Assessment Tools for Clinical Training

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Overview of today's program
OBJECTIVES

- Describe various assessment tools used during the clinical years of undergraduate medical training
- Explain how the assessments work together to create a comprehensive picture of performance
- Build skills to easily complete clinical assessments in real time

Overview of today's program
Overview

**TOPICS**

- Review the basics of assessment terminology
- Explore types of summative exams used during the clinical training years
- Describe how summative exams fit together to provide a comprehensive picture of performance
- Explain assessment strategies for completing summative clinical evaluations
- Review principles of writing summative and formative comments for clinical trainees
ASSESSMENT DRIVES LEARNING

EVALUATION SYSTEMS

SUMMATIVE ASSESSMENTS

FORMATIVE ASSESSMENTS
Evaluation systems provide frameworks for medical trainees

What is to be evaluated

What kind of observations or assessments are useful to allow judgements

How these should be compared to the standard of what is to be achieved by the learner

AAME Guide No. 78, Med Teach (2013)
Assessment frameworks drive learning

Provide students with a guide for what is expected

Enhance consistency and reliability in ratings across staff and settings

Determine content and resources needed to achieve consistency of application

AAME Guide No. 78, Med Teach (2013)
Intended to improve performance incrementally

1. End-of-shift cards
2. Daily huddles for feedback
3. Mid-rotation evaluations
4. Workplace-based assessments
**Cumulative evaluations associated with progression to the next level**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Rotation grades and evaluations</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>End of service exams (COMAT and SHELF)</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>OSCE</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Licensure exams</td>
</tr>
</tbody>
</table>
ASSESSMENT TIMELINE

- Clinical Rotations and COMAT/SHELF
- In-training exam and rotation grades
- Licensure exam series (COMLEX-USA/USMLE)
- Board exam and specialty certification

Why Exams Matter

Predictive Value of Exams
All exams intend to provide evidence for the trainee to ultimately independently deliver safe, clinical care to patients.
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Level 1/Step 1 assess foundational science knowledge and readiness for clinical integration

Level 2 CE/Step 2 CK assess clinical application of foundational knowledge

Level 2 PE/Step 2 CS assess communication, biomedical/biomechanical, and humanistic domains

Level 3/Step 3 assess readiness for unsupervised practice in all domains
Reasons for board actions addressed through exams

1. Level 1/Step 1 assess foundational science knowledge and readiness for clinical integration
   - SUBSTANDARD CARE: misunderstanding or misuse of scientific principles

2. Level 2 PE/Step 2 CS assess communication, biomedical/biomechanical, and humanistic domains
   - SUBSTANDARD CARE: poor communication skills, lack of empathy, some unprofessional behaviors

3. Level 2 CE/Step 2 CK assess clinical application of foundational knowledge
   - SUBSTANDARD CARE: lack of clinical knowledge

4. Level 3/Step 3 assess readiness for unsupervised practice in all domains
   - SUBSTANDARD CARE: unprepared for independent practice
All exams intend to provide evidence for the trainee to ultimately independently deliver safe, clinical care to patients

How do recent changes in the standardized licensure exam series impact patient safety?
Do licensure exams predict clinical performance?
Level 1/Step 1

USMLE Step 1: no correlation between board action and score

Level 1/Step 1
Pass/Fail Transition

Potential increased weight on COMAT/STEP exam scores

Increased weight on Step 2CK, school pedigree

Level 2 CE/Step 2 CK

USMLE Step 2: higher score --> lower odds of board action

25% decrease for 1-SD increase

Level 2 PE/Step 2 CS

COMLEX Level 2 PE: higher score in biomedical/biomechanical domain --> lower odds of board action

Level 2 PE/Step 2 CS

For residency directors, failure was more impactful than passing, and predicted risk for:

- Low NBME scores
- Low OSCE scores
- Poor faculty ratings

First-time pass rate 94% for US/Canadian candidates

Level 3/Step 3

COMLEX Level 3: higher score --> lower odds of revoked license, imposed limitations to practice, other actions

Licensure exam changes are leading residency programs to seek objective data for filtering candidates.

Trends towards competency-based training may shift focus for training and remediation towards clinical assessments.

Documenting Success
Assessing Clinical Trainees' Success
EPAs in UME
EPAs in UME and increasing objectivity in clinical assessment

Observable, measurable units of practice

Require actionable and concrete skills

Integrate multiple competencies

Entrustable once trainee has demonstrated satisfactory unsupervised performance

EPA 1: Gather a history and perform a physical exam

Pre-Entrustable

- Errors of omission or commission in gathering info
- Incorrectly perform physical maneuvers or miss key exam findings, inaccurately describes findings
- Difficulty filtering, prioritizing or connecting pieces of information to each other, prior clinical encounters, or existing factual knowledge

Entrustable

- Routinely gather focused and accurate information in all settings including urgent, emergent or consultation
- Accurately perform complete and focused exam, identify abnormal findings and describe findings to team members
- Analytic reasoning and ability to activate prior foundational knowledge and clinical experience inform the choice of information gathering type, breadth and extent
Evaluation Rubrics for Clinical Trainees

Systems to help guide:
- What should be evaluated
- What kind of observations are useful to allow judgements
- How the observations should be compared to the standard that the trainee should achieve
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<thead>
<tr>
<th>Role</th>
<th>Level of Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>Knows</td>
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<td>Facilitator</td>
<td>Knows how</td>
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<tr>
<td>Consultant</td>
<td>Shows how</td>
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<td>Educator</td>
<td>Does</td>
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<td>Reporter</td>
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Principles for writing comments about performance

- Be specific to the student
- Provide quantifiable comparisons
- Include examples of both hard and soft skills

Formative comments provide a path for improvement
Thank you for teaching the next generation of physicians!

Questions?