



ACGME

Assessment Basics and Assessing Your Assessments

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Southeast Hub: Developing Faculty Competencies in Assessment

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Disclosure: None of the speakers for this educational activity have a relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.



Objectives

- Discuss the goals of assessment
- Review different types of assessments
- Determine criteria for “good” assessments
- Compare and contrast different rating scales and types of errors
- Discuss the importance of programmatic assessment
- Critique different types of assessments identifying useful and not-useful characteristics of each
- Create a milestone assessment map/matrix to look at how and when your program assesses residents



Goals of Assessment

What You're Assessing

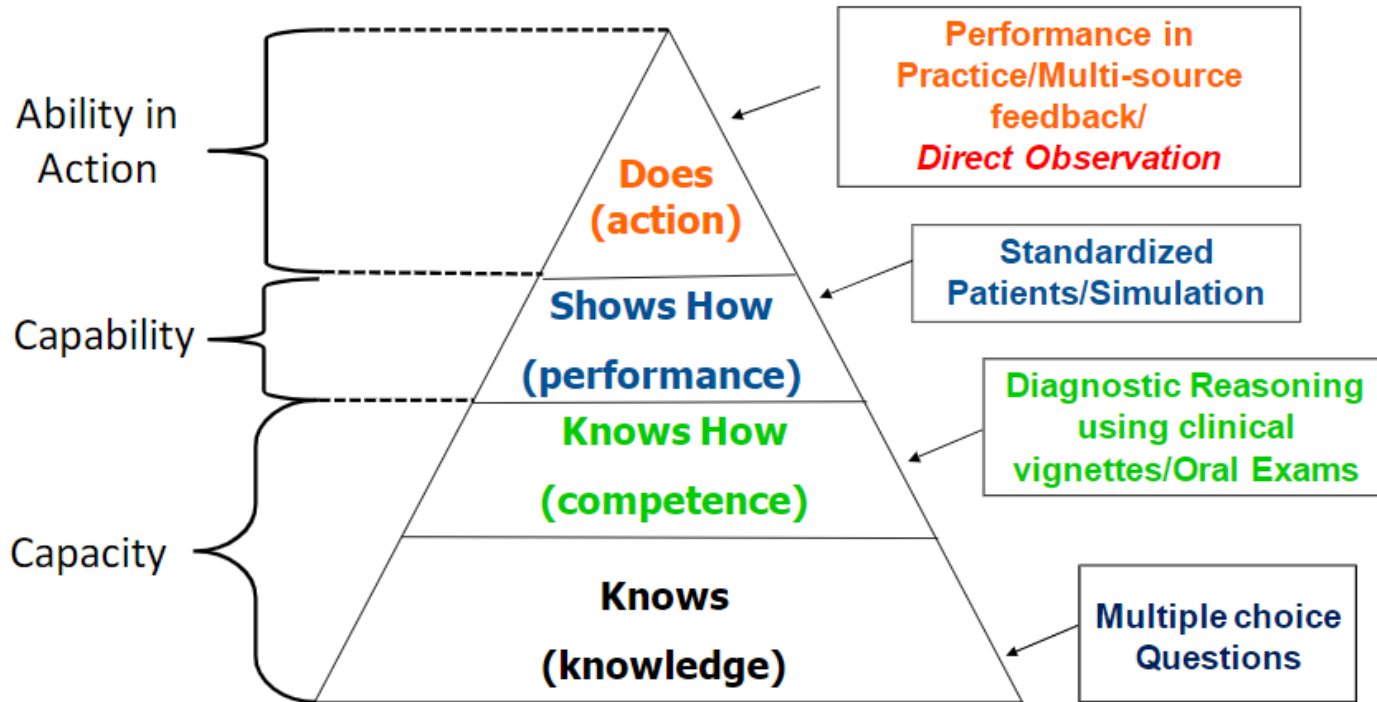
- Capacity
- Capability
- Ability

The Assessment Itself

- Easy
- In real time
- Objective
- Reproducible
- Actionable



What Are You Assessing?



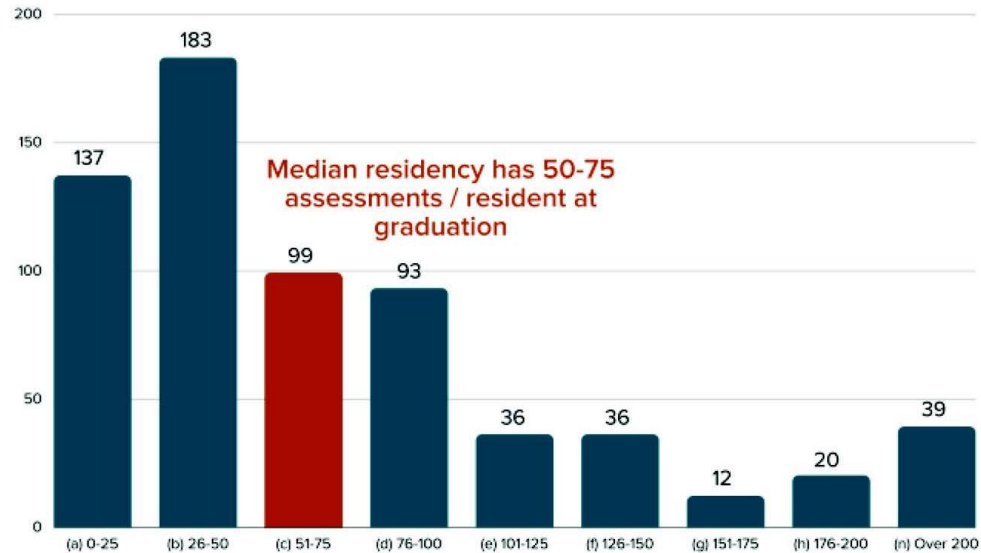
Methods of Assessment

- Descriptive evaluation by teachers
- Records of clinical encounters
- External/internal evaluations
- Multiple choice questions
- Short answer questions/essays
- Simulations
- Virtual simulations
- Rating scales
- Oral examinations
- Chart (record) reviews
- OSCEs/standardized patients
- Portfolios
- 360 evaluations
- Patient logs
- Checklists
- Self-report



How Many Assessments?

Number of Assessments at 2023 graduation



Results based on a survey of 655 residencies.



What assessments are residencies using? Attestation Survey: >50% residencies use



Results based on a survey of 655 residencies.



What assessments are residencies using?

Attestation Survey: 25-50% residencies...



Results based on a survey of 655 residencies.



What assessment are residencies using? Attestation Survey: <25-50% residencies...



Results based on a survey of 655 residencies.

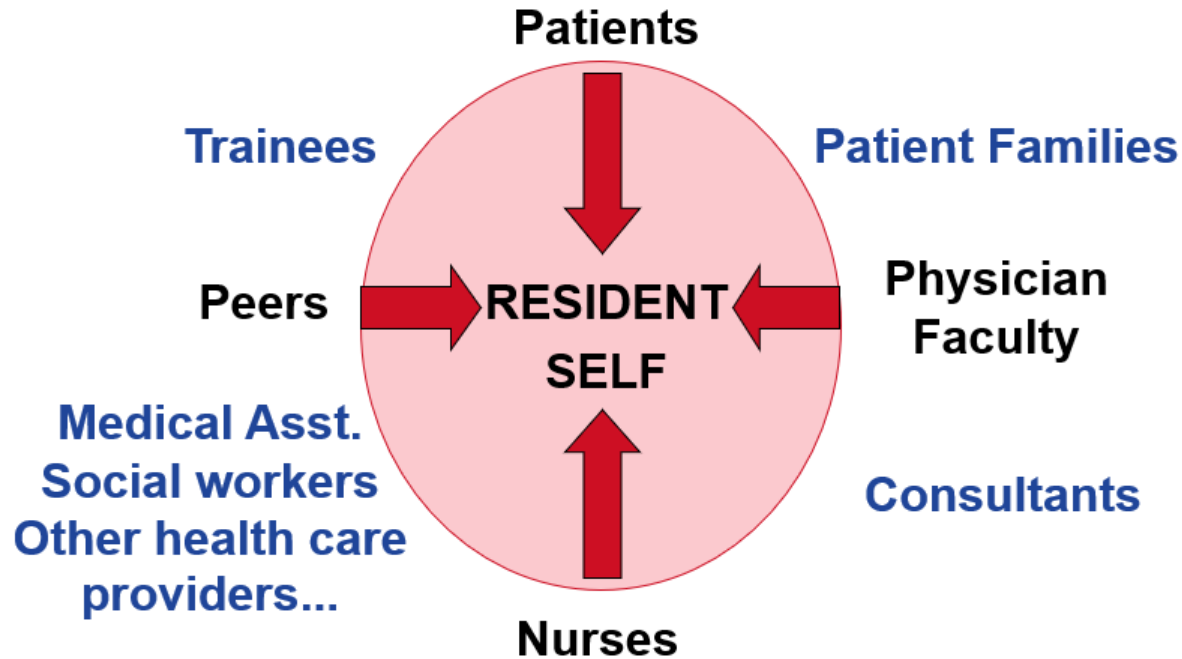


Think-Pair-Share

- How many questions are on your rotation evaluations, or How long does it take to fill out your rotation evaluations?
- How helpful are your evaluations in providing feedback on resident performance?
- Discuss with your partners ways in which your assessments could be better or why we don't get as many back as we would like.



Multisource Feedback (MSF)



How Good is Self-Assessment?

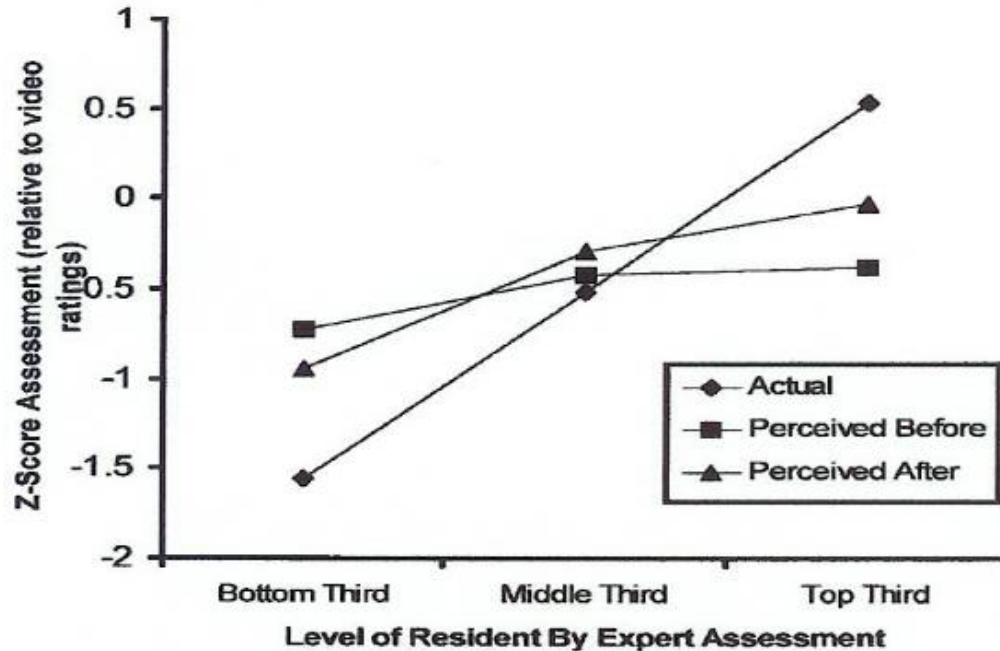


Figure 2. Z-score comparisons of expert assessments (actual) and resident self-assessments of performance (perceived) before and after seeing standards of comparison.



What Does MSF Assess?

Especially helpful in assessing the “soft skills”

- Interpersonal and Communication Skill
- Professionalism
- Systems-Based Practice



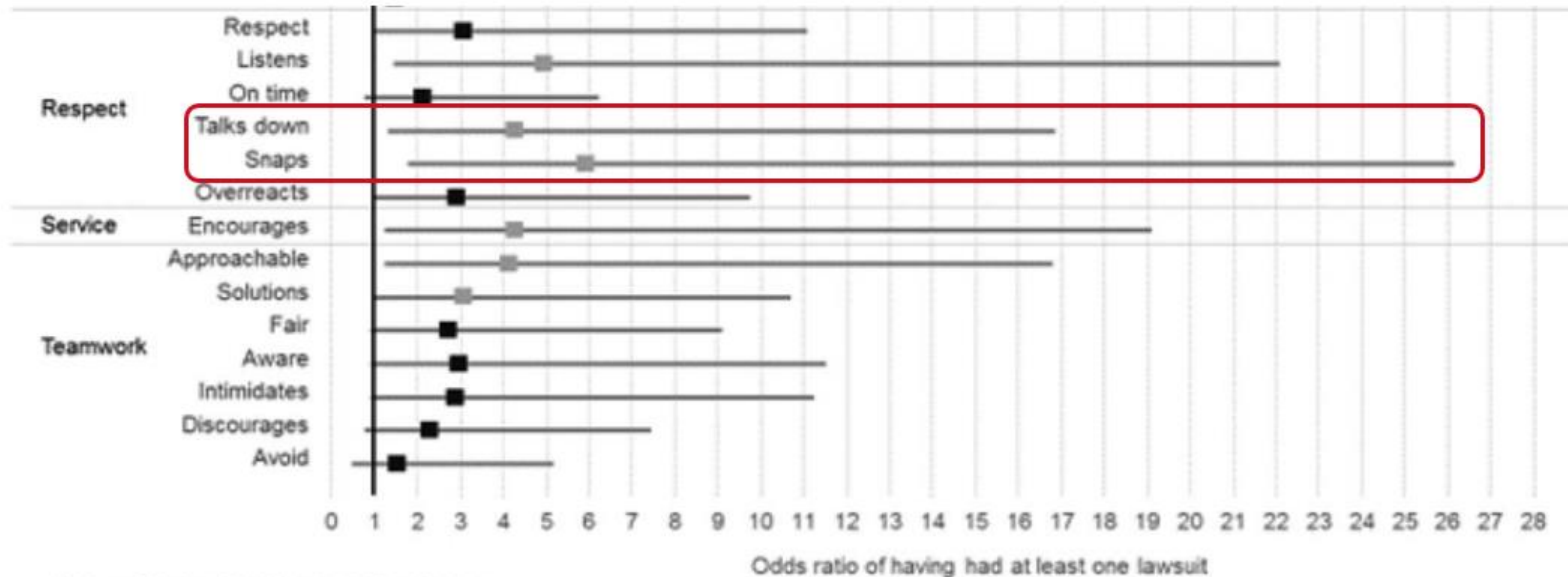
FM ICS2 Subcompetency

Interpersonal and Communication Skills 2: Interprofessional and Team Communication				
Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully requests/receives a consultation	Clearly and concisely requests/responds to a consultation	Checks understanding of consult recommendations (received or provided)	Coordinates recommendations from different members of the health care team to optimize patient care, resolving conflict when needed	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed
Uses language that values all members of the health care team	Communicates information effectively with all health care team members	Communicates concerns and provides feedback to peers and learners	Communicates feedback and constructive criticism to supervising individuals	Facilitates regular health care team-based feedback in complex situations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				



Multisource Feedback (MSF)-Why?

Harvard associative study of 264 surgeons and malpractice claims



Minimum 10 raters, 95% CIs adjusted for clustering

Odds ratio of having had at least one lawsuit



Lagoo J, et. al. Multisource Evaluation of Surgeon Behavior is Associated with Malpractice Claims. *Ann Surg*, 2018; online first. DOI: [10.1097/SLA.0000000000002742](https://doi.org/10.1097/SLA.0000000000002742)

MSF Evidence

Systematic Review 2014:

- Reviewed 43 articles
- MSF effective method in providing feedback to physicians across range of specialties
- Conclusions
 - *In general, assessment of physician performance was based on the completion of the MSF instruments by **8 medical colleagues, 8 coworkers, and 25 patients** to achieve adequate reliability and generalizability coefficients of $\alpha \geq 0.90$ and $Ep2 \geq 0.80$, respectively.*



Small Group Discussion

Look at a 360 MSF Tool

- What are the pros and cons of the assessment tool?
- How could it be improved?



Framework for “Good” Assessment

- **Validity or Coherence**
 - **Reproducibility, Reliability, or Consistency**
 - **Equivalence**
 - **Feasibility**
 - **Educational effect**
 - **Catalytic effect**
 - **Acceptability**
- Faculty essential**
-
- ```
graph LR; FE[Faculty essential] --> VC[Validity or Coherence]; FE --> F[Feasibility]; FE --> CE[Catalytic effect];
```

Norcini J. 2018 Consensus framework for good assessment.  
Med Teach. 2018;40(11):1102-1109



# Framework for “Good” Assessment

- Validity: is it assessing what’s meant to be assessed?
- Reliability: does the tool produce the same assessment?



**Not reliable**  
**Not valid**



**Reliable**  
**Not valid**



**Reliable**  
**Valid**



# Types of Assessment Error

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Halo versus horn effect

- Halo: rating affected by (prior) favorable perception
- Horn: rating affected by (prior) undesirable perception

Doves versus hawks

- Dove: lenient evaluator
- Hawk: harsh evaluator

Personal and systemic biases: gender, ethnicity, age, etc.



# How To Increase “Rater Cognition”

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- Limit what’s being assessed at any one time
- Increase time observing learners
- Practice observing and assessing
- Use multiple raters in multiple settings (MSF)
- Assess objective and discrete measures
- Faculty development to create a shared mental model



# Rater Cognition and SMM

| Patient Care 3: Health Promotion and Wellness                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overall Intent: To promote wellness and improve health throughout screening and prevention by partnering with the patient, family members, and community; understands concept of wellness and is able to promote in individual patients, their practice and their communities served |                                                                                                                                                                                                                                                                              |
| Milestones                                                                                                                                                                                                                                                                           | Examples                                                                                                                                                                                                                                                                     |
| <b>Level 1</b>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                              |
| <i>Identifies screening and prevention guidelines by various organizations</i>                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Lists usual/most common sources of guidelines such as American Academy of Family Physicians (AAFP), US Preventive Services Task Force (USPSTF) during routine precepting encounters</li> </ul>                                        |
| <i>Identifies opportunities to maintain and promote wellness in patients</i>                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Administers a measles-mumps-rubella (MMR) vaccine prior to discharge in a recently postpartum rubella non-immune patient</li> </ul>                                                                                                   |
| <b>Level 2</b>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                              |
| <i>Reconciles competing prevention guidelines to develop a plan for an individual patient, and considers how these guidelines apply to the patient population</i>                                                                                                                    | <ul style="list-style-type: none"> <li>Discusses discrepant guidelines from different organizations to determine if breast cancer screening in a 50-year-old patient, without significant family history, should be done every one or two years</li> </ul>                   |
| <i>Recommends management plans to maintain and promote health</i>                                                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>Conducts a wellness visit for a patient and includes screening, immunizations, and lifestyle modification strategies that correlate with the patient's age and comorbidities</li> </ul>                                               |
| <b>Level 3</b>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                              |
| <i>Identifies barriers and alternatives to preventive health tests, with the goal of shared decision making</i>                                                                                                                                                                      | <ul style="list-style-type: none"> <li>After seeing an insured patient with limited resources, and inability to secure transportation to and from appointments, patient agrees on fecal immunochemical testing as the preferred method for colon cancer screening</li> </ul> |
| <i>Implements plans to maintain and promote health, including addressing barriers</i>                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>Works with patient to make dietary changes, taking into account patient access and ability to afford certain foods</li> </ul>                                                                                                         |
| <b>Level 4</b>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                              |
| <i>Incorporates screening and prevention guidelines in patient care outside of designated well visits</i>                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Completes a chart audit on a panel of patients and identifies those needing a mammogram, and contacts patients and recommends screening</li> </ul>                                                                                    |
| <i>Implements comprehensive plans to maintain and promote health, incorporating pertinent psychosocial factors and other determinants of health</i>                                                                                                                                  | <ul style="list-style-type: none"> <li>Engages a dietician and community health worker to prevent weight gain in a patient who lives in a food desert and recently started taking antipsychotic medications</li> </ul>                                                       |
| <b>Level 5</b>                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                              |
| <i>Participates in guideline development or implementation across a system of care or community</i>                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Participates on a committee that develops an influenza vaccination strategy for the health care system</li> </ul>                                                                                                                     |

## Milestone Supplement Guide



# Rating Scales

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- Binary (Yes/No)
- Doesn't Meet—Meets—Exceeds Expectations
- Number scales (1-5)
- Novice—Expert
- Not What I Would Do—Close to What I Would Do—Better Than Me
- Gut feeling/reaction/gestalt
- Narratives





# CBME's Goal

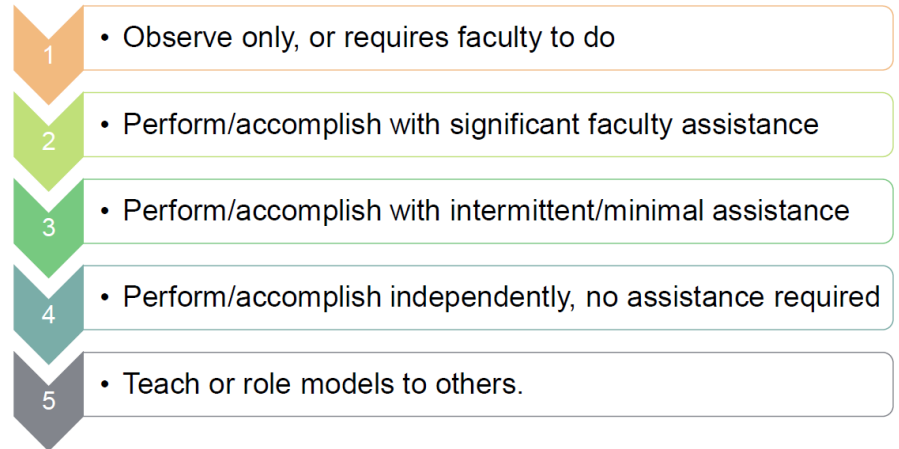
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It's not to compare learners to each other

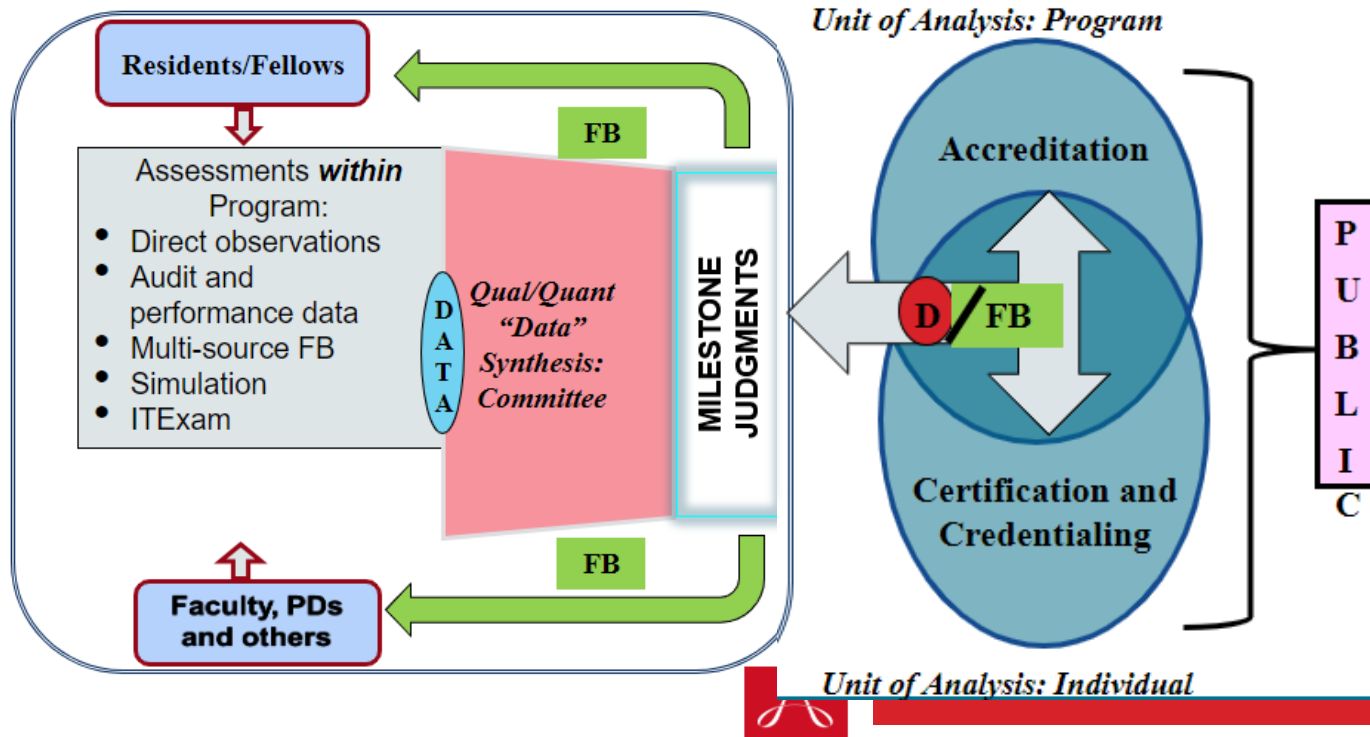
It is to compare them to objective standards and decide if they are capable of demonstrating or performing a certain skill/outcome.

## Entrustment Scale

**-The resident is entrusted to:**



# What Is a Program?



# Programmatic Assessment

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A deliberate and arranged set of activities designed to assess a learner's competence (centrally coordinated)

Data points help with learning and aren't just a report

- Multiple types of assessment tools
- Learners have immediate access to the data
- Feedback and coaching are essential to foster master adaptive learning and identify formation

Aggregate data is used for higher stakes (summative) decisions



# Questions?

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# Creating a Milestone Assessment Matrix

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Several ways to do this but the ground rules are:

- What are you evaluating?
- How are you teaching this?
- Where are you teaching and observing it?
- What methods of assessment are you using?
- What gaps do you need to address? (Creating an Action Plan!)



| Milestone | Orientation | FMIS | Sports     | PEDS IP | NICU | Procedure  | OB | Behavioral Health | Night | Community Med FMIS | FMIS2 | EM | Total |
|-----------|-------------|------|------------|---------|------|------------|----|-------------------|-------|--------------------|-------|----|-------|
| PC 1      |             | 1    |            | 1       | 1    |            |    |                   | 1     |                    | 1     | 1  | 6     |
| PC2       | 1           |      | 1          |         |      |            | 1  |                   |       | 1                  |       |    | 4     |
| PC3       | 1           |      |            |         |      |            |    | 1                 |       | 1                  |       | 1  | 4     |
| PC4       |             | 1    |            | 1       |      |            |    |                   | 1     |                    | 1     | 1  | 5     |
| PC5       | 1           |      | 1          |         | 1    | 1          | 1  |                   |       |                    |       |    | 5     |
| MK 1      | 1           | 1    | 1          |         |      | 1          |    |                   |       | 1                  | 1     |    | 6     |
| MK2       |             | 1    |            |         | 1    |            |    |                   | 1     | 1                  | 1     | 1  | 6     |
| SBP1      | 1           | 1    |            |         |      |            |    |                   | 1     | 1                  | 1     |    | 5     |
| SBP2      | 1           | 1    |            |         |      |            |    |                   | 1     |                    | 1     | 1  | 5     |
| SBP3      | 1           |      |            |         |      |            |    | 1                 |       |                    |       | 1  | 3     |
| SBP4      |             |      | 1          | 1       | 1    |            | 1  |                   | 1     | 1                  | 1     | 1  | 8     |
| PBL1      |             | 1    |            | 1       | 1    |            |    |                   | 1     |                    | 1     |    | 5     |
| PBL2      | 1           |      | 1          |         |      | 1          |    | 1                 |       |                    |       |    | 4     |
| PROF1     |             |      |            | 1       | 1    |            | 1  |                   |       | 1                  |       |    | 4     |
| PROF2     |             | 1    |            |         |      |            |    | 1                 | 1     |                    | 1     |    | 4     |
| PROF3     | 1           |      |            |         |      |            | 1  | 1                 |       | 1                  |       |    | 4     |
| ICS 1     | 1           |      |            | 1       | 1    |            | 1  |                   |       |                    |       |    | 4     |
| ICS2      |             |      |            | 1       |      |            |    | 1                 |       | 1                  |       | 1  | 4     |
| ICS3      |             | 1    |            |         |      |            | 1  | 1                 |       |                    | 1     |    | 4     |
|           | 10          | 9    | 5          | 7       | 7    | 3          | 7  | 7                 | 8     | 9                  | 10    | 8  | 90    |
|           |             |      | Procedures |         |      | Procedures |    |                   |       |                    |       |    |       |
|           |             |      |            |         |      |            |    |                   |       |                    |       |    |       |

# How Do We Do This?

| Milestone                             | Teaching Methods                                                         | Major Learning Experiences (Goals) |            |                             |                             |                             |                      |                                                                                      | Questions/Issues/Reflections in Assessing this Competency |
|---------------------------------------|--------------------------------------------------------------------------|------------------------------------|------------|-----------------------------|-----------------------------|-----------------------------|----------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------|
|                                       |                                                                          |                                    | Direct Obs | Faculty Evals               | Clinic Reasoning Assessment | Medical Record Audit/Review | Multisource Feedback | Simulation                                                                           |                                                           |
| PC-1: Care of the Acutely Ill Patient | Mini didactics on inpt                                                   | FMTS                               | X          | On the fly                  | ITE                         |                             |                      |                                                                                      | Snapshot to evaluates session                             |
|                                       | Formal didactics 18 rotation                                             | ED                                 |            | Milestones                  |                             |                             |                      |                                                                                      | ICU eval-need to create?                                  |
|                                       | Bedside rounding                                                         | Inpt NB/Peds                       | X          | IP peds quarterly           |                             |                             |                      |                                                                                      | ED evals-from ED dept or us?                              |
|                                       | Interacting with resident in clinical environment (phones/presentations) | OB                                 | X          | Long inpt and clinic q6 wks |                             |                             |                      |                                                                                      |                                                           |
|                                       | Observing handoffs-contingency plans                                     | ICU                                |            | Handoffs                    |                             |                             |                      |                                                                                      |                                                           |
|                                       | Mock codes                                                               |                                    |            |                             |                             |                             |                      | Orientation, quarterly NRP mock codes--verbal debrief                                |                                                           |
|                                       | Self-study article/guidelines review                                     |                                    |            |                             | X                           |                             |                      |                                                                                      |                                                           |
| Signing notes                         |                                                                          |                                    |            |                             |                             | X                           |                      | chart audits from inpt team: sepsis, stroke alerts--does this just go to attendings? |                                                           |



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# Time to Work on Your Own Matrix!

- Pick a milestone you are involved in teaching or evaluating.
- Fill out the assessment matrix and identify areas for growth.
- What tangible action items can you bring back to your program to address these areas?





# Take Home Pearls

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- Assessing assessments takes a significant amount of time
- Get buy-in from faculty/CCC to help with the work
- There are many ways to start this process-find what's right for your program
- If you're not getting the information you need from evaluations, it may not be the tool's fault

