

# Implementing Milestones and Clinical Competency Committees

April 24, 2013



# Presenters

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# Goals for Today

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1. What are milestones?
2. How do we assess for milestones?
3. How do CCCs work?
4. What does ACGME expect for CCCs?



# Six Core Competencies for every physician

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1. Medical Knowledge
2. Patient Care
3. Professionalism
4. Interpersonal Communication
5. Practice-based Learning: personal improvement
6. System-based Practice: system improvement

Transition from process to outcomes

# The Outcome Project

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1999 - Outcome Project Begins

- General Competencies Defined
- Increasing emphasis on educational outcomes (vs. process)

2001- Quadrads (Board, PD, RRC, Res) Convened

- Translate core competencies into specialty-specific competencies
- Portfolios were the next big hope

2002-2008 – Implementation of 6 Competency Domains

- Residency programs expected to develop instructional and assessment methods for integrating the competencies in their curricula
- ACGME assessment “toolbox” developed

# Milestone Project Goals

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The Outcomes Project had difficulty in measuring Outcomes: Resident Performance and Competency

Milestones provide a more explicit definition of expected resident knowledge, skills, attributes & performance

- Expand outcome evidence for accreditation & certification
- Enhance public accountability

# What Is a Milestone?

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## General Definition

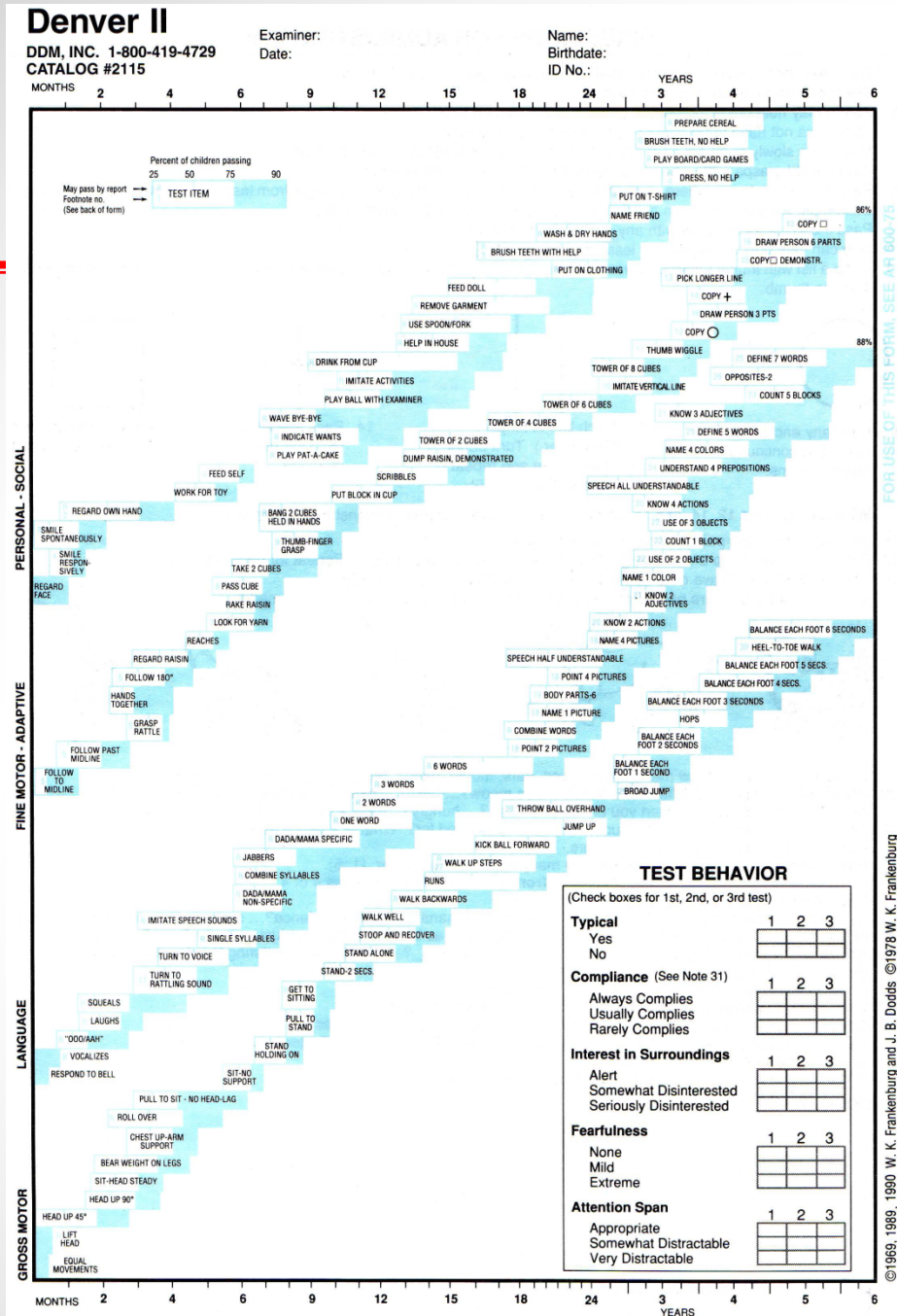
- Skill and knowledge-based developments that commonly occur by a specific time

## Milestone Project Definition

- Specific behaviors, attributes, or outcomes in the six general competency domains to be demonstrated by residents during residency



# Denver Developmental Scale measures childhood milestones





# Guiding Principles

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## Feasibility

- Manageable number of milestones
- Meaningful
- “Measurable”

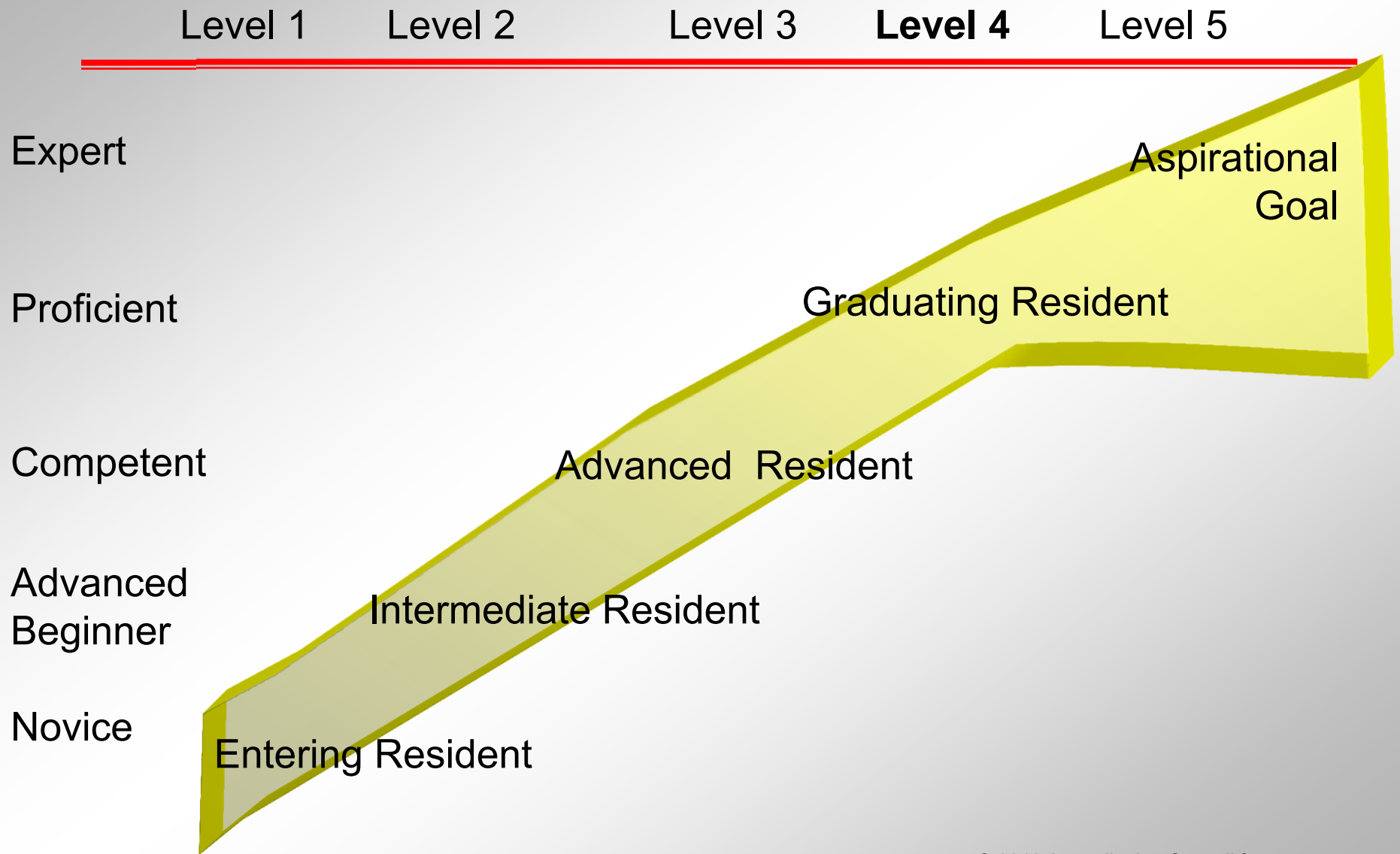
## Quality

- Convened by ACGME
- Uniform template
- Ongoing
- Need to Reassess and Revise

## Applicable

- Developed by each Specialty
- ABMS Board
- PD society
- Resident
- RRC

# Levels of Expectation



## Professionalism:

*Accepts responsibility and follows through on tasks*

	Level 1	Level 2	Level 3	Level 4	Level 5
Expert					Resident effectively manages multiple competing tasks, and effortlessly manages complex circumstances. Is clearly identified by peers and subordinates as source of guidance and support in difficult or unfamiliar circumstances.
Proficient				Resident always works on multiple and routine cases directly providing or overseeing it. In difficult circumstances appropriately seeks guidance. Is regularly sought out by peers and subordinates to provide them guidance.	
Competent			Resident frequently manages competing demands in a vast majority of circumstances in a timely manner. Self identifies circumstances and actively seeks guidance in unfamiliar circumstances.		
Advanced Beginner		Resident completes assigned tasks in a timely manner in accordance with local practice and/or policy, but still requires guidance in unfamiliar circumstances.			
Beginner	Resident completes many assigned tasks on time but needs extensive guidance on local practice and/or policy for patient care.				

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 psychiatric history including medical, functional, and psychosocial elements	Acquires a comprehensive psychiatric 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 ages 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 described

Milestone Description: Template				
Level 1	Level 2	Level 3	Level 4	Level 5
What are the expectations for a beginning resident?	What are the milestones for a resident who has advanced over entry, but is performing at 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 & attitudes have they obtained?  Are they ready for certification?	Stretch Goals – Exceeds expectations
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<p>Comments:</p> <p style="text-align: right;">© 2013 Accreditation Council for Graduate Medical Education (ACGME)</p>				



# Sample Milestone

## SBP 1: Functions in the current reimbursement system

Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> <li>• Understands basic health payment systems, including uninsured care.</li> <li>• Understands different practice models.</li> </ul>	<ul style="list-style-type: none"> <li>• Understands principles of diagnosis, evaluation and management, and procedure coding.</li> <li>• Compares and contrasts different practice models.</li> </ul>	<ul style="list-style-type: none"> <li>• Codes routine diagnoses, encounters and surgical procedures. Documents medical necessity.</li> <li>• Recognizes basic elements needed to establish practice (e.g. negotiations, malpractice insurance, contracts, staffing, compliance, facility accreditation).</li> </ul>	<ul style="list-style-type: none"> <li>• Codes complex and unusual diagnoses, encounters and surgical procedures.</li> <li>• Establishes timeline and identifies resources for transition to practice (e.g. information technology, legal, financial, personnel).</li> </ul>	<ul style="list-style-type: none"> <li>• Participates in advocacy activities for health policy.</li> <li>• Creates curriculum to teach practice management.</li> </ul>
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## EMERGENCY MEDICINE MILESTONES

### PC1. Emergency Stabilization

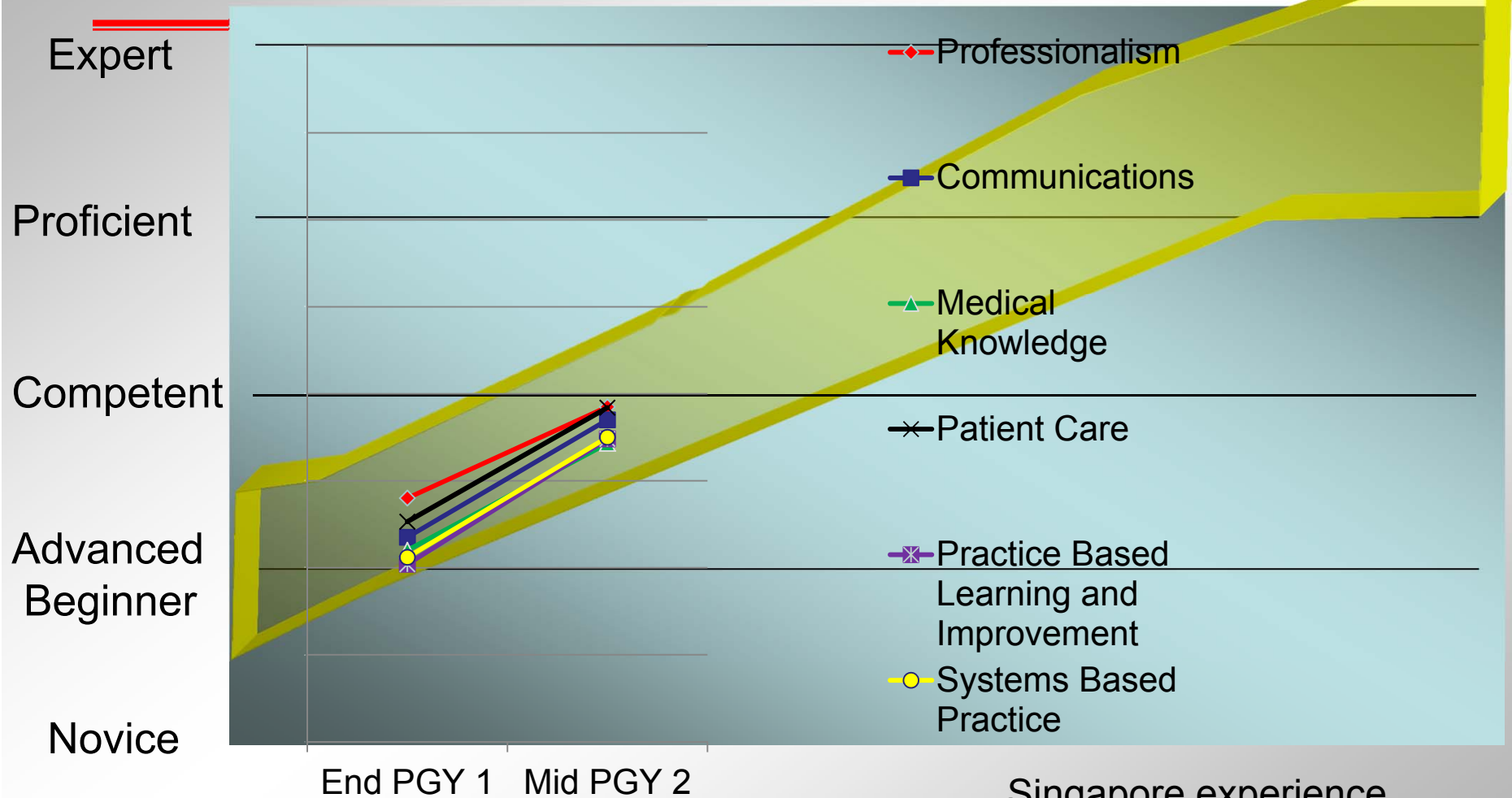
Prioritizes critical initial stabilization action and mobilizes hospital support services in the resuscitation of a critically ill or injured patient and reassesses after stabilizing intervention.									
Level 1		Level 2		Level 3		Level 4		Level 5	
Describes a primary assessment on a critically ill or injured patient		Recognizes when a patient is unstable requiring immediate intervention		Discerns relevant data to formulate a diagnostic impression and plan		Manages and prioritizes critically ill or injured patients		Develops policies and protocols for the management and/or transfer of critically ill or injured patients	
Recognizes abnormal vital signs		Prioritizes vital critical initial stabilization actions in the resuscitation of a critically ill or injured patient		Reassesses after implementing a stabilizing intervention		Recognizes in a timely fashion when further clinical intervention is futile			
		Performs a primary assessment on a critically ill or injured patient				Evaluates the validity of a DNR order			
						Integrates hospital support services into a management strategy for a problematic stabilization situation			
○	○	○	○	○	○	○	○	○	○
Comments:									

**Suggested Evaluation Methods:** SDOT, observed resuscitations, simulation, checklist, videotape review

# Radiology: Interpersonal and communication skills

<p><b>Communication with other physicians: formal reporting</b></p>	<p><b>PGY 1</b></p> <p><b>Describes</b> the important components of written communications between physicians and is aware of the contribution of poor written communication to medical error.</p>	<p><b>PGY 2-3</b></p> <p>Is <b>proficient in speech recognition</b> and self-editing and adheres to institutional/ national policies for reporting in radiology. Radiology reports accurately describe findings in <b>simple and emergent cases</b>. Impression is clear and concise. Reports accurately identify urgent and unexpected findings. <b>Few corrections</b> required by attending radiologist</p>	<p><b>PGY 3-4</b></p> <p>Accurately and efficiently dictates reports <b>even in complex cases</b> and demonstrates a turnaround time in-line with peers; reports for complex cases <b>accurately convey findings</b> and impression as discussed with attending radiologist.</p>	<p><b>Grad resident</b></p> <p>Produces a <b>concise report</b> with significant findings, impressions and recommendations and can accurately identify all urgent and essentially all unexpected findings in the report.</p>	<p><b>Prac Prad</b></p> <p>Is a role model for written reporting and actively teaches junior level residents and provides feedback.</p>
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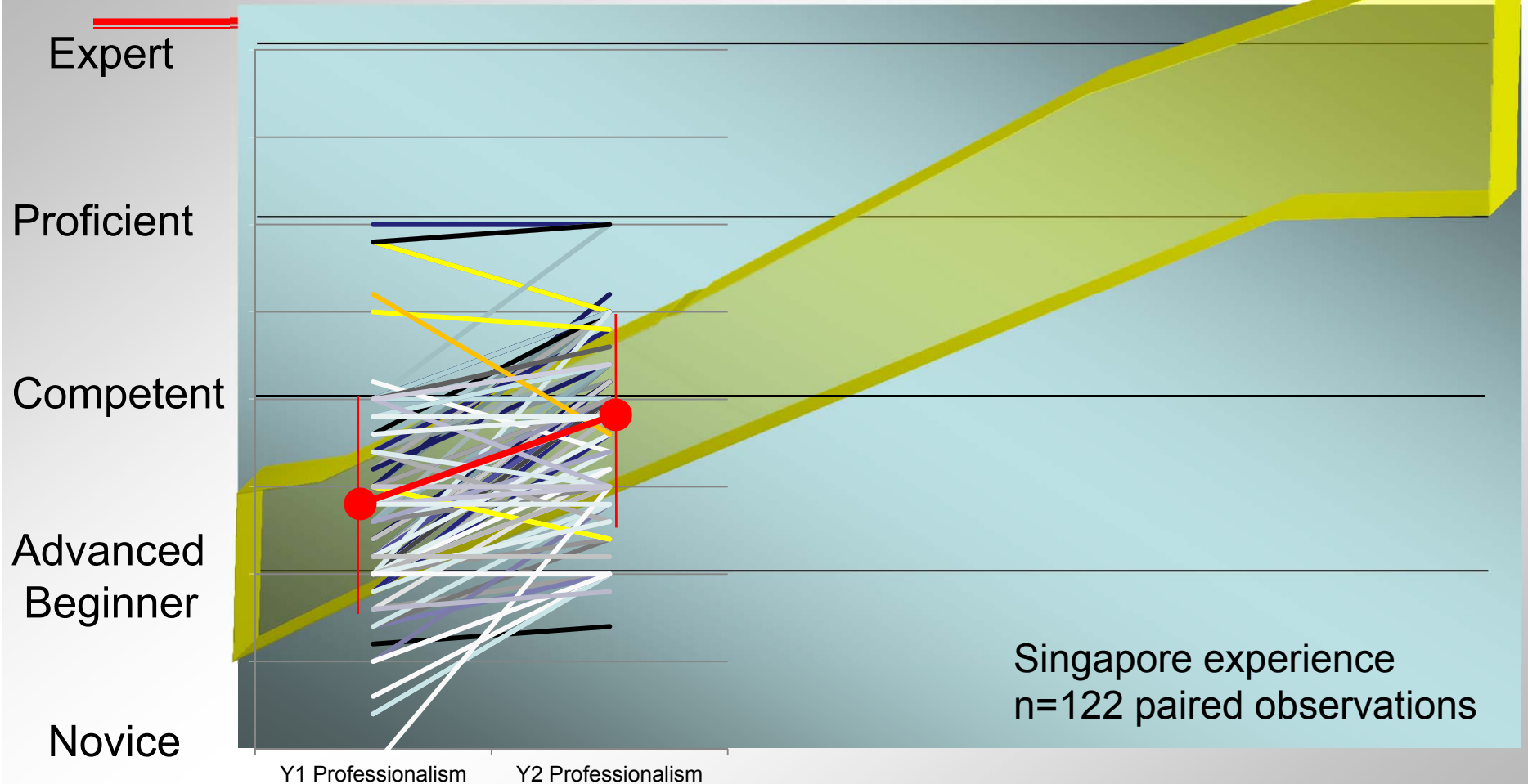
# Overall Rating of Six Competencies



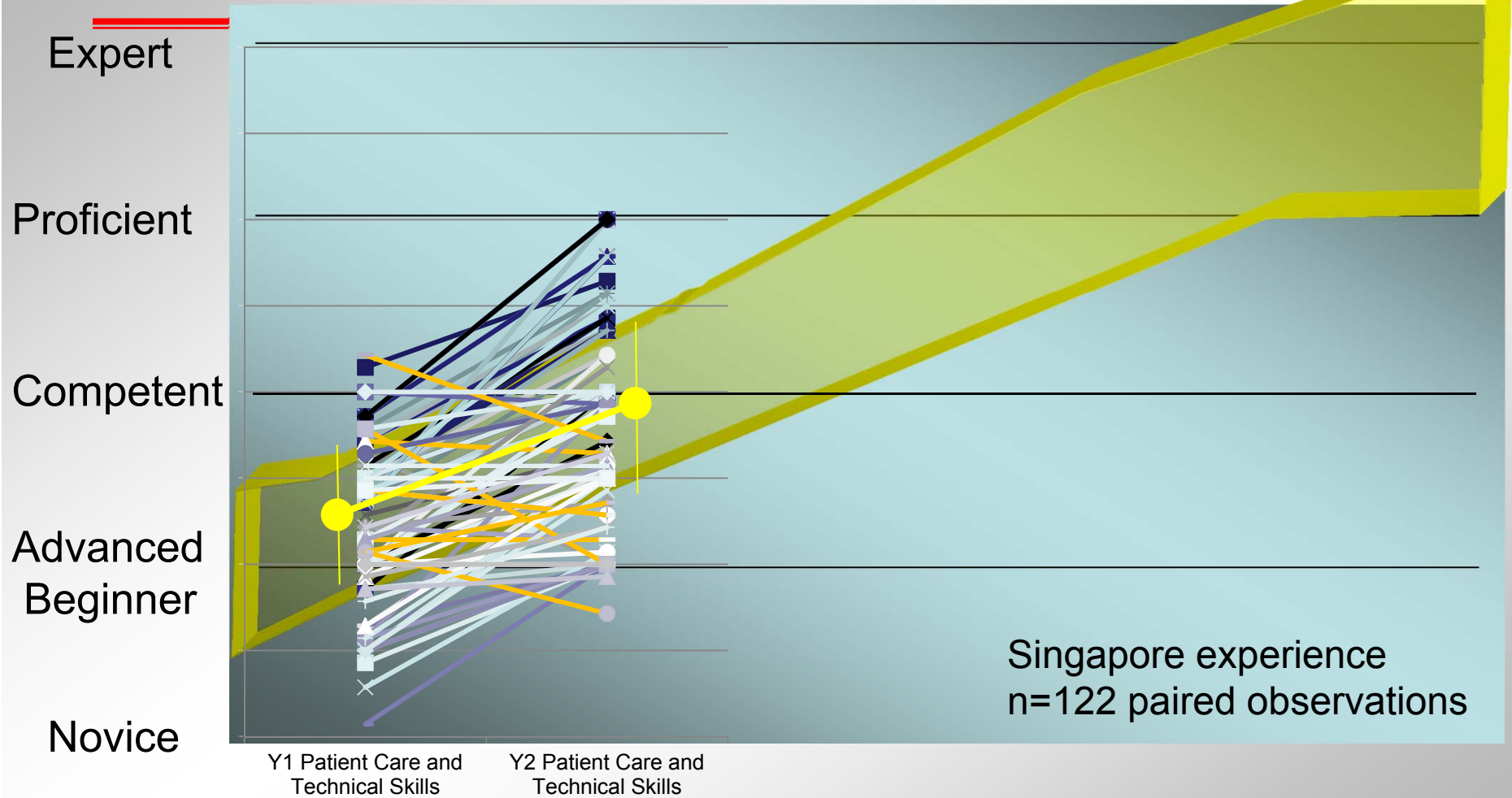
Singapore experience  
n=122 paired observations

Increase the Accreditation Emphasis on Educational Outcomes

# End of PGY-1, Mid PGY-2 Year Evaluation, Overall Rating of **Professionalism** across All Specialties



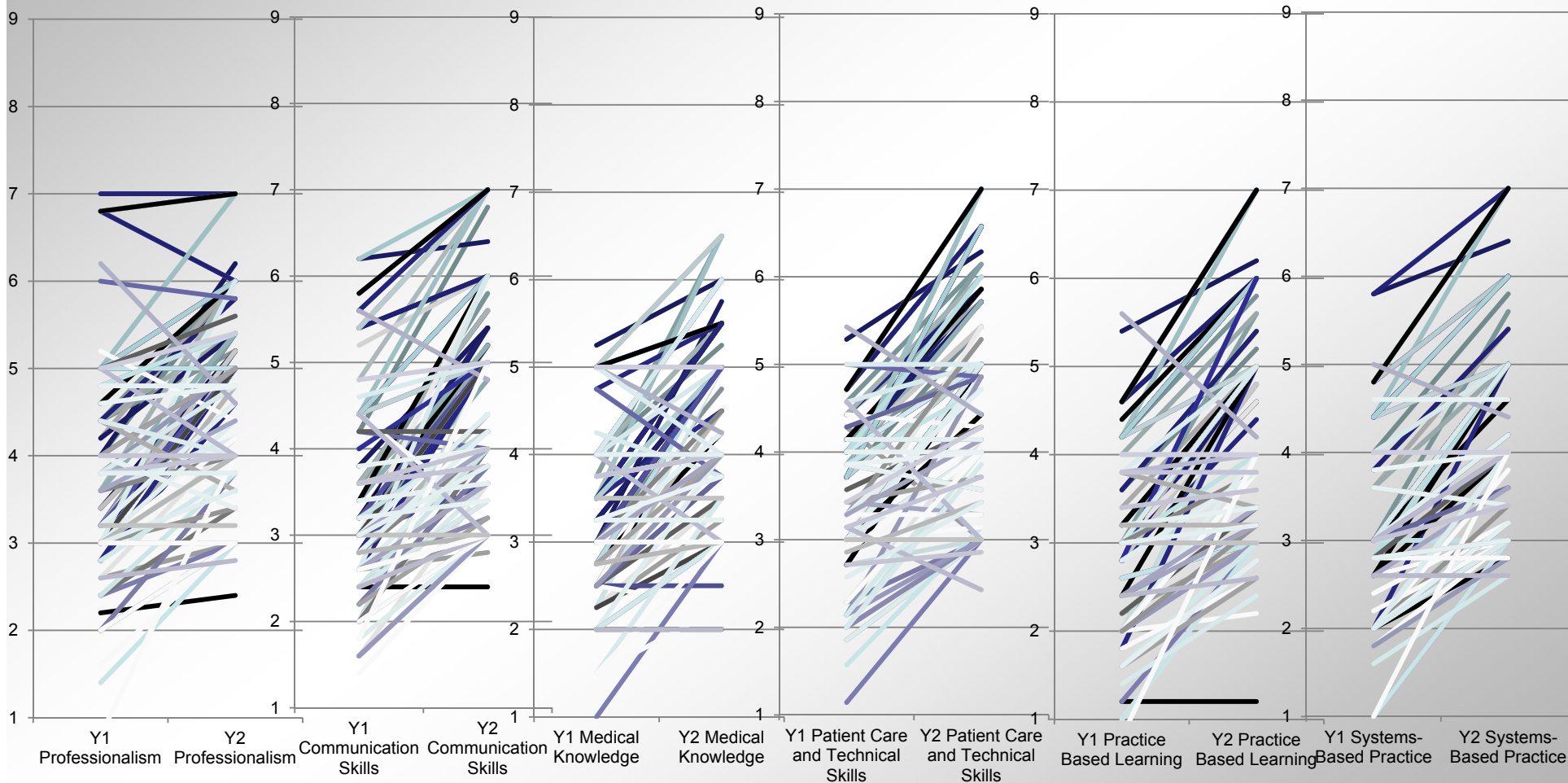
# End of PGY-1, Mid PGY-2 Year Evaluation, Overall Rating of **Patient Care and Technical Skills** across All Specialties



# Singapore Milestone Data, End of PGY 1 to Mid Year PGY 2

## All Specialties (n=122, 100%)

Professionalism Communications Med Knowl Pt Care/Procedures PBLI SBP





# Attainment of Milestones should be determined by The Clinical Competency Committee

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- ✿ A group of faculty members trained in looking at milestones
- ✿ The same set of eyes looking at other evaluations:
  - ✿ End of rotation
  - ✿ Nurses
  - ✿ Patients and families
  - ✿ Peers
  - ✿ Others
- ✿ The same process is applied uniformly

# Clinical Competency Committee

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- ✿ May already be in place under a different name
- ✿ Start thinking about this and decide on composition, procedure, data elements
  - ✿ Should chief residents be included in the CCC?
  - ✿ Role of program director
- ✿ What should be reviewed:
  - ✿ Continue to look at current evaluations forms
  - ✿ Milestones, EPAs, narratives
- ✿ Challenges:
  - ✿ Large residency programs
  - ✿ Small residency and fellowship programs
  - ✿ Time-consuming at first: pilot studies

Accreditation Council for Graduate Medical Education

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# Assessment of Residents for Milestones

Pamela Derstine, PhD, MHPE, Executive Director  
*Review Committees for Colon & Rectal Surgery,  
Neurological Surgery, Orthopaedic Surgery, Otolaryngology*

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ACGME

# Take-home Points

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- 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 and developing rater expertise in assessment through deliberate practice.
- Develop a program of assessment as part of curriculum planning.

# The Big Questions

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When considering milestones:

- What should we assess?
- How should we assess it?

Critical Care – Patient Care				
Level 1	Level 2	Level 3	Level 4	Level 5
<ul style="list-style-type: none"> <li>• Performs a history and physical examination in critically-ill patients</li> <li>• Orders positioning, analgesics, sedation, neuromuscular blockade, intravenous (IV) fluids and nutrition in critically-ill patients</li> <li>• Diagnoses and formulates treatment plans for common pulmonary diseases</li> <li>• Use electrocardiogram (EKG) to diagnose cardiac arrhythmia; initiates hemodynamic monitoring</li> <li>• Performs a brain death examination</li> </ul>	<ul style="list-style-type: none"> <li>• Explains risks and benefits of ventilatory support</li> <li>• Interprets diagnostic studies (e.g., chest x-ray [CXR], brain computed tomography [CT], echocardiogram)</li> <li>• Manages intra-cranial hypertension (e.g., hyperosmolar agents, CSF drainage)</li> <li>• Manages airway and performs endotracheal intubation</li> <li>• Inserts arterial and central venous catheters</li> <li>• Diagnoses and manages spinal or hypovolemic shock</li> </ul>	<ul style="list-style-type: none"> <li>• Formulates work-up and treatment plan for a comatose patient</li> <li>• Manages refractory intra-cranial hypertension (e.g., blood pressure, CPP)</li> <li>• Obtains confirmatory tests and make an accurate diagnosis of brain death</li> <li>• Initiates management of pneumonia or systemic infection</li> </ul>	<ul style="list-style-type: none"> <li>• Independently formulates a treatment plan for complex patients (e.g., failure of cerebral autoregulation, multi-organ failure, non-recoverable CNS injury)</li> <li>• Diagnoses and initiates management of adult respiratory distress syndrome</li> <li>• Manages difficult and emergency airways</li> <li>• Diagnose and manages CSF leak</li> <li>• Initiates management of cardiac rhythm disturbances</li> </ul>	<ul style="list-style-type: none"> <li>• Systematically reviews outcomes for neurocritical care patients</li> <li>• Participates in quality improvement for a neurocritical care unit</li> <li>• Develops a standard neurocritical care unit management protocol</li> <li>• Leads multidisciplinary neurocritical care team</li> <li>• Manages respiratory failure (e.g., mechanical ventilation, bronchoscopy)</li> <li>• Manages cardiac rhythm disturbances</li> </ul>
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Comments:

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# Understanding Competence\*

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- Mastery of knowledge
- Demonstration of observed behaviors
- Representation of characteristics and behaviors with numbers
- Mindful practice through reflection and self-assessment
- Demonstration of standardized outcomes for knowledge, skills and behaviors

\*Hodges, BD (2012) The shifting discourses of competence. In The Question of Competence, eds. Hodges and Lingard, Ithaca: Cornell University Press

# What should we assess?\*

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## Dominant thinking:

- Discrete knowledge, skills, abilities (KSA' s)
- Observed individual performance in standardized settings

## Implications:

- Competence is an individual possession that is stable and context-free
- Applications of psychometric validity and reliability may be used.

\*Lingard, L (2012) Rethinking competence in the context of teamwork. In The Question of Competence, eds. Hodges and Lingard, Ithaca: Cornell University Press

# What should we assess?\*

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## Emerging thinking:

- Entrustable professional activities (blended KSA's)
- Collective competence (safe and effective healthcare through competent teams and systems)

## Implications:

- Competence is a distributed capacity that is evolving and based in situations.
- Assumptions of traditional psychometric assessment approaches are not true.

\*Lingard, L (2012) Rethinking competence in the context of teamwork. In *The Question of Competence*, eds. Hodges and Lingard, Ithaca: Cornell University Press

# What should we assess?

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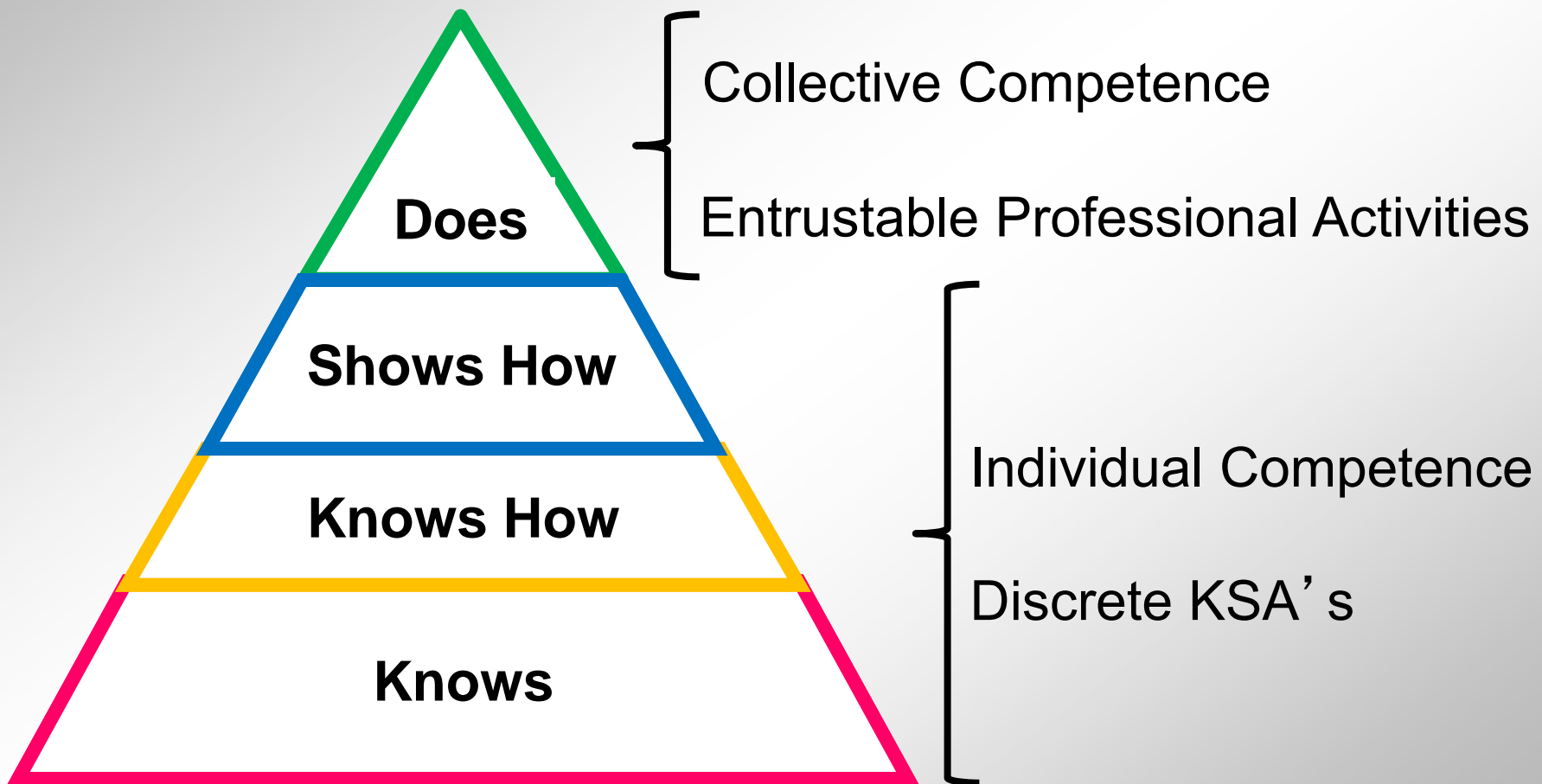
One way of thinking is not  
“better”  
than the other.

Both are needed!

But each requires different  
concepts of assessment.

# Miller's<sup>1</sup> Pyramid of Clinical Competence

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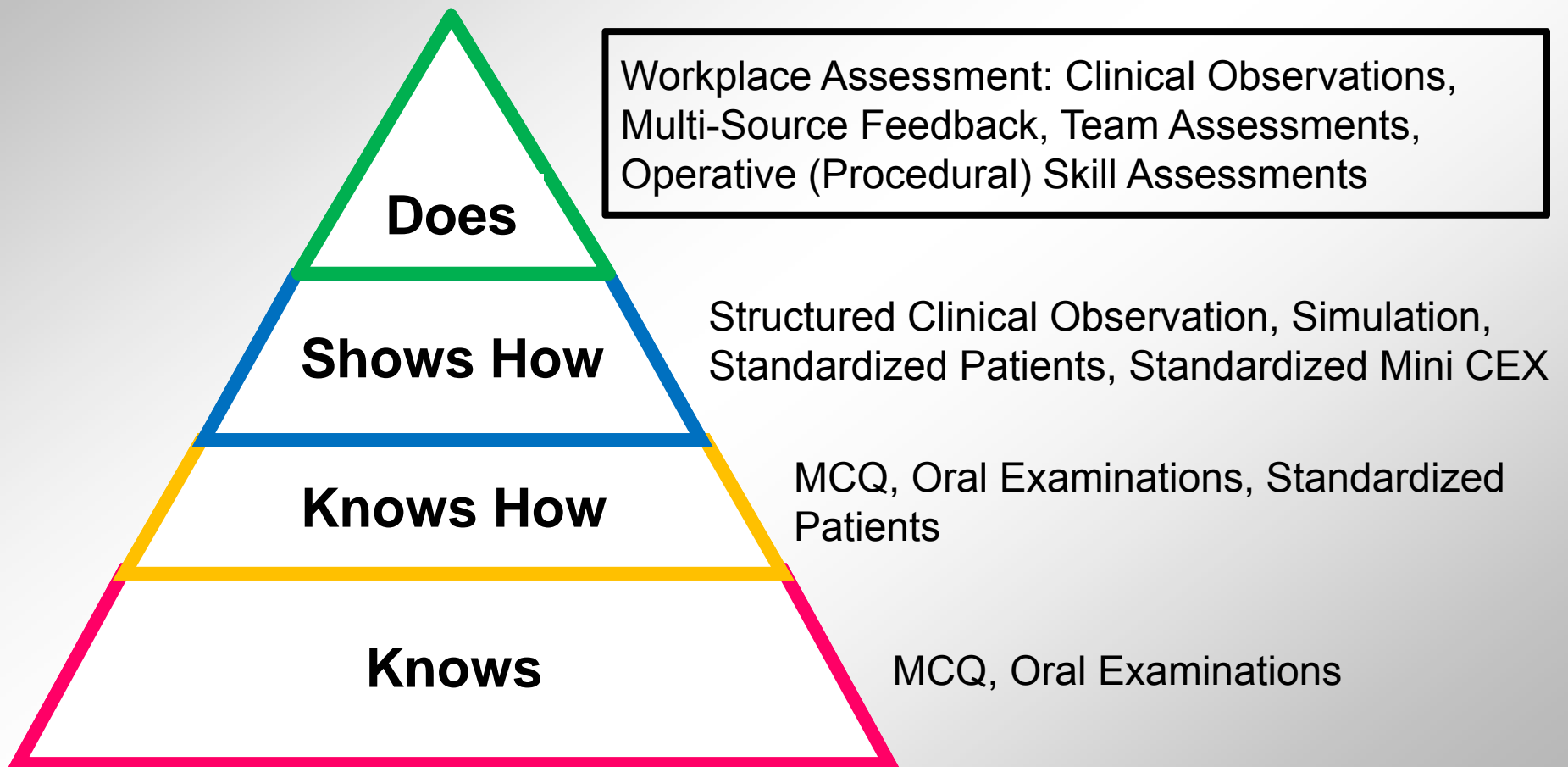


<sup>1</sup>Miller, GE. Assessment of Clinical Skills/Competence/Performance. *Academic Medicine (Supplement)* 1990. 65. (S63-S67)

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



# Miller's<sup>1</sup> Pyramid of Clinical Competence



<sup>1</sup>Miller, GE. Assessment of Clinical Skills/Competence/Performance. *Academic Medicine (Supplement)* 1990. 65. (S63-S67)

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# How should we assess “does”?

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## Characteristics of workplace assessment:

- Complicated, complex, and unpredictable settings
  - Variable patient presentations and complications
  - Interactions between healthcare providers
  - Interactions within a (changing) system
- Recorded observations by variable raters
  - Constructed understanding of competence

# Clinical Evaluation of Does\*

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- No assessment method can reliably measure the competencies separately from one another as separate constructs.
  - Competencies are interdependent.
  - Competence is not a stable trait (develops through experience) and is inherently subjective.
  - Raters' expertise as clinicians and as raters not stable (develops through experience).
  - Assessment in the workplace is a social encounter (we are humans, after all!).

\*Ginsburg, S, et al (2010) Toward Authentic Clinical Evaluation: Pitfalls in the Pursuit of Competency. Acad. Med. 85 (5): 780-786.

# Clinical Evaluation of Does: • Understanding Rater Behavior\*

- Raters use different schemas in judging performance.
  - Raters make and justify judgments based on personal theories and performance constructs (include clusters of effective behaviors); these do not map to frameworks of standardized tools.
- Raters' observations (what they pay attention to) is determined by specific contexts and their own clinical experience/expertise.

# Clinical Evaluation of "Does": Understanding Faculty Behavior\*

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

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

# Clinical Evaluation of "Does": Recommendations\*

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- Plan an assessment program (i.e., multiple evaluations, multiple raters, multiple settings, identified times, faculty development).
  - Deliberate and arranged set of longitudinal assessment activities
  - Individual assessments maximally used to provide learner feedback (assessment for learning)
  - Aggregated assessment data used for higher stake decisions (assessment of learning); the higher the stakes, the more data needed
  - Expert professional judgment is imperative

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

# Clinical Evaluation of "Does": Recommendations\*

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- Start with what assessors (attending, nurse, etc.) will observe, experience, and can comment on, not with the competency you want to assess.
- Elicit explanations for ratings (e.g., specific example).
- Value all ratings (e.g., do not assume the rating from a 'dove' is due to halo effect).
- Balance ratings from "hawks" and "doves" by increasing the number of raters.

\*Ginsburg, S, et al (2010) Toward Authentic Clinical Evaluation: Pitfalls in the Pursuit of Competency. Acad. Med. 85 (5): 780-786.



# Clinical Evaluation of Does: Recommendations\*

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- **Assessment Program Guidelines**
  - A single assessment is intrinsically limited (content specificity; doesn't establish change or growth)
  - Assessment for 'does' cannot be standardized; it is the users of the forms, not the forms, that determine validity.
  - **ALL THOSE INVOLVED IN THE ASSESSMENT PROCESS SHOULD RECEIVE EXTENSIVE TRAINING:** faculty, other assessors, learners, judges.
  - Combining roles of mentor/coach and judge in high stake decisions is a conflict of interest; risks inflation of judgment and trivialization of assessment process.
  - Information from all low-stake assessments should feed into high stake decisions.

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

# Clinical Evaluation of Does: Recommendations\*

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- Include multiple forms of workplace-based assessment tools (e.g., DOPS, Mini-CEX, CBD, MSF, PBA, OSATS) 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

\*Workplace Based Assessment: A guide for implementation. Rowley, D, Wass, V, and Myerson, K, eds. 2010. London: General Medical Council/Academy of Medical Royal Colleges

**OCAP: SAMPLE TOOLS 1**

**Procedure Based Assessment – Total Knee Replacement**

**Trauma & Orthopaedics PBA 4: Total Knee Replacement**

Trainee:	Assessor:	Date:
Start time:	End time:	Duration:
Operation more difficult than usual? Yes / No (If yes, state reason)		

Score: N = Not observed or not appropriate U = Unsatisfactory S = Satisfactory

Competencies and Definitions		Score N/U/S	Comments
<b>I. Consent</b>			
C1	Demonstrates sound knowledge of indications and contraindications including alternatives to surgery		
C2	Demonstrates awareness of sequelae of operative or non operative management		
C3	Demonstrates sound knowledge of complications of surgery		
C4	Explains the perioperative process to the patient and/or relatives or carers and checks understanding		
C5	Explains likely outcome and time to recovery and checks understanding		
<b>II. Pre operative planning</b>			
PL1	Demonstrates recognition of anatomical and pathological abnormalities (and relevant co-morbidities) and selects appropriate operative strategies/techniques to deal with these e.g. nutritional status		
PL2	Demonstrates ability to make reasoned choice of appropriate equipment, materials or devices (if any) taking into account appropriate investigations e.g. x-rays		
PL3	Checks materials, equipment and device requirements with operating room staff		
PL4	Ensures the operation site is marked where applicable		
PL5	Checks patient records, personally reviews investigations		
<b>III. Pre operative preparation</b>			
PR1	Checks in theatre that consent has been obtained		
PR2	Gives effective briefing to theatre team		
PR3	Ensures proper and safe positioning of the patient on the operating table		
PR4	Demonstrates careful skin preparation		
PR5	Demonstrates careful draping of the patient's operative field		
PR6	Ensures general equipment and materials are deployed safely (e.g. catheter, diathermy)		
PR7	Ensures appropriate drugs administered		
PR8	Arranges for and deploys specialist supporting equipment (e.g. image intensifiers) effectively		
<b>IV. Exposure and closure</b>			
E1	Demonstrates knowledge of optimum skin incision / portal / access		



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## OCAP: SAMPLE TOOLS 2

### Procedure Based Assessment Validation Worksheet

#### Procedure-Based Assessment Validation

Specialty: Trauma & Orthopaedics

Procedure: PBA 4: Total Knee Replacement

Competencies and Definitions		Positive Behaviours (doing what should be done)	Negative Behaviours (doing what shouldn't be done)	Negative – Passive Behaviours (not doing what should be done)
<b>I. Consent</b>				
	Demonstrates sound knowledge of indications and contraindications including alternatives to surgery	Explains using examples relevant to the patient: <ul style="list-style-type: none"> <li>▪ Principle benefit of operation</li> <li>▪ Subsequent improvement of function</li> <li>▪ Limitations of surgery</li> <li>▪ Consequences of not having surgery</li> </ul>	Expresses unrealistic views of the improvement in function expected following the procedure	Fails to point out the limitations of the operation
		<i>Indicates pain relief as principle, aim of operation and improvement of function being subsidiary to that. Discusses limitations of activities relative patients age and specific requests</i>	<i>Glosses over potential difficulties related to activities such as kneeling or playing sport</i>	<i>Fails to point out limitations of a TKR in very active patients, particularly patients who require considerable bending</i>
C2	Demonstrates awareness of sequelae of operative or non operative management	Describes consequences, agrees expectations and checks patient understanding	Is over confident in describing consequences, reinforces patient's unrealistic expectations	Fails to mention key inevitable consequences
		<i>Show through discussion they can understand the long term issues around wear and loosening, risks of infection and specific limitations regarding movement and kneeling</i>	<i>Overrides legitimate concerns patient may have</i>	<i>Not discussed the risk of infection. The long term effects in terms of loosening</i>
C3	Demonstrates sound knowledge of complications of surgery	Explains in priority order the complications likely to occur in terms of commonality and in terms of seriousness	Spends time explaining rare complications and fails to mention commoner ones	Misses out one or more major complications when explaining to trainer or patient





### GENERIC TECHNICAL SKILLS ASSESSMENT

(to be used in conjunction with a task-specific checklist)

Assessor, please rate the candidate's performance for each of the following factors:

<b>Respect for tissue</b>	Frequently used unnecessary force on tissue or caused damage by inappropriate use of instruments.	Careful handling of tissue but occasionally causes inadvertent damage	Consistently handled tissues appropriately with minimal damage.
<b>Time, motion and flow of operation and forward planning</b>	Many unnecessary moves. Frequently stopped operating or needed to discuss next move.	Makes reasonable progress but some unnecessary moves Sound knowledge of operation but slightly disjointed at times	Economy of movement and maximum efficiency. Obviously planned course of operation with effortless flow from one move to the next.
<b>Knowledge and handling of instruments</b>	Lack of knowledge of instruments.	Competent use of instruments but occasionally awkward or tentative	Obvious familiarity with instruments.
<b>Suturing &amp; knotting skills</b>	Placed sutures inaccurately or tied knots insecurely, and lacked attention to safety.	Knotting and suturing usually reliable but sometimes awkward	Consistently placed sutures accurately with appropriate and secure knots, and with proper attention to safety.
<b>Technical use of assistants Relations with patient and the surgical team</b>	Consistently placed assistants poorly or failed to use assistants. Communicated poorly or frequently showed lack of awareness of the needs of the patient and/or the professional Team	Appropriate use of assistant most of the time Reasonable communication and awareness of the needs of the patient and/or of the professional team	Strategically used assistants to the best advantage at all times. Consistently communicated and acted with awareness of the needs of the patient and/or of the professional team
<b>Insight/Attitude</b>	Poor understanding of areas of weakness	Some understanding of areas of weakness	Fully understands areas of weakness
<b>Documentation of Procedures</b>	Limited documentation Poorly written	Adequate documentation, but with some omissions, or areas that need elaborating	Comprehensive legible documentation, indicating findings, procedure and postoperative management

Based on the checklist and the Generic Technical Skills Assessment, Dr ..... has achieved the OSAT competency level marked below:

Competent to perform the entire procedure under direct senior supervision	Competent to perform the entire procedure with indirect senior supervision	Competent to perform the entire activity without the need for supervision

Date:  
Signed:

# Clinical Evaluation of "Does"

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- New approaches to ‘reliability’ for high stake decisions
  - Estimate using generalizability theory
  - Include performance improvement<sup>1</sup>
  - Combine data from multiple assessment tools<sup>2</sup>

<sup>1</sup>van Lohuizen, MT, et. al. (2010) The reliability of in-training assessment when performance improvement is taken into account. *Adv. Health Sci. Educ.* 15: 659-669.

<sup>2</sup>Moonen-van Loon, JMW, et. al. Composite reliability of a workplace-based assessment toolbox for postgraduate medical education. *Adv. Health Sci. Educ. Online* 15 March 2013



# Clinical Evaluation of "Does"

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- New approaches to ‘reliability’ for high stake decisions
  - Holistic assessment procedure that relies on principles of qualitative research<sup>1,2</sup>
    - Credibility (e.g., assessor training; triangulation; CCC discusses inconsistencies)
    - Transferability (e.g., broad sampling over contexts, patients; narrative info)
    - Dependability (e.g., broad sampling over assessors)
    - Confirmability (e.g., process documentation; audit)

<sup>1</sup>van der Vleuten, CPM, et. al. (2012) A model for programmatic assessment fit for purpose. Medical Teacher, 34: 205-214.

<sup>2</sup>Driessen, EW, et. al. (2012). The use of programmatic assessment in the clinical workplace: A Maastricht case report. Medical Teacher 34: 226-231.

# Clinical Evaluation of "Does"

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# Clinical Evaluation of "Does": Faculty/Assessor Training\*

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- Include all participants in the assessment system
- Orientation to assessment system
- Discussion 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

**Deliberate practice to develop  
expertise in assessment**

\*Holmboe, ES, et. al. (2011). Faculty development in assessment: The missing link in competency-based medical education. *Acad. Med.* 86 (4): 460-467.

# Clinical Evaluation of "Does": Faculty/Assessor Training\*

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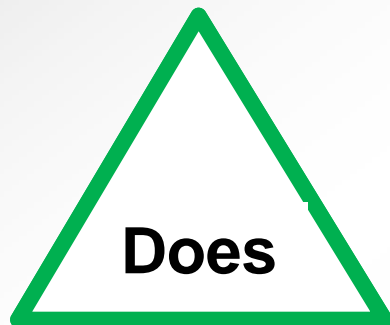
- GOAL is culture change: mutual respect and trust
  - Assessors' insecurities (content knowledge; knowledge about level of knowledge; self-efficacy)
    - Counteract by providing additional assessment opportunities to build convincing basis for decisions
  - Assessors' perceptions of assessment tasks (tension between mentoring and assessing; authenticity of assessment; lack of clear standard)
    - Counteract by incorporating two-way formative feedback as a common feature of all assessments, i.e., assessment as continuous learning

# The Big Questions

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When considering milestones:

- What should we assess?



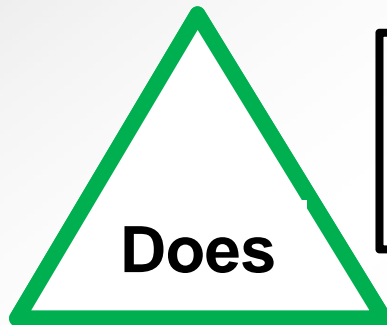
{  
Collective Competence  
Entrustable Professional Activities

# The Big Questions

---

When considering milestones:

- How should we assess it?



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



# Take-home Points

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- Assessment for milestones requires observations and judgments of performance in the workplace.
- Develop a program of assessment as part of curriculum planning.
  - Include planned assessments using multiple forms of WBA tools.
  - Focus on raters: it is the users of the tools, not the tools, that determine validity of assessment.
  - Incorporate deliberate practice to develop expertise in assessment.

# Assessing Clinical Competence

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What is the Role for the Clinical Competence  
Committee?

Neal H. Cohen, MD, MPH, MS

# Disclosures

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- **No Financial Disclosures**
- **Past Chair, Anesthesiology RRC**
- **Member, Anesthesiology Milestones Committee**
- **Vice Chair, ABA CCM Examination Committee**

# *Assessing Clinical Competence*

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- **ACGME requirements under NAS**
- **Anesthesiology requirements for assessing competence through continuum of training**
- **What has worked – and what has not**
- **Lessons learned**

# Assessing Clinical Competence

## What is Required for the NAS?

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Common Program Requirements state that

- “...[The final summative evaluation] must verify that the resident has demonstrated sufficient **competence to enter practice without direct supervision [conditional independence].**”
- Assessment of whether an individual resident has attained **milestones**
- Judgment of the *Clinical Competence Committee (CCC)* [provides] a framework for evaluation to assist the PD in assessing competence.

# Assessing Clinical Competence – NAS

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- All Programs will be required to have Clinical Competency Committees (CCCs)
- Specifics of CCC composition and roles are not specifically defined
- Programs in Phase 1 must have CCCs in place and begin to evaluate residents based on milestones during Academic Year 2013-14
- First two milestones submissions to the ACGME in December 2013 and June 2014
- So, time is of the essence...



# Assessing Clinical Competence in Anesthesiology Programs (ABA)

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- ABA requires every residency program to file an Evaluation of Clinical Competence in January and July for every resident who has spent any portion of the **prior six months** in clinical anesthesia training...
- Entry into the examination system is contingent upon the applicant having a Certificate of Clinical Competence attesting to satisfactory clinical competence during the **final** period of training...
- **As part of the assessment, input must be provided by the Clinical Competence Committee through continuum of training**

# *Clinical Competence Committees*

## The American Board of Anesthesiology

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### **ABA Requirements**

- CCC should include membership reflecting the composition of the department, clinical rotation sites, etc.
- Program Director/Department Chair must not chair the Clinical Competence Committee. (ABA rule)
- The recommendations of the CCC (in conjunction with other evaluations) must be taken into account in assessing admission qualifications for the board examination process.

# *Clinical Competence Committees*

## The American Board of Anesthesiology

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### **Roles**

- Monitor resident *progression through the continuum* of education in anesthesiology as specified by the American Board of Anesthesiology (ABA).
- Provide *objective assessments, feedback and mentorship* to anesthesia residents in the ACGME competency areas.
- Ensure that the assessment includes *input reflecting* representative group of faculty and evaluation of all educational components of the training program.

# *Clinical Competence Committees*

## The American Board of Anesthesiology

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### **Responsibilities**

- Complete the Clinical Competence Committee Report **every six months** as required by the ABA.
- Develop and manage systems for evaluation of residents from **multiple sources** (e.g., faculty, peers, patients, self, other professional staff).
- Manage a **faculty advisor system** to provide resident mentorship and feedback about performance at least semi-annually.

# *Clinical Competence Committee* Committee Composition

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- Chair appointed; Program Director or Chair excluded by ABA
- Membership varies by department size, composition (most commonly 10-12 members)
  - Representation from all divisions, services, sites
  - Broad representation of junior through senior faculty
  - Larger departments have terms of membership (eg; 2-year renewable)
  - Smaller departments may include entire faculty
  - Some departments include resident members
  - Advisors excluded from discussions
- Expectations
  - Must be actively involved in resident education
  - Participate in committee deliberations regularly (50%)
  - Provide consistent, timely evaluations
  - Feedback must be constructive

# *Clinical Competence Committee* Information Reviewed

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- All daily (electronic) evaluations
  - End of rotation evaluations for subspecialties, selected rotations
  - Input from other providers, colleagues, when available (360° evaluations\*)
  - Annual peer review evaluations\*
  - Six-month self evaluations\*
  - Test scores
  - Attendance records
- ... and whatever additional information is available

# *Clinical Competence Committee*

## What Works

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- Assessment by consensus of a diverse group of faculty reinforces when a resident is doing well and identifying areas of concern for the resident having problems
- Discussions help differentiate poor performance in isolated situations from a pattern of poor performance
- CCC helps clarify the areas of concern for the “problem resident” – specific areas of deficiency, inability to function in different settings (eg; OR, ICU, Pain), etc
- Coordination of evaluation and mentoring improves process for defining remedial steps necessary to help resident succeed
- Process allows department to identify weaknesses in educational curriculum, rotation schedules, supervision

# *Clinical Competence Committee*

## What Doesn't Work

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- Need for consensus about the definition of acceptable/unacceptable performance -- not consistently achieved
- Some faculty are hawks; others doves
- Tendency to make “gestalt” assessment (safe/not safe) rather than assessment of competence
- Unwillingness of faculty to provide “negative” evaluations
- Role of mentor in evaluation deliberations (advocacy vs objective assessment of competencies)
- PD often has more information about resident performance than is otherwise available to CCC
- Information is usually provided at the meeting, so limited time for review before discussion



# *Clinical Competence Committee*

## Lessons Learned

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- Most effective when it includes broad departmental representation of all services/rotations, faculty ranks/roles
- Role and responsibility must be understood by all members
- Most useful in assessing struggling resident and defining remedial needs, but also important in identifying outstanding residents
- Must collaborate with PD and mentors
  - Mentors should not participate in committee deliberations

# *Clinical Competence Committee*

## Additional Lessons Learned

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- Deliberations are complementary to Annual Program Evaluation
  - Helps identify systemic problems within the educational program, rotation schedules, timing of specialty rotations
- CCC will become even more important with implementation of milestones
  - Resident progression, proficiency
  - Faculty development

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# What Does the ACGME Expect?

# Expected Benefits

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## Benefit For Residents

- Explicit expectations of residents
- Identifies areas to work on
- Improve evaluation of residents in all 6 general competencies
- More defined feedback from faculty to residents
- Earlier identification of under-performers
- Provides aspirational goals for over-achievers

# Expected Benefits

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## Benefit For the Program

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

## Benefit For the Public

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

# What does the ACGME expect?

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- General concept: many is better than one
- Size, composition, frequency work flow may have to vary and hard to regulate
- Proposed Requirement on Clinical Competency Committee
- Posted on ACGME website
- Comments due May 15, 2013

# What is the program requirement?

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- General concept: many is better than one
- Size, composition, frequency work flow may have to vary and hard to regulate
- Proposed Requirement on Clinical Competency Committee
- Posted on ACGME website
- Comments due May 15, 2013

# Proposed requirements?

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- Program director appoints a CCC
- At least three faculty members
  - Can include non-physicians
  - Can include program director
- Optional members in addition
  - Residents in last year, others



# Proposed requirements?

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- CCC reviews all resident evaluations
  - Semi-annually
- Assure semi-annual reporting to ACGME
- Recommend to Program Director
  - Promotion
  - Remediation
  - Dismissal
- Program requirement posted for comment

# Development Schedule

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2013

- July - Seven Phase 1 specialties begin using Milestones,
- Report Dec 2013 and July 2014

2014

- July - all core specialties start using Milestones

2015

- Subspecialties?

# What Can I Do Now?

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- ✿ Learn your specialty milestones
  - ✿ Posted on [acgme.org](http://acgme.org)
- ✿ Decide how to assess for milestones
- ✿ Tools to evaluate from program director associations, specialty boards, colleges
- ✿ Faculty discuss definitions and narratives
- ✿ Faculty should agree on the narratives
- ✿ Faculty learn about assessment tools

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The difference between a beginning teacher and an experienced one is that the beginning teacher asks, "How am I doing?" and the experienced teacher asks, "How are the children (residents/fellows) doing?"

— [Esm](#)

# 2014 and beyond.....

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- Milestones 1.0
- Improve evaluations
- Adjust and refine
- Modify in 2-4 yrs



# Goals for Today

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1. What are milestones?
2. How do we assess for milestones?
3. How do CCCs work?
4. What does ACGME expect for CCCs?

