Implementing Milestones and Clinical Competency Committees

April 24, 2013
Presenters

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  SVP Hospital-based accreditation

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  Executive Director, CRS. NSurg, Ortho, Otol

• Neal Cohen, MD, MS
  Vice Dean, UCSF School of Medicine
Goals for Today

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

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Six Core Competencies for every physician

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

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

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Milestone Project Goals

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?

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

<table>
<thead>
<tr>
<th>Feasibility</th>
<th>Quality</th>
<th>Applicable</th>
</tr>
</thead>
</table>
| • 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 |
Levels of Expectation

- Aspirational Goal
- Graduating Resident
- Advanced Resident
- Intermediate Resident
- Entering Resident
- Novice
- Advanced Beginner
- Competent
- Proficient
- Expert
### Professionalism:

*Accepts responsibility and follows through on tasks*

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
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</thead>
<tbody>
<tr>
<td><strong>Expert</strong></td>
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<tr>
<td><strong>Proficient</strong></td>
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<tr>
<td><strong>Competent</strong></td>
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<tr>
<td><strong>Advanced</strong></td>
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<tr>
<td><strong>Beginner</strong></td>
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</table>

**Resident completed many assigned tasks on time but needs extensive guidance on local practice and/or policy for patient care.**

**Resident routinely completes most assigned tasks in a timely manner in accordance with local practice and/or policy, but still requires guidance in unfamiliar circumstances.**

**Resident frequently prioritizes multiple competing demands and completes the vast majority of responsibilities in a timely manner. Self identifies circumstances and actively seeks guidance in unfamiliar circumstances.**

**Resident always prioritizes and willingly works on multiple competing complex and routine cases in a timely manner by appropriately seeking guidance. Is regularly sought out by peers and subordinates to provide them guidance.**

**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.**

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# PC1. History (Appropriate for age and impairment)

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

**Milestone**

*General Competency*

*Sub-competency*

*Developmental Progression or Set of Milestones*
### Milestone Description: Template

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the expectations for a beginning resident?</td>
<td>What are the milestones for a resident who has advanced over entry, but is performing at a lower level than expected at mid-residency?</td>
<td>What are the key developmental milestones mid-residency?</td>
<td>What does a graduating resident look like?</td>
<td>Stretch Goals – Exceeds expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What should they be able to do well in the realm of the specialty at this point?</td>
<td>What additional knowledge, skills &amp; attitudes have they obtained?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Are they ready for certification?</td>
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</tr>
</tbody>
</table>

**Comments:**
### Sample Milestone

**SBP 1: Functions in the current reimbursement system**

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
</table>
| - Understands basic health payment systems, including uninsured care.  
- Understands different practice models. |
| - Understands principles of diagnosis, evaluation and management, and procedure coding.  
- Compares and contrasts different practice models. |
| - Codes routine diagnoses, encounters and surgical procedures.  
- Documents medical necessity.  
- Recognizes basic elements needed to establish practice (e.g. negotiations, malpractice insurance, contracts, staffing, compliance, facility accreditation). |
| - Codes complex and unusual diagnoses, encounters and surgical procedures.  
- Establishes timeline and identifies resources for transition to practice (e.g. information technology, legal, financial, personnel). |
| - Participates in advocacy activities for health policy.  
- Creates curriculum to teach practice management. |

**Comments:**
**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 reevaluates after stabilizing intervention.

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

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

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EM Milestones Final 12/31/11

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## Radiology: Interpersonal and communication skills

<table>
<thead>
<tr>
<th>PGY 1</th>
<th>PGY 2-3</th>
<th>PGY 3-4</th>
<th>Grad resident</th>
<th>Prac Prad</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication with other physicians: formal reporting</strong></td>
<td><strong>Is proficient in speech recognition</strong> and self-editing and adheres to institutional/national policies for reporting in radiology. Radiology reports accurately describe findings in <em>simple and emergent cases</em>. Impression is clear and concise. Reports accurately identify urgent and unexpected findings. <strong>Few corrections</strong> required by attending radiologist.</td>
<td><strong>Accurately and efficiently dictates reports even in complex cases</strong> and demonstrates a turnaround time in-line with peers; reports for complex cases <strong>accurately convey findings</strong> and impression as discussed with attending radiologist.</td>
<td>Produces a <strong>concise report</strong> with significant findings, impressions and recommendations and can accurately identify all urgent and essentially all unexpected findings in the report.</td>
<td>Is a role model for written reporting and actively teaches junior level residents and provides feedback.</td>
</tr>
</tbody>
</table>
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

Singapore experience
n=122 paired observations
End of PGY-1, Mid PGY-2 Year Evaluation, Overall Rating of Patient Care and Technical Skills across All Specialties

Singapore experience n=122 paired observations
Singapore Milestone Data, End of PGY 1 to Mid Year PGY 2
All Specialties (n=122, 100%)
Attainment of Milestones should be determined by The Clinical Competency Committee

- 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

- 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

Assessment of Residents for Milestones

Pamela Derstine, PhD, MHPE, Executive Director
Review Committees for Colon & Rectal Surgery, Neurological Surgery, Orthopaedic Surgery, Otolaryngology
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 and developing rater expertise in assessment through deliberate practice.
- Develop a program of assessment as part of curriculum planning.
The Big Questions

When considering milestones:
• What should we assess?
• How should we assess it?
<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs a history and physical examination in critically-ill patients</td>
<td>Explains risks and benefits of ventilatory support</td>
<td>Formulates work-up and treatment plan for a comatose patient</td>
<td>Independently formulates a treatment plan for complex patients (e.g.,</td>
<td>Systematically reviews outcomes for neurocritical care patients</td>
</tr>
<tr>
<td>Orders positioning, analgesics, sedation, neuromuscular blockade,</td>
<td>Interprets diagnostic studies (e.g., chest x-ray [CXR], brain computed</td>
<td>obtains confirmatory tests and make an accurate diagnosis of brain death</td>
<td>failure of cerebral autoregulation, multi-organ failure, non-</td>
<td>Participates in quality improvement for a neurocritical care unit</td>
</tr>
<tr>
<td>intravenous (IV) fluids and nutrition in critically-ill patients</td>
<td>computed tomography [CT], echocardiogram)</td>
<td>initiates management of pneumonia or systemic infection</td>
<td>recoverable CNS injury)</td>
<td>Develops a standard neurocritical care unit management protocol</td>
</tr>
<tr>
<td>Diagnoses and formulates treatment plans for common pulmonary diseases</td>
<td>Manages intra-cranial hypertension (e.g., hyperosmolar agents, CSF</td>
<td>Diagnoses and initiates management of adult respiratory distress</td>
<td>Manages difficult and emergency airways</td>
<td>Leads multidisciplinary neurocritical care team</td>
</tr>
<tr>
<td>Use electrocardiogram (EKG) to diagnose cardiac arrhythmia; initiates</td>
<td>drainage)</td>
<td>syndrome)</td>
<td>Diagnose and manages CSF leak</td>
<td>Manages respiratory failure (e.g., mechanical ventilation, bronchoscopy)</td>
</tr>
<tr>
<td>hemodynamic monitoring</td>
<td>Manages airway and performs endotracheal intubation</td>
<td>Manages difficult and emergency airways</td>
<td>Initiates management of cardiac rhythm disturbances</td>
<td>Manages cardiac rhythm disturbances</td>
</tr>
<tr>
<td>Performs a brain death examination</td>
<td>Inserts arterial and central venous catheters</td>
<td>Manages difficult and emergency airways</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 4</td>
<td>Level 5</td>
</tr>
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<td>------------------------------------------------------------------------</td>
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<td>Explains risks and benefits of ventilatory support</td>
<td>Formulates work-up and treatment plan for a comatose patient</td>
<td>Independently formulates a treatment plan for complex patients (e.g., failure of cerebral autoregulation, multi-organ failure, non-recoverable CNS injury)</td>
<td>Systematically reviews outcomes for neurocritical care patients</td>
</tr>
<tr>
<td>Orders positioning, analgesics, sedation, neuromuscular blockade, intravenous (IV) fluids and nutrition in critically-ill patients</td>
<td>Interprets diagnostic studies (e.g., chest x-ray [CXR], brain computed tomography [CT], echocardiogram)</td>
<td>Manages refractory intra-cranial hypertension (e.g., blood pressure, CPP)</td>
<td>Diagnoses and initiates management of adult respiratory distress syndrome</td>
<td>Participates in quality improvement for a neurocritical care unit</td>
</tr>
<tr>
<td>Diagnoses and formulates treatment plans for common pulmonary diseases</td>
<td>Manages intra-cranial hypertension (e.g., hyperosmolar agents, CSF drainage)</td>
<td>Obtains confirmatory tests and make an accurate diagnosis of brain death</td>
<td>Manages difficult and emergency airways</td>
<td>Develops a standard neurocritical care unit management protocol</td>
</tr>
<tr>
<td>Use electrocardiogram (EKG) to diagnose cardiac arrhythmia; initiates hemodynamic monitoring</td>
<td>Manages airway and performs endotracheal intubation</td>
<td>Initiates management of pneumonia or systemic infection</td>
<td>Diagnose and manages CSF leak</td>
<td>Leads multidisciplinary neurocritical care team</td>
</tr>
<tr>
<td>Performs a brain death examination</td>
<td>Inserts arterial and central venous catheters</td>
<td></td>
<td>Initiates management of cardiac rhythm disturbances</td>
<td>Manages respiratory failure (e.g., mechanical ventilation, bronchoscopy)</td>
</tr>
<tr>
<td></td>
<td>Diagnoses and manages spinal or hypovolemic shock</td>
<td></td>
<td></td>
<td>Manages cardiac rhythm disturbances</td>
</tr>
</tbody>
</table>

Comments: Not yet rotated
Understanding Competence*

- 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

What should we assess?*

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.

What should we assess?*

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.

What should we assess?

One way of thinking is not “better” than the other. Both are needed! But each requires different concepts of assessment.
Miller’s 1 Pyramid of Clinical Competence

- Does
- Shows How
- Knows How
- Knows

Collective Competence
Entrustable Professional Activities

Individual Competence
Discrete KSA’s

1Miller, 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
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Miller’s Pyramid of Clinical Competence

- **Knows**: MCQ, Oral Examinations
- **Knows How**: MCQ, Oral Examinations, Standardized Patients
- **Shows How**: Structured Clinical Observation, Simulation, Standardized Patients, Standardized Mini CEX
- **Does**: Workplace Assessment: Clinical Observations, Multi-Source Feedback, Team Assessments, Operative (Procedural) Skill Assessments

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1Miller, 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

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How should we assess “does”?  

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*

- 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!).

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.


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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.

Clinical Evaluation of "Does": Recommendations*

- 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

Clinical Evaluation of "Does": Recommendations*

- 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.

Clinical Evaluation of Does: Recommendations*

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.

Clinical Evaluation of Does: Recommendations*

• 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

Procedure Based Assessment – Total Knee Replacement

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

<table>
<thead>
<tr>
<th>Trainee:</th>
<th>Assessor:</th>
<th>Date:</th>
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<tbody>
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</table>

<table>
<thead>
<tr>
<th>Start time:</th>
<th>End time:</th>
<th>Duration:</th>
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</table>

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

<table>
<thead>
<tr>
<th>Score</th>
<th>Comments</th>
</tr>
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<tbody>
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</tbody>
</table>

#### I. Consent

- **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

#### II. Pre operative planning

- **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

#### III. Pre operative preparation

- **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

#### IV. Exposure and closure

- **E1** Demonstrates knowledge of optimum skin incision / portal / access
## OCAP: SAMPLE TOOLS 2

Procedure Based Assessment Validation Worksheet

### Procedure-Based Assessment Validation

<table>
<thead>
<tr>
<th>Specialty: Trauma &amp; Orthopaedics</th>
<th>Procedure: PBA 4: Total Knee Replacement</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Competencies and Definitions</th>
<th>Positive Behaviours (doing what should be done)</th>
<th>Negative Behaviours (doing what shouldn't be done)</th>
<th>Negative – Passive Behaviours (not doing what should be done)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Consent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates sound knowledge of indications and contraindications including alternatives to surgery</td>
<td>Explains using examples relevant to the patient:</td>
<td>Expresses unrealistic views of the improvement in function expected following the procedure</td>
<td>Fails to point out the limitations of the operation</td>
</tr>
<tr>
<td></td>
<td>Principle benefit of operation</td>
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</tr>
<tr>
<td></td>
<td>Subsequent improvement of function</td>
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<tr>
<td></td>
<td>Limitations of surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consequences of not having surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>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</td>
<td>Glosses over potential difficulties related to activities such as kneeling or playing sport</td>
<td>Fails to point out limitations of a TKR in very active patients, particularly patients who require considerable bending</td>
</tr>
<tr>
<td>C2</td>
<td>Demonstrates awareness of sequelae of operative or non operative management</td>
<td>Describes consequences, agrees expectations and checks patient understanding</td>
<td>Is over confident in describing consequences, reinforces patient’s unrealistic expectations</td>
</tr>
<tr>
<td></td>
<td>Show through discussion they can understand the long term issues around wear and loosening, risks of infection and specific limitations regarding movement and kneeling</td>
<td>Overrides legitimate concerns patient may have</td>
<td>Not discussed the risk of infection. The long term effects in terms of loosening</td>
</tr>
<tr>
<td>C3</td>
<td>Demonstrates sound knowledge of complications of surgery</td>
<td>Explains in priority order the complications likely to occur in terms of commonality and in terms of seriousness</td>
<td>Spends time explaining rare complications and fails to mention commoner ones</td>
</tr>
</tbody>
</table>

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Section 15-11
**Objective structured assessment of technical skill**

**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:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Performance 1</th>
<th>Performance 2</th>
<th>Performance 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect for tissue</td>
<td>Frequently used unnecessary force on tissue or caused damage by inappropriate use of instruments.</td>
<td>Careful handling of tissue but occasionally causes inadvertent damage</td>
<td>Consistently handled tissues appropriately with minimal damage.</td>
</tr>
<tr>
<td>Time, motion and flow of operation and forward planning</td>
<td>Many unnecessary moves. Frequently stopped operating or needed to discuss next move.</td>
<td>Makes reasonable progress but some unnecessary moves. Sound knowledge of operation but slightly disjointed at times.</td>
<td>Economy of movement and maximum efficiency. Obviously planned course of operation with effortless flow from one move to the next.</td>
</tr>
<tr>
<td>Knowledge and handling of instruments</td>
<td>Lack of knowledge of instruments.</td>
<td>Competent use of instruments but occasionally awkward or tentative.</td>
<td>Obvious familiarity with instruments.</td>
</tr>
<tr>
<td>Suturing &amp; knotting skills</td>
<td>Placed sutures inaccurately or tied knots insecurely and lacked attention to safety.</td>
<td>Knotting and suturing usually reliable but sometimes awkward.</td>
<td>Consistently placed sutures accurately with appropriate and secure knots, and with proper attention to safety.</td>
</tr>
<tr>
<td>Technical use of assistants: Relations with patient and the surgical team</td>
<td>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 of the professional team.</td>
<td>Appropriate use of assistant most of the time. Reasonable communication and awareness of the needs of the patient and/or of the professional team.</td>
<td>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.</td>
</tr>
<tr>
<td>Insight/Attitude</td>
<td>Poor understanding of areas of weakness</td>
<td>Some understanding of areas of weakness</td>
<td>Fully understands areas of weakness</td>
</tr>
<tr>
<td>Documentation of Procedures</td>
<td>Limited documentation Poorly written</td>
<td>Adequate documentation, but with some omissions, or areas that need elaborating</td>
<td>Comprehensive legible documentation, indicating findings, procedure and postoperative management</td>
</tr>
</tbody>
</table>

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"

- New approaches to ‘reliability’ for high stake decisions
  - Estimate using generalizability theory
  - Include performance improvement\(^1\)
  - Combine data from multiple assessment tools\(^2\)


Clinical Evaluation of "Does"

- New approaches to ‘reliability’ for high stake decisions
  - Holistic assessment procedure that relies on principles of qualitative research\(^1,2\)
    - 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)

Clinical Evaluation of "Does"

- New approaches to ‘reliability’ for high stake decisions
  - Holistic assessment procedure that relies on principles of qualitative research\(^1,^2\)
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    - Dependability (e.g., broad sampling over assessors)
    - Confirmability (e.g., process documentation; audit)

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

- 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

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

- 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

When considering milestones:

- What should we assess?

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The Big Questions

When considering milestones:
• How should we assess it?

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

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Take-home Points

• 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

What is the Role for the Clinical Competence Committee?

Neal H. Cohen, MD, MPH, MS
Disclosures

• No Financial Disclosures

• Past Chair, Anesthesiology RRC

• Member, Anesthesiology Milestones Committee

• Vice Chair, ABA CCM Examination Committee
Assessing Clinical Competence

- 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?

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

- 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)

- 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
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

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

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

- 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

- 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

- 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 (e.g., 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

- 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

- 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

• 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
What Does the ACGME Expect?
Expected Benefits

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

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?

• 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?

- 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?

- 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?

- 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
<table>
<thead>
<tr>
<th>Year</th>
<th>Events</th>
</tr>
</thead>
</table>
| 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?

- Learn your specialty milestones
  - Posted on 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
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…..

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

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