



University of California
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EPAs: A Framework to Guide Learning and Assessment Across the Continuum of Medical Education

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<http://www.ucsfcmecme.com/MedEd21c/>



#UCSFMedEd21

Objectives

- Understand key features of EPAs and strategies for assessment
- Identify advantages and disadvantages of two different competency assessment forms (tools)
- Interpret EPA-based assessment data and use it to create a learning plan and make a competency decision
- Detail how you might implement an EPA-based assessment framework in your setting

Workshop Plan

- Definitions, Terms, and Frameworks (Henry)
 - Development of an assessment form

 - Competency-Based Assessment (Long)
 - Compare and Contrast Forms

 - Practice interpreting real assessment data (West)
 - Develop learning plans
 - Make competency (entrustment) decisions

 - Implementation and barriers (West)

 - Take home points and questions
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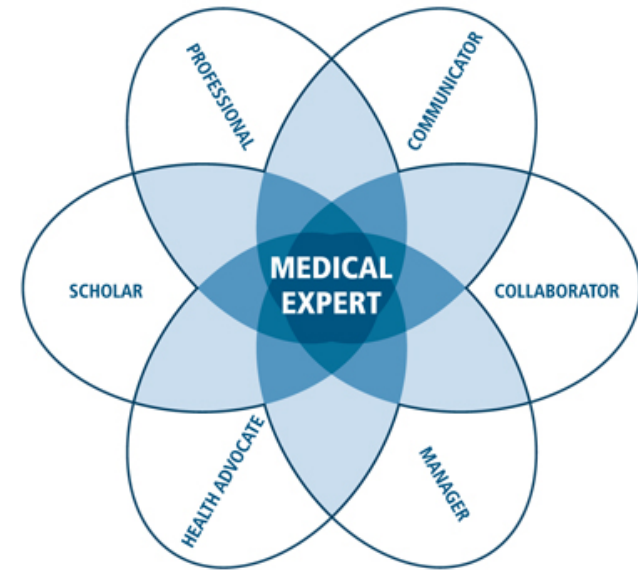
Competency-Based Medical Education: Definitions, Terms, Framework

- For this activity you will be using Worksheet #1

Competency Frameworks

ACGME (US)

- ▶ Patient care
- ▶ Medical knowledge
- ▶ Practice based learning and improvement
- ▶ Interpersonal and communication skills
- ▶ Professionalism
- ▶ Systems-based practice



The Scottish Doctor

12 outcome domains by

- What doctor able to do
- How doctor approaches practice
- Doctor as professional



Tomorrow's Doctors (UK)

The Doctor as:

- 1) Scholar and Scientist
- 2) Practitioner
- 3) Professional

Entrustable Professional Activities (EPAs)

- Concrete clinical activities that a physician (e.g. pediatrician) performs
 - Defines what it is to be a resident (or pediatrician)
- Requires synthesis of ACGME or LCME Milestones
- Competency standard based on level of supervision required
 - Goal is to do activity unsupervised
- Individualized to trainee and criterion-based (rather than normative-based)

EPA: Examples

For Undergraduate Medical Education

- Gather a history and perform a physical examination (EPA #1)



For Graduate Medical Education

- Manage patients with acute, common diagnoses in emergency, ambulatory, and inpatient settings (Pediatrics EPA #4)



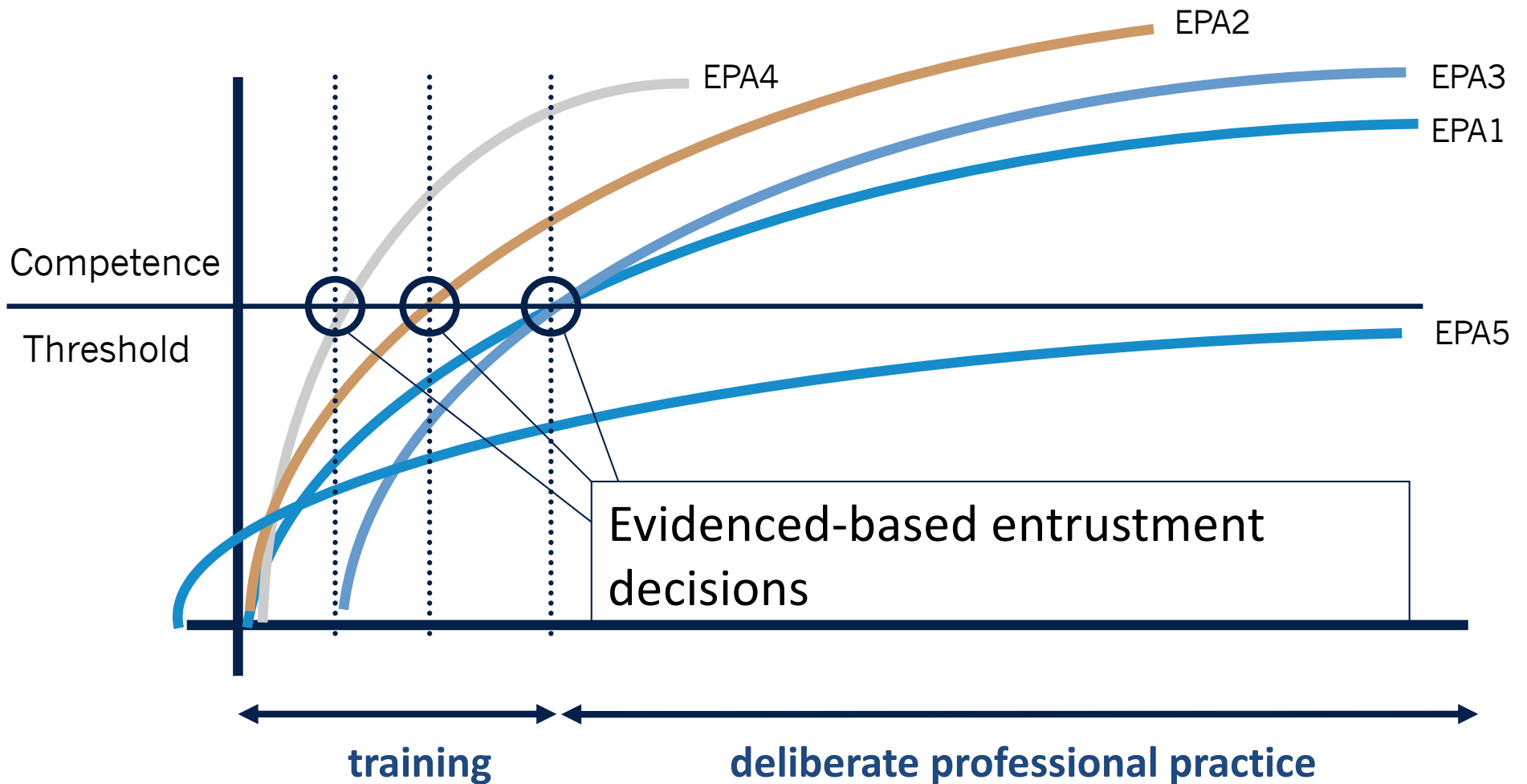
Competencies and EPAs

		Competencies (eg. Milestones)					
EPA		1	2	3	4	5	6
Observable	A	XX			X	XXX	
	B		XX	XX			X
	C	X			XXX		
	D	X		X			XXX
	E		XX			XX	

Inferred

When is Competency Achieved?

EPA Competency on a Continuum



EPA Assessment Building Activity (12 min)

- Choose an EPA
 - UME (H&P) or GME (Management of common problems)

- Using the handout and worksheet
 - Identify observable activities nested within that EPA
 - Outline a strategy to obtain supervisor's data
 - Reflect on how data from your EPA assessment might guide feedback and group competency decisions

Assessment of Competency: Compare and Contrast Assessment Forms

- For this activity you will be using Worksheet #2

Example Competency Based Form

Traditional Competency Based Form: Clerkships Sample

Dates:
Activity:

The evaluation items below are organized by competencies. Please provide specific performance-based comments in each of the competency domains based on your experience with the student. If you select a rating that is lower than a 3, please provide an explanation for the rating in the constructive comments section so that the student can improve.

View MD competencies and milestones [here](#).
View the clerkship objectives [here](#).

Competency domain: Patient Care

History Taking - Competency: Patient Care (Question 1 - Mandatory)

		1		2		3		4
		Below Expected Competency Extremely disorganized. Consistently lacks focus		Near Expected Competency History with "holes". Lack of skills in conducting interview. Incomplete problem list. Often poorly focused and missed the forest for the trees		At Expected Competency History thorough, interview technique adequate. Symptom list and patient problem identification adequate and logical		Above Expected Competency Comprehensive, thorough, precise. Excellent skill in interview technique, problem identification and characterization. Consistently able to isolate and focus on key patient problems
Not Observed - Not Applicable	0-1	1-2	2-3	3-4				
0	0.5	1	1.5	2	2.5	3	3.5	4

Physical Exam - Competency: Patient Care (Question 2 - Mandatory)

		1		2		3		4
		Below Expected Competency Does not conduct complete exam. Major deficiencies in technical quality of exam		Near Expected Competency Conducts complete exam, some areas show technical inadequacies		At Expected Competency Technically sound, complete exam. Generally recognizes and appropriately follows leads from history or other components of the exam		Above Expected Competency Thorough, detailed exam. Careful attention to areas relating to problems identified in history. Exam findings are consistently accurate
Not Observed - Not Applicable	0-1	1-2	2-3	3-4				
0	0.5	1	1.5	2	2.5	3	3.5	4

Oral Presentation: Patient Care (Question 3 - Mandatory)

Competency-Based Form: Close Up

Six Competencies
1-4 Sub-competencies for each

Competency Domain: Patient Care

History – Taking – Competency: Patient Care

		1		2		3		4		
		Below Expected Competency Extremely disorganized. Consistently lacks focus	1-2	Near Expected Competency History with "holes". Lack of skills in conducting interview. Incomplete problem list. Often poorly focused and missed the forest for the trees	2-3	At Expected Competency History thorough, interview technique adequate. Symptom list and patient problem identification adequate and logical	3-4	Above Expected Competency Comprehensive, thorough, precise. Excellent skill in interview technique, problem identification and characterization. Consistently able to isolate and focus on key patient problems		
Not Observed - Not Applicable	0-1	0	0.5	1	1.5	2	2.5	3	3.5	4

Specific Comments on **Patient Care** competence (suggested for MSPE)

Confidential Feedback (NOT for MSPE)

Example EPA Form

Specific Behaviors



EPA 4: Managing patients with acute common medical problems

This assessment should be based on your observations or impressions of this trainee while supervising them in managing patients with acute, common medical problems in your clinical setting.

Please indicate below how consistently this trainee did the following:

Behavior or Skill	Not Yet	At times, but not consistently	Consistently	Unable to Assess
Used illness scripts (i.e. representations of patient history, symptoms, and signs associated with a particular disease, syndrome, or condition) to compare and contrast different diagnostic considerations in patients				
Communicated with families and patients to build rapport and trust, such that families rarely sought reassurance from senior supervisors				
Developed well synthesized and focused diagnostic/therapeutic plans				
Created focused and succinct written documentation that also complied with billing requirements				

Supervision Scale



Indicate which statement BEST describes the level of supervision this trainee requires while doing this activity (EPA) in your clinical setting:

Pick one:

- Observation [observe supervisor performing activity]
- Co-activity [trainee and supervisor perform activity together, side-by-side]
- Full supervision [trainee performs activity with supervisor ready to immediately step in as needed]
- Full review [supervisor nearby, double-checks all findings or decisions]
- Partial review [supervisor nearby, double-checks only key findings or decisions]
- As needed review [supervisor distant, double-checks key findings or decisions at trainee's request]
- Unsupervised [trainee can perform activity without supervision]
- Supervise [trainee can supervise others in performing this activity]

EPA Framed Comments, Feedback



Briefly state at least one observation of the trainee's performance that supports the level of supervision you assigned:

Briefly state at least one thing (e.g. clinical or other experiences, specific skills that need further practice/development, demonstration of skills in other patients, etc.) that the trainee would need to demonstrate for you to advance them to the next level (i.e. more independence or less supervision):

Within 24 hours of completion, did you discuss the content of this assessment with the trainee? Yes/No

Did you and the trainee complete this form together? Yes/No

EPA Form: Specific Behaviors

EPA 4: Managing patients with acute common medical problems

This assessment should be based on your observations or impressions of this trainee while supervising them **in managing patients with acute, common medical problems** *in your clinical setting*.

Please indicate below how *consistently* this trainee did the following:

Behavior or Skill	Not Yet	At times, but not consistently	Consistently	Unable to Assess
Used illness scripts [i.e. representations of patient history, symptoms, and signs associated with a particular disease, syndrome, or condition] to compare and contrast different diagnostic considerations in patients				
Communicated with families and patients to build rapport and trust, such that families rarely sought reassurance from senior supervisors				
Developed well synthesized and focused diagnostic/therapeutic plans				
Created focused and succinct written documentation that also complied with billing requirements				

EPA Form: Supervision Scale

Indicate which statement BEST describes the level of supervision this trainee requires while doing this activity (EPA) *in your clinical setting*:

Pick one:

- Observation** [*observe* supervisor performing activity]
- Co-activity** [trainee and supervisor perform activity together, *side-by-side*]
- Full supervision** [trainee performs activity with supervisor ready to immediately *step in as needed*]
- Full review** [supervisor nearby, double-checks *all* findings or decisions]
- Partial review** [supervisor nearby, double-checks *only key* findings or decisions]
- As needed review** [supervisor distant, double-checks key findings or decisions *at trainee's request*]
- Unsupervised** [trainee can perform activity *without* supervision]
- Supervise** [trainee can *supervise others* in performing this activity]

EPA Form: EPA-Framed Feedback

Briefly state at least one observation of the trainee's performance that supports the level of supervision you assigned:

Briefly state at least one thing (e.g. clinical or other experiences, specific skills that need further practice/development, demonstration of skills in other patients, etc.) that the trainee would need to demonstrate for you to advance them to the next level (i.e. more independence or less supervision):

Within 24 hours of completion, did you discuss the content of this assessment with the trainee?

Yes/No

Did you and the trainee complete this form together?

Yes/No

Compare and Contrast Exercise (10 min)

- What are the benefits/strengths of each form?
- What are some problems with each form?
- How could each form could support/hinder coaching for clinical skills development?

Interpreting EPA-Based Assessment Data: Time to Practice

- For this activity you will be using Worksheet #3

Small Group Exercise (20 min):

- Review aggregate EPA-based assessment data
- Assign your own entrustment level
- Develop a learning plan with one goal/objective for this trainee
- Assign group consensus entrustment level

Example EPA Form

EPA 4: Managing patients with acute common medical problems

This assessment should be based on your observations or impressions of this trainee while supervising them in managing patients with acute, common medical problems in your clinical setting.

Please indicate below how consistently this trainee did the following:

Behavior or Skill	Not Yet	At times, but not consistently	Consistently	Unable to Assess
Used illness scripts [i.e. representations of patient history, symptoms, and signs associated with a particular disease, syndrome, or condition] to compare and contrast different diagnostic considerations in patients				
Communicated with families and patients to build rapport and trust, such that families rarely sought reassurance from senior supervisors				
Developed well synthesized and focused diagnostic/therapeutic plans				
Created focused and succinct written documentation that also complied with billing requirements				

Indicate which statement BEST describes the level of supervision this trainee requires while doing this activity (EPA) in your clinical setting:

Pick one:

- Observation [observe supervisor performing activity]
- Co-activity [trainee and supervisor perform activity together, side-by-side]
- Full supervision [trainee performs activity with supervisor ready to immediately step in as needed]
- Full review [supervisor nearby, double-checks all findings or decisions]
- Partial review [supervisor nearby, double-checks only key findings or decisions]
- As needed review [supervisor distant, double-checks key findings or decisions at trainee's request]
- Unsupervised [trainee can perform activity without supervision]
- Supervise [trainee can supervise others in performing this activity]

Briefly state at least one observation of the trainee's performance that supports the level of supervision you assigned:

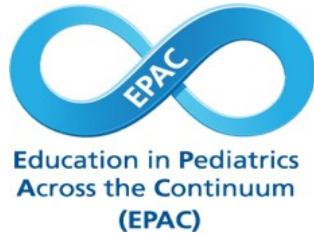
Briefly state at least one thing (e.g. clinical or other experiences, specific skills that need further practice/development, demonstration of skills in other patients, etc.) that the trainee would need to demonstrate for you to advance them to the next level (i.e. more independence or less supervision):

Within 24 hours of completion, did you discuss the content of this assessment with the trainee? Yes/No

Did you and the trainee complete this form together? Yes/No

Interpreting EPA-Based Assessment Data: Large Group Discussion (15 min)

- What were your reactions to this exercise?
- What did you think of this learner?
- Any advantages or disadvantages to this approach to assessment?



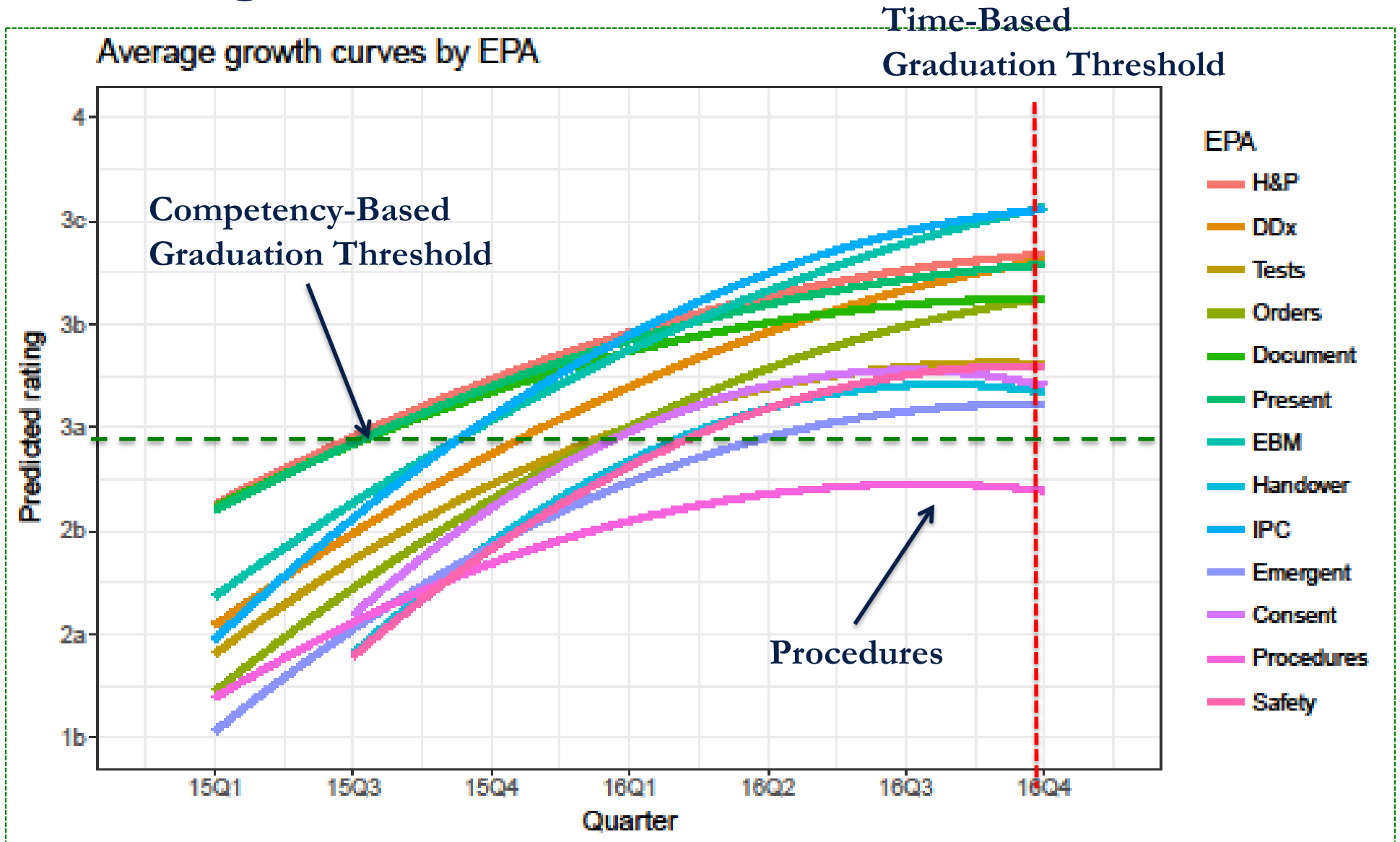
Education in Pediatrics Across the Continuum (EPAC)

- AAMC supported consortium of 4 schools
 - U Minnesota, U Colorado, U Utah, UCSF
- Test competency-based, time variable model of advancement from UME-GME-practice
- Pediatrics used as a model
- EPA-based Competency Framework

Entrustment/Supervision Scale

Proposed UME entrustment/supervision scale (EPAC, based on Chen, et al.) EPAS 1, 3, 4, 8, 10, 11, 12	Proposed UME entrustment/coaching scale (EPAC) EPAS 2, 5, 6, 7, 9, 13
1. Not trusted to practice EPA <ul style="list-style-type: none"> a. Inadequate knowledge/skill; not allowed to observe (e.g. sterile field issues) b. Adequate knowledge; some skill; allowed to observe 	1. Not trusted to practice EPA <ul style="list-style-type: none"> a. Inadequate knowledge/skill; not allowed to observe (sterile field issues) b. Adequate knowledge; some skill; allowed to observe
2. Trusted to practice EPA only under proactive/full supervision <ul style="list-style-type: none"> a. As coactivity with supervisor b. With supervisor in room ready to step in as needed 	2. Trusted to practice EPA with coaching <ul style="list-style-type: none"> a. As coactivity with supervisor (e.g., supervisor taking the lead but sharing the practice) b. With coaching from supervisor (e.g. learner taking the lead and supervisor guiding as needed)
EPAC WORKING THRESHOLD FOR GRADUATION	
3. Trusted to practice EPA under reactive/on-demand supervision <ul style="list-style-type: none"> a. With supervisor immediately available, all findings double checked b. With supervisor immediately available, key findings double checked c. With supervisor distantly available, (e.g., by phone), findings reviewed 	3. Trusted to practice EPA without coaching but with review <ul style="list-style-type: none"> a. All products double-checked b. Key products double-checked c. Overall practice of EPA reviewed
4. Trusted to practice EPA unsupervised	4. Trusted to practice EPA without coaching or review
5. Trusted to supervise others in practice of EPA	5. Trusted to coach others in practice of EPA

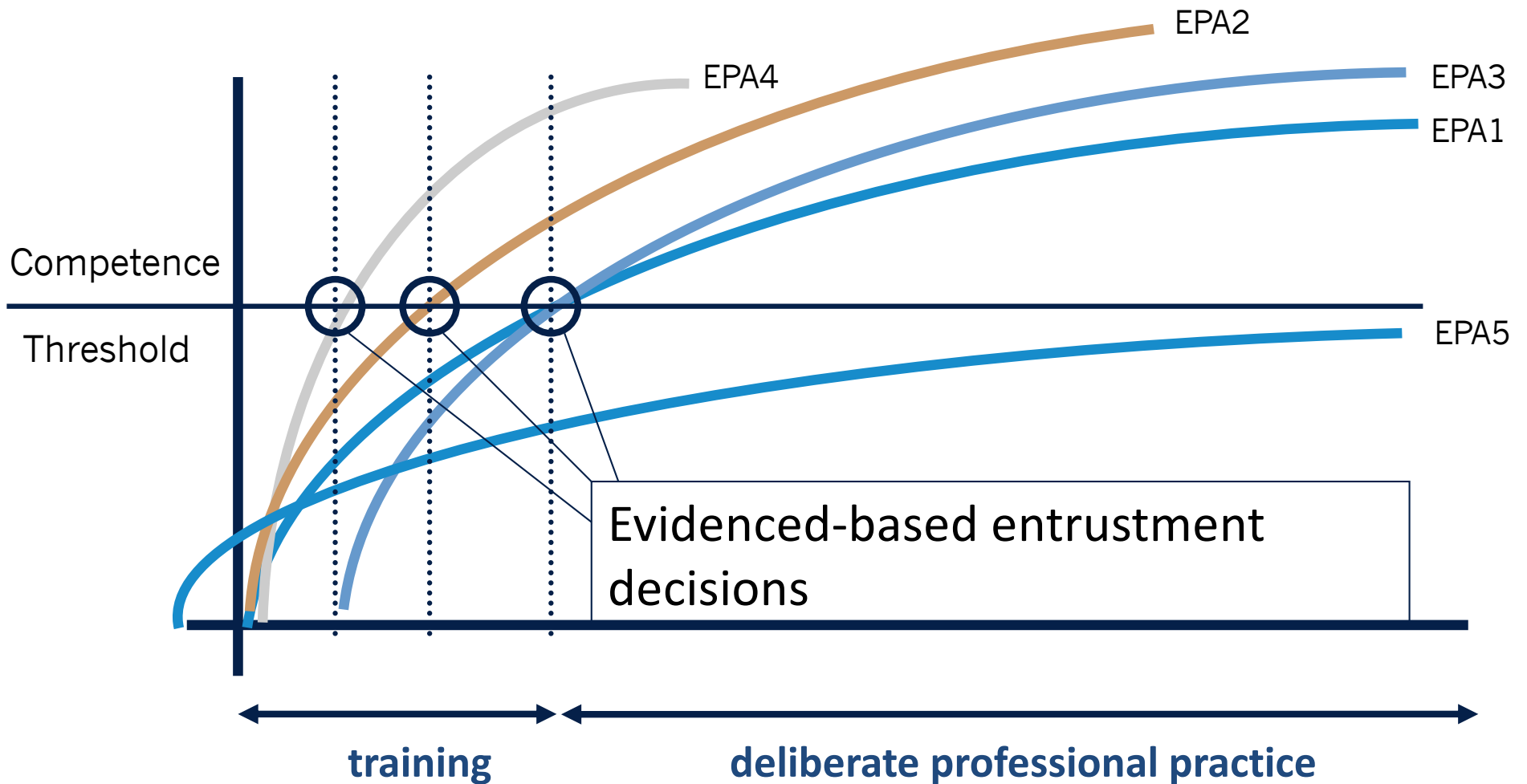
EPAC Example: Change in EPAs Over Time



Source: Alan Schwartz, PhD

When is Competency Achieved?

EPA Competency on a Continuum



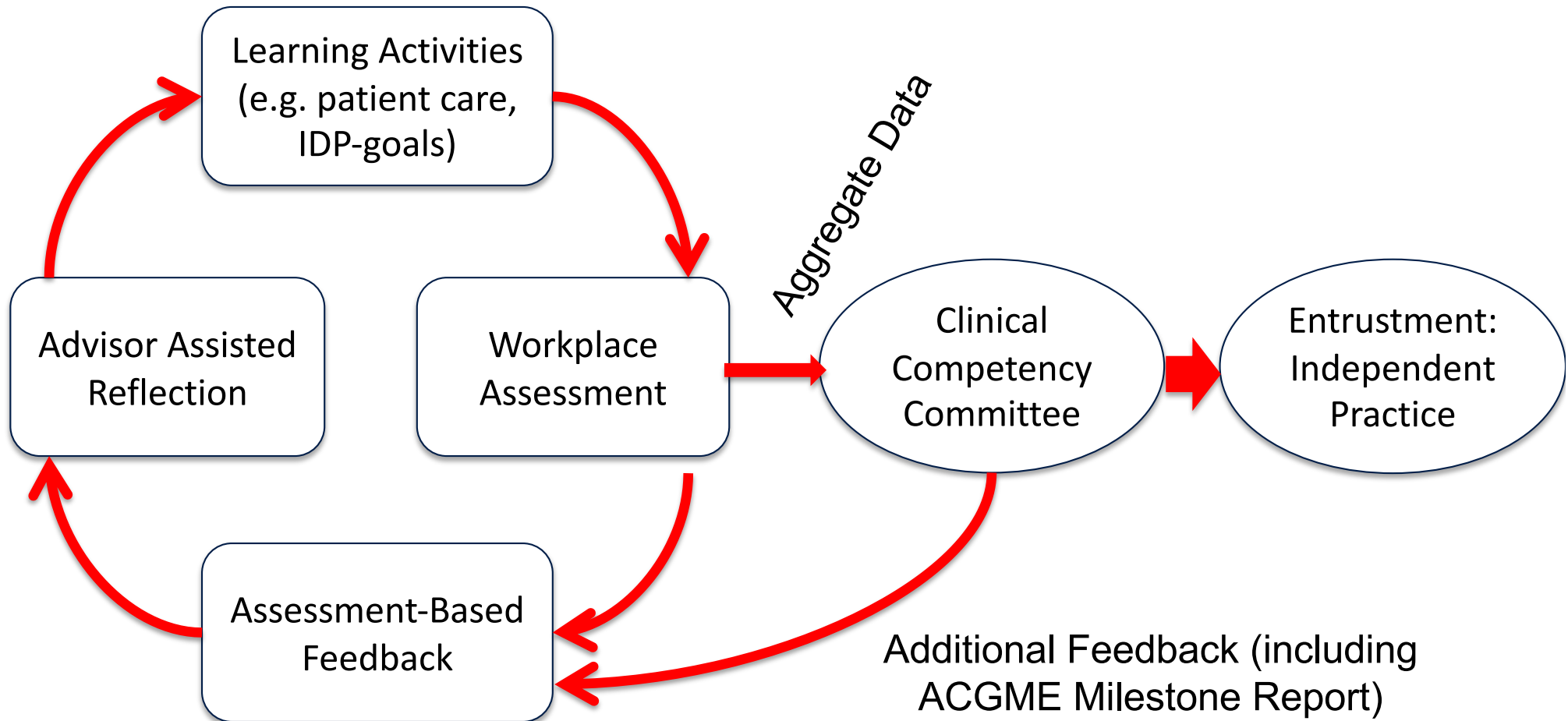
UCSF Pediatric GME Assessment: Based on ABP EPAs



1. Provide consultation to other health care providers caring for children
2. Provide recommended pediatric health screening
3. Care for the well newborn
4. Manage patients with acute, common diagnoses in an ambulatory, emergency, or inpatient setting.
5. Provide a medical home for well children of all ages. (Entrustment decisions for this EPA may require stratification by age group)
6. Provide a medical home for patients with complex, chronic, or special health care needs. (Entrustment decisions for this EPA may require stratification by age group)
7. Recognize, provide initial management and refer patients presenting with surgical problems
8. Facilitate the transition from pediatric to adult health care
9. Assess and manage patients with common behavior/mental health problems.
10. Resuscitate, initiate stabilization of the patient and then triage to align care with severity of illness (Entrustment decisions for this EPA may require stratification by two age groups: neonate and non-neonate).
11. Manage information from a variety of sources for both learning and application to patient care
12. Refer patients who require consultation
13. Contribute to the fiscally sound and ethical management of a practice (e.g. through billing, scheduling, coding, and record keeping practices)
14. Apply public health principles and quality improvement methods to improve care and safety for populations, communities, and systems
15. Lead and work within interprofessional health care teams
16. Facilitate handovers to another healthcare provider either within or across settings
17. Demonstrate competence in performing the common procedures of the general pediatrician

EPA Assessment Strategy at UCSF

A Vision of Assessment for Learning



EPA-Based Assessment: Implementation

Large Group Discussion

- How would you structure use of EPA-based assessment in your setting?
- What challenges and barriers to implementation might you expect?
- How would you approach implementation?

Summary and Take Home Points

- EPAs – just another competency framework
 - Make sense to learners and teachers
 - Provides intuitive criterion competency standard
- Assessment data (feedback) can support learning and competency decisions
- Implementation is challenging but achievable

UCSF is driven by the idea that great breakthroughs are achieved when the best research, the best education and the best patient care converge.



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Back-Up Slides

EPA Form: Specific Behaviors

Please indicate below how consistently this trainee did the following:

	Not yet	At times, but not consistently	Consistently	Unable to assess
	2	3	4	0
1. Used illness scripts [i.e. representations of patient history, symptoms, and signs associated with a particular disease, syndrome, or condition] to compare and contrast different diagnostic considerations in patients*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Communicated with families and patients to build rapport and trust, such that families rarely sought reassurance from senior supervisors*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Developed well synthesized and focused diagnostic/therapeutic plans*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Created focused and succinct written documentation that also complied with billing requirements*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EPA Form: Supervision Scale

Definition of Levels of Supervision

- Observation [observe supervisor performing activity]
- Co-activity [trainee and supervisor perform activity together, side-by-side]
- Full supervision [trainee performs activity with supervisor ready to immediately step in as needed]
- Full review [supervisor nearby, double-checks all findings or decisions]
- Partial review [supervisor nearby, double-checks only key findings or decisions]
- As needed review [supervisor distant, double-checks key findings or decisions at trainee's request]
- Unsupervised [trainee can perform activity without supervision]
- Supervise [trainee can supervise others in performing this activity]

	Observation	Co-Activity	Full Supervision	Full Review	Partial Review	As Needed Review	Unsupervised	Supervised
5. Indicate which statement BEST describes the level of supervision this trainee requires while doing this activity (EPA) in your clinical setting:*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EPA Form: EPA-Framed Feedback

6. Briefly state at least one observation of the trainee's performance that supports the level of supervision you assigned:

A large, empty rectangular text box with a thin black border, intended for the user to write an observation of the trainee's performance that supports the assigned supervision level.

7. Briefly state at least one thing (e.g. clinical or other experiences, specific skills that need further practice/development, demonstration of skills in other patients, etc.) that the trainee would need to demonstrate for you to advance them to the next level (i.e. more independence or less supervision):

A large, empty rectangular text box with a thin black border, intended for the user to state at least one thing the trainee would need to demonstrate for advancement to the next level.

EPA Form: EPA-Framed Feedback

	No	Yes
8. Within 24 hours of completion, did you discuss the content of this assessment with the trainee?	<input type="radio"/>	<input type="radio"/>
9. Did you and the trainee complete this form together?	<input type="radio"/>	<input type="radio"/>

EPA 1: Gather a history and perform a physical examination
 (Primary authors: Stephanie Call, Tracy Fulton)

EPA 2: Prioritize a differential diagnosis following a clinical encounter
 (Primary authors: Maureen Garrity, Brenessa Lindeman)

EPA 3: Recommend and interpret common diagnostic and screening tests
 (Primary authors: Steven Lieberman, Monica Lypson)

EPA 4: Enter and discuss orders and prescriptions
 (Primary authors: Rebecca Minter, Jay Rosenfield)

EPA 5: Document a clinical encounter in the patient record
 (Primary authors: Carol Carraccio, Lynn Cleary)

EPA 6: Provide an oral presentation of a clinical encounter
 (Primary authors: Rebecca Minter, Jay Rosenfield)

EPA 7: Form clinical questions and retrieve evidence to advance patient care
 (Primary authors: Stephanie Call, Tracy Fulton)

EPA 8: Give or receive a patient handover to transition care responsibility
 (Primary authors: Joe Thomas, Mark Wilson)

EPA 9: Collaborate as a member of an interprofessional team
 (Primary authors: Carol Carraccio, Lynn Cleary)

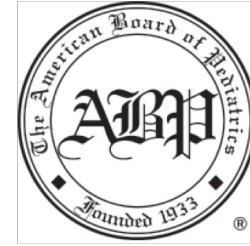
EPA 10: Recognize a patient requiring urgent or emergent care and initiate evaluation and management
 (Primary authors: Joe Thomas, Mark Wilson)

EPA 11: Obtain informed consent for tests and/or procedures
 (Primary authors: Robert Englander, Timothy Flynn)

EPA 12: Perform general procedures of a physician
 (Primary authors: Maureen Garrity, Brenessa Lindeman)

EPA 13: Identify system failures and contribute to a culture of safety and improvement
 (Primary author: Robert Englander)

American Board of Pediatrics: EPAs for General Pediatrics



1. Provide consultation to other health care providers caring for children
2. Provide recommended pediatric health screening
3. Care for the well newborn
4. Manage patients with acute, common diagnoses in an ambulatory, emergency, or inpatient setting.
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7. Recognize, provide initial management and refer patients presenting with surgical problems
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10. Resuscitate, initiate stabilization of the patient and then triage to align care with severity of illness (Entrustment decisions for this EPA may require stratification by two age groups: neonate and non-neonate).
11. Manage information from a variety of sources for both learning and application to patient care
12. Refer patients who require consultation
13. Contribute to the fiscally sound and ethical management of a practice (e.g. through billing, scheduling, coding, and record keeping practices)
14. Apply public health principles and quality improvement methods to improve care and safety for populations, communities, and systems
15. Lead and work within interprofessional health care teams
16. Facilitate handovers to another healthcare provider either within or across settings
17. Demonstrate competence in performing the common procedures of the general pediatrician