An Approach to Assessment of Residents in Competence-by-Design

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July 22, 2021
Faculty Development Series
Learning Objectives

By the end of the talk, participants will be able to:

1. Describe the key components of programmatic assessment including the role of workplace-based assessment and entrustable professional activities (EPAs) in CBD

2. Explain the role of the Psychiatry Competence Subcommittee (PCS) in resident progression towards independent practice

3. Identify key components of the ITAR, Rotation Plan (RP), and purpose of the learner handover
1. Rationale for CBD changes to assessment tools and strategy
2. Overview of assessment tools in CBD: EPAs, ITARs
3. The Psychiatry Competence Subcommittee and how it works
Rationale for CBD assessment changes
Assessment in the post-psychometric era: Learning to love the subjective and collective

1. Psychometric approaches to assessment have yielded gains but also created challenges.
2. Subjective framed in opposition to objective came to mean biased and unfair.
3. Twenty first century health system, need to work together, competence is not solely individual competence.

Hodges B. Med Teach 2013
Assessing professional competence: from methods to programs

1. Major determinant of reliability is total testing time, not the standardization of the instrument.
2. Standardized tools are not necessarily more reliable than subjective tools.
3. Reliability is strongly tied to the number of assessors (sample widely).

van der Vleuten CPM and Schuwirth LWT Med Educ. 2005
A. Lean in to subjectivity. 
(Standardization is an illusion.)

• “We need methodologies that allow for the generation of rich qualitative datasets... to create qualitative assessments.” –Ayelet Kuper

https://www.pnas.org/content/111/9/3225
(Drawing from www.getwords.com, with permission of John Robertson.)
More is more (valid)

• Validity is improved by having MORE observations (in different contexts – diverse patients, diverse geography) and MORE assessors with different perspectives.

• Value of subjective judgement increases with: a) number of judgements, b) independence of those judgements, and c) diversity of perspectives captured (Eva, 2008)

• Consider how improving validity through assessments may also capture adaptive expertise
What am I trying to assess?

• FORMATIVE: Assessment for learning versus SUMMATIVE assessment of learning (Bloom 1969)
• Will impact the frequency of tool use
• Formative assessment helps develop professional identity through social interaction of learning conversations (i.e. EPAs)
• Summative assessments grant students a formal identity (as physician, psychiatrist, etc.) (Scriven, 1967)
Context (of your assessment tool) matters

Assessment as part of COMPLEX ADAPTIVE SYSTEMS

Table 1. Microsystem success factors and assessment system correlates.

<table>
<thead>
<tr>
<th>Microsystem success characteristic</th>
<th>Assessment system correlates</th>
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</thead>
<tbody>
<tr>
<td>Information and information technology</td>
<td>Portfolio, preferably electronic</td>
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<tr>
<td>Leadership of microsystem</td>
<td>Clerkship and program directors</td>
</tr>
<tr>
<td>Macrosystem support of microsystem</td>
<td>Support and resources from department chair and institution</td>
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<tr>
<td>Patient focus</td>
<td>Appropriate clinical experiences; measuring patient experience</td>
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<tr>
<td>Staff focus</td>
<td>Faculty development in assessment; involvement of non-physicians in assessment</td>
</tr>
<tr>
<td>Interdependence of care team</td>
<td>Working in interdisciplinary teams; teamwork competence</td>
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<tr>
<td>Process improvement</td>
<td>Continuous quality improvement of assessment methods and training tools</td>
</tr>
<tr>
<td>Education and training</td>
<td>Competency-based; developmental clinical experiences; milestones and benchmarks</td>
</tr>
<tr>
<td>Performance results</td>
<td>Outcomes of training; at minimum, competence needed to advance to next stage</td>
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</tbody>
</table>

Holmboe et al. Med Teach 2010
How will different assessments be interpreted together?

From Dr. Brian Hodges:

• The assessor of the future will be able to DESCRIBE, INTEGRATE and INTERPRET:
  • Perspectives (beyond "bias")
  • Influence of context and culture
  • Influence of relationships and power
  • Effects of judgement, including stereotyping and even discrimination

• HOW? Consider the jury model
  • The Psychiatry Competence Subcommittee
What is the goal of the broader assessment strategy?

• “Assessment needs to draw upon the wisdom of the group, and to involve active engagement by the trainee” (Holmboe, 2010)
• **Competence is not a static state.**
• Ensuring that all clinicians have the skills to seek and perform reliable and valid assessments of their own practice performance is essential to the maintenance of competence (Duffy, 2008)
How do the assessment tools fit in?
How do we think about trainees?

“Dr. X works above the level of a PGY2 resident.”

Dr. X can manage agitation in a psychotic patient safely. I did not need to intervene for guidance.
How do you think about trainees?

• The psychometric discourse taught assessors to differentiate AMONGST trainees, but now we want to differentiate abilities within an individual.

• Assessment efficacy is crucially linked to feedback in clinical education. (van der Ridder, 2008)

• “Feedback is a key component that guides trainees in more meaningful self-directed assessment-seeking behavior that is critical in a competency based system (Eva and Regehr 2008)

• Major challenge is determining how to train faculty to be more accurate observers and better assessors of performance in complex settings (Holmboe, 2010)
Entrustable Professional Activities = EPA

EPAs are defined by the Royal College as “authentic tasks of a discipline”. Assess 1 ability, and these abilities are developmentally staged in CBD.

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Direction</th>
<th>Guidance</th>
<th>Autonomy</th>
<th>Excellence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required the supervisor to do</td>
<td>Required supervisor direction</td>
<td>Required guidance</td>
<td>Supervisor needed to be available just in case</td>
<td>Supervisor didn't need to be there</td>
</tr>
</tbody>
</table>
Entrustable Professional Activities = EPA

• Previously had modified benchmarks for EPA entrustment as our community was in CBD transition
• Moving to Royal College expectations of EPA entrustment numbers for PGY1 and PGY2 class in July 2021
• For more information about specific EPAs and Royal College benchmarks: https://www.psychiatry.utoronto.ca/node/1253/
Demonstrates basic knowledge of delirium, psychiatric illness secondary to medical/surgical illness and/or end of life care, and somatic-related disorders.

Demonstrates an appreciation of normal and abnormal psychological adaptation to physical illness including the influence of personality.

Demonstrates an appreciation of, and manages, the impact of substance use/abuse on medical/surgical circumstances.

Demonstrates knowledge of psychopharmacology and basic titration of psychiatric treatments, as applied to medical/surgical patients.

Demonstrates an understanding of the Mental Health Act, Health Care Consent Act, and Substitute Decision Act, and applies rules of confidentiality to the care of the medical/surgical patient.

Conducts and organizes an appropriate psychiatric assessment of medical/surgical patients including attention to barriers to communication.

Utilizes psychotherapeutic principles to help patients with their adaptation to illness and treatment, and where appropriate, engages in motivational interviewing techniques, supportive psychotherapy, and mindfulness/cognitive-behavioral skills.

Takes responsibility as a consultant to learn about how they can be most helpful in their consultation to the primary medical team, including engaging with the primary team as well as other consulting services involved.

Works effectively with other health care team members, including non-psychiatric MD’s, RN’s, MSW’s, Psychologists, and Spiritual Care staff, recognizing their roles and responsibilities. Contributes effectively to the interdisciplinary management of the medical/surgical patient to best serve the patient’s needs.

Demonstrates a willingness to receive both positive and negative feedback from colleagues, other health care workers, and patients and their families.
### MEDICAL EXPERT COMPETENCIES
Including: Uses all of the pertinent information to arrive at complete and accurate clinical decisions; recommends the appropriate investigations and monitoring necessary to implement an evidence-based therapeutic plan for the medical/surgical patient, with appropriate oversight.

**Acceptable?**
- O Yes
- O No

### COMMUNICATOR COMPETENCIES
Including: Communicates effectively and empathically with patients and their families to establish solid therapeutic relationships. Maintains accurate, timely, and concise patient records.

**Acceptable?**
- O Yes
- O No

### COLLABORATOR COMPETENCIES
Including: Attends and contributes appropriately to team meetings, case conferences and family meetings.

**Acceptable?**
- O Yes
- O No

### LEADER COMPETENCIES
Including: Demonstrates thoughtful and responsible use of resources in the provision of patient care, allowing for comprehensive and necessary evaluation while avoiding unnecessary interventions.

**Acceptable?**
- O Yes
- O No

### HEALTH ADVOCATE COMPETENCIES
Including: Intervenes on behalf of patients with respect to the social, economic, and biologic factors that may impact on their health.

**Acceptable?**
- O Yes
- O No

### SCHOLAR COMPETENCIES
Including: Effectively uses evidence in day-to-day clinical work. Reads around cases.

**Acceptable?**
- O Yes
- O No

### PROFESSIONAL COMPETENCIES
Including: Demonstrates insight into his/her limitations. Responsive to constructive feedback.

**Acceptable?**
- O Yes
- O No
Is the resident on an appropriate trajectory for this point in training?

- Yes
- No

**Needs:** Are there any areas that need focused work in the next rotation?

- Yes
- No

If YES to needs focused work, describe below in “Actions or Areas for Improvement”.

**Overall Performance related to this Rotation**

*Please note: 3 or higher is a pass*

<table>
<thead>
<tr>
<th></th>
<th>Fails to Meet Essential Competencies</th>
<th></th>
<th>Meets Essential Competencies</th>
<th></th>
<th>Demonstrates Enhanced Competencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OVERALL performance related to this educational experience.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Feedback and Comments**

Describe Strengths:

Actions or Areas for Improvement:

Other Comments:
# In-Training Assessment Report ITAR

## ITER Likert Scale

<table>
<thead>
<tr>
<th></th>
<th>Not competent</th>
<th>Falls below expectations</th>
<th>Good solid work</th>
<th>+ Exceeds expectations</th>
<th>++ Far exceeds expectations</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>X</td>
<td>0/0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td>X</td>
<td>0/0</td>
</tr>
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## ITAR Likert Scale

<table>
<thead>
<tr>
<th>Fails to Meet Essential Competencies</th>
<th>...</th>
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<th>...</th>
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<td>1</td>
<td>2</td>
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<td>5</td>
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</table>
How does the PCS fit in to all this?
What does a Competence Committee do?

• Use [https://www.mentimeter.com](https://www.mentimeter.com) to poll audience and generate an answer cloud
What is a Competence Committee (CC)?

A group of faculty members who meet on a regular basis to synthesize assessment data for the purposes of adjudicating learner progression towards unsupervised or independent practice.
Support goals of CBME & Programmatic Assessment

- Multiple low-stakes, formative assessments for learning
- Each assessment produces meaningful feedback for the learner
- Individual assessments from a variety of sources are collected into a portfolio
- Analyzed by a committee → a rich diagnostic picture that will allow defensible high-stakes decisions.
- Based on this review, individual learning plans are provided.
- Continuous dialogue between the learner and their coach allows for further feedback, analysis of competence development, remediation and personal development.

Schuwirth et al., 2017
Decoupling assessment moment and decision moment

Clinical supervisor
The primary role of the clinical supervisor is to provide coaching and formative feedback.

Competence committee
- The competence committee synthesizes the data from many low-stakes observations for each trainee.
- Makes high-stakes decisions about progression and promotion based on the review of aggregated assessment data collected over time.

van der Vleuten C et al., 2015, RCPS
**Developmental Model**

**Problem Identification Model**
- Residency program would lead most residents to competence and success by the end of training
- Identifying the few struggling residents,
- Focus on problem solving
- Remediation Plan

**Developmental Model**
- Residency program as a planned series of steps toward mastery
- Facilitate each resident’s trajectory toward competence
- Advise on individual learning needs
- Assessment for learning

Hauer et al., 2015
A unique vantage point
Longitudinal Cohort Model

- Multiple Competence Committees
- Membership: Chair, Program Director, and Coaches
  * Coaches do not review their coachee’s file, nor do they vote on their coachee’s progression and promotion
- Competence Committees follow a cohort of residents over time
Residents are reviewed twice per year.

May include recommendations for future learning activities.

Considers quantitative and qualitative data.

Ensures all learners achieve requirements of discipline.

Provides guidance on progress.

Review process
Primary Reviewer

• Reviews resident file prior to the meeting
• Present relevant and supportive data
• Highlight patterns and outlier assessments
• Inform group discussion, not replace it
All data is available to the resident and their coach prior to the CC meeting
### Overview of Learner Status

#### SECTION 6: Psychiatry Competence Subcommittee Recommendation

<table>
<thead>
<tr>
<th>Learner Status</th>
<th>Learner - Resident Action</th>
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<tbody>
<tr>
<td><strong>Progressing As Expected</strong></td>
<td>Continue Monitoring Resident as usual&lt;br&gt;Modify Learning Plan – Suggested Focus on EPA/IM observations or RTE&lt;br&gt;Promote Resident to Stage 2&lt;br&gt;Promote Resident to Stage 3&lt;br&gt;Promote Resident – RC Exam Eligible*&lt;br&gt;Promote Resident to Stage 4&lt;br&gt;Promote Resident – RC Certification Eligible</td>
</tr>
<tr>
<td><strong>Not Progressing As Expected</strong></td>
<td>Modify Learning Plan – Additional Focus on EPA/IM observations or RTE&lt;br&gt;Formal Remediation</td>
</tr>
<tr>
<td><strong>Progress Is Accelerated</strong></td>
<td>Modify Learning Plan – Modify required EPA/IM observations or RTE&lt;br&gt;Promote Resident to Stage 2&lt;br&gt;Promote Resident to Stage 3&lt;br&gt;Promote Resident – RC Exam Eligible&lt;br&gt;Promote Resident to Stage 4&lt;br&gt;Promote Resident – RC Certification Eligible</td>
</tr>
<tr>
<td><strong>Failure to Progress</strong></td>
<td>Modify Learning Plan – Additional Focus on EPA/IM observations or RTE&lt;br&gt;Formal Remediation&lt;br&gt;Withdraw Training</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>Monitor Resident (i.e. expected return - parental leave, sick leave, etc.)&lt;br&gt;Withdraw Training</td>
</tr>
</tbody>
</table>
Communication and Follow Up

PRPC (Psychiatry Residency Program Committee):
• Ratifies resident status recommendations of the CC
• Implement improvements to curriculum and program of assessment
• Makes recommendations for faculty development to fill gaps

Resident and Coach:
• Receive progress report
• Program Director will contact all residents who did not receive a learner status of ‘Progressing as Expected’

RASC (Resident Assessment and Support Subcommittee):
• Residents are referred by PD based on recommendations by the CC
• Sets individual learning plans
Decision Making
Subjective and Collective
“Making Sense” of the Assessment Data

• Assumption: CC is presented with a complete set of high-quality assessment data to make systematic and transparent decisions

• ‘Problematic evidence’ requires ‘effortful interpretation’

• Our final decisions regarding progression are best determined by the "wisdom" of the group.

Small groups make better decisions than individuals

- Within CCs, “collective input from multiple people...improves the validity and reliability of decisions made and actions taken based on assessment data” (Kinnear et al., 2018)
- Specifically, “Groups tend to generate more ideas than individuals, are more likely to notice and correct errors, have better collective memory, and use more data in drawing conclusions” (Hauer, 2021)
- Group conversations are more likely to uncover deficiencies in professionalism among student (Hemmer, 2001)
- 18% of resident deficiencies requiring active remediation became apparent only via group discussion (Schwind, 2004)
Group Functioning

Cognitive Bias
- Anchoring
- Availability
- Bandwagon
- Confirmation
- Framing Effect
- Group Think
- Overconfidence
- Reliance on gist
- Selection

Implicit Bias

Dickey et al., 2017
Strategies to Mitigate Bias

• Diverse membership
• Training/Faculty Development
• Members encouraged to make individual judgments before group discussion
• Standardized group decision making processes
• Invite dissenting opinions, discussion when differences of opinion

Hauer et al., 2021
Competence committees are *KEY* to CBD!
References

• Hodges B. Assessment in the post-psychometric era: Learning to love the subjective and collective. Medical Teach 2013;1-5, Early Online. DOI: 10.3109/0142159X.2013.789134.


References


• Lingard L. 2009. What we don’t see when we look at “competence”: Notes on a god term. Adv Health Sci Educ 14:625-628


References

• Kinnear, B., Warm, E. J., & Hauer, K. E. (2018). Twelve tips to maximize the value of a clinical competency committee in postgraduate medical education. Medical Teacher, 40(11), 1110-1115


• Royal College of Physicians and Surgeons of Canada: Competence Committees http://www.royalcollege.ca/rcsite/cbd/assessment/competence-committees-e
References

• Schwind, Cathy J., RN, MS; Williams, Reed G., PhD; Boehler, Margaret L., RN, MS; Dunnington, Gary L., MD Do Individual Attendings’ Post-rotation Performance Ratings Detect Residents’ Clinical Performance Deficiencies?, Academic Medicine: May 2004 - Volume 79 - Issue 5 - p 453-457


Thank you

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