Milestones, Competencies & CCCs (Clinical Competencies Committees): An Overview of the Lay of the Land

(CCC Faculty Development Session – Thursday, July 21, 2021; Lawrence Loo, MD)

Resources (R):

- (R1) Holmboe ES, Durning SJ, Hawkins RE (eds): *Practical Guide to the Evaluation of Clinical Competence*. 2nd Edition. Elsevier. 2018
- (R2) ACGME Common Program Requirements (effective July 1, 2020)*
- (R3) ACGME Milestones Guidebook for Resident and Fellows (2020)
- (R4) ACGME Clinical Competency Committees. A Guidebook for Programs, 3^{4d} Edition (January 2020)*
- (R5) ACGME The Milestones Guidebook (version 2020)
- (R6) ACGME A Guidebook for Implementing and Changing Assessment in the Milestone Era (2020)
- (R7) Milestones 2.0. Assessment, Implementation, and CCCs. JGME April 2021 Supplement; 13:1-284.

Case Study #1: What's your diagnosis?

Susan is in her fifth month of internship. She is well-liked in the residency and has excellent patient and peer evaluations. Her nursing evaluations also rate her interpersonal skills highly, although occasionally nurses report she has difficulty seeing the "big picture."

She just started her first ICU rotation. It's been busy and she's had 2-3 admissions each day with some critically ill patients. She appears dedicated and hard-working. Two nurses have complained that she doesn't consistently follow through on some key orders given on morning rounds. The attending physician finds her presentations at times fragmented and disorganized, especially with the sickest patients. He finds himself repeating explanations. For example, this is the third patient they've admitted together with sepsis and he's had to repeat each time the SEPSIS-3 recently revised definition and approach to sepsis. When the mini-teaching sessions are held for the team, she seems distracted and is often leaving to answer pages. In one situation, you know she left because the nurse told her she had forgotten to write a routine diet order for the patient. The senior resident says she takes extra time to help here with every ICU admission.

Her ITE (In-Training Exam) score just recently came back and she has scored in the 12th percentile. During medical school this was not much different from her other standardized test scores. During her residency interview, she said she's always been a "poor test taker" but she always did much better on her clinical evaluations.

Her first four months of residency included two ambulatory rotations, a subspecialty selective, and an inpatient medicine rotation for which she received good evaluations.



Ten Guiding Principles

1) What is the "<u>ultimate purpose</u>" of the CCC (Clinical Competency Committee)?^{R4,R5,R7}

- a) Santen SA, Christner J, Mejicano G, Hemphill RR: Kicking the can down the road when medical schools fail to self regulate. N Engl J Med 2019;381:2287-9. PMID 31826338.
- b) Yepes-Rios M, Dudek N, Duboyce R, Curtis J, Allard RJ, Varpio L. The failure to fail underperforming trainees in health professions education: A BEME systematic review: BEME Guide No. 42. Med Teach. 2016 Nov;38(11):1092-1099. PubMed PMID: 27602533.
- c) Roberts NK, Williams RG. The hidden costs of failing to fail residents. J Grad Med Educ. 2011 Jun;3(2):127-9. PMID: 22655131.
- d) Frenk J, Chen L, Bhutta ZA, Cohen J, et. al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010 Dec 4;376(9756):1923-58. PMID: 21112623.
- e) Ten Cate O, Carraccio C: **Envisioning a true continuum of competence-based medical education**. Acad Med 2019;94:1283-88. PMID 31460916.

2) CCCs: The most dangerous time in the room is when everyone agrees. - Avoid Groupthink.^{R4, R7}

- a) Hauer KE, Edgar L, Hogan SO, Kinnear B, Warm E: **The science of effective group process: lessons for Clinical Competency Committees**. J Grad Med Educ 2021;13(2 Suppl):59-64. PMID: 33936534.
- b) Hauer KE, Cate OT, Boscardin CK, Iobst W, Holmboe ES, Chesluk B, Baron RB, O'Sullivan PS. Ensuring resident competence: A narrative review of the literature on group decision making to inform the work of Clinical Competency Committees. J Grad Med Educ. 2016 May; 8(2):156-64. PMID: 2716888.
- c) Duitsman ME, Fluit CRMG, van Alfen-van der Velden JAEM, et. al. **Design and evaluation of a clinical competency committee**. Perspect Med Educ. 2019 Feb;8(1):1-8.PubMed PMID: 30656533.
- d) Kinnear B, Warm EJ, Hauer KE. Twelve tips to maximize the value of a clinical competency committee in postgraduate medical education. Med Teach. 2018 Nov; 40(11):1110-1115. PMID: 29944025.
- e) Loo LK, Lee S, Acosta D. Maintaining the Public Trust in Clinical Competency Committees-Societal Representatives. J Grad Med Educ. 2017 Feb; 9(1):131-132. PMID: 28261410.

Competence is <u>not</u> an achievement you check off (and forget). Competence is a <u>habit</u> (i.e. consistency), is <u>contextual</u>, and is <u>developmental</u>.

- a) Epstein RM. Assessment in medical education. N Engl J Med. 2007 Jan 25; 356(4):387-96. PMID: 17251535.
- b) Hodges B. Assessment in the post-psychometric era: learning to love the subjective and collective. Med Teach. 2013 Jul; 35(7):564-8. PMID: 23631408.
- 4) "No <u>single</u> assessment method or tool is sufficient to judge something as varied and complex as clinical competence. Include <u>multiple forms</u> of assessment and utilize <u>multiple assessors</u>."^{R4,R5, R7} (When was the last time an inventory was taken of

the assessment methods used in the residency program?)

- a) Irby DM, Hamstra SJ. Parting the Clouds: Three Professionalism Frameworks in Medical Education. Acad Med. 2016 Dec;91(12):1606-1611. PMID: 27119331.
- b) Edgar L, Roberts S, Holmboe E. Milestones 2.0: A Step Forward. J Grad Med Educ. 2018 Jun;10(3):367-369.PMID: 29946411.
- c) Kogan JR, Holmboe E. **Realizing the promise and importance of performance-based assessment.** Teach Learn Med. 2013;25 Suppl 1:S68-74. PMID: 24246110.

- 5) Always hear the learner's side of the story before rendering a judgment based on behaviors alone. (Be cautious about presenting situations to the CCC <u>before</u> discussing with the learner to hear the other side of the story as this may introduce bias in the decision making process.)
 - a) Rees CE, Knight LV. The trouble with assessing students' professionalism: theoretical insights from sociocognitive psychology. Acad Med. 2007 Jan; 82(1):46-50. PMID 17198292.
 - b) Wang H, Hall NC: A systematic review of teachers' causal attributions: prevalence, correlates, and consequences. Front Psychol 2018;9:2305. PMID 30618897.
 - c) Lewin LO, McManamon A, Stein MTO, Chen DT. Minding the form that transforms: using Kegan's model of adult development to understand personal and professional identity formation in medicine. Acad Med. 2019 Sep;94(9):1299-1304. PMID: 31460919.
 - d) Volkow ND, Swanson JM. Clinical practice: adult attention deficit-hyperactivity disorder. N Engl J Med. 2013 Nov 14;369(20):1935-44. PMID 24571756.
 - e) Beagan BL: **"Even if I don't know what I'm doing I can make it look like I know what I'm doing": Becoming a doctor** in the 1990s. Can Rev Sociol Anthropol 2001;38(3):275-292.
- 6) Check for the non-cognitive **7Ds**^{R1}:
 - a) Distracted by life
 - b) Depression (& other mental health disorders)
 - c) Drugs and alcohol
 - d) Learning **D**isabilities
 - e) Sleep **D**eprivation
 - f) Disease (acute or chronic)
 - g) Personality **D**isorders



Figure 1 Questions to prompt students' behavioral explanations.*

- 7) "Programs must recognize that when a disability or impairment is identified, it does <u>not</u> excuse substandard performance...do not allow the learner to function at a level (less than that) required for the delivery of safe and effective patient care." Rather the reason for the performance should guide the form of remediation and individual improvement plan. ^{R1}
- 8) "It is important to recognize that Milestones do <u>not</u> represent the totality of any discipline . . . Milestones are intended to be used as a <u>formative framework</u> to guide curricula, assessment, and CCC deliberations in programs . . . Milestones should <u>not</u> be used as the sole criteria for <u>summative judgments</u> and to limit the assessments to the Milestones (alone) would indicate that regular assessment is <u>not</u> occurring in the many other areas of learning." ^{R4,R5,R7}
 - a) Ginsburg S, Gold W, Cavalcanti RB, et. al. **Competencies "plus": the nature of written comments on internal medicine residents' evaluation forms.** Acad Med. 2011 Oct; 86(10 Suppl):S30-4. PMID: 21955764.
 - b) Lee V, Brain K, Martin J. Factors influencing Mini-CEX rater judgments and their practical implications: a systematic literature review. Acad Med. 2017 Jun;92(6):880-887.PubMed PMID: 28030422.
 - c) Sebok-Syer SS, Klinger DA, Sherbino J, Chan TM. Mixed messages or miscommunication? Investigating the relationship between assessors' workplace-based assessment scores and written comments. Acad Med. 2017 Dec;92(12):1774-1779. PMID: 28562452.

- 9)"The Milestones reported to the ACGME were <u>not</u> designed to be used as evaluation forms for specific rotations or experiences, especially short rotations less than three months in length. The Reporting Milestones are designed to guide a synthetic judgment of progress twice a year." ^{R4,R5} (Avoid cognitive overload by asking <u>every</u> domain of <u>every</u> milestone to be assessed on <u>every</u> rotation by <u>every</u> faculty member.)
 - a) Rekman J, Gofton W, Dudek N, et. al. Entrustability scales: outlining their usefulness for competency-based clinical assessment. Acad Med 2016;91:186-190. PMID 26630609.
 - b) Crossley J, Jolly B. Making sense of work-based assessment: ask the right questions, in the right way, about the right things, of the right people. Med Educ. 2012 Jan; 46(1):28-37. PMID: 22150194.
 - c) Warm EJ, Mathis BR, Held JD, et. al. Entrustment and mapping of observable practice activities for resident assessment. J Gen Intern Med 2014;29:1177-1182. PMID 24557518.

Table 1 Examples of three types of workplace-based assessment scale constructs from the mini-clinical exercise (mini-CEX), case-based discussion (CBD) and procedure-based assessment (PBA)				
Reference	Scale	Construct		
Mini-CEX, all items	Numeric 1–9 scale with three range anchors:	Each viewed as a normative trait with		
(e.g. interview skills, examination skills, management)	'unsatisfactory' (1–3), 'satisfactory' (4–6) or 'superior (7–9)	ordinal levels of merit		
CBD, all items	Ordinal categoric 6-point scale with six anchors:	Developmental level (in this case related		
	'Well below expectations for F1 completion' to	to level and timing of training)		
	'Well above expectations for F1 completion'			
	[F1 = first year after qualification]			
PBA, global summary	Categoric 4-point scale with four anchors:	Clinical independence or readiness for		
	1 = (unable to perform) the procedure observed, or	(independent practice) with ordinal levels		
	part thereof, <mark>under supervision</mark>			
	2 = (able to perform the) procedure, or part			
	observed, (under supervision)			
	3 = (able to perform) the procedure (with minimum supervision)			
	4 = competent to perform the procedure (unsupervised)			

- 10) Of the 5 development levels for evaluating milestones, Level 4 "Ready for unsupervised practice" – is the designated graduation <u>target</u> but does <u>not</u> represent a graduation <u>requirement</u>." Making decisions about readiness for graduation is the purview of the residency program director. ^{R4,R5}
 - a) Li ST, Tancredi DJ, Schwartz A, Guillot A, et. al. Pediatric program director minimum milestone expectations before allowing supervision of others and unsupervised practice. Acad Pediatr. 2018 Sep - Oct;18(7):828-836. PMID: 29704651.
 - b) Hauer KE, Clauser J, Lipner RS, Holmboe ES, Caverzagie K, et. al. The Internal Medicine reporting milestones: crosssectional description of initial implementation in U.S. residency programs. Ann Intern Med. 2016 Sep 6;165(5):356-62. PMID: 27159244.



From *Society's* viewpoint, which mistake is more desirable?

The Hidden Costs of Failing to Fail Residents. "At what point does one say 'enough is enough?'"

Roberts NK, Williams RG: J Grad Med Educ 2011;3:127-9

- 1. What issues of patient safety have come to your attention?
- 2. Do hospital staff, other residents, and faculty have to change their own practices to accommodate this resident's deficiencies? How much extra effort will be required on a continuing basis?
- 3. How frequently does this resident come to your attention for negative reasons compared to other residents in your program?
- 4. Which faculty members have noticed a problem? Is it only your usual hawks, or have the moderates/doves also noticed a problem?
- 5. How do other members of the health care team behave when working with the resident? Are they tense or relaxed? Guarded or safe? Engaged in redundant practices to ensure appropriate patient care, or certain the resident will do what he or she is supposed to?
- 6. How much faculty time, effort, and good will have already been expended to address the resident's problems? How much extra effort will be required on a continuing basis?
- 7. Residency is a time of practice under close supervision. If this resident's performance improves as a result of additional interventions during residency, what is the likelihood that these changes will be sustained into postresidency practice when supervision is reduced?

Concept Relevant to Group Decision Making	Key Aspects Based on the Literature
Member characteristics	• Heterogeneous groups perform better than homogeneous. ²⁷
Group size	• With defined procedures, large groups tend to outperform small groups. ^{21,27} However, in large groups, members may go along with group opinion rather than think their own opinion (social loafing). ³⁴
Group understanding of its work	 A shared mental model is a shared understanding of a group's work that improves group performance.³⁵ Group cohesion and insulation are antecedents of groupthink.³⁶ Insulated groups consider fewer alternatives and make poorer decisions than uninsulated groups.³⁷ Default position at the start of group work strongly influences outcomes.²² Perception of group work as an intellective task (correct answer that group members can show others) versus a judgmental task (absence of a correct answer; relies on judgment).³⁸
Group leader role	 Group leader or more senior, powerful, or confident members can dominate decision making.⁵ Group leader influences degree to which members will seek and hear new information.³⁹
Information-sharing procedures	 More information sharing leads groups to better decisions.¹⁸ Information sharing enhanced with structured discussion process that invites elaboration. Sharing written information versus just relying on group member memory increases chances of information being incorporated into group decisions.⁴⁰ Social pressure is minimized through structured voting and acknowledgement of diverse opinions.⁵ Information that all group members know (shared information) carries more weight than information that only 1 or a few members know (unshared information). Group processes can be structured to invite diverse opinions and comments from all members.^{5,41}
Effects of time pressures	 Time pressures lead to lower-quality decisions.^{22,42} New or unshared information is more likely to emerge with longer discussions.²²

TABLE 2

Recommendations for Clinical Competency Committees Based on Study Findings and Literature on Group Decision Making

Торіс	Recommendation for Clinical Competency Committees	
Group Composition		
Membership	Committees should include members selected or assigned to represent disparate opinions. ^{41,62,63}	
	Committees should include new or rotating members, in addition to more experienced members, and nonphysicians, to ensure novel perspectives. ⁶⁴	
Size	Larger committees outperform smaller, as long as all members acquire relevant knowledge and demonstrate commitment. ^{15,24,27}	
Group Process		
Group understanding of its work	Committee members should have a shared mental model of the purpose and nature of the group's work and be committed to performance goals; ^{38,53,65} members also need a shared understanding of resident performance expectations based on milestones.	
Information sharing	Sharing more information and sharing unique information that is not known to other committee members improves the group's knowledge, increases cohesiveness, and leads members to feel better about their work. ^{19,66}	
Sharing written information	Sharing assessment data and written information, rather than just relying on committee members' memory, increases information sharing. ⁴⁰	
Structuring discussions	Structured group discussions (versus unstructured) facilitate information sharing that increases the likelihood of relevant information becoming available to group members. Structure can entail soliciting multiple perspectives, members' speaking in a predetermined order, and weighing of alternatives, including the risks and benefits of different courses of action for a resident. ^{19,41}	
Group leader soliciting perspectives	Committee chairs can encourage members to share, discuss, and integrate information rather than prioritizing ready agreement among members. ⁴⁶	
Group leader encouraging elaboration and exchange	Committee chairs can use elaboration strategies by repeating and summarizing, inquiring about additional information, and encouraging information exchange. ^{46,67}	

Journal of Graduate Medical Education, May 1, 2016 Competence: A Narrative **Jecision** Jinical Literature on Group Making to Inform the Work of Competency Committees Ensuring Resident (Review of the

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ACCREDITATION COUNCIL FOR RADUATE MEDICAL EDUCATION Clinical Competency Committees A Guidebook for Programs a Guidebook for Programs

> Kathryn Andolsek Dake University Jante Radmone Melater-Georgatown Karel E. Hawn UCSP Lave Edger ACOME Dis Homose ACOME

Symptoms of Groupthink: 1. Rationalization This is when team members convince themselves that despite evidence to the contrary, the decision or alternative being presented is the best one. "Those other people don't agree with us because they haven't researched the problem as extensively as we have or know the resident as well as we do." 2. Peer Pressure When a team member expresses an opposing opinion or questions the rationale behind a decision, the rest of the team members work together to pressure or penalize that person into compliance. "Well if you really feel that we're making a mistake about this resident you can always leave the CCC." 3. Complacency After a few successes, the group begins to feel like any decision they make is the right one because there is no disagreement from any source. "Our track record speaks for itself. We have never misjudged a resident's progress and development." 4. Moral High Ground Each member of the group views him or herself as moral. The combination of moral minds is therefore thought not to be likely to make a poor or immoral decision. When morality is used as a basis for decision-making, the pressure to conform is even greater because no individual wants to be perceived as immoral. "We all know what is right and wrong in medicine, and this is definitely the right thing to do with this resident." 5. Stereotyping As the group members become more uniform in their views, they begin to see outsiders as possessing a different and inferior set of morals and characteristics from themselves. These perceived negative characteristics are then used to discredit the opposition. "Nurses will find any excuse to complain about residents, even when the facts are clear they are wrong about a resident." 6. Censorship Members censor their opinions in order to conform. "If everyone else agrees then my thoughts to the contrary must be wrong." Information that is gathered is censored so that it also conforms to, or supports the chosen decision or alternative. "Don't listen to that nonsense; they don't have a clue about what is really going on." 7. Illusion of Unanimity Because no one speaks out, everyone in the group feels the group's decision is unanimous. This is what feeds the groupthink and causes it to spiral out of control. "I see we all agree on this resident so the decision not to place the resident on remediation is final."

<u>Case Study #2</u>: Attribution or Contribution?

An early PGY-2 senior resident is reported by multiple peers expressing their concern over his public yelling and berating one of his interns for more than 20 minutes for not following up on a laboratory test. The resident denies this saying he was only emphasizing to his intern the importance of following up on critical laboratory tests. The only other past incident that has come to the Program Director's attention was that his ITE (In-training Exam) score - putting him in the 5th - percentile was incorrect and his insistence that the residency Program pay for the exam to be rescored. **How would you proceed?**

Case Study #3: Does he pass the rotation?

A PGY-1 intern just completed his ambulatory rotation. Unfortunately you discover after the fact that the resident has been late to clinic about 6-7 times, showing up 2-3 hours late. On one occasion, the morning clinic was over when he showed up. While he is in clinic, his performance is deemed "acceptable" by his supervising faculty. **Does he pass the rotation?**

<u>Scenario #1</u>: When you talk to the intern, he says he just came off a very busy call rotation, and he overslept because his alarm did not go off and he hadn't had time to buy a new one. **Does he pass the rotation?**

<u>Scenario #2</u>: When you talk to the intern, he says he just came off a very busy call rotation, and he's really felling burned out. **Does he pass the rotation?**

<u>Scenario #3</u>: When you talk to the intern, he says he just came off a very busy call rotation, and his father had died 6 weeks ago and he's feeling depressed. **Does he pass the rotation?**

Case Study #4: What to do?

What would (could, should) you do if your hospital's **Medical Staff's credentialing office** asks you to report on the competency level and milestones achieved (or not) expected of a graduating senior resident applying for clinical privileges?

What would (could, should) you do if the **California State Medical Board** asked you to report on the competency level and milestones achieved (or not) expected of a soon to be graduating senior resident?

R4 - Appendix E: Examples of Assessment Methods for the ACGME Core Competencies

Competency	Method	Example	
	Direct observation	Mini-Clinical Evaluation Exercise (Mini-CEX)	
	Simulation	Partial task trainers for procedures; virtual	
		reality	
	Standardized patient	Objective standardized clinical exams (OSCES)	
	Clinical performance review	Medical record audits using quality & safety	
	Procedure log with	Surgical case logs (with/without entrustment	
Patient Care	assessment of competency	scales) potentially with learner reflection	
	Faculty evaluations of	Evaluation forms using developmental	
	observed performance	supervision or entrustment scales	
	Video-captured performance	Surgical or other procedure, patient	
		encounter	
	Virtual reality	Simulation of procedure/encounter	
	Multi-source feedback (360)	Feedback from patient experience, team	
		members, resident/fellow peers	
	In-training exam (ITE)	Most specialties now have ITE provided by	
		certifying or specialty societies	
Medical Knowledge	Work-based assessments of	SNAPPS framework, Mini-CEX, Assessment	
	medical knowledge	of Reasoning Tool (ART)	
	Oral-guided chart review	Chart-stimulated recall	
	Multi-source feedback (MSF)	Variety of tools (most home grown): e.g.	
Interpersonal &	/ multi-rater / 360 degree	Teamwork Effectiveness Module (TEAM)	
Communications Skills	Patient experience surveys	Consumer assessment of Healthcare	
		Providers and Systems (CAHPS) suite of	
		survey tools (www.ahrq.gov/cahps/index.html)	
	Self-assessment	Milestones self-assessment f/u by a	
Practice-based Learning & Improvement		milestenes ratings with a mentor or advisor	
	Evaluation of resident/follow	milestones ratings with a mentor of advisor	
	teaching skills	Evaluation forms	
	Evidence-based practice	Clinical question logs; EBP prescriptions;	
	(EBP)	EBP assessment of journal articles	
	Contribution to institutions'	Spontaneous error reporting; root cause	
	error reporting process	analysis	
Professionalism	MSF/ multi-rater / 360	Variety of tools available (most home	
	degree	grown)	
	Patient surveys	CAHPS suite of survey tools	
Systems-based Practice	Quality improvement (QI)	Variety of tools to judge the quality of a QI	
	project	project; measure the impact of QI project	
		through clinical performance measures.	
	Contribution to institution's	Spontaneous error reporting; root cause	
	error reporting process	analysis	