ENTRUSTABLE PROFESSIONAL ACTIVITIES: CURRICULUM DEVELOPMENT

Entrustable Professional Activities (EPAs) as a tool for Family Medicine residency curriculum design, evaluation and implementation

What are EPAs?

Entrustable Professional Activities (EPAs) are the next step in Competency-Based Graduate Medical Education (CBGME). The core competencies, sub-competencies and milestones for family medicine are seen as too long and theoretical for practical use in evaluation and curricular design. (Reference Ten Cate JGME March2013 page6-7). EPAs are designed to link competencies to clinical practice and make them feasible. (IBID). The power of EPAs is their clarity in describing the activities of our profession and the linking or mapping to competencies.

The use of EPAs in CBGME is challenging because the competencies, subcompetencies and milestones came first from the Accreditation Council for Graduate Medical Education (ACGME) and the EPAs were developed later through Family Medicine for American's Health. There was no natural connection between these two major components of CBGME, competencies and EPAs. While challenging, once these two different ways of thinking and speaking about our specialty are married together, a richer understanding of family medicine emerges.

The EPAs and their associated subcompetencies and milestones can be used in a number of ways in resident education including resident evaluation, resident education plans and curriculum planning. This paper will address methods for using EPAs in the design, implementation and evaluation of residency curriculum. Please see the other papers from the taskforce for a more detailed overview of the EPAs and their other uses in residency education.

Methods for using EPAs in curriculum development

I. Annual Program Evaluation and Curriculum Review
II. Using EPAs as curricular goal statements
III. Streamlining curriculum
IV. Reverse Mapping from milestones to EPAs
V. Defining Program Priorities

I. **Annual Program Evaluation and curriculum review using EPAs.**
If EPAs are meant to describe graduates of FM residencies, then they are the perfect lens through which to evaluate the strengths and weaknesses of a residency program. This can be achieved in several different ways.

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a. Faculty assessment of graduating residents
Faculty should evaluate the level of entrustment for each resident for all EPAs. For subcompetencies there is no explicit statement that all graduates must achieve milestone level 4 for graduation. However, our specialty has determined that each graduate should reach entrustment for independence for each EPA. If in this process the faculty find a pattern of graduates not meeting this level of entrustment, this would signal an area of curricular need. The faculty could use the mapped competencies to develop curriculum to address these needs. (Pages 6-7 of this document.) This process is further explained below. Programs can use resident self- assessment in the same manner.

Example: If a significant number of graduating residents are not reaching entrustment level 4 on EPA 6 – (evaluate and manage undifferentiated symptoms and complex conditions) ← the program would determine the key subcompetencies using the subcompetency- milestone map. After reviewing these subcompetencies, the program might determine that further attention should be focused on:

PBLI – 1 –Locates, appraises, and assimilates evidence from scientific studies related to the patients' health problems

Prof -4 - Maintains emotional, physical, and mental health; and pursues continual personal and professional growth

Using the associated milestones, the faculty can follow the steps below to develop curriculum to address these particular skills in the context of patients with undifferentiated symptoms.

b. Graduate Surveys
Graduate surveys are commonly used in program evaluation and the Annual Program Evaluation process. These surveys often focus on very discrete components of either residency curriculum or current practice. They have not addressed graduates' competence in these more broadly defined EPA skills. EPAs could be used to develop survey questions which will address more completely the ways in which the residency program prepared the graduate for the practice of Family Medicine.

Example - EPA # 2 – (Cares for patients and families in multiple settings). The program would review the interpretation of this EPA in the brief description of the EPAs. This would show that care across a continuum of settings is a major part of this EPA. To assess graduates the faculty member might create one of the following questions:

i. As a result of your residency training, how comfortable are you caring for patients in more than one setting (office, hospital, nursing home, ER, home visit or other)?

ii. Which of the following settings have you provided care for YOUR patients in the last 12 months? Office, hospital, nursing home, ER, home visits or other?

II. **Using EPAs as Curricular Goal Statements**

As statements of broad areas of physician skill EPAs can function well as goal statements for residency curriculum. The subcompetencies and milestones mapped to that EPA can then be used as part of the objectives for that area of curriculum. Many residencies currently use milestone language in curricular goals and objectives but this language can be difficult to apply to resident activities for learners, program directors and faculty. Using the EPA to subcompetency mapping grid will add more clarity to that process.

Example: EPA #4 – (Provide preventive care that improves wellness, modifies risk factors for illness and injury, and detects illness in early, treatable stages).

Interpretation – (from the brief EPA description) Graduates of Family Medicine residencies will address the goals of this EPA using an evidence based and patient- centered approach.

Subcompetencies and milestones – from the complete EPA document are listed below

Competency Domain	**Subcompetency**	**Milestone Level**
Patient Care	PC–3: Partners with the patient, family and community to improve health through disease prevention and health promotion	Level 4 (*Integrates disease prevention and health promotion seamlessly in the ongoing care of patients.)*

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Medical Knowledge	MK–2: Applies critical thinking skills in patient care	Level 3 *(Recognizes and reconciles knowledge of patient and medicine to act in patient's best interest.)*
Systems-based Practice	SBP–3: Advocates for individual and community health	Level 3 *(Identifies specific community characteristics that impact specific patients' health.)*
Practice-based Learning and Improvement	PBLI-1: Locates, appraises, and assimilates evidence from scientific studies related to the patients' health problems	Level 2 *(Evaluates evidence-based point-of-care resources.)*
	PBLI-3: Improves systems in which the physician provides care	Level 3 *(Uses an organized method, such as a registry, to assess and manage population health.)*
Professionalism	PROF–3: Demonstrates humanism and cultural proficiency	Level 3 *(Incorporates patients' beliefs, values, and cultural practices in patient care plans.)*
Communication	COMM-1: Develops meaningful, therapeutic relationships with patients and families	Level 3 *(Respects patients' autonomy in their health care decisions and clarifies patients' goals to provide care consistent with their values.)*
	COMM-2: Communicates effectively with patients, families and the public	Level 4 *(Educates and counsels patients and families in disease management and health promotion skills. Maintains a focus on patient-centeredness and integrates all aspects of patient care to meet patients' needs.)*

The Faculty can then use the subcompetencies and milestones to create specific objectives. The final curriculum outline would be similar to the following:

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Preventive care curriculum Based on EPA 4

Goal - As a result of participating in this curriculum residents will provide preventive care that improves wellness, modifies risk factors for illness and injury, and detects illness in early, treatable stages.

Objectives -

1. Integrate disease prevention and health promotion seamlessly in the ongoing care of patients
2. Recognize and reconcile knowledge of patient and medicine to act in patient's best interest
3. Identify specific community characteristics that impact specific patients' health.
4. Evaluate evidence-based point-of-care resources.
5. Use an organized method, such as a registry, to assess and manage population health.
6. Incorporate patients' beliefs, values, and cultural practices in patient care plans.
7. Respect patients' autonomy in their health care decisions and clarify patients' goals to provide care consistent with their values.
8. Educate and counsel patients and families in disease management and health promotion skills. Maintain a focus on patient-centeredness and integrate all aspects of patient care to meet patients' needs.

I. **Streamlining curriculum**

Programs will want to determine where in the curriculum each EPA is explicitly addressed. This might reveal heretofore unknown areas of overlap and need for coordination. These previously unknown areas of overlap would most likely be found for those EPAs which are very broad in scope such as EPAs 1-5. This could also be true for an EPA which is a more specific skill but occurs in multiple settings such as EPA 19.

Example: EPA 19 – (Provide leadership within interprofessional health care teams). This can occur in all situations where family physicians are caring for patients including office, nursing homes, and multiple hospital floors and with different team members in each setting. A program might want to explore how and where in the curriculum team membership and leadership is taught to residents. What

didactics, workshops and clinical role modeling is used to teach this skill? Are all of these aligned in regards to skills, knowledge and attitudes?

II. **Reverse Mapping of Milestones to EPAs**

In general, it is not advised to try to proceed from milestones up to EPAs, because the skill involved in an EPA cannot be completely captured by the subcompetencies and milestones. However, one setting where this reverse mapping might be helpful would be if a program noted that many graduates were not achieving a milestone which is considered critical for a particular EPA or EPAs. The faculty could then use the EPA(s) to define additional areas of curriculum and then use the technique in II above.

Example – if the faculty noted that residents nearing graduation were not achieving level 4 on the subcompetency SBP – 4 – coordinates team-based care, they might also note that this particular milestone is key to EPA 19. The faculty could then use the other subcompetencies associated with EPA 19 as objectives for a team-based care curriculum. These would include (among others):

1. Mobilizes team members and links patients with community resources to achieve health promotion and disease prevention goals.
2. Fosters adherence to patient care protocols amongst team members that enhance patient safety and prevent medical errors.
3. Accepts responsibility for the coordination of care, and directs appropriate teams to optimize the health of patients.
4. Exhibits self- awareness, self- management, social awareness, and relationship management.
5. Actively seeks feedback and provides constructive feedback to others.
6. Sustains collaborative working relationships during complex and challenging situations, including transitions of care.
7. Effectively negotiates and manages conflict among members of the health care team in the best interest of the patient.

I. **Defining Program Priorities**

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Many programs have a particular area in Family Medicine which is considered a strength or focus of recruitment. Using the language of EPAs would perhaps lead to clearer messaging to applicants, residents, faculty and the community regarding the mission of the program.

Example: EPA 15 – (Develop trusting relationships and sustained partnerships with patients, families and communities)

While all physicians and residencies would strive to achieve this goal, a residency may wish to use this as an overall statement of core values. This would then drive decisions regarding curriculum and priority setting.

EPAs for Family Medicine End of Residency Training

The Entrustable Professional Activities are:

1. Provide a usual source of comprehensive, longitudinal medical care for people of all ages.
2. Care for patients and families in multiple settings.
3. Provide first-contact access to care for health issues and medical problems.
4. Provide preventive care that improves wellness, modifies risk factors for illness and injury, and detects illness in early, treatable stages.
5. Provide care that speeds recovery from illness and improves function.
6. Evaluate and manage undifferentiated symptoms and complex conditions.
7. Diagnose and manage chronic medical conditions and multiple co-morbidities.
8. Diagnose and manage mental health conditions.
9. Diagnose and manage acute illness and injury.
10. Perform common procedures in the outpatient or inpatient setting.
11. Manage prenatal, labor, delivery and post-partum care.
12. Manage end-of-life and palliative care.
13. Manage inpatient care, discharge planning, transitions of care.
14. Manage care for patients with medical emergencies.

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15. Develop trusting relationships and sustained partnerships with patients, families and communities.
16. Use data to optimize the care of individuals, families and populations.
17. In the context of culture and health beliefs of patients and families, use the best science to set mutual health goals and provide services most likely to benefit health.
18. Advocate for patients, families and communities to optimize health care equity and minimize health outcome disparities.
19. Provide leadership within interprofessional health care teams.
20. Coordinate care and evaluate specialty consultation as the condition of the patient requires.

Subcompetency with Milestone Level

EPA Number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
PC1 Cares for acutely ill patients	-	Lvl 3	Lvl 2	-	Lvl 2	-	-	Lvl 4	Lvl 2	-	Lvl 3	Lvl 3	Lvl 4	Lvl 3	-	-	-	-	-	-
PC2 Cares for patients with chronic conditions	Lvl 4	-	Lvl 2	-	Lvl 3	-	Lvl 3	Lvl 3	-	-	-	Lvl 5	-	-	Lvl 3	-	Lvl 3	-	Lvl 4	-
PC3 Disease prevention and health promotion	Lvl 4	Lvl 4	-	Lvl 4	-	-	Lvl 3	-	-	-	Lvl 3	-	-	-	Lvl 3	Lvl 4	Lvl 3	Lvl 3	Lvl 3	-
PC4 Manages unclear diagnoses	Lvl 4	-	-	-	Lvl 3	Lvl 4	-	Lvl 4	-	-	-	-	-	-	Lvl 4	-	-	-	-	Lvl 3
PC5 Performs appropriate procedures	-	-	-	-	-	-	-	-	Lvl 4	Lvl 4	Lvl 4	-	Lvl 4	-	-	-	-	-	-	Lvl 4
MK1 Performs appropriate procedures	-	-	-	-	-	Lvl 4	-	-	-	Lvl 4	Lvl 4	-	-	Lvl 4	-	-	-	-	-	-
MK2	-	Lvl 2	Lvl 2	Lvl 3	-	Lvl 4	Lvl 3	Lvl 3	Lvl 4	-	Lvl 2	Lvl 4	-	-	-	Lvl 4	Lvl 3	-	-	-

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Applies critical thinking																				
SBP1 Cost conscious care	-	Lvl 3	Lvl 2	-	Lvl 3	Lvl 4	-	-	-	-	-	-	Lvl 3	-	-	Lvl 2	-	-	-	Lvl 3/4
SBP2 Emphasizes patient safety	-	Lvl 2	-	-	-	-	Lvl 3	-	-	Lvl 4	Lvl 2	-	Lvl 4	Lvl 4	-	Lvl 3	-	-	Lvl 4	-
SBP3 Advocates for individual and community health	-	-	-	Lvl 3	-	-	-	-	-	-	-	-	-	-	-	Lvl 3	-	Lvl 4	-	-
SBP4 Coordinates team based care	Lvl 3	Lvl 3	Lvl 2	-	Lvl 3	-	Lvl 3	Lvl 3	Lvl 3	-	Lvl 3	Lvl 3	Lvl 3	Lvl 4	Lvl 3	-	-	-	Lvl 4	Lvl 2

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EPA Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PBL1 Locates, appraises and assimilates evidence	Lvl 4	-	-	Lvl 2	-	Lvl 3	Lvl 4	-	-	-	-	-	-	-	-	-	Lvl 4	-	-	-
PBL2 Self- Directed learning	Lvl 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Lvl 4	-	-	-	-
PBL3 Improves systems	Lvl 4	-	-	Lvl 3	-	-	Lvl 3	-	-	Lvl 2	-	-	-	-	-	Lvl 3	-	-	-	-
Prof1 Completes process of professionalization	Lvl 4	Lvl 2	-	-	-	Lvl 4	-	-	-	-	-	Lvl 2	Lvl 2	-	Lvl 4	-	Lvl 2	-	-	-
Prof2 Professional conduct and accountability	-	-	-	-	-	-	-	Lvl 2	-	-	Lvl 2	-	Lvl 4	-	Lvl 4	-	-	-	Lvl 4	-
Prof3 Demonstrates humanism	Lvl 4	Lvl 3	Lvl 3	Lvl 3	Lvl 4	Lvl 4	Lvl 4	Lvl 3	-	-	Lvl 3	Lvl 3	Lvl 3	-	-	-	Lvl 3	Lvl 2	-	-
Prof4 Maintain emotional, physical and mental health	Lvl 4	-	-	-	-	Lvl 4	-	-	Lvl 4	-	Lvl 4	-	-	-	-	-	-	-	Lvl 3	-
C1 Develops relationships with pts and families	Lvl 4	Lvl 4	Lvl 2	Lvl 3	Lvl 3	Lvl 3	Lvl 3	Lvl 4	-	-	Lvl 4	Lvl 4	-	Lvl 3	Lvl 4	-	Lvl 4	-	-	-
C2 Communicates effectively with pts and families	-	-	Lvl 3	Lvl 4	Lvl 4	Lvl 4	Lvl 3	Lvl 3	Lvl 3	-	-	Lvl 4	Lvl 4	Lvl 4	Lvl 3	-	Lvl 3	Lvl 2	-	-
C3 Relationships within Medicine	-	-	-	-	-	-	Lvl 3	-	-	-	Lvl 4	-	Lvl 4	Lvl 4	-	-	-	-	Lvl 4	Lvl 2
C4 Use Technology	Lvl 4	Lvl 3	-	-	Lvl 3	-	Lvl 4	-	-	Lvl 2	Lvl 2	-	Lvl 3	-	Lvl 4	Lvl 2	-	-	-	-

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