Progress of Trust:

How do you evaluate your trainees in everyday practice?

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Original Publication

Entrustable Professional Activities: A Faculty Development Workshop for Adding EPAs Into Your Medical Trainee's Assessment Portfolio

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Abstract

Objectives

- Understand competency based education models

- Describe use of entrustable professional activities (EPAs) in assessment of competency progression in interdisciplinary residency training

Outline

- Brief history of competency based medical education

- ACGME competencies and milestones

- EPA's and their assessment

- Examples of competency based education in pediatrics and pharmacy
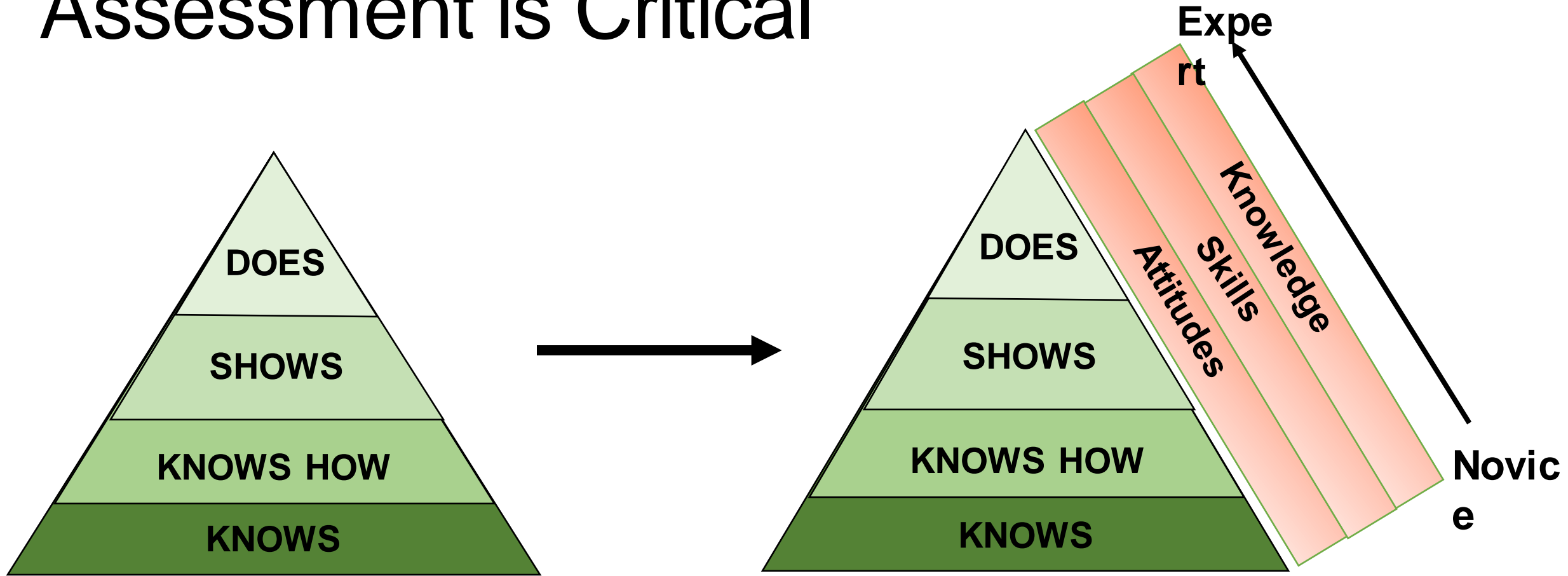
Time-Based Teaching Model

- Unit of Progression: Time

- Teacher-Centered

- Knowledge Acquisition

- Locally Defined Objectives

Sullivan 1995
Frenk 2010
Snell 2010
Tekian 2015
ten Cate 2015

Outcome-Based Model

- Unit of Progression: Mastery

- Learner-Centered

- Knowledge Application

- Community-Based Objectives

Sullivan 1995
Frenk 2010
Snell 2010
Tekian 2015
ten Cate 2015

Assessment is Critical

Miller 1990
Snell 2010
Tekian 2015
ten Cate 2015

ACGME Competencies & Milestones

1. Medical Knowledge

2. Patient Care

3. Professionalism

4. Interpersonal Communication

5. Practice-based Learning: personal improvement

6. System-based Practice: system improvement

Milestones Examples

Patient Care 1: History

Level 1	Level 2	Level 3	Level 4	Level 5
Gathers information strictly following a template	Adapts template to filter and prioritize pertinent positives and negatives based on broad diagnostic categories or possible diagnoses	Filters, prioritizes, and synthesizes the history to develop a differential diagnosis in real-time for uncomplicated or typical presentations	Filters, prioritizes, and synthesizes the history to develop a differential diagnosis in real time for complicated or atypical presentations	Recognizes and probes subtle clues from patients and families; distinguishes nuances among diagnoses to efficiently drive further information gathering

Comments:

Not Yet Completed Level 1
Not Yet Assessable

Patient Care 5: Patient Management

Level 1	Level 2	Level 3	Level 4	Level 5
Reports management plans developed by others	Participates in the creation of management plans	Develops an interdisciplinary management plan for common and typical diagnoses	Develops and implements informed management plans for complicated and atypical diagnoses, with the ability to modify plans as necessary	Serves as a role model and coach for development of management plans for complicated and atypical diagnoses, with the ability to modify plans as necessary

Comments:

Not Yet Completed Level 1
Not Yet Assessable

Medical Knowledge 2: Diagnostic Evaluation

Level 1	Level 2	Level 3	Level 4	Level 5
Lists basic evaluation (e.g., diagnostic testing and consultation) for common diagnoses, with prompting	Recommends broad evaluation based on an unfocused differential diagnosis	Recommends focused evaluation based on a prioritized differential diagnosis	Prioritizes and optimizes evaluation based on risks, benefits, indications, and alternatives to clarify the diagnosis(es)	Educates others about risks, benefits, indications, and alternatives to guide diagnostic decision making
Reports results of diagnostic studies	Identifies clinically significant diagnostic study results, with guidance	Interprets clinical significance of diagnostic study results	Interprets clinical significance of diagnostic study results while considering study limitations	Teaches others to interpret clinically significant results and consider study limitations

Comments:

Not Yet Completed Level 1
Not Yet Assessable

Systems-Based Practice 2: Quality Improvement

| Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of basic quality improvement methodologies and metrics	Describes local quality improvement initiatives (e.g., community vaccination rate, infection rate, smoking cessation)	Participates in local quality improvement initiatives	Demonstrates the skills required to identify, develop, implement, and analyze a quality improvement project	Creates, implements, and assesses quality improvement initiatives at the institutional or community level

Comments:

Not Yet Completed Level 1

On-Going Assessment Challenges & Gaps with CBME

- Individual milestone achievement ⇏ ability to practice patient care

- Fail to match daily clinical work

- Do not allow for *in situ* direct observation

- No assessment of integration or application to:
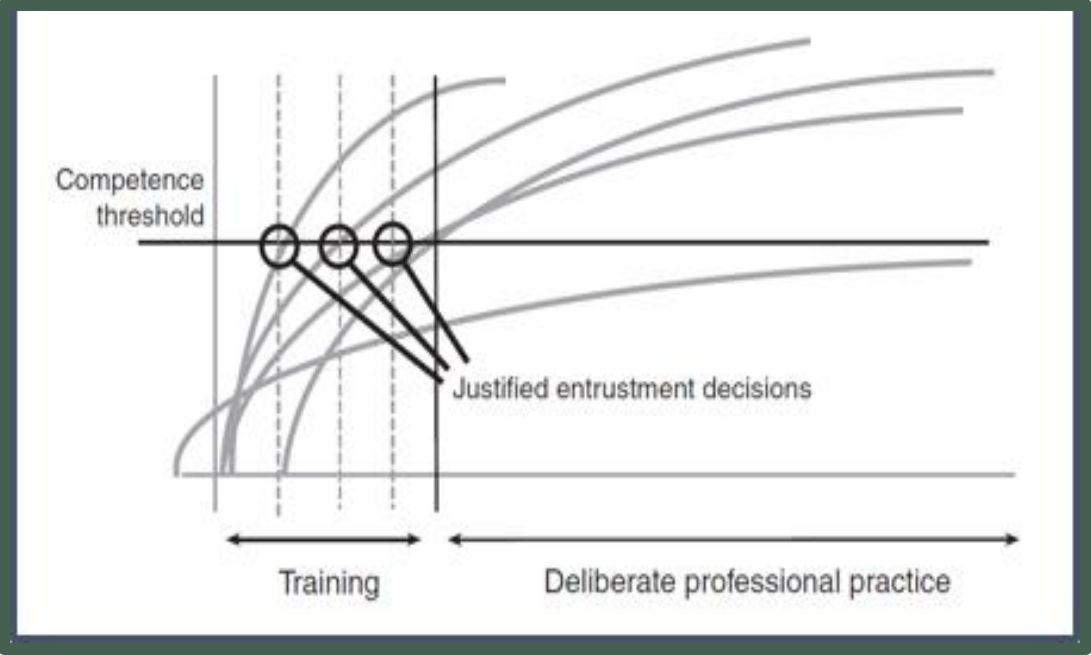 - Novel patient cases
  - Different clinical contexts

AAMC: CEPAER
Chen 2015
ten Cate 2015

Development of the Trainee as a Professional
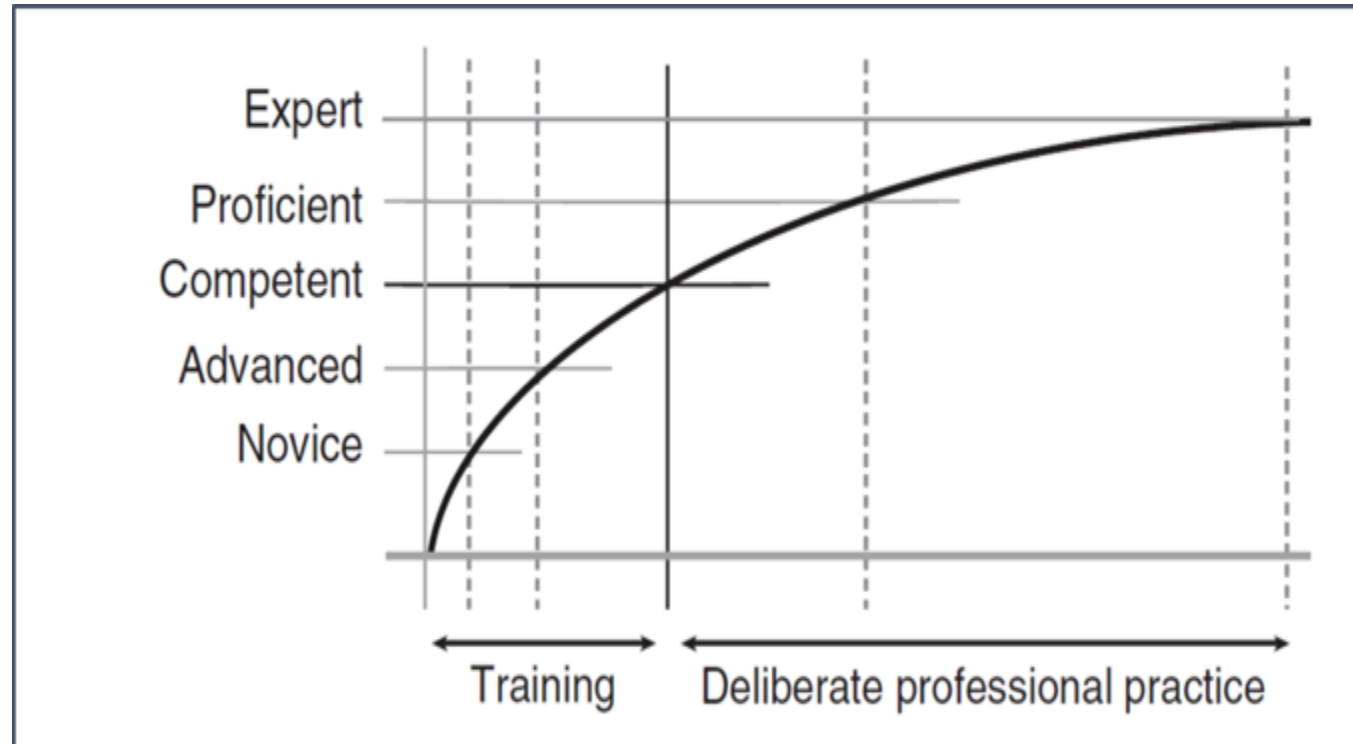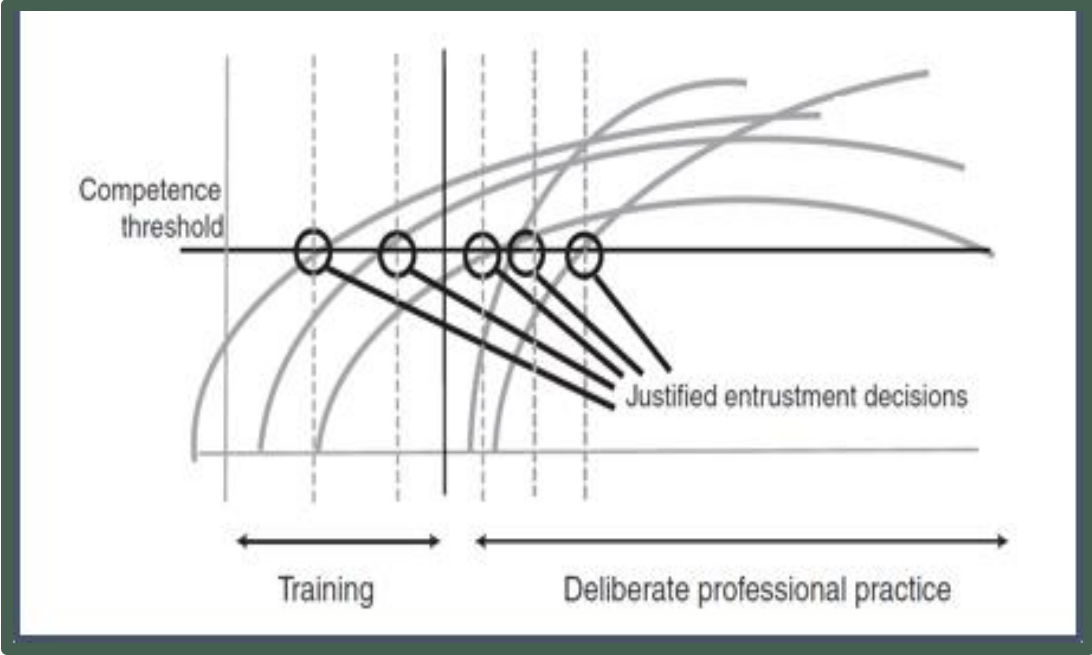
Reality...

Trainee A

Trainee B

Possible Solution…

- Cluster milestones for practical assessment

- Incorporate decision of trust or independence

Entrustable Professional Activities

Social Influence

"Competencies can be operationalized and assessed by linking them with professional activities"

ten Cate 2005

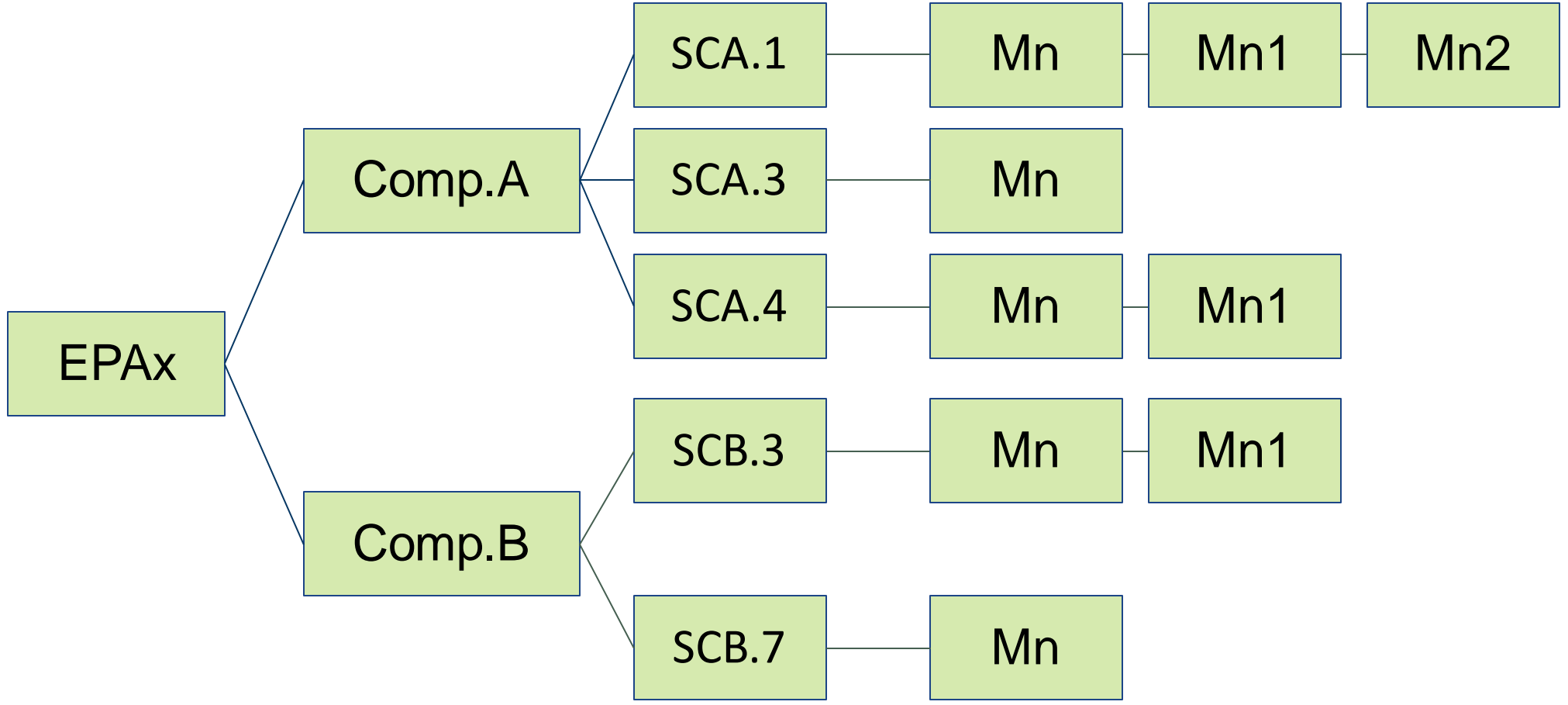# Defining Entrustable Professional Activities

- Medical education outcomes

- Defined as critical professional activities

- A provider is entrusted to perform

- Integration of knowledge, skills & attitudes

Chen 2015
ten Cate 2005
ten Cate 2015
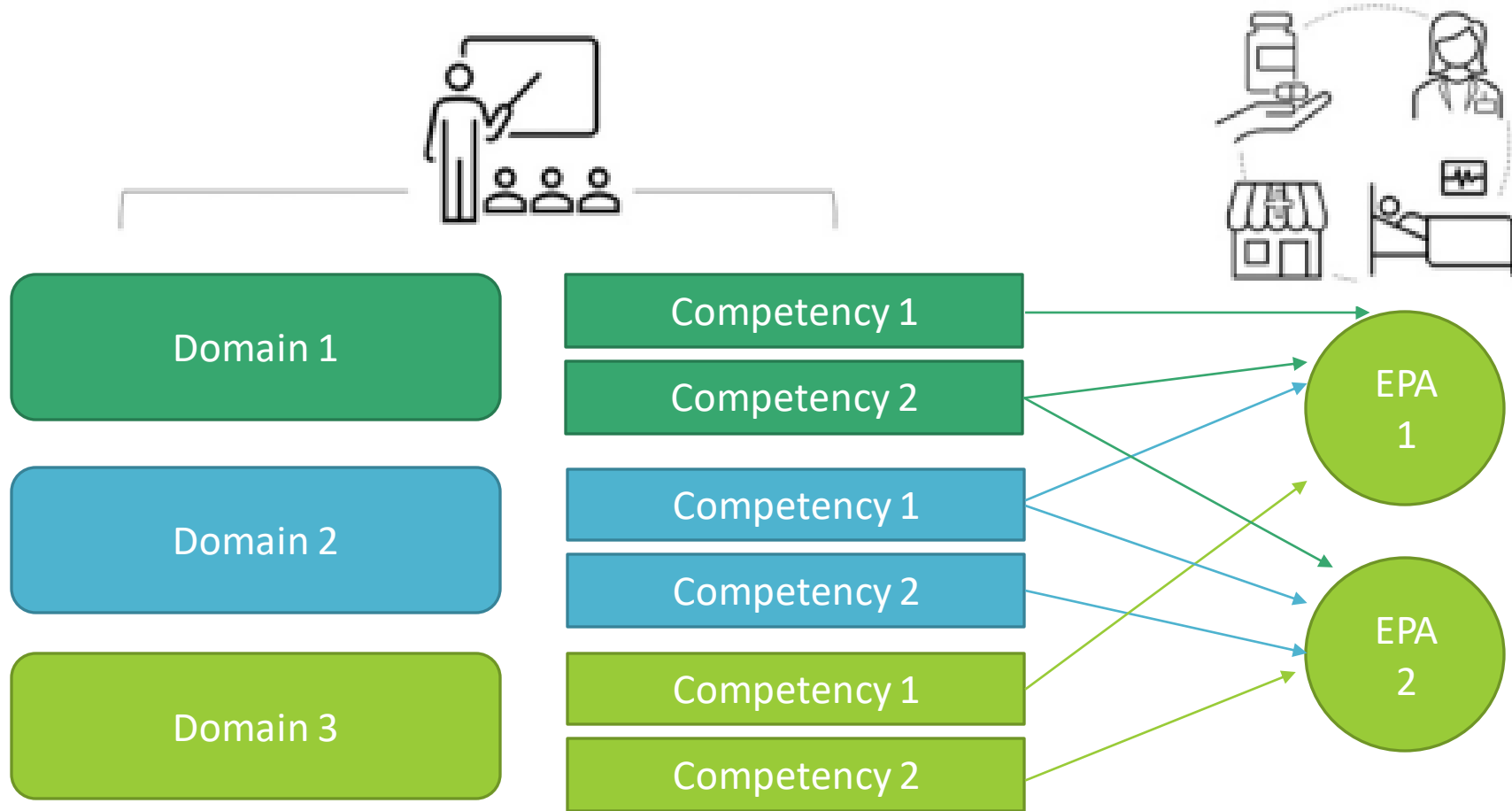
	Competency/Learning Objective	**Entrustable Professional Activities**
Context	Classroom	Workplace
Represents	Granular definitions of what is a good practitioner	Day to day work
Assessment	Traditional (exams, etc.)	Supervision of activities
History	Long history of how we think about learnes	New and intended for residency-to-practice transition

Persky 2021

Assessing EPAs: Entrustment Decisions

Permission to provide supervision to junior trainees

Permission to act under distant supervision

Permission to act with indirect supervision

Permission to act with direct supervision

No permission to act

Entrustable Learner

Pre entrustable Learner

ten Cate 2015
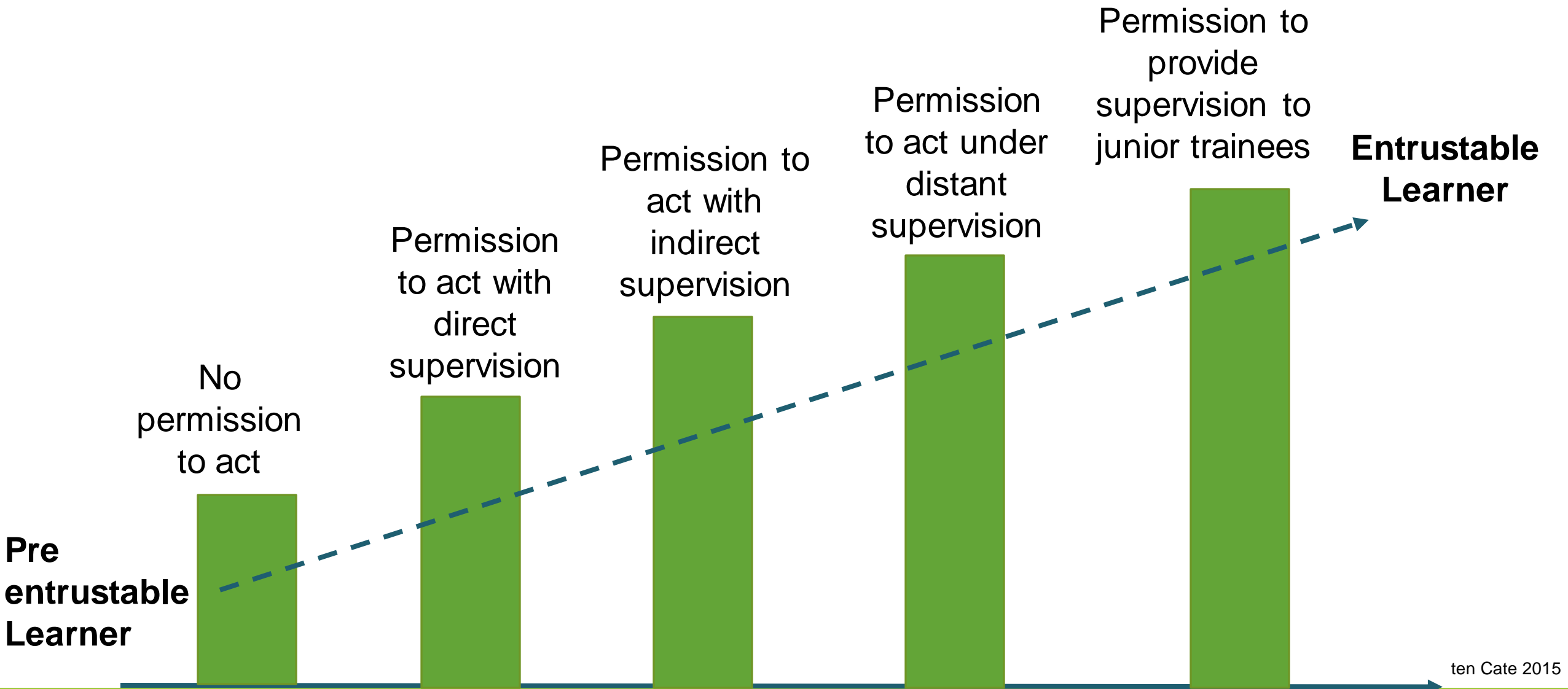
Using EPAs to Assess the Continuum of Training

M3: Recognize a patient requiring emergent care (cardiopulmonary arrest)

M4: Discuss differential diagnosis and management of cardiopulmonary arrest

PGY1: Institute initial management of cardiopulmonary arrest

PGY3: Act as code team leader in cardiopulmonary arrest

UGME

GME

Lyss-Lerman 2009
AAMC: CEPAER
Chen 2015
WATCHME
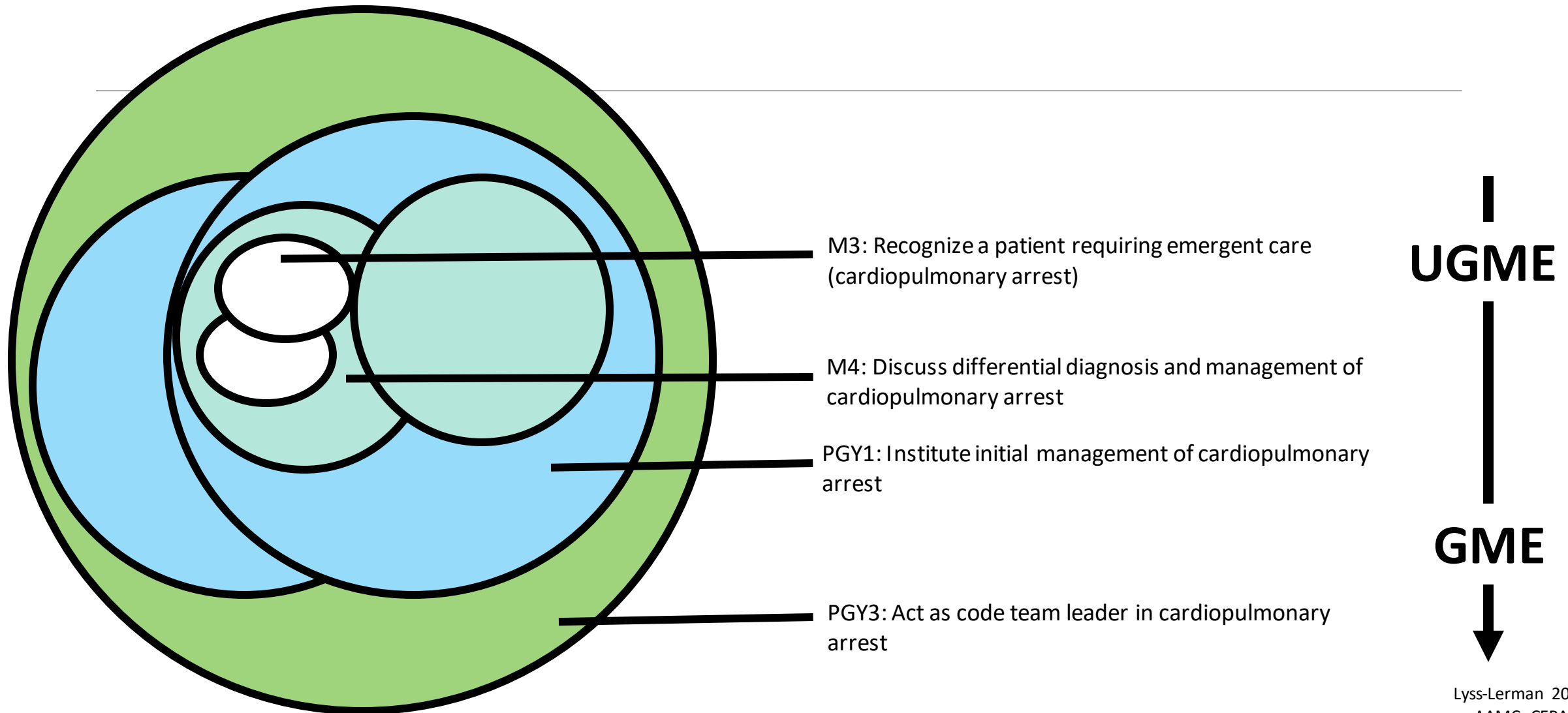
Preceptor and Resident Perceptions of EPAs for Postgraduate Pharmacy Training

| Traditional Summative Evaluation Scale	EPA Rating Scale
NI = Needs Improvement	Level 1: Resident is trusted to only observe this skill even with direct supervision
SP = Satisfactory Progress	Level 2: Resident is trusted to perform this skill with direct, proactive supervision
ACH = Achieved	Level 3: Resident is trusted to perform this skill with reactive supervision (i.e. preceptor is available quickly on request)
	Level 4: Resident is trusted to perform this skill with supervision at a distance or after completion of the activity
	Level 5: Resident is trusted to teach this skill to more junior colleagues

Moon 2018

Preceptor and Resident Perceptions of EPAs for Postgraduate Pharmacy Training

Preceptor: EPA rating scale helpful for assessing learning objective/skill progression
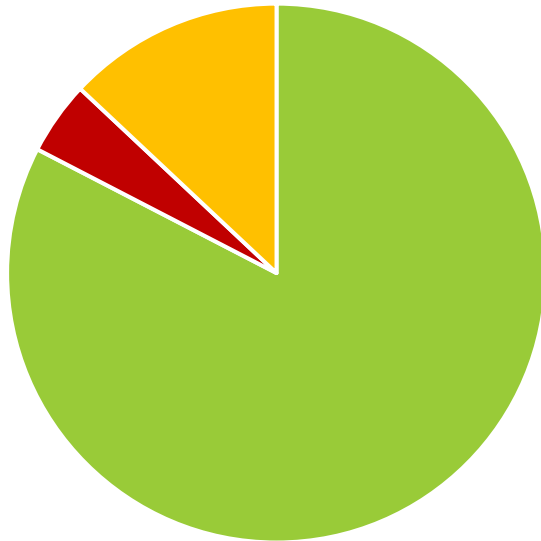
Resident: EPA rating scale helpful for assessing learning objective/skill progression

■ Yes (n=19) ■ No (n=1) ■ Not sure (n=4)
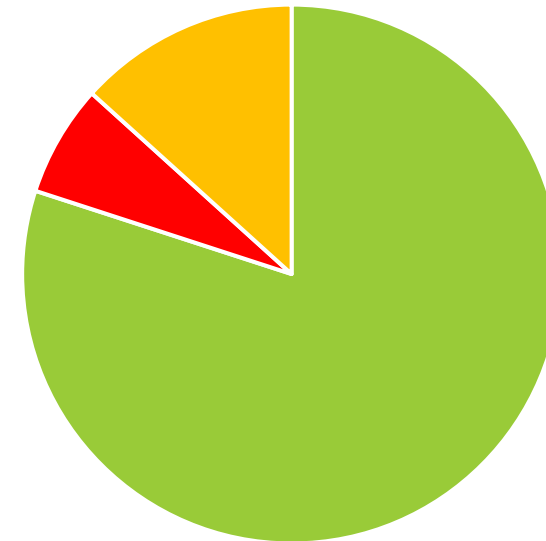
■ Yes (n=12) ■ No (n=1) ■ Not sure (n=2)

3/4 of preceptors and 2/3 of residents agreed that the EPA rating scale is more helpful compared to a traditional rating scale (e.g. needs improvement, satisfactory progress, needs improvement)

Moon 2018