Assessment 101 - What you need to know

Sue Dojeiji MD MEd, Cheryl Main MD, Brad Petrisor MD
Thursday, September 29, 2016
DOES THIS SOUND FAMILIAR?

I **LOVE** to teach…

…but I **HATE** to evaluate!
“However beautiful the strategy, you should occasionally look at the results.”

Sir Winston Churchill
“There **must** be mechanisms in place to ensure the systematic collection and interpretation of evaluation data on each resident enrolled in the program.”

Standard B6: Evaluation of Resident Performance

General Standards of Accreditation June 2006
OBJECTIVES

1. Describe 3 new tools to assess resident competence with the CanMEDS 2015 framework for your residency program.

2. Describe 3 practical changes to enhance your program’s assessment system

3. Create a CanMEDS-based assessment blueprint
OUTLINE

- Introductions
- Principles of feedback and assessment
- Review of assessment methods
- Assessment blueprint
- Summary
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We do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

Nous n’avons aucune affiliation (financière ou autre) avec une entreprise pharmaceutique, un fabricant d’appareils médicaux ou un cabinet de communication.
WHO’S IN THE ROOM?

▶ Surgery
▶ Medicine
▶ Peds
▶ DI
▶ Pathology and Lab Med
▶ Psychiatry
▶ This workshop would be a success for me if...
GROUND RULES

- There are no stupid questions
- Respect for ideas in the room
- It’s okay to say you don’t know
- Parking lot of questions
- Enjoy and learn…
WHAT DO WE MEAN BY...

- Feedback
- Assessment
- Summative
- Formative
- Competence
- Competency
Feedback

- Information provided to give learners insight into their learning.

- Focuses on:
  - What was actually done
  - Consequences of actions

- Key to higher level learning
ASSESSMENT

▶ “Evaluation” used interchangeably

▶ Assessment of learners’:
  • knowledge, skills, values/attitudes

▶ Assessment for:
  • learning
  • demonstration of competence
  • progression/promotion
  • certification – the big exam!
ASSESSMENT - FORMATIVE VERSUS SUMMATIVE
THE OLYMPICS ANALOGY

Formative

- Ongoing, as you go along
  - Small, incremental assessment of parts of performance
- Fed back to the learner on an ongoing, real time basis
- Used for honing performance
- Facilitates learning
- “The coach”
FORMATIVE VS SUMMATIVE
THE OLYMPICS ANALOGY

Summative

▶ Less frequent and discrete
▶ Summarizes performance
▶ Judgment
  • Pass/fail
  • Gold/silver/bronze
▶ Not intended to be used to teach the learner
▶ “The Judge”
“The only difference between formative and summative assessment should be the intent of the assessment, not the methods used”

Kurtz 1998
As desired competencies of physicians have gone beyond factual knowledge and clinical skills, training programs need evaluation methods that measure these competencies.

Aretz, MJA 2003
COMPETENCE

▶ “The **minimally** expected standard for an individual ready to start independent practice”  Yip and Small 2000

▶ “The array of abilities across multiple domains or aspects of physician performance in a certain context.”  Frank 2010
COMPETENCE – IN OTHER WORDS…

- Dynamic
- Develops or recedes over time
- Contextual – environment of practice or learning
- Recognizes a *continuum* of skill
  - Specifies degree of competence at a particular level of training/practice
COMPETENCY

- An observable ability of a health professional
- Integrates multiple components
  - knowledge, skills, values, and attitudes
- Since it’s observable, it can be measured and assessed
- AKA CanMEDS Roles

© Frank et al, Competency based medical education: theory to practice, Medical Teacher, 2010
CANMEDS 2015
COMPETENT

- Has the capabilities necessary to achieve competence as defined at a specific level of medical education

- Assessing competency is asking the learner to demonstrate the required capabilities
What do we really want to assess?

- Knows
- Knows how
- Shows how
- Does

Performance or hands on assessment
Written, Oral or Computer based assessment

Professional authenticity

CURRENT STATE OF THE ART

- Assessment for learning
- Coaching
- Objective
- Standardized
- Multiple assessments
- Multiple methods
- “High fidelity”
- Direct Observation**
Take 10 min

Use the worksheet – answer #1 and #2

Fill in your program’s current assessment strategy
  • How do you assess the CanMEDS roles?
  • What assessment tools do you use?

Also
  • Who collects the information?
  • Who looks at the information?
TO BEGIN…

1. There is a tool for every CanMEDS Role
2. No single tool can do it all
3. Assessment is multimodal
4. It is unnecessary to assess all Roles all the time
5. Appropriate tools may be tailored to specialty
ASSESSMENT OF COMPETENCIES

Clinical Methods
- Daily Encounter Cards
- In-Training Evaluatn Records
- Observed procedures
- 360’/Multisource Feedback
- Practice assessments
- Chart audits

Non-clinical
- Written tests
- Oral exams
- OSCEs & SPs
- Logbooks & Portfolios
- “Long cases” with real patients
- Simulations & labs
Link Objectives and Assessment Methods
“CLASSIC” TOOLS

- Written tests
- Oral exams
- OSCEs & SPs
- ITERs
<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Valid, Predictive</td>
<td>▶ Face validity</td>
</tr>
<tr>
<td>▶ Reliable</td>
<td>▶ Fidelity</td>
</tr>
<tr>
<td>▶ Practical</td>
<td>▶ Breadth</td>
</tr>
<tr>
<td>▶ Essential knowledge</td>
<td>▶ Labour-intensive</td>
</tr>
<tr>
<td>▶ Short Answer Questions</td>
<td></td>
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EXAMPLE: TAILOR AN EXISTING TOOL - SAQ

■ STEM:

■ A 70-year-old female is brought to the ED after a fall. Her vital signs are normal and she complains of right hip pain.

■ THE QUESTION:

■ What SAQ would address a HEALTH ADVOCATE or other CanMEDS Role?
EXAMPLE: TAILOR AN EXISTING TOOL - SAQ

The NEW standard:

- List **SIX** preventable complications of this injury and identify **ONE** potential intervention to reduce the likelihood of **EACH**

- This is the patient’s fourth fall in two weeks. List **THREE** interventions that should be considered upon discharge to reduce the risk of a recurrence.

- Provide **FOUR** social determinants of health that may be putting the patient at risk for falls?
STRUCTURED ORAL EXAMS
“CASE-BASED CONVERSATIONS”

Pros

▶ Beyond knowledge
▶ Rich dialogue
▶ Greater breadth
▶ Domains

Cons

▶ Reliability
▶ Standardization
▶ Examiner cueing
▶ Anxiety
▶ Time-intensive
OSCES
SAMPLING OF PERFORMANCE ON STATIONS OF STRUCTURED SCENARIOS

Pros
- Checklists or global
- Face validity
- Standardizable
- Observed performance
- “Double/triple dip”

Cons
- Resource-intensive
- Reliability requires many stations
- “Fake”
“Process of observing and systematically documenting the ongoing performance of a learner in real clinical settings during a specific period of training”

Turnbull 1998
ITERS

Pros
- Valid
- Authentic
- Multiple assessors
- Any CanMEDS Role

Cons
- Reliability
- Need to document specifics
DOES THIS LOOK FAMILIAR?

- Awesome resident!!! Great having you in clinic
- Needs to read more
- Know your anatomy
- Demonstrates lifelong learning
- Collaborates effectively
BETTER COMMENTS

- Responds positively to feedback. e.g., Noted that you missed a quads lag by not first checking passive ROM of the knee. Reviewed proper technique for quads testing. On observation at a later point during the clinic you had altered your physical exam appropriately.

- Tendency to use too much medical jargon when explaining issues to patients. e.g., In the patient with an abnormal lesion on the chest x-ray you said, “It could be an infiltrate, a granuloma, a malignancy…”

- Focus anatomy reading on the brachial plexus…. need to be able to draw the plexus out so that neurological lesions can be mapped on the plexus

- Case presentations in clinic are succinct and include all relevant info. e.g., Patient with depression and back pain… you were able to focus on the issues relevant to the question asked by the referring doctor in presenting the case
Encounter cards (DECs)

Portfolios

Multi-source feedback
DAILY ENCOUNTER CARDS (DEC)

- An in-training tool
- Method of direct assessment
- Captures direct observations of clinical competence
- From brief encounters
- Cards/forms completed
- Discussed collaboratively post encounter
- Facilitates regular, timely feedback
- Feeds the ITER!
Pros

- Useful when multiple observers involved
- Foster feedback
- Contribute to formative and summative

Cons

- Fatigue
- Gaming
- Reliability
- Breadth
- Halo effects
PORTFOLIOS

- Flexible, multifaceted, collection of evidence of achievement of competence over time
- Paper-based or electronic
- Contrast: logbooks
<table>
<thead>
<tr>
<th>Pros</th>
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<tbody>
<tr>
<td>Authenticity</td>
<td>Only as good as the parts</td>
</tr>
<tr>
<td>Flexible</td>
<td>Reliability</td>
</tr>
<tr>
<td>Longitudinal</td>
<td>Adherence</td>
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<tr>
<td>Diverse sources</td>
<td>Standardization</td>
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</tbody>
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MULTISOURCE FEEDBACK (MSF)

- Aka 360 degree feedback
- Instruments to gather observations of behaviour from multiple perspectives
- From business
- Reliability relates to “n”
MSF

Pros

▶ Good
  • Communicator
  • Collaborator
  • Professional
▶ Excellent for formative

Cons

▶ Resource-intensive
ASSESSMENT OF COMPETENCIES

Clinical Methods
- DECs
- ITERs
- Observed procedures
- 360’ / MSF
- Practice assessments
- Chart audits

Non-clinical
- Written tests
- Oral exams
- OSCEs & SPs
- Logbooks & Portfolios
- “Long cases” with real patients
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BODY BREAK
Take a few minutes…
Answer question #3
What **WILL** you try?
Share with your neighbour
Share with us
PARKING LOT QUESTIONS
FINAL THOUGHTS…

- What might be some take-home messages?
OBJECTIVES

1. Describe 3 new tools to assess resident competence with the CanMEDS 2015 framework for your residency program.

2. Describe 3 practical changes to enhance your program’s assessment system

3. Create a CanMEDS-based assessment blueprint
YOUR OBJECTIVES...

- How did it go?
- Please fill in the evaluation form
- Thank-you!
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REFERENCES


RESOURCES

- CanMEDS Assessment Tools Handbook
- CanMEDS 2015 Competency Framework
- CanMEDS Teaching and Assessment Tools Guide
- Program Directors Handbook
- Educational Design: A CanMEDS Guide for the Health Professions
ACKNOWLEDGEMENTS

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- Dr Jonathan Sherbino
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• Visitez le http://www.collegeroyal.ca/evaluations-cifr afin de remplir une évaluation de la séance.

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