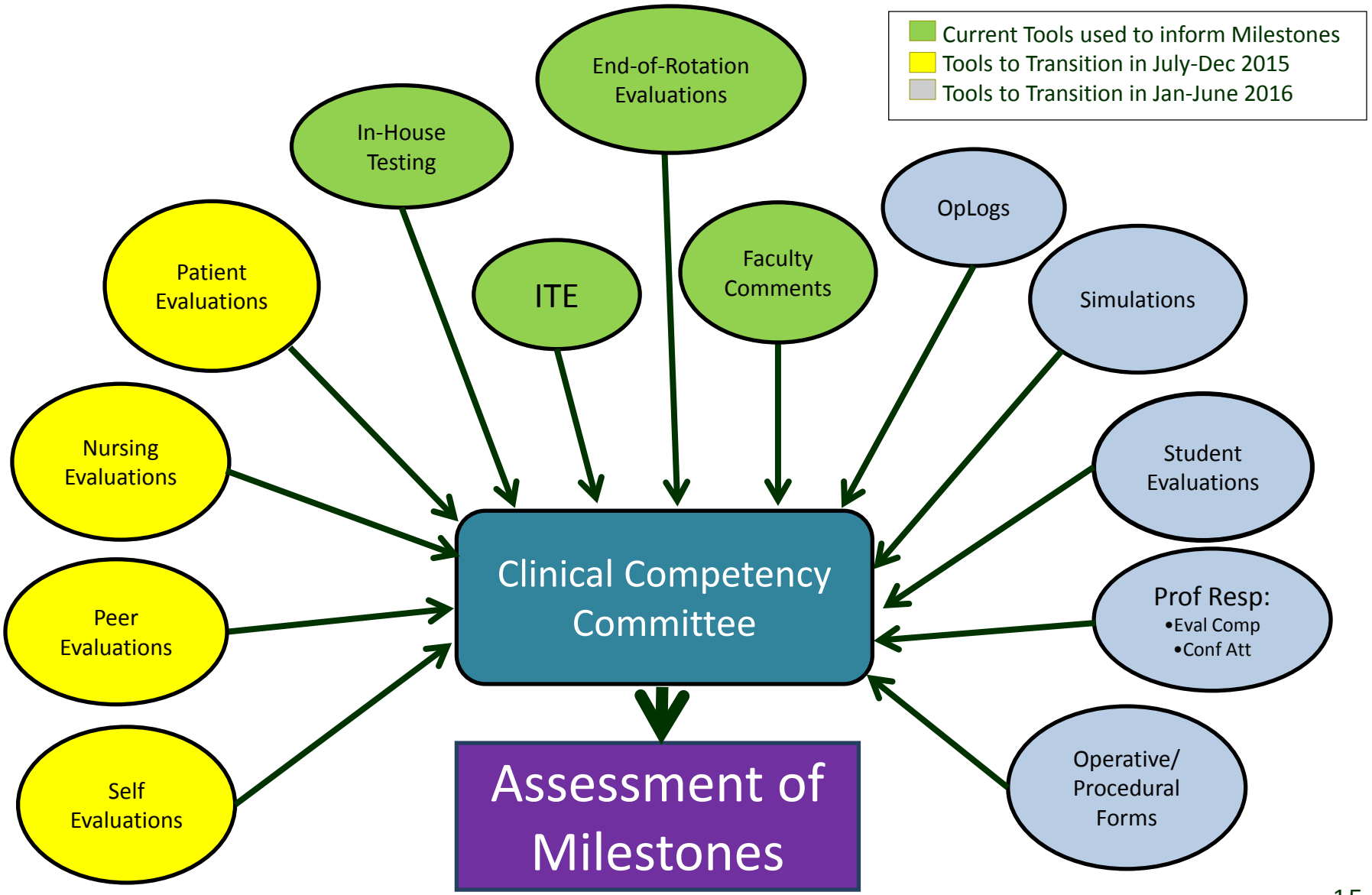
UNDERSTANDING EVALUATIONS

Shifting Types of Evaluations

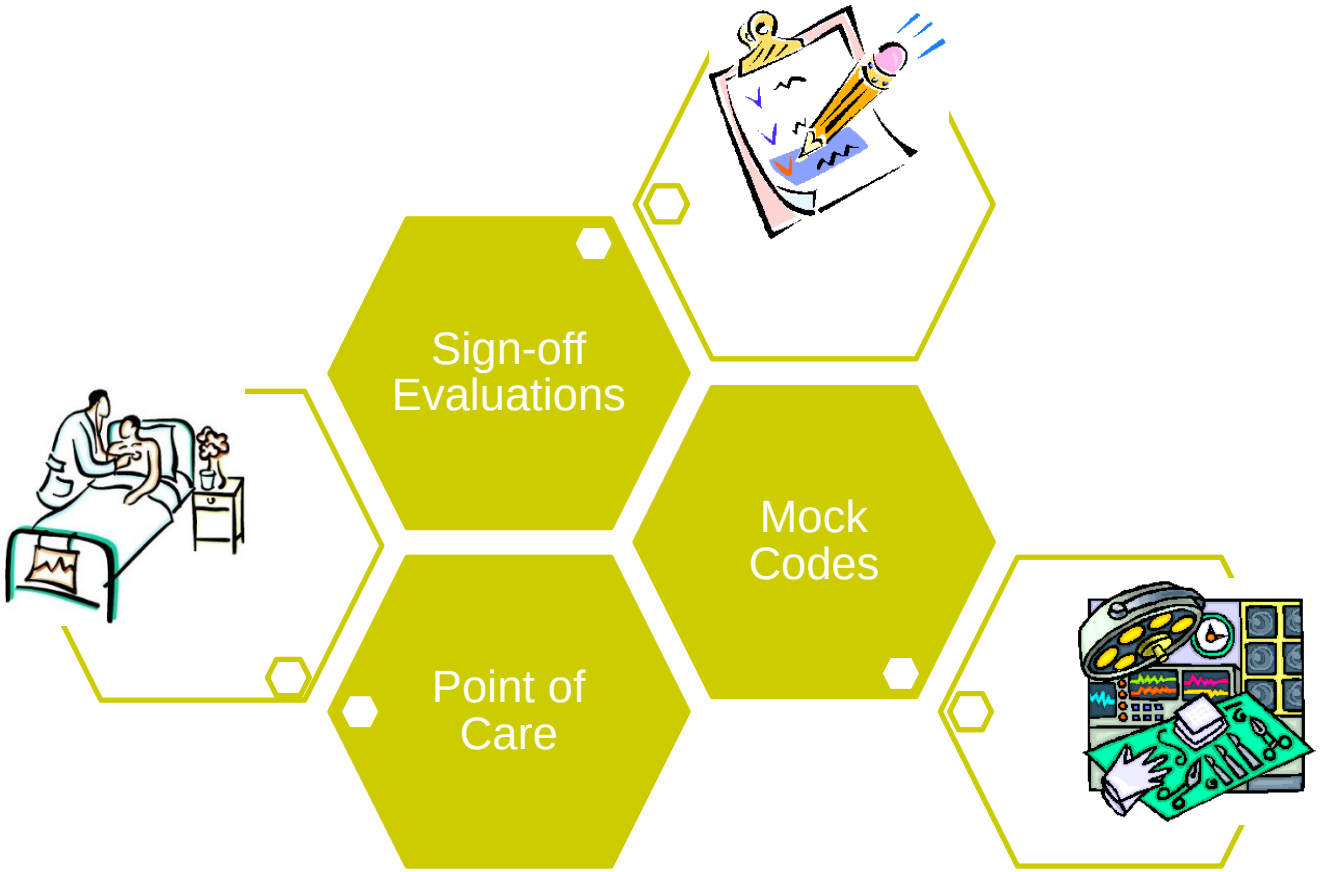
VARIABLE	STRUCTURE & PROCESS-BASED	COMPETENCY-BASED
Driving force for curriculum	Content—knowledge acquisition	Outcome—knowledge acquisition
Driving force for process	Teacher	Learner
Path of learning	Hierarchical (teacher—student)	Non-hierarchical (student -- teacher
Responsibility for content	Teacher	Student and teacher
Goal of educational encounter	Knowledge acquisition	Knowledge application
Typical assessment tool	Single subjective measure	Multiple objective measure (“evaluation portfolio”)
Assessment tool	Proxy	Authentic (mimics real tasks of profession)
Setting for evaluation	Removed (gestalt)	“In the trenches” (direct observation)
Evaluation	Norm-referenced	Criterion-referenced
Timing of assessment	Emphasis on summative	Emphasis on formative
Program completion	Fixed time	Variable time

Shifting paradigms: from Flexner to competencies. Acad Med 77(5):361-367; 2002

OB/GYN Clinical Competency Committee



Newer Tools



Academic Year Overview

- PEC Review of Evaluation Program
- Early review of PGY-1s & Transfers
- Faculty Discussions
- Compile MS Data
- CCC Meeting #1
- Faculty Discussion
- Compile MS Data
- CCC Meeting #2

ANALYZING YOUR PROGRAM

Analyzing Your Program

Department Name	PC	MK	PR	CIS	PBLI	SBP	Name on WebADS	Evaluators
360/Multi-rater Process								
End-of-Rotation Evaluations (by faculty)	X	X	X	X	X	X	Global Assessments	Faculty
Nursing Evaluations			X	X			Multisource Assessment	Nurses
Patient Evaluations			X	X			Patient Survey	Patients
Peer Evaluations	X	X	X	X	X	X	Multisource Assessment	Peers
Self Evaluations	X	X	X	X	X	X	Multisource Assessment	Self
Patient Interaction Form			X	X			Direct Observation	Faculty
Surgical Observation Form	X	X					Direct Observation	Faculty
Pig Lab/Skills Lab	X						Simulations/Models	Faculty
M&M	X				X		Review of patient outcomes	Faculty
SBP Project (making a change in the patient care system)						X	Project Assessment	PD Self
Well-Woman Forms	X				X		Review of drug prescribing	Faculty
Quarterly PREOG/PABOG		X					In-house examination	Other
In-Service Exam		X					In-training examination	Other
Chief Resident Evaluations (Teaching Skills)			X	X	X		Multisource Evaluations	Junior Resident

Assessment Program Guidelines

1. Single assessment is intrinsically limited
2. Assessment for ‘does’ cannot be standardized
3. Combining roles of mentor/coach and judge in high stakes decisions is a conflict of interest
4. Information from all low-stake assessments should feed into high stake decisions

ALL THOSE INVOLVED IN THE ASSESSMENT PROCES SHOULD RECEIVE EXTENSIVE TRAINING

van der Vleuten, CPM, et al. (2012) *A model for programmatic assessment fit for purpose*. Medical Teacher, 34: 205-214.

Evaluating Competence

No assessment method can reliably measure the competencies separately from one another as separate constructs

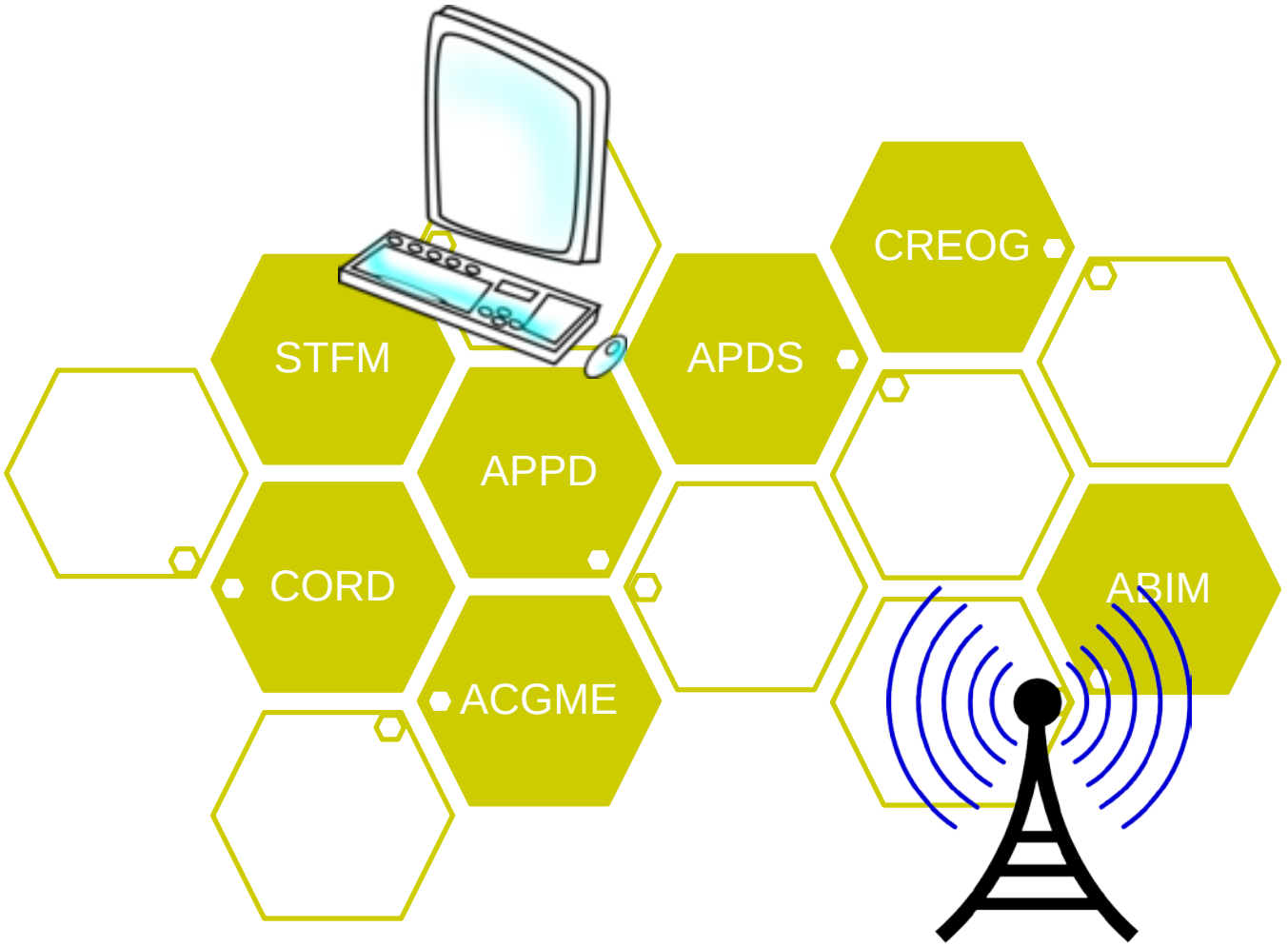
Ginsburg, S, et al (2010) *Toward authentic clinical evaluation: pitfalls in the pursuit of competency*. Academic Medicine. 85 (5): 780-86.

Incorporating All Evaluations

Department Name	PC	MK	PR	CIS	PBLI	SBP	How to Convert to Milestones	Evaluators
End-of-Rotation Evaluations (by faculty)	X	X	X	X	X	X	Determine which milestones align with individual rotations—not all milestones apply to every rotation	Faculty
Nursing Evaluations			X	X				Nurses
Patient Evaluations			X	X				Patients
Peer Evaluations	X	X	X	X	X	X		Peers
Self Evaluations	X	X	X	X	X	X		Self
Patient Interaction Form			X	X				Faculty
Surgical Observation Form	X	X						Faculty
Pig Lab/Skills Lab	X							Faculty
M&M	X				X			Faculty
SBP Project (making a change in the patient care system)						X		PD Self
Well-Woman Forms	X				X			Faculty
Quarterly PREOG/PABOG		X						Other
In-Service Exam		X						Other
Chief Resident Evaluations (Teaching Skills)			X	X	X			Junior Resident

RESOURCES

Resources



Polling Question #2

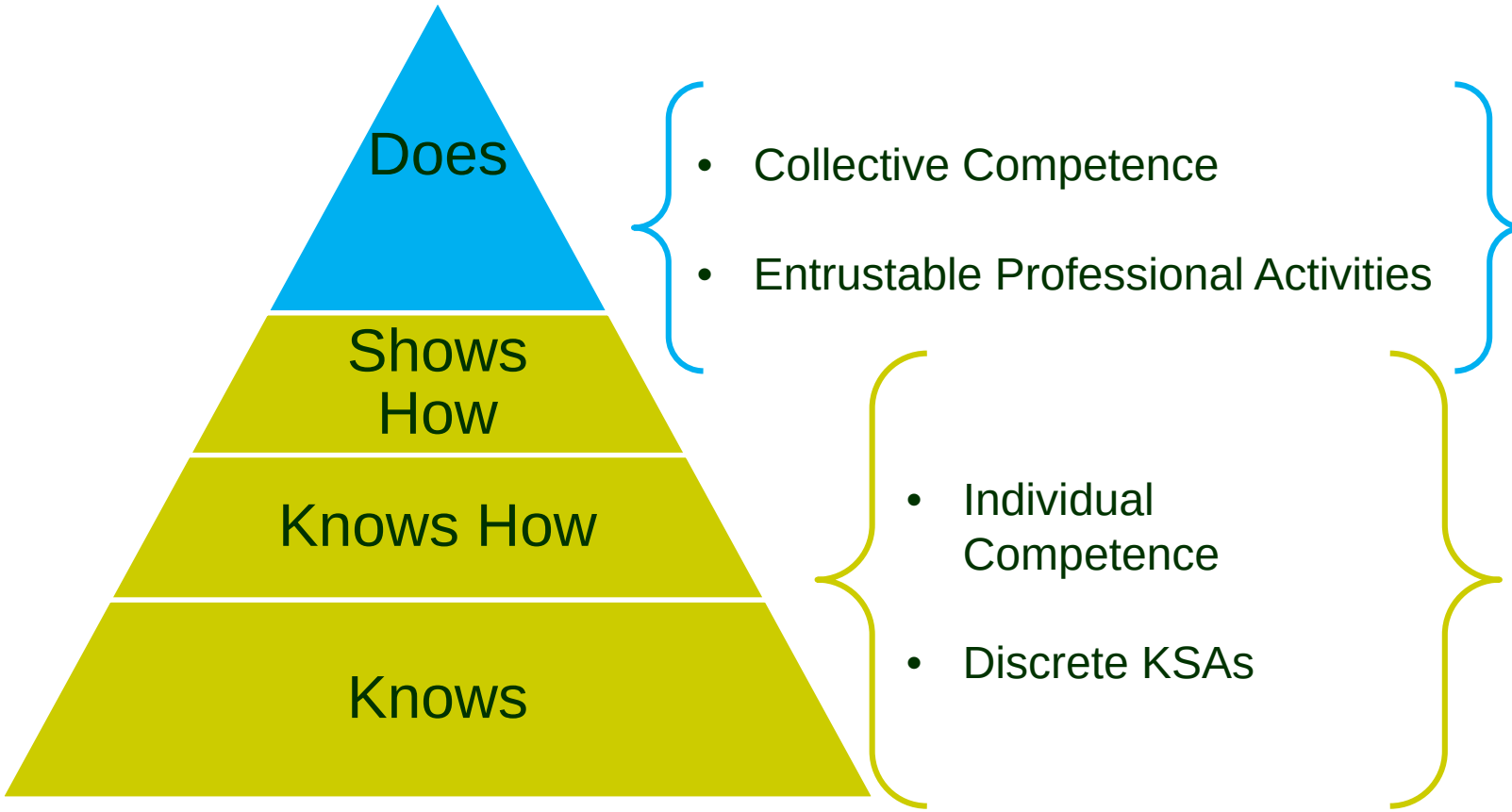
Which of these is true?

1. Milestones are meant to be a replacement for global ratings
2. Milestones can be assessed with a single clinical encounter
3. Milestones eliminate grade inflation
4. Milestone levels accurately correspond to year of training
5. All of these statements are true
6. None of these statements are true

Milestone Myths and Misperceptions; Carter WA; JGME; March 2014; 18-20.

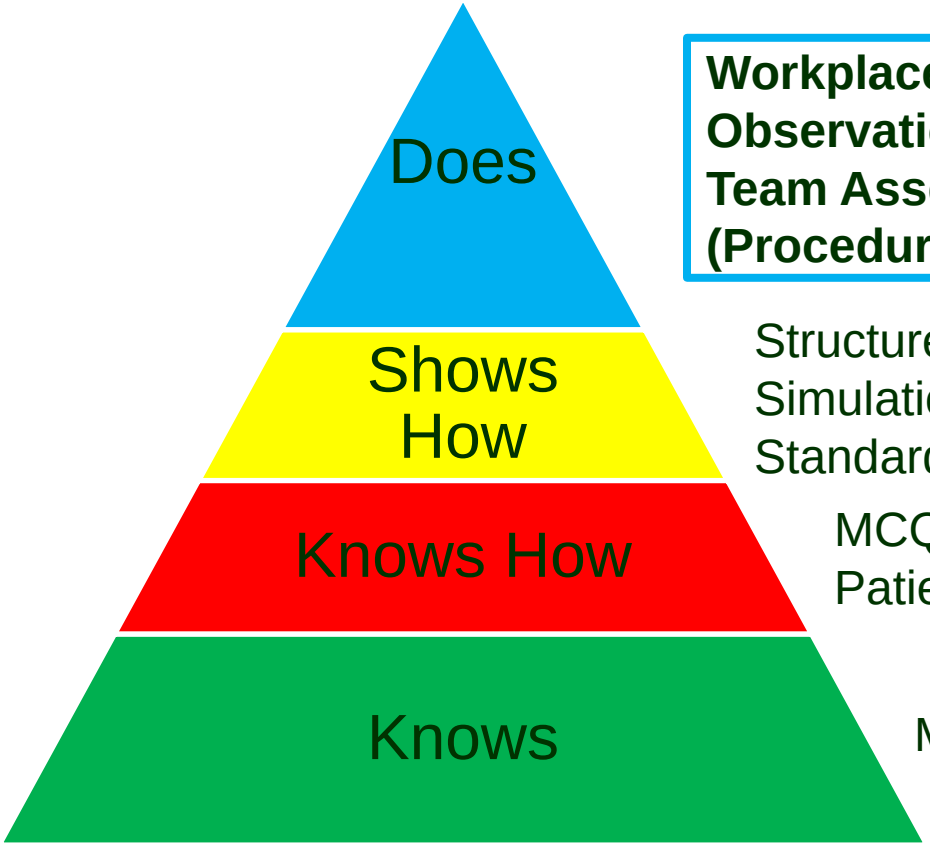
LITERATURE REVIEW

Miller's Pyramid of Clinical Competence



Miller, GE. *Assessment of Clinical Skills/Performance*. Academic Medicine (Supplement); 1990. 65 (S63-S67).
van der Vleuten, CPM, Schuwirth, LWT. *Assessing professional competence: from Methods to Programmes*. Medical Education, 2005; 39; 309-317.

Miller's Pyramid of Clinical Competence



Workplace Assessment: Clinical Observations, Multi-source Feedback, Team Assessments, Operative (Procedural) Skill Assessments

Structured Clinical Observation, Simulation, Standardized Patient, Standardized Mini-CEX

MCQ, Oral Examinations, Standardized Patients

MCQ, Oral Examinations

Miller, GE. *Assessment of Clinical Skills/Performance*. Academic Medicine (Supplement); 1990. 65 (S63-S67).

van der Vleuten, CPM, Schuwirth, LWT. *Assessing professional competence: from Methods to Programmes*. Medical Education, 2005; 39; 309-317.

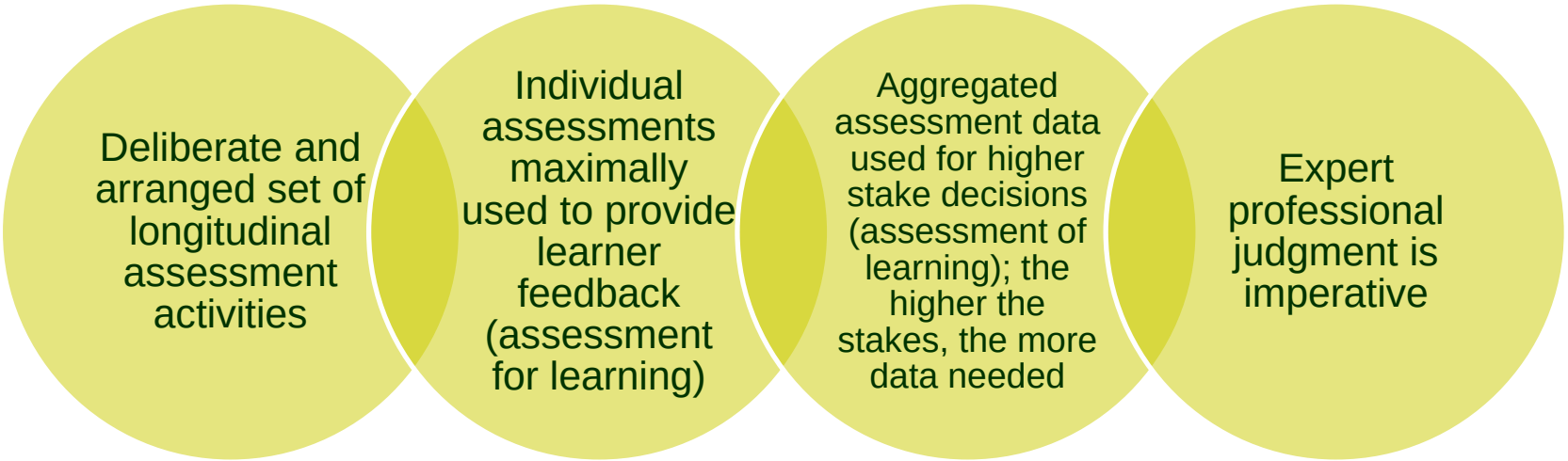
Clinical Evaluation of “Does”

- Include multiple forms of workplace-based assessment tools in the planned assessment program:
  - Tools with word descriptors, not numerical rating scales
  - Clear, performance-based descriptors of what is being judged and at what level
  - Recommend end-of-training be used as a common framework for judging levels
  - Avoid checklist-only tools; combine checklists with a global evaluation

Work based assessment: a guide for implementation. Eds: Rowley, D. Wass, V. Myerson, K. 2010. London: General Medical Council/Academy of Medical Royal Colleges.

Clinical Evaluation of “Does”

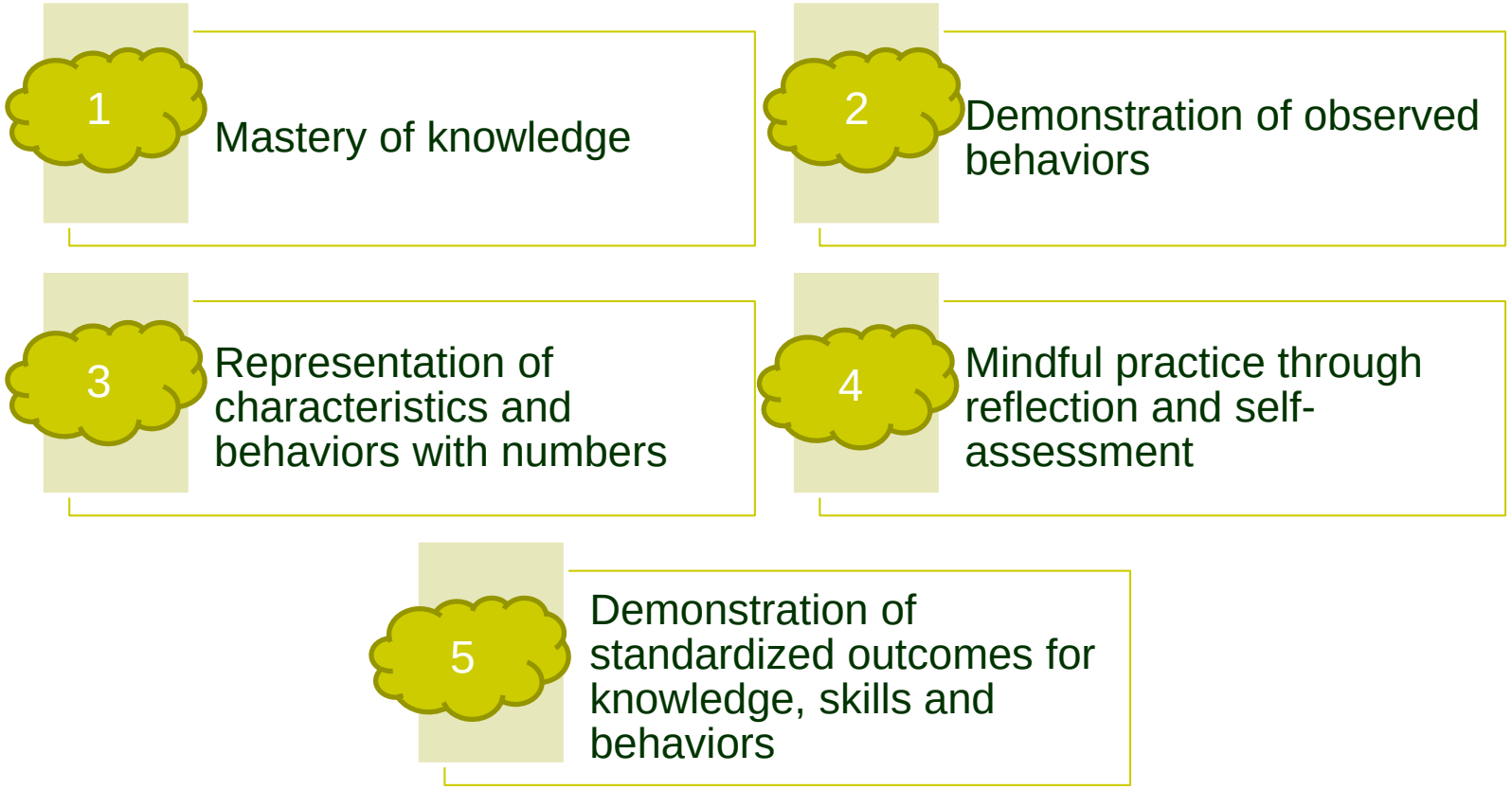
Plan an assessment program (i.e., multiple evaluations, multiple raters, multiple settings, identified times, faculty development).



van der Vleuten, CPM, et al. (2012) *A model for programmatic assessment fit for purpose*. Medical Teacher, 34: 205-214.

Understanding Competence

Hodges, BD (2012) *The shifting of competence*; In The Question of Competence, Eds: Hodge and Lingard, Ithaca: Cornell University Press.



References

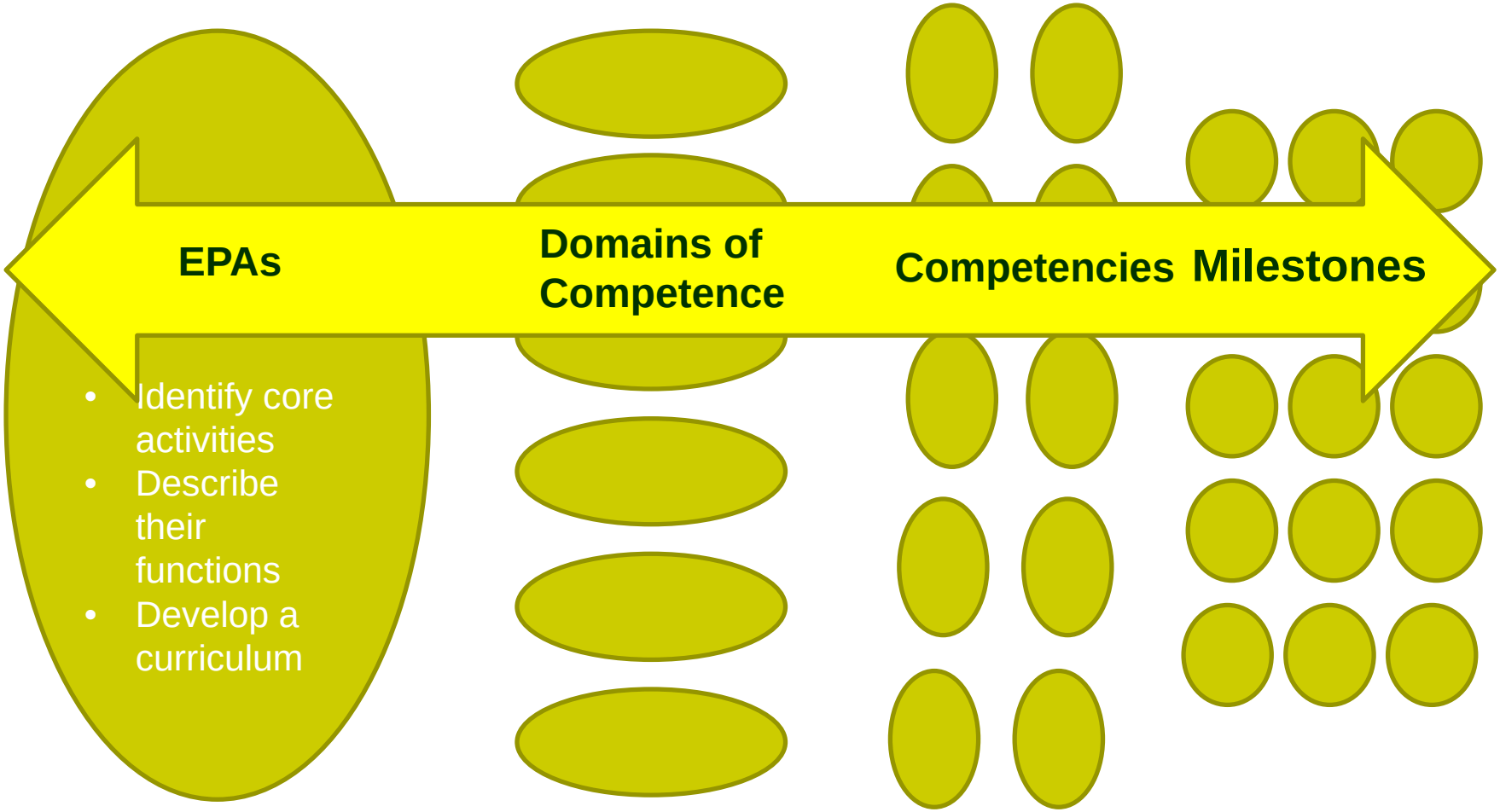
- Implementation of nephrology subspecialty curricular milestones. Am J Kidney Dis. 2015 Jul;66(1):15-22. (PMID: 25773484)
- Developing a comprehensive resident education evaluation system in the era of milestone assessment. J Surg Educ. 2015 Jul-Aug;72(4):618-24. (PMID: 25623550)
  - The authors hope that these experiences can inform others embarking upon similar journeys with the milestones.
- CORR® curriculum-orthopaedic education: operative assessment and the ACGME milestones: time for change. Clin Orthop Relat Res. 2015 Mar; 473(3):775-8. (PMID: 25577260)
  - The EM milestones demonstrated validity and reliability as an assessment instrument for competency acquisition. EM residents can be assured that this evaluation process has demonstrated validity and reliability; faculty can be confident that the Milestones are a nationally standardized, objective measure of specialty-specific competency acquisition .
- A survey of resident perspectives on surgical case minimums and the impact on milestones, graduation, credentialing, and preparation for practice: AOA critical issues. J Bone Joint Surg Am. 2014 Dec 3;96(23):e195. (PMID: 25577260)
  - Although the authors are early in the evolution of applying the new milestones system, this approach has thus far allowed the m to comprehensively evaluate the residents and the program in an efficient and effective fashion, with notable improvements compared to the prior approach.
- Preparing medical students for obstetric and gynecology milestone level one: a description of a pilot curriculum. Med Educ Online. 2014 Nov 26;19:25746. (PMID: 25430640)
  - This pilot study demonstrates a practical approach for preparing 4th year medical students for the expectations of Milestones Level One in obstetrics and gynecology. This curriculum can serve as a framework as medical schools and specific specialties work to meet the first steps of the ACGME's Next Accreditation System.

- Impact of remote monitoring and supervision (RMS) on resident training using new ACMGE milestone criteria. Can J Urol. 2015 Oct;22(5):7959-64. (PMID 26432965)
  - RMS in integrated endourology suites may enhance resident education and endoscopic training. The study demonstrated an increase in competency levels reported by residents trained using RMS.
- Piloting a structured practice audit to assess ACGME milestones in written handoff communication in internal medicine. J Grad Med Educ. 2015 June;7(2):238-41. (PMID: 26221442)
  - The UPDATED audit is a milestone-based tool that can be used to assess written sign-out communication skills in internal medicine residency programs. Future work is planned to adapt the tool for use by senior supervisory residents to appraise sign-outs in real time.

- Initial validity analysis of the emergency medicine milestones. Acad Emerg Med. 2015 Jul;22(7):838-44 (PMID: 26112031
  - The EM milestones demonstrated validity and reliability as an assessment instrument for competency acquisition. EM residents can be assured that this evaluation process has demonstrated validity and reliability; faculty can be confident that the Milestones are a nationally standardized, objective measure of specialty-specific competency acquisition .
- Assessing competency in physical medicine and rehabilitation residency: the ACGME milestones initiative. AMA J Ethics. 2015 June 1;17(6):515-20 (PMID: 26075978)
  - No conclusion –in process
- Milestones on a shoestring: a cost-effective, semi-automated implementation of the new ACGME requirements for radiology. Acad Radiol. 2015 Oct;22(10):1287-93. (PMID: 25920551)
  - Informatics-driven strategies for data assessment and processing represent feasible solutions to Milestones assessment and analysis, reducing the potential administrative burden for program directors, residents and staff.

WHAT'S NEXT

What's Next


EPAs
Domains of Competence
Competencies
Milestones
• Identify core activities
• Describe their functions
• Develop a curriculum

BARRIERS TO MILESTONES

What are your barriers to implementation?

Polling Question #3

What is your most significant barrier?

1. Scheduling CCC meetings
2. Lack of consistency among faculty evaluators
3. Lack of understanding of milestones by faculty

Faculty Research Findings

1	Experienced faculty pay more attention to situation-specific cues, compile different pieces of information to create meaningful patterns of information.
2	Less experienced faculty pay more attention to specific and discrete aspects of performance.
3	Both experienced and inexperienced faculty contribute valuable insights into resident competence.
4	When required to substantiate ratings with concrete examples, no significant differences in a rating score between experienced and inexperienced faculty.

Gavaerts, MJB, et al (2011) *Workplace-based assessment: raters' performance effects of rater expertise*. Adv in Health Sci Educ. 16: 151-165.

Faculty Development Recommendations

Deliberate practice to develop expertise in assessment	Include all participants in the assessment system
	Orientation to assessment system
	Discussions to develop shared ‘mental models’ of competence, not just orientation to a form
	Ongoing discussions: feedback from assessors to learners; feedback to assessors on their feedback

Holmboe, ES et al. (2011) *Faculty development in assessment: the missing link in competency-based medical education*. Academic Medicine. 86 (4): 460-467.

FACULTY/ASSESSOR TRAINING

Assessors' insecurities
*content knowledge;
*knowledge about level of knowledge;
*self-efficacy

Assessors' perceptions of assessment tasks
*tension between mentoring and assessing;
*authenticity of assessment;
*lack of clear standard

GOAL is culture change: mutual respect and trust

Counteract by providing additional assessment opportunities to build convincing basis for decisions

Counteract by incorporating two-way formative feedback as a common feature of all assessments (i.e., assessment as continuous learning)

Berendonk, C, et al. *Expertise in performance assessment: assessors' perspectives*. Adv Health Sci Educ. Online: 31 July 2012.

Take-home Points

- **Assessment for milestones requires observations and judgments of performance in the workplace.**
  - *Competence is not a stable trait and is inherently subjective.*
  - *There are no 'valid and reliable' tools for workplace assessment; focus on understanding the users of the tools an developing rater expertise in assessment through deliberate practice.*
- **Develop a program of assessment as part of curriculum planning.**

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