


**Milestones to EPAs:  
What Does It All Mean?**

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Administrative Director Graduate Medical Education



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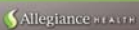
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**Six ACGME Competencies**

- Medical Knowledge
- Patient Care
- Practice Based Learning and Improvement
- System Based Practice
- Professionalism
- Interpersonal and Communication Skills



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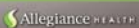
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**Competency-based medical education (CBME)**

- Outcome-based, not process-based: what is *attained* is key, not just what is *done or taught*
- Evaluate integration of knowledge, skill, attitude
  - "Trust" you to do the right thing
- Time-independent: length of training is not pre-set
  - Ex: Great at Cards- lousy at family meetings....
- Individualized: trainees and contexts are not identical
  - Won't see everything in your specialty

**Workplace-learning!!**



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### Milestones defined

Meaningful, measurable markers of progression of competence (sub-competencies)

- What abilities does the trainee possess at a given stage?
- What can the trainee be entrusted with?



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### Elisabeth Kubler -Ross Grief Reaction

- Denial - "Our residents learn just fine. We don't need to change."
- Anger - "Whose stupid idea is this anyway. The ACGME doesn't know squat!"
- Bargaining - "So maybe I can still lecture if I let the residents pick the topics they want"
- Depression - "I'm a dinosaur. Maybe I should just retire"
- Acceptance - "So tell me again about this CBME."

Bill Iobst, ABIM

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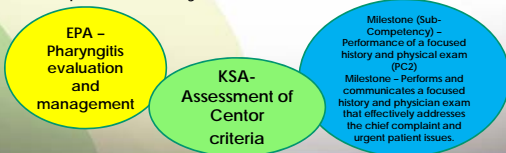
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### Entrustable Professional Activities (EPAs)

- Define important clinical activities
- Link competencies / milestones to KSA
- Include professional judgment of competence by clinicians



Boeson, et al., 2014

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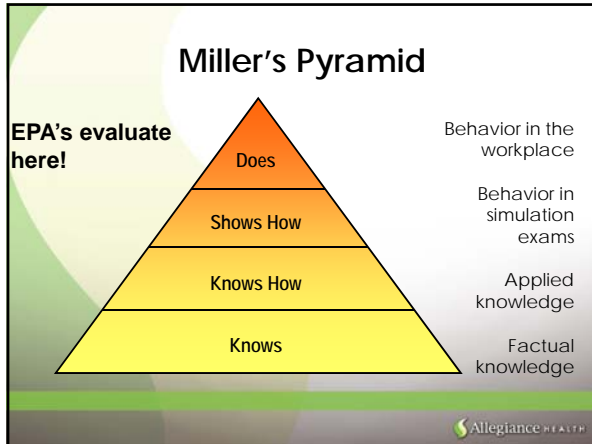
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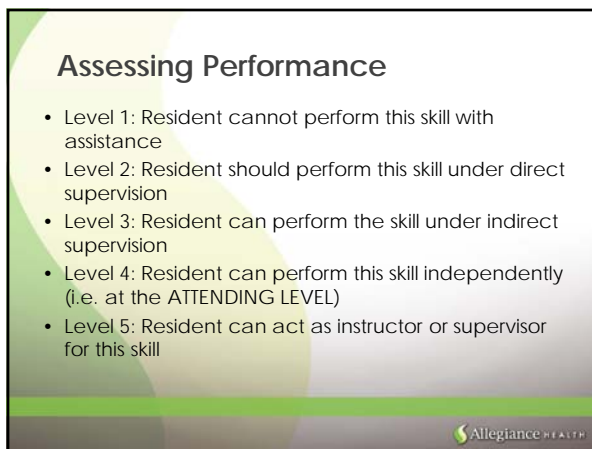
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## Assessing Residents

Three Different Tools

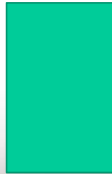
**EPA's**




**Competencies**



**Milestones  
(Sub-competencies)**






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## Assessing Residents

Three Different Tools

**GOOD trainees DO these well.**

**EPA's**

1. Titrate insulin
2. Manage ventilator
3. Treat pain
4. Share decision making
5. Hand-off properly

We see residents DO these things

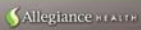
**Competencies**

1. Patient Care
2. Medical Knowledge
3. Professionalism
4. Communication Skills
5. System Based Practice
6. Practice Based Learning

We measure residents with these

**Milestones  
(Sub-competencies)**

ICS 1	PC 1 PC 2 PC 3	MK 1 MK 2	SBP 1 SBP 2	PBL 1 PBL 2 PBL 3	PF 1 PF 2
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## Assessing Residents

Three Different Tools

**GOOD trainees DO these well.**

**EPA's**

1. Titrate insulin
2. Manage ventilator
3. Treat pain
4. Share decision making
5. Hand-off properly

These are what we should be measuring.

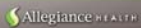
**Competencies**

1. Patient Care
2. Medical Knowledge
3. Professionalism
4. Communication Skills
5. System Based Practice
6. Practice Based Learning

**Milestones  
(Sub-competencies)**

ICS 1	PC 1 PC 2 PC 3	MK 1 MK 2	SBP 1 SBP 2	PBL 1 PBL 2 PBL 3	PF 1 PF 2
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These are what we should be able to sort by.




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### Assessing Residents

Three Different Tools

**The struggling resident can't do these well.**

1. Titrate insulin
2. Manage ventilator
3. Treat pain
4. Share decision making
5. Hand-off properly

**This is what we see them struggle with**

Competencies

1. Patient Care
2. Medical Knowledge
3. Professionalism
4. Communication Skills
5. System Based Practice
6. Practice Based Learning

Milestones (Sub-competencies)

ICS 1	PC 1 PC 2 PC 3	MK 1 MK 2	SBP 1 SBP 2	PBL 1 PBL 2 PBL 3	PF 1 PF 2
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**These might point towards the reason and solution for the struggles.**

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### A new approach – the Entrustable Professional Activity (EPA)

- Start with concrete clinical activities, then link these to core competencies/milestones (or roadblocks...)
- Value individual differences.
- Incorporate professional judgment of competence by seasoned clinicians
- Make deliberate "decisions of entrustment" for concrete "entrustable" activities.
- Build a collection (portfolio) to document competence

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### Entrustable Professional Activities-(KSA)




**EPA**

Interpret EKG



**EPA**

Manage ACS



**EPA**

Resuscitate, stabilize, and care for critically ill patients.

Rotation Specific End of Training

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### How to Approach EPA's

**Content Based EPA's** (variable portion)

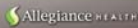
- Example: perform venipuncture
- Generally different for each rotation

**Process Based EPA's** (constant portion)

- Example: take a complete history
- Generally the same for similar rotations
  - Inpatient
  - Surgery
  - Consult
  - Ambulatory

Variable

Constant



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### Example Process EPA's PGY I (Constant)

- Introduces self to patient and verifies patient identify
- Acquire an accurate and relevant history
- Perform an accurate physical exam
- Develop a prioritized differential diagnoses
- Develop an evidence-based diagnostic and therapeutic plan
- Demonstrates self-initiative in the use of information technology to retrieve materials for self-learning.
- Communicates with the patient that engages and focuses around the patient's concern's



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### Example Content EPA's (Variable)

- Manage hyperkalemia during tumor lysis syndrome
- Perform paracentesis
- Manage derangement of sodium
- Manage extremes of blood pressure
- Initiate investigation of abdominal pain
- Participate in an inpatient cardiopulmonary resuscitation
- Identify fall risk in the older patient
- Recognize heart murmur



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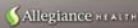
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### Writing and choosing EPA's

1. Part of the essential professional work in a given context.
2. Must require adequate knowledge, skill and attitude.
3. Must lead to recognized output of professional labor
4. Should be independently executable
5. Should be executable within a time frame.
6. Should be observable and measurable
7. Should reflect one or more competencies

**PLUS**

1. Should be frequent enough to be seen in a rotation
2. Should be important
3. Should be measurable by the attending on the rotation




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### EPA Process

- Keep it simple
- Limit your **content** EPA's to 10 or fewer per rotation
- Seek resident feedback on EPA's

Why COMPLICATE Life ?

Missing somebody? ..... Call

Wanna meet up?.....Invite

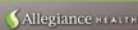
Wanna be understood?.....Explain

Have questions?.....Ask

Don't like something?.....Say it

Like something?.....State it

Want something?.....Ask for it




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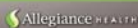
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### Bring it All Together!

#### EPA's/Milestones/Competencies

Patient Care PC 1 PC 2 PC 3 PC 4 PC 5	Medical Knowledge MK1 MK 2 MK 3
Practice Based Learning & Improvement PBL1	Interpersonal Communication Skills ICS 1 ICS 2 ICS 3
Professionalism PF 1 PF 2 PF 3 PF 4 PF 5	Systems Base Practice SBP1 SBP 2 SBP 3 SBP4




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### EPA's/Milestones/Competencies

HemOnc PGY 1 – Initiate appropriate steroid treatment and consult appropriate services for spinal cord compression

<b>Patient Care</b> PC 1 PC 2 PC 3 PC 4 PC 5	<b>Medical Knowledge</b> MK1 MK 2 MK 3
<b>Practice Based Learning &amp; Improvement</b> PBL1	<b>Interpersonal Communication Skills</b> ICS 1 ICS 2 ICS 3
<b>Professionalism</b> PF 1 PF 2 PF 3 PF 4 PF 5	<b>Systems Base Practice</b> SBP1 SBP 2 SBP 3 SBP4

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### EPA's/Milestones/Competencies

HemOnc PGY 1 – Initiate appropriate steroid treatment and consult appropriate services for spinal cord compression

<b>Patient Care</b> PC 1 PC 2 PC 3 PC 4 PC 5	<b>Medical Knowledge</b> MK1 MK 2 MK 3
<b>PC-1</b> Recognize situation with a need for a urgent or emergent medical care, including life-threatening Conditions	<b>MK- 2</b> Demonstrate sufficient knowledge to evaluate complex or rare medical conditions and multiple coexistent conditions
<b>Practice Based Learning &amp; Improvement</b> PBL1 PBL 2	<b>MK- 4</b> Understand the relevant pathophysiology and basic science for uncommon or complex medical conditions
<b>Professionalism</b> PF 1 PF 2 PF 3 PF 4 PF 5	<b>Interpersonal Communication Skills</b> ICS 1 ICS 2 ICS 3
	<b>ICS-3</b> Request consultative services in an effective manner
	<b>Systems Base Practice</b> SBP1 SBP 2 SBP 3 SBP4

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### EPA

#### Can Make Italian Food

<b>Observable Professional Activities</b>				
<b>Competencies</b>	Fruit	Vegetables	Protein	Grain
<b>Milestones</b>	Knows how to make sauce	Knows how to dice tomatoes	Knows what meat to use in the dish	Knows what pasta to use
<b>Narrative - KSA</b>	Cooks marinara sauce	Dices tomatoes	Browns ground beef	Boils ravioli

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**EPA** **Can Make Italian Food**

Observable and measurable activities demonstrating skills, knowledge and ability



Competencies: Fruit, Vegetables, Protein, Grain

Things we measure overtime: Knows how to make sauce, Knows how to dice tomatoes, Knows what meat to use in the dish, Knows what pasta to use

This is what we see that explains the EPA. Do we trust them? Direct supervision/indirect supervision: Cooks marinara sauce, Dices tomatoes, Browns ground beef, Boils ravioli

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**EPA** **Can Ride A Bike Safely**

Observable Practice Activities



Competencies: Equipment, Safety, Bicycle Etiquette, Endurance

Milestone: Knows Right Size bike to use, Can Balance, Can Propel Forward, Knows Hand signals

Narrative Do you trust them? What you are watching that describes the EPA: Rides 100 feet without falling, Rides with a helmet, Riding in same direction as traffic using hand signals, Rides for over 8 hours at once

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**EPA** **Develop and achieves comprehensive management plan for patients**

Observable Practice Activities



Competencies: MK, PBL, Patient Care, SBP, Prof, Com. & IPS

Milestone: Routinely identify subtle or unusual physical findings, Interpret common diagnostic testing, Manage patients with common and complex disorders, Customize care based on patient's preference and overall health

Narrative - KSA (Do you trust them?): Titrate cardiac medications, Manage Pancreatitis, Adjust short and long acting narcotics for cancer and sickle cell patients, Deliver appropriate goal directed therapy for severe sepsis

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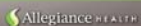
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