Entrustable Professional Activities (EPA)

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I have nothing to disclose
Hello. This is the Alternative Environmental Protection Agency Twitter Account activated to circumvent censorship.
**Definition**: A unit of professional practice (task) that can be entrusted to a sufficiently competent learner (trainee) as soon as they demonstrate the necessary competence to execute this activity unsupervised.

Ten Cate et al. 2015
Definition: Entrustable Professional Activities (EPAs)

The EPA concept allows faculty to make competency-based decisions on the level of supervision required by a trainee.

“EPAs are the acts in professional work that really matter. Competencies are an abstract description of capabilities of persons. EPAs just constitute the work that must be done”

Ten Cate, Billet 2014
EPAs

- EPAs are NOT an alternative for competencies, but a means to translate competencies into clinical practice.
- Competencies are descriptor of physicians, EPAs are descriptors of work
- EPAs require multiple competencies in a holistic nature
Curriculum development for the workplace using Entrustable Professional Activities (EPAs): AMEE Guide No. 99

Practice points

- Entrustable professional activities (EPAs) are an emerging concept used in the implementation of competency-based medical education.
- An EPA is a unit of professional practice that can be entrusted to a sufficiently competent learner or professional.
- An EPA requires proficiency in multiple competencies simultaneously, and is a more suitable focus for assessment than separate competencies.
- EPA-based assessment results in summative entrustment decisions to act under a specified level of supervision.
- Mobile technology and electronic portfolios may serve to support EPA-related feedback and entrustment decision-making.
Assessing Residents

Three Different Tools

EPA’s

Competencies

Milestones (Sub-competencies)
The 12 Core Competencies

1. Teamwork
2. Communication
3. Adaptability
4. Reliability
5. Motivation
6. Integrity
7. Decision Making
8. Initiative
9. Work Standards
10. Problem Solving
11. Stress Tolerance
12. Organizing
IV.A.5.d) Interpersonal and Communication Skills

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. (Outcome)

Residents are expected to:

IV.A.5.d).(1) communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; (Outcome)

IV.A.5.d).(2) communicate effectively with physicians, other health professionals, and health related agencies; (Outcome)

IV.A.5.d).(3) work effectively as a member or leader of a health care team or other professional group; (Outcome)

IV.A.5.d).(4) act in a consultative role to other physicians and health professionals; and, (Outcome)

IV.A.5.d).(5) maintain comprehensive, timely, and legible medical records, if applicable, (Outcome)

IV.A.5.e) Professionalism

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. (Outcome)

Residents are expected to demonstrate:

IV.A.5.e).(1) compassion, integrity, and respect for others; (Outcome)

IV.A.5.e).(2) responsiveness to patient needs that supersedes self-interest; (Outcome)

IV.A.5.e).(3) respect for patient privacy and autonomy; (Outcome)

IV.A.5.e).(4) accountability to patients, society and the profession; and, (Outcome)

IV.A.5.e).(5) sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and
### MILESTONES

#### PC5: Technical Skills – Procedural Preparation

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepares patient for surgery, including appropriate pre-operative orders and tests</td>
<td>For basic procedures, ensures necessary imaging, instrumentation, equipment, devices, and medications are available; positions, prepares, and drapes patient appropriately</td>
<td>For intermediate procedures, ensures necessary imaging, instrumentation, equipment, devices, and medications are available; positions, prepares, and drapes patient appropriately</td>
<td>For advanced procedures, ensures necessary imaging, instrumentation, equipment, devices, and medications are available; positions, prepares, and drapes patient appropriately</td>
<td>Develops procedures or protocols to increase efficiency in procedural preparation</td>
</tr>
</tbody>
</table>

**Comments:**

Not yet achieved Level 1
The Good Doctor: PUTTING IT ALL TOGETHER
Central Line Insertion

EPA: Entrustable Professional Activity
DOC: Domain of Competence
C: Competency
M: Milestone

Patient Care
Communication
Knowledge
Vascular Imaging
Anatomy

MK2 level 3
Common variants
MILLER'S PRISM OF CLINICAL COMPETENCE (aka Miller's Pyramid)

it is only in the "does" triangle that the doctor truly performs

- Performance Integrated Into Practice
  eg through direct observation, workplace based assessment

- Demonstration of Learning
  eg via simulations, OSCEs

- Interpretation/Application
  eg through case presentations, essays, extended matching type MCQs

- Fact Gathering
  eg traditional true/false MCQs

DOES
SHOWS
KNOWS HOW
KNOWS

Based on work by Miller GE. The Assessment of Clinical Skills/Competence/Performance; Acad. Med. 1990; 65(9): 63-67
Adapted by Drs. R. Mehay & R. Burns, UK (Jan 2009)
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
Can Make Italian Food

**EPA**
Observable and measurable activities demonstrating skills, knowledge and ability

**Competencies**

**Things we measure overtime**

This is what we see that explains the EPA. Do we trust them? Direct supervision/indirect supervision

<table>
<thead>
<tr>
<th></th>
<th>Fruit</th>
<th>Vegetables</th>
<th>Protein</th>
<th>Grain</th>
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</thead>
<tbody>
<tr>
<td>Knows how to make sauce</td>
<td>Knows how to dice tomatoes</td>
<td>Knows what meat to use in the dish</td>
<td>Knows what pasta to use</td>
<td></td>
</tr>
<tr>
<td>Cooks marinara sauce</td>
<td>Dices tomatoes</td>
<td>Browns ground beef</td>
<td>Boils ravioli</td>
<td></td>
</tr>
</tbody>
</table>
EPA’s/Milestones/Competencies

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

Patient Care
PC 1  PC 2  PC 3  PC 4  PC 5
PC-1 Recognize situation with a need for urgent or emergent medical care, including life-threatening Conditions

Practice Based Learning & Improvement
PBL1  PBL 2

Professionalism
PF 1  PF 2  PF 3  PF 4  PF 5

Medical Knowledge
MK1  MK 2  MK 3
MK- 2 Demonstrate sufficient knowledge to evaluate complex or rare medical conditions and multiple coexistent conditions
MK- 4 Understand the relevant pathophysiology and basic science for uncommon or complex medical conditions

Interpersonal Communication Skills
ICS 1  ICS 2  ICS 3
ICS-3 Request consultative services in an effective manner

Systems Base Practice
SBP1  SBP 2  SBP 3  SBP 4
Both Are Critical for Assessment

Competencies & Milestones: A Granular Approach (Telephoto)
• Assess how well a learner is equipped to accomplish some small part of a professional activity (gather essential information through physical examination)

EPAs: A Holistic Approach (Panoramic)
• Integrate competencies within a clinical context and assess clusters of behaviors that allow one to carry out a professional activity (safely obtain femoral access)
EPA Variables

1. Attributes of the trainee
   - Tired, confident, PGY
2. Attributes of the supervisors
   - Lenient or strict
3. Context
   - Time of day, facilities available
4. Nature of the EPA
   - Rare and complex vs. common and easy

A: Ad hoc – in the middle of the night
B: Structural – recognizing they are now independent
<table>
<thead>
<tr>
<th>Benefits</th>
<th>EPAs</th>
<th>Competencies</th>
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<tbody>
<tr>
<td></td>
<td>EPAs are “activities,” which make sense to faculty, trainees, and the public</td>
<td>Competencies have been the basis for assessment in the GME space for a decade</td>
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<td></td>
<td>Represent the day-to-day work of the professional</td>
<td>In the aggregate, define the “good physician”</td>
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<td></td>
<td>Situate competencies and milestones in the clinical context in which we live</td>
<td>Have a reasonable body of evidence around assessment of the “traditional” domains (medical knowledge and patient care)</td>
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<tr>
<td></td>
<td>Make assessment more practical by clustering milestones into meaningful activities</td>
<td>Have been used for establishing or developing milestones of performance for at least the GME years</td>
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<td></td>
<td>Explicitly add the notions of trust and supervision into the assessment equation</td>
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<tr>
<td>Disadvantages</td>
<td>Were relatively recently introduced in the literature</td>
<td>Are abstract</td>
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<tr>
<td></td>
<td>Have had little operationalization worldwide</td>
<td>Are granular and therefore often not the way we think about or observe learners</td>
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<td></td>
<td>Were designed originally for the residency-to-practice transition</td>
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Writing and Choosing EPA’s

1. Should be frequent enough to be seen in a rotation
2. Should be measurable by the faculty on the rotation
3. Should be independently executable and within a specific time frame
4. Should be observable and measurable
5. Should reflect one or more competencies
EPAs for 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

5. Provide a medical home for well children of all ages. (Entrustment decisions for this EPA may require stratification by age group)
1. **EPA Title**
   Care for the well newborn

2. **Description of the activity**
   Care of the well newborn in the immediate perinatal period will occur predominantly in the newborn nursery. Scope of practice for this EPA includes well full-term and late pre-term infants. A pediatrician is also expected to manage the common problems that occur in these newborns.

   The specific functions which define this EPA include:
   - Performing a physical examination to look for normal variations, abnormal signs and congenital anomalies
   - Identifying and applying key evidence based guidelines for care of the newborn
   - Providing routine care, as well as addressing common problems that develop within the first 28 days of life
   - Using judgment to know when common problems can be handled at home, and arrange for discharge and follow-up
   - Assessing maternal/family readiness to care for the infant post discharge
   - Transitioning care to the community practitioner
   - Demonstrating confidence that puts new parents at ease

3. **Judicious mapping to domains of competence**
   - Patient Care
   - Medical Knowledge
   - Practice-based Learning and Improvement
   - Interpersonal & Communication Skills
   - Professionalism
   - Systems-based Practice
   - Personal & Professional Development

4. **Competencies within each domain critical to entrustment decisions**
   - PC 3: Transferring care
   - PC 5: Performing complete physical exams
   - MK 2: Practicing EBM
   - ICS 1: Communicating with patients/families
   - PPD 7: Demonstrating self-confidence

5. **Curricular Components that support the functions of the EPA (knowledge, skills and attitudes needed to execute this EPA safely) :**

   **Rationale:** Pediatricians must be able to anticipate and manage the health and medical needs of the normal term and late preterm newborn, as well as manage those newborn medical conditions that do not require an intensive care nursery prior to hospital discharge. They should also be able to manage those conditions that evolve or emerge at home during the neonatal time period.
Summary: Why EPAs?

- Make sense to faculty, trainees and the public
- Make assessment more practical by clustering competencies and their milestones into meaningful professional activities (care delivery)
- Align what we assess with what we do
- Align education across the continuum
### Develop and achieves comprehensive management plan for patients

#### EPA

**Observable Practice Activities**

- 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

<table>
<thead>
<tr>
<th>Competencies</th>
<th>MK</th>
<th>PBL</th>
<th>Patient Care</th>
<th>SBP</th>
<th>Prof</th>
<th>Com. &amp; IPS</th>
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<td>MK</td>
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#### 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

**Milestone**
Frameworks for Learner Assessment

Table 2. Summary of frameworks for assessment of competence. Definitions, examples, assumptions, advantages, and limits.

<table>
<thead>
<tr>
<th>Analytic</th>
<th>Synthetic</th>
<th>Developmental</th>
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<tbody>
<tr>
<td>Definitions</td>
<td>Divide competence into domains</td>
<td>Combine domains into tasks</td>
</tr>
<tr>
<td>Examples</td>
<td>Knowledge-skills-attitudes; ACGME*; CanMEDs**</td>
<td>Entrustable professional activities (EPAs)***; Reporter-Interpreter-manager-educator (RIME)†</td>
</tr>
<tr>
<td>Assumptions</td>
<td>Together the discrete elements equal competence; they can be measured discretely.</td>
<td>Complex social tasks require multiple domains applied by the learner simultaneously.</td>
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<tr>
<td>Advantages</td>
<td>Theoretically covers all aspects; and allows discrete assessments and feedback on specific facets and domains individually</td>
<td>Strong connection with workplace activities; high level of authenticity</td>
</tr>
<tr>
<td>Limits</td>
<td>Tends to lead to extensive descriptions. Not easily comprehensible by clinicians. Connection with clinical activities can be weak.</td>
<td>Holistic assessment may not identify specific reasons for failure to progress</td>
</tr>
</tbody>
</table>

*Dreyfus and Dreyfus (1986).
**Accreditation Council on Graduate Medical Education (1999).
***Royal College of Physicians of Canada, Frank, 2005.
Remember

Understand

Apply

Analyze

Evaluate

Create

Combining parts to make a new whole

Judging the value of information or ideas

Breaking down information into component parts

Applying the facts, rules, concepts, and ideas

Understanding what the facts mean

Recognizing and recalling facts

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