

Direct Observation to Enhance Learning and Assessment

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Disclosures

- No financial conflict of interests

Credit

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ACGME Faculty Development Course*

Objectives

- Define direct observation/workplace based assessments
- Identify barriers to implementing direct observation
- Identify solutions and strategies for successful implementation of direct observation

Objectives

- Introduce Entrustable Professional Activities (EPA)
- Demonstrate how EPAs can be used as an assessment tool for direct observation.

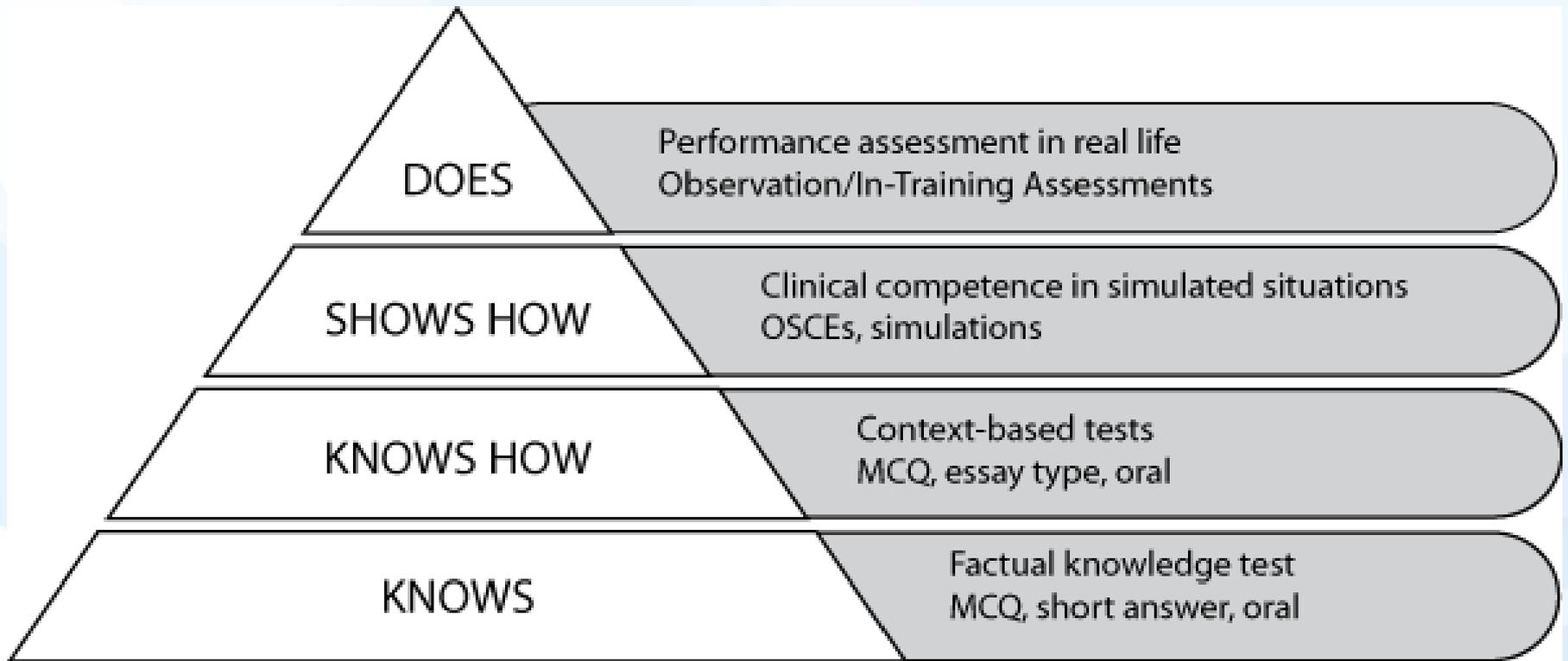


Direct Observation

- Assessment of what you learner “does” with patients in day to day practice.
- Performance of history gathering, physical exam and counseling

Swanwick T. *Br J Hosp Med*.2009;70:290-3

Direct Observation



Who Watched You?



Being Observed

- How did it feel?
- Was it useful?

Being the Observer

- How did it feel?
- Was it useful?

Importance

- Excellence in clinical skills matters
- Patient-centered communication skills are important, sophisticated skills that are hard to teach & hard to assess
- Competency based medical education goals can be achieved
- Supervision needs can be identified

Importance

- History leads to diagnosis > 80% of the time
- Even in era of technology
- Required to avoid unnecessary testing
- Faulty data gathering common source of diagnostic errors

Hampton JR et al. *BMJ* 1975; 2(5969):486-9

Peterson MC et al. *West J Med.* 1992; 156(2):163-5

Graber, M et al. *Acad Med.* 2002;77(10):981-92

Importance

- ACGME 2010 common program requirements
 - Mandatory direct observation
 - Increased supervision
- Patient-centered care is becoming an important quality metric for hospitals, insurers and the government

State of Clinical Skills

- Trainees
 - Wide variability in graduating students' clinical skills measured as MS4s or starting internship
 - History taking
 - Physical exam
 - Communication skills
- Practicing physicians
 - Variability in physical exam skills
 - Missing elements of informed decision making

Stillman. Ann Intern Med.1990; Sachdeva. Arch Surg.1995;
Lypson.Acad Med.2004; Mangione.1997; Braddock.1999

Millennials

- Workforce Solutions Group survey:
 - 60% of prospective employers said that millennial applicants lacked "communication and interpersonal skills."



Direct Observation to Assess Core Skills

ASSESSMENT

Legitimizes the subject
Sends message skills are important
Ensures assessment of essential skills

LEARNING



Competency Based Medical Education



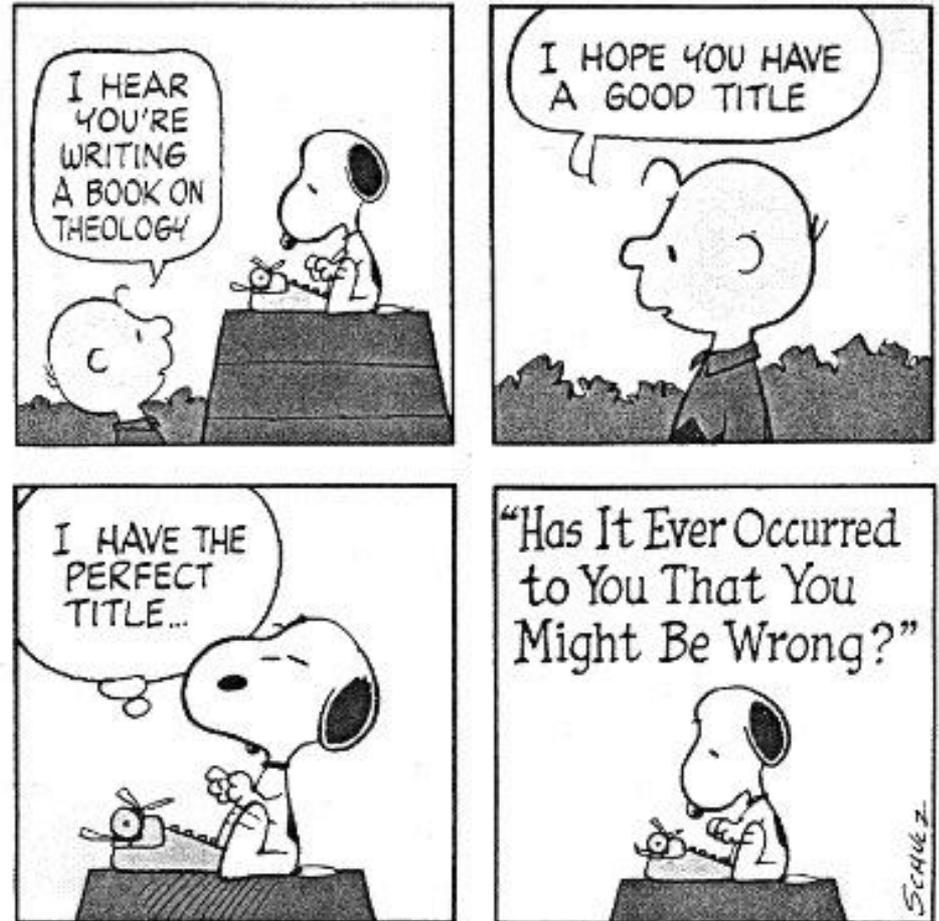
Structure
Process
Time



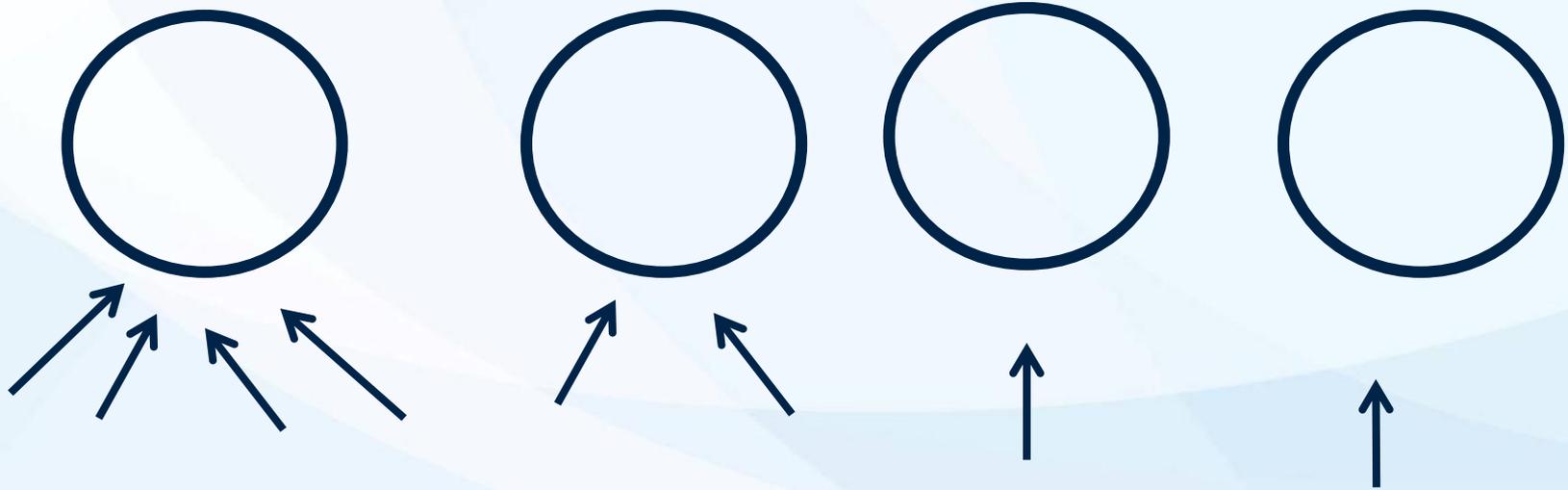
Outcome
(Competency)

Assumptions

- What assumptions do we make about trainees' skills?
- Why do we make them?
- When do we make them?
- What assumptions do we make on July 1st?



Direct Observation Tests these Assumptions



Detect Outliers

Feedback/development

Early

TIME/TASK

Late

Barriers



Barriers

- TIME, TIME, TIME
- Concern observation will interfere with trainee-patient relationship
- Role of observer
- Formal or informal – validity of formal observation?

Time

- Set expectations with trainee
- Select action to observe
- Be flexible
- Incorporate into normal workflow



Small snapshots: Make it part of your work flow

INTERVIEW	PHYSICAL EXAM	COUNSELING	PROCEDURES
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- Agenda setting
- Part of admission history
- Pre-rounds

- Part of exam
- Pre-rounds
- 1 maneuver

- Post-rounds
- Discharge instructions
- Starting medication
- Behavioral change
- Family meeting
- Code status
- Pre-rounds
- Anticipatory guidance

- Consent
- Procedure
- Post-check

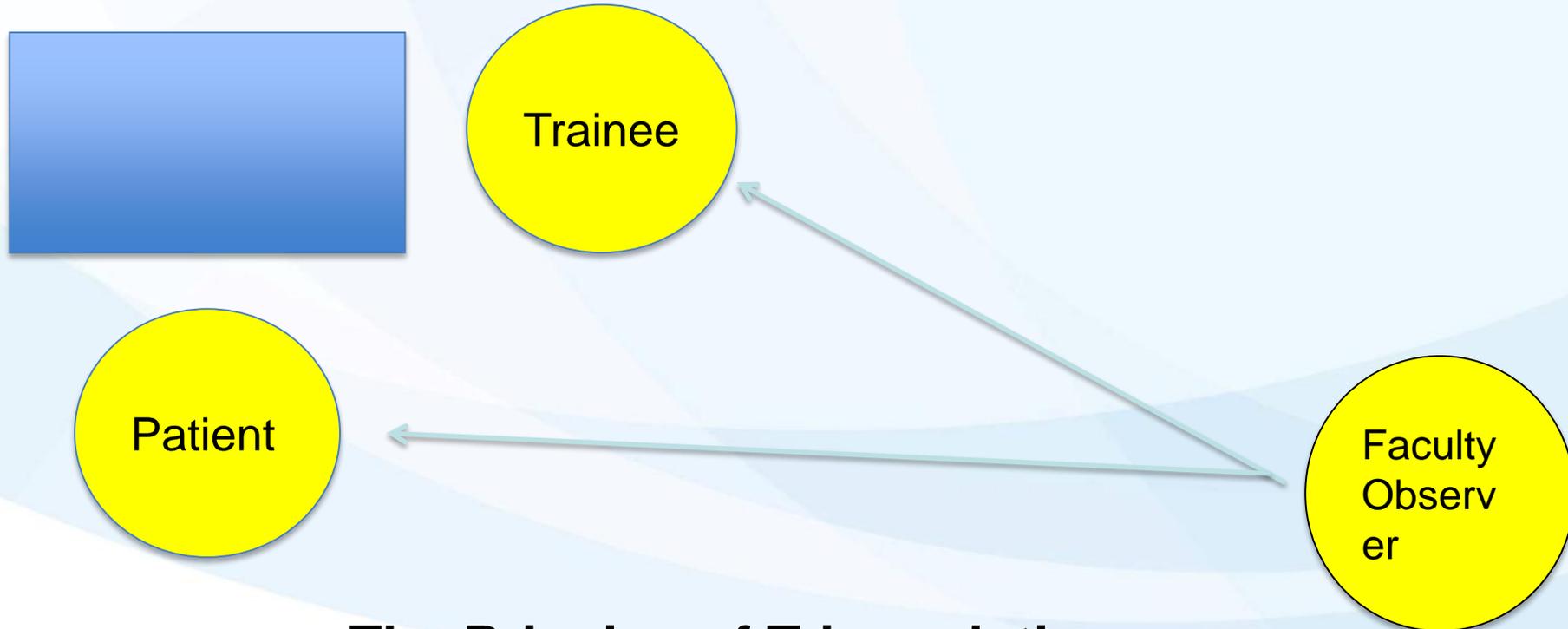
GOAL: HELP THE LEARNER AND THE PATIENT

Faculty observers will interfere with trainee-patient relationship



Solution 1- Triangulation

Set the room up for success



The Principle of Triangulation

Minimize interference

- Triangulation



Holmboe E. *Practical Guide to the Evaluation of Clinical Competence*. Mosby 2008.

Four Simple Rules for Observation:

Rule	Description
Correct Positioning	<ul style="list-style-type: none">• Avoid line of sight of either patient or trainee• Use the principle of triangulation• Position yourself so you can observe the skill being performed.
Minimize external interruptions (others)	<ul style="list-style-type: none">• Tell staff you will be assessing a learner for 5-10 minutes.• Avoid phone calls, texts, other messages.
Avoid intrusions (you)	<ul style="list-style-type: none">• Do not interrupt them if possible.• Once you enter the encounter, the trainee-patient dynamic is altered. However, if there is a significant mistake, interject yourself to correct misinformation if needed for immediate patient care.
Be prepared	<ul style="list-style-type: none">• Know what you plan to assess before the session starts• Ask the resident what skill they would like feedback on• Focus your assessment on the performance of that skill

Holmboe E. *Practical Guide to the Evaluation of Clinical Competence*. Mosby 2008.

Role of Observer



versus





Entrustable Professional Activities

- “... identify the critical activities that constitute a specialty ... the activities of which we would all agree should be only carried out by a trained specialist.”

ten Cate O, Scheele F. Acad Med. 2007 Jun;82(6):542-7

EPAs as a Framework for Assessment

- Part of essential professional work
- Requires adequate knowledge, skills, attitudes
- Recognized output of professional labor
- Independently executable, within a time frame
- Observable and measurable in its process and outcome (well done or not well done)
- Reflects one or more competencies

Entrustable Professional Activities

- EPAs have been developed for:
 - Pediatrics, Internal Medicine, Family Medicine
- Examples:
 - Provide consultation to other health care providers caring for children. (Peds)
 - Manage care of patients with acute common diseases across multiple care settings. (IM)

Entrustable Professional Activities

- The THINGS you want your learners to do
- The skills you want your trainees to master
- **Can be created for a local learning activity**

EPAs are tools for programs

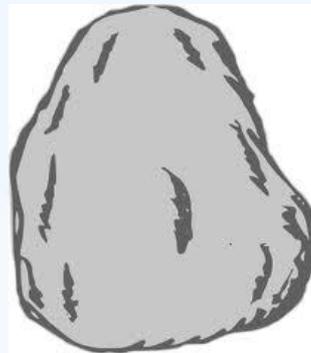
Warm, *J Gen Int Med* 2014;29:1177-82

EPA's come in all sizes



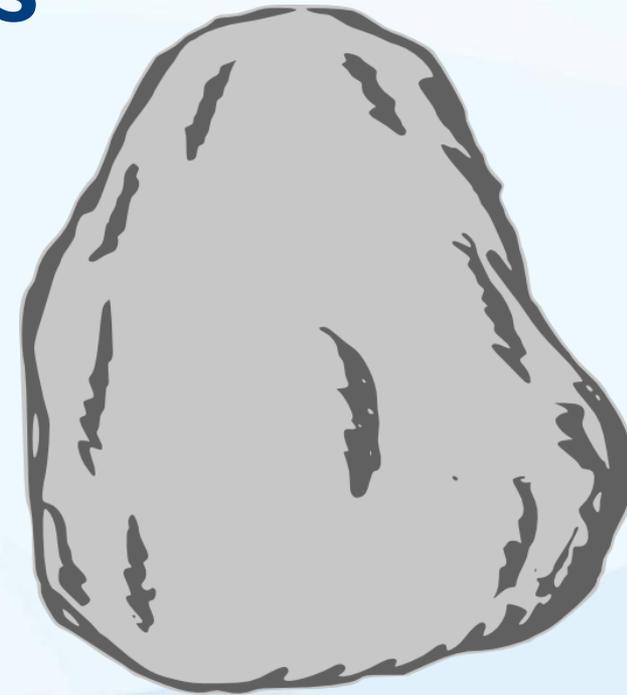
EPA

Interpret ECG



EPA

Manage ACS



EPA

Resuscitate, stabilize, and manage critically ill patients in the ICU

Warm, Eric. *A New System for Evaluating Trainees: Competencies and Milestones Mapped to Entrustable Professional Activities*. Workshop. ACGME March 2013

Continuity Clinic EPA list

- **Acquire an accurate and relevant, focused history**
- **Perform an accurate physical exam**
- **Recognize the scope of his/her abilities and asks for supervisor's help when appropriate**
- **Establish a therapeutic relationship with patients**
- **Create documentation that is correct, accurate, complete, and timely**
- **Manage a clinic session efficiently so that patient care proceeds at an appropriate rate**
- **Demonstrate accurate knowledge of outpatient coding and billing requirements**

To what degree can the resident function independently?

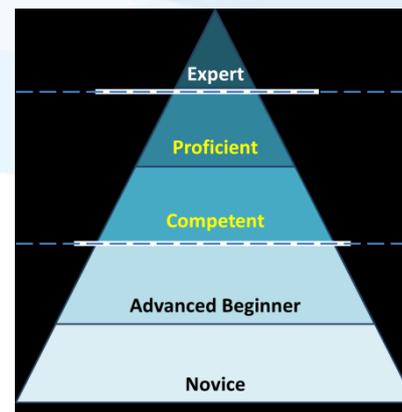
Levels of Entrustment

- I) Resident has knowledge and some skill, but is not allowed to perform the EPA independently
- II) Resident may act under proactive, ongoing, full supervision
- III) Resident may act under reactive supervision, i.e., supervision is readily available on request
- IV) Resident may act independently
- V) Resident may act as a supervisor and instructor

Dreyfus Model of Skill Acquisition

1	2	3	4	5
NOVICE	ADVANCED BEGINNER	COMPETENT	PROFICIENT	EXPERT
Governed by rules. Can follow instructions, but no experience to guide decisions	Still rule focused, tied to concrete situations; Able to identify aspects of common situations	Relies on past experience to plan an approach to each patient's situation; learns from the consequences resulting from their plans	Modifies approach in response to given situations; begins to streamline the approach to each patient	Recognizes patterns of clues; attuned to patterns that don't fit the routine; practice is guided by tacit knowledge
(M3)	(M4-PGY1)	(Jr. resident)	(Sr. res/Jr. faculty)	(Faculty)

Dreyfus and Dreyfus, 1980



Levels of entrustment

Resident may act as a supervisor and instructor

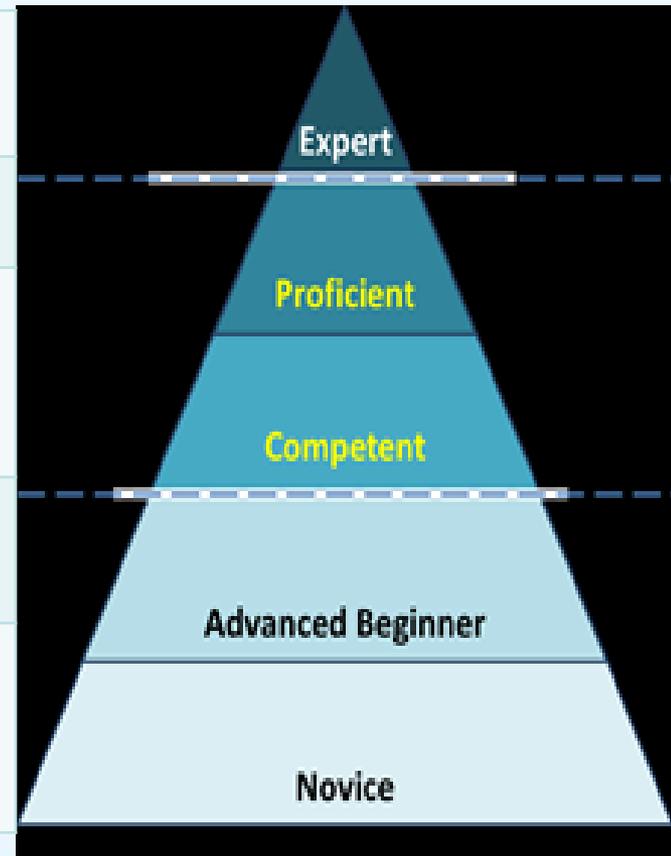
Resident may act independently

Resident may act under reactive supervision, i.e., supervision is readily available on request

Resident may act under proactive, ongoing, full supervision

Resident has knowledge and some skill, but is not allowed to perform the EPA independently

Dreyfus Competencies





Credit for concept: John McPherson, MD ACGME
short course



How Does Max get to Drive a Car?

- **Level 1**
 - Identifies parts of car and their basic function
- **Level 2**
 - Drives with Dad actively supervising in low-risk driving situations
- **Level 3**
 - Drives with Dad supervising in traffic or inclement weather
- **Level 4**
 - Drives independently in routine driving conditions
- **Level 5**
 - Drives safely on interstate or during bad weather, avoids accidents, no traffic tickets

OB EPA

After direct observation, I trust this resident to...

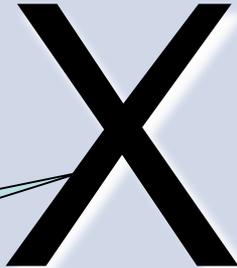
Recognize and manage obstetrical emergencies.

Only with Complete Supervision	With Partial Supervision	With Minimal Supervision	Independently and supervise learners	Innovative practice
		X		

OB EPA

After direct observation, I trust this resident to...

Recognize and manage obstetrical emergencies.

Only with Complete Supervision	With Partial Supervision	With Minimal Supervision	Independently and supervise learners	Innovative practice
				

Relevant milestones are
PC 1, PC 2, PC 4, ICS 1

Cardiology EPA

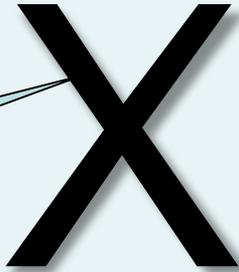
After direct observation, I trust this resident to...

Manage oral and intravenous anticoagulant therapy

Only with Complete Supervision	With Partial Supervision	With Minimal Supervision	Independently	Supervise/ Instruct
		X		

After direct observation, I trust this resident to...

Manage oral and intravenous anticoagulant therapy

Only with Complete Supervision	With Partial Supervision	With Minimal Supervision	Independently	Supervise/ Instruct
				

Relevant milestones are **PC1, MK2, SBP4, PROF3, ICS1**

This is intuitive for faculty

- Milestones and competencies are broken down into parts of the organic complexity of clinical care
- EPAs and entrustment scales allow clinicians to do what they do best – recognize good doctors, ones that they trust



Chart 1

The Two-Dimensional Matrix Relationship Between Entrustable Professional Activities (EPAs) and General Competencies*

		EPAs					
		Care of uncomplicated pregnancies	Normal delivery	Uncomplicated puerperium and neonate	The high risk complicated delivery	Perioperative care	Surgery estimated as low risk
ACGME competencies [†]	The ability to provide adequate <i>patient care</i>	●	●	●	●	●	●
	The possession and ability to apply <i>medical knowledge</i>	●	●	●	●	●	●
	The ability to <i>learn from clinical practice and to improve it</i>				●	●	
	The possession and ability to apply <i>interpersonal and communication skills</i>		●		●	●	
	The ability and commitment to carry out <i>professional responsibilities</i>	●		●		●	
	The awareness of and ability to operate optimally within the <i>context, system, and resources of health care</i>				●		●
<p><u>EPAs</u> are the focus of assessment, by observation, ratings or otherwise</p>							

ten Cate O, Scheele F. Acad Med. 2007 Jun;82(6):542-7.

Strategy: engage the faculty in creating EPA assessment tools

Vanderbilt

Rotation	EPAs completed?	Author(s)
Morgan	yes	Sergent
VA Wards	yes	Sergent
VA MICU/CCU	yes	Christman
MICU (VU)	yes	Christman
CVICU	yes	Fredi/McPherson
Continuity Clinic	yes	Moutsios/Peterson/Yakes
Harrison Cardiology	yes	Naftilan
Heart Failure	yes	Schlendorf
Arrhythmia Consults	yes	Whalen
Cardiology Consults	yes	Slosky
Oncology-inpatient	yes	Gilbert
Oncology-outpatient	yes	Horn
Hematology-inpatient	yes	Neff
Hematology-opt/consults		Morgan
Renal-Rogers/consults	yes	Dwyer
Pulmonary-Rogers	yes	Christman
Pulmonary consults	yes	Christman
ID-Rogers	yes	Yakes
ID consults	yes	Wright
GI-Rogers	yes	Sumner
GI consults	yes	Sumner
Hepatology-Rogers	yes	Perri
Palliative Care	yes	El-Sourady
Geriatrics	yes	Powers
Endocrinology		Utz

University of Cincinnati

- Chosen by faculty representatives
- Vetted by entire faculty
- Used to construct rotation curricula and assessment forms
- Refined over time

Warm, *J Gen Int Med* 2014;29:1177-82



Alliance for Academic Internal Medicine

Association of Professors of Medicine
 Association of Program Directors in Internal Medicine
 Association of Specialty Professors
 Clerkship Directors in Internal Medicine
 Administrators of Internal Medicine

AAIM Perspectives

AAIM is the largest academically focused specialty organization representing departments of internal medicine at medical schools and teaching hospitals in the United States and Canada. As a consortium of five organizations, AAIM represents department chairs and chiefs; clerkship, residency, and fellowship program directors; division chiefs; and academic and business administrators as well as other faculty and staff in departments of internal medicine and their divisions.

The Next Accreditation System: A Strategy for Implementing New Reporting Standards Using a Hematology/Oncology Model



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***Am J Med* 2015; 128:202-7.**

Table 2 Entrustable Professional Activities for Hematology/Oncology

1. Gathers and synthesizes patient- and disease-specific information necessary to understand the presenting hematologic or oncologic disorder
2. Demonstrates the ability to diagnose and assign stage or severity of hematology and oncology disorders in all adult age groups
3. Formulates the overall plan for hematology and oncology disorders, including urgent/emergent conditions
4. Demonstrates the ability to analyze response to treatment and adjust therapy for hematology or oncology disorders over time using standard measurements and guidelines
5. Demonstrates the ability to anticipate, recognize, and effectively manage toxicities of systemic therapies
6. Demonstrates the ability to facilitate patient participation in clinical trials
7. Demonstrates the ability to effectively manage older adult patients with hematologic and oncologic diseases
8. Demonstrates understanding and effective application of principles of transfusion medicine
9. Demonstrates appropriate understanding and management of complications of transfusion
10. Demonstrates knowledge of, principles of, indications for, and complications from stem cell transplantation and ability to effectively manage these patients
11. Demonstrates the ability to effectively manage patients with pain, anxiety, and depression
12. Demonstrates the ability to effectively manage patients requiring palliative care, hospice care, or rehabilitation
13. Demonstrates the ability to effectively recognize and promote cancer prevention and control strategies and survivorship
14. Demonstrates the ability to effectively manage patients during transitions of care
15. Demonstrates competent performance of invasive procedures required for diagnosis, treatment, and management of patients with hematology and oncology
16. Demonstrates the ability to perform and interpret peripheral blood smears
17. Writes accurate and safe orders in the Electronic Medical Record for systemic therapy and supportive care
18. Requests and provides effective consultative care for patients with hematologic and oncologic diseases
19. Demonstrates a fund of knowledge in solid tumor oncology, malignant hematology, and non-neoplastic hematology
20. Demonstrates knowledge of and indications for genetic, genomic, molecular, and laboratory tests related to hematologic and oncologic disorders
21. Delivers safe, effective, patient-centered, cost-efficient care, and advocates for system improvements
22. Demonstrates personal habits of lifelong learning and self-improvement
23. Cares for patients in a manner that supersedes self-interest
24. Communicates effectively and compassionately with patients, caregivers, and interprofessional teams during all phases of care
25. Demonstrates appropriate use and completion of health records and procedure documents
26. Works effectively within an interprofessional team

Competence in each of these clinical activities expected to be demonstrated by all graduates of combined fellowships in Hematology/Oncology. Each EPA has significant developmental points that help define the training trajectory for each fellow.

EPA = Entrustable Professional Activity.

Table 3 Selected Rotations for Hematology/Oncology Training Programs			
A	Inpatient Consultative Service Evaluation		
EPA	Observable Skill or Behavior	Curricular Milestone	Reporting Milestone
1	Gathers and synthesizes patient- and disease-specific information necessary to understand the presenting hematologic or oncologic disorder	PC1a	PC1
2	Demonstrates the ability to diagnose and assign stage or severity of hematology and oncology disorders in all adult age groups	PC2a	PC2
3	Formulates the overall plan for hematology and oncology disorders, including urgent/emergent conditions	PC2b	PC2
5	Demonstrates the ability to anticipate, recognize, and effectively manage toxicities of systemic therapies	PC2d	PC2
12	Demonstrates the ability to effectively manage patients requiring palliative care, hospice care, or rehabilitation	PC2k	PC2
14	Demonstrates the ability to effectively manage patients during transitions of care	PC2m	PC2, SBP4
17	Writes accurate and safe orders in the Electronic Medical Record for systemic therapy and supportive care	PC4c	PC4b
18	Requests and provides effective consultative care for patients with hematologic and oncologic diseases	PC5	PC5
24	Communicates effectively and compassionately with patients, caregivers, and interprofessional teams during all phases of care	ICS1	ICS1

Am J Med 2015; 128:202-7.

EPA Evaluation System

- Entrustable professional activities written for each rotation with the help of the generalist division and each subspecialty
 - Program Evaluation Committee
- Each entrustable activity mapped back to the milestones

Inpatient Obstetrics - OBGYN Milestones c. 2016

[Insufficient contact to evaluate](#) (delete evaluation)

	Does not have basic knowledge	Basic knowledge, but requires complete supervision	Partial supervision	Minimal supervision	Practices independently, supervises lower level learners	Innovative practice
1. Demonstrates a comprehensive understanding of the presentation of medical and obstetrical complications of pregnancy, appropriately counsels patients and makes cost effective management plans, including consults when appropriate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Provides care and communicates plans for women with abnormal labor or complex intrapartum conditions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Performs complicated vaginal deliveries/operative vaginal deliveries independently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Appropriately consents patient for and performs a complicated cesarean.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Recognizes, repairs and manages obstetrical lacerations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Recognizes and manages obstetrical emergencies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Provides postpartum care and directed counseling; recognizing and managing complications while considering cost and socioeconomic barriers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Manages the obstetrical service, teaching others and serving as a consultant.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Consistently models compassion, integrity and respect for others, navigates ethically complex situations and coaches others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

* Required fields [Option description](#) (place mouse over field to view)

Reset Form

Submit completed evaluation

Submit

PC9-1: Verbalizes basic knowledge about common contraceptive options.

ICS1-1: Demonstrates adequate listening skills. Communicates effectively in routine clinical situations

GYN 3. Effectively manage complications of pregnancy terminations and ectopic pregnancy.

Basic knowledge but requires complete supervision

ICS3-1: Understands The importance of informed consent

PROF3-1: Understands the importance of respect for patient privacy and autonomy Understands the ethical principles of appropriate physician relationships

Rotations:	Current Assessment Tool(s)	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8	PC9	PC10	PC11	MK1	MK2	MK3	MK4
1. Inpatient Obstetrics		X	X	X	X					X		X				
2. Inpatient Gynecology							X	X	X				X	X	X	X
3. Office Practice		X								X	X	X		X	X	X
4. Gynecology Oncology							X	X	X				X			X
5. Urogynecology								X	X				X			
6. Maternal Fetal Medicine		X			X							X				
7. Reproductive Endo. Inf.									X		X	X	X		X	X
8. Pediatric/Adolescent Gyn									X	X	X			X	X	
9. Resident Peer Evaluation		X	X	X	X		X	X	X	X		X	X	X	X	X
	Totals:	4	2	2	3	0	3	4	6	4	3	5	5	4	5	5

Our Experience

- Improved correlation between observed performance and evaluation score
- Improved faculty ratings, subjective comments of evaluation tools.
- Areas for improvement
 - Correct under/over mapping of certain milestones

YOU CAN
OBSERVE A LOT
BY JUST WATCHING

Yogi Berra

