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

Drs. Deanna Chaukos and Inbal Gafni 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.
- 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.

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).

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



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.

Microsystem success characteristic

Information and information technology

Leadership of microsystem

Macrosystem support of microsystem

Patient focus

Staff focus

Interdependence of care team

Process improvement

Education and training

Performance results

Assessment system correlates

Portfolio, preferably electronic

Clerkship and program directors

Support and resources from department chair and institution

Appropriate clinical experiences; measuring patient experience

Faculty development in assessment; involvement of non-physicians in assessment

Working in interdisciplinary teams; teamwork competence

Continuous quality improvement of assessment methods and training tools

Competency-based; developmental clinical experiences; milestones and benchmarks

Outcomes of training; at minimum, competence needed to advance to next stage

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



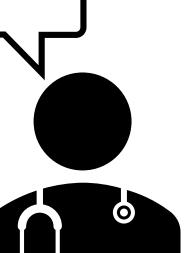
What is the goal of the broader assessment strategy?

- "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 selfdirected 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

EPA Assessment Tool OVERALL Entrustment Rating

			Entrus	stment
Intervention	Direction	Guidance	Autonomy	Excellence
Required the supervisor to do	Required supervisor direction	Required guidance	Supervisor needed to be available just in case	Supervisor didn't need to be there

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

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/

In-Training Assessment Report ITAR

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.

Progress In Training - Learner Handover
MEDICAL EXPERT COMPETENCIES including: Uses all of the pertinent information to arrive at complete and accurate clinical decisions; recommends the appropriate investigations a 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 accuratimely, 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

Needs: Are there any areas that need focu	sed work in the next rotati	ion?	
O Yes	sed work in the next rotati	OH:	
O No			
If YES to needs focused work, describe	below in "Actions or Ar	eas for Improvement".	

Fails to Meet Meets Essential Demonstrates N/A Essential Competencies Enhanced Competencies Competencies N/A 2 5 OVERALL performance related to this educational experience. 0 0 0 0

Feedback and Comments

Describe Strengths:

Actions or Areas for Improvement:

Other Comments:

In-Training Assessment Report ITAR

ITER Likert Scale

Not competent	Falls below expectations	Good solid work	+ Exceeds expectations	++ Far exceeds expectations	N/A
1	2	3	4	5	N/A
0	0	0	X	0	0

ITAR Likert Scale

Fails to Meet Essential Competencies		Meets Essential Competencies	•••	Demonstrates Enhanced Competencies	N/A
1	2	3	4	5	N/A

How does the PCS fit in to all this?

What does a Competence Committee do?

• Use https://www.mentimeter.com to poll audience and generate an answer cloud



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.

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









A unique vantage point







- 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

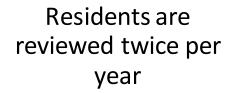
time











See Line

May include recommendations for future learning activities

Review process

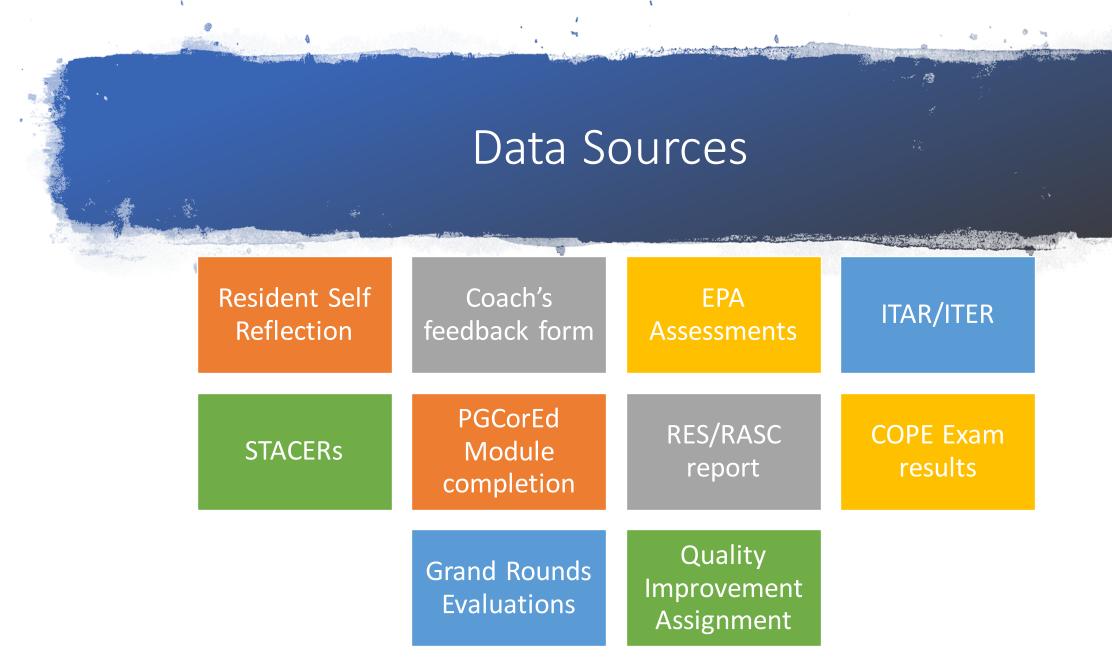
Considers quantitative and qualitative data

Ensures *all* learners achieve requirements of discipline

Provides guidance on progress



- 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 Con	npetence Subcommittee Recommendation		
Learner Status	Learner - Resident Action		
Progressing As	Continue Monitoring Resident as usual		
Expected	Modify Learning Plan – Suggested Focus on EPA/IM observations or RTE		
	Promote Resident to Stage 2		
	Promote Resident to Stage 3		
	Promote Resident – RC Exam Eligible*		
	Promote Resident to Stage 4		
	Promote Resident – RC Certification Eligible		
Not Progressing As Expected	Modify Learning Plan – Additional Focus on EPA/IM observations or RTE		
	Formal Remediation		
Progress Is Accelerated	Modify Learning Plan – Modify required EPA/IM observations or RTE		
	Promote Resident to Stage 2		
	Promote Resident to Stage 3		
	Promote Resident – RC Exam Eligible		
	Promote Resident to Stage 4		
	Promote Resident – RC Certification Eligible		
Failure to Progress	Modify Learning Plan – Additional Focus on EPA/IM observations or RTE		
	Formal Remediation		
	Withdraw Training		
Inactive	Monitor Resident (i.e. expected return - parental leave, sick leave, etc.)		
	Withdraw Training		

Communication and Follow Up

PRPC (Psychiatry Residency Program Committee):

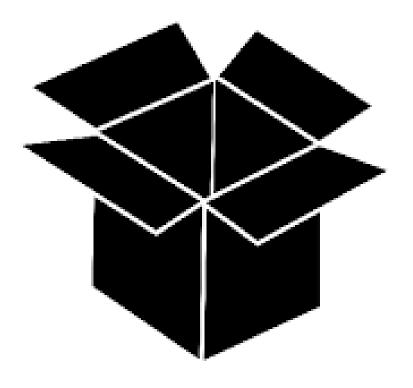
- Ratifies resident status recommendations of the CC
- Implement improvements to curriculum and program of assessment
- Makes recommendations for faculty development to fill gaps

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

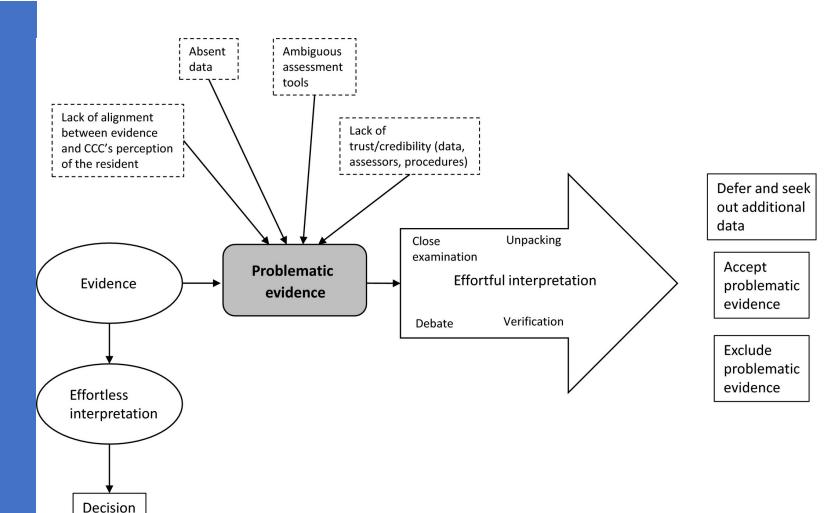


Decision Making

Subjective and Collective

"Making Sense" of the Assessment Data

- Assumption: CC is presented with a complete set of highquality 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.



"Wisdom of Crowds"

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

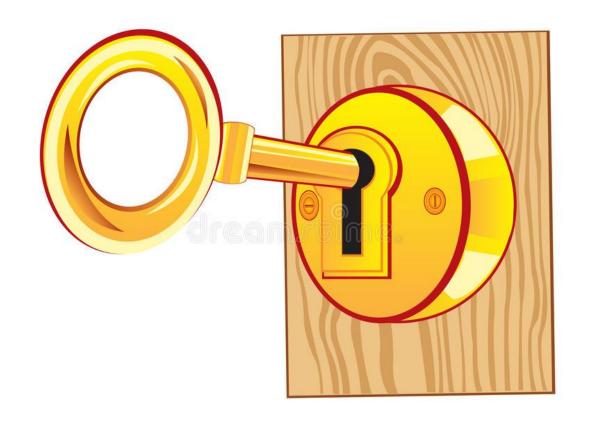
Implicit Bias



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

Competence committees are *KEY* to CBD!



- 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.
- Whitehead C, Hodges B, Austin Z. Dissecting the doctor: from character to characteristics in North American medical education. Adv in Health Sci Educ (2013) 18:687–699.
- Ginsburg S. 2011. Respecting the expertise of clinician assessors: Construct alignment is one good answer. Med Educ 45(6):546-548.
- van der Vleuten CPM, Schuwirth LWT. 2005. Assessment of professional competence: From methods to programs. Med Educ 39:309–317.
- Green ML, Aagaard EM, Caverzagie KJ, Chick DA, Holmboe E, Kane G, Smith CD, Iobst W. 2009. Charting the road to competence: Developmental milestones for internal medicine residency training. J Grad Med Educ 1:5–20.

- Govaerts MJ, van der Vleuten CP, Schuwirth LW, Muijtjens AM. 2007. Broadening perspectives on clinical performance assessment: Rethinking the nature of in-training assessment. Adv Health Sc Educ Theory Pract 12(2):239–260.
- Bloom BS. Some theoretical issues relating to education evaluation. In: Tyler RW, (ed.) Educational Evaluation: New Role, New Means. Chicago, IL: University of Chicago Press, 1969: pp 26–50.
- Scriven M. The methodology of evaluation. In: Tyler RW, Gagne RM, Scriven M, (eds.) Perspectives of Curriculum Evaluation. Chicago, IL: Rand McNally, 1967: pp 39–83.
- van der Vleuten CP, Norman GR, Graaff E. Pitfalls in the pursuit of objectivity: issues of reliability. Med Educ 1991;25 (2):110–8.
- Crossley J, Johnson G, Booth J, Wade W. Good questions, good answers: construct alignment improves the performance of workplace-based assessment scales. Med Educ 2011;45:560–9.

- Kuper A, Reeves S, Albert M, Hodges BD. 2007. Assessment: Do we need to broaden our methodological horizons? Med Educ 41(12):1121-1123.
- 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
- Ringsted CV, Ellyton AM, Garde K. 2007. Assessment of physicians' competence. The continuous professional development. Ugeskr Laeger 169(34):2764-2766.
- Eva KW, Regehr G. 2008. "I'll never play professional football" and other fallacies of self-assessment. J Contin Educ Health Prof 28(1):14–19.
- Ericsson KA. 2007. An expert-performance perspective of research on medical expertise: The study of clinical performance. Med Educ 41(12):1124–1130.

- Bok HGJ, van der Vleuten CPM and de Jong LH (2021) "Prevention Is Better Than Cure": A
 Plea to Emphasize the Learning Function of Competence Committees in Programmatic
 Assessment. Front. Vet. Sci. 8:638455.
- Dickey C, Thomas, C, Feroze, U, Nakshabandi, F, Cannon B. Cognitive Demands and Bias: Challenges Facing Clinical Competency Committees. J Grad Med Educ. 2017 Apr; 9(2): 162–164.
- Hauer, KE et. al. Reviewing residents' competence: a qualitative study of the role of clinical competency committees in performance assessment. Academic Medicine. 2015 Aug;90(8):1084-92
- Hauer K, Edgar L, Hogan S, Kinnear B, Warm E. The Science of Effective Group Process: Lessons for Clinical Competency Committees. *J Grad Med Educ* (2021) 13 (2s): 59–64.

- 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
- Pack R, Lingard L, Watling C, Chahine, Cristancho S. Some assembly required: tracing the interpretative work of Clinical Competency Committees. *Medical Educ.*, Volume: 53, Issue: 7, Pages: 723-734.
- Pack R, Lingard L, Watling C, Cristancho S. Beyond summative decision making: Illuminating the broader roles of competence committees. *Med Educ*. 2020;54:517–527.
- Royal College of Physicians and Surgeons of Canada: Competence Committees http://www.royalcollege.ca/rcsite/cbd/assessment/competence-committees-e

- 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
- Schuwirth L, van der Vleuten C, Durning SJ. What programmatic assessment in medical education can learn from healthcare. Perspect Med Educ. 2017 Aug;6(4):211-215
- van der Vleuten C, Schuwirth L, Driessen E, Govaerts M, Heeneman S. Twelve tips for programmatic assessment. *Medical Teacher*, 2015. 37(7), 641-646.

Thank you

Adrienne Tan
Sanjeev Sockalingam
Shaheen Darani
Mark Fefergrad
Tammy Mok
Robert Gardin
Michael Hernandez
The Royal College