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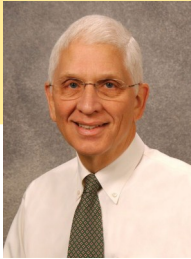
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Entrustable Professional Activities in Pediatrics

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What are EPAs and what do they add – other than another acronym – to medical education? We will argue that they add quite a lot if one takes a moment to understand what they are, and are not.

What is an EPA?

First, the letters.

E is Entrustable. Entrustable is a neologism – you won't find it in a dictionary – derived from entrustment. It denotes thoughtful consideration of whether an individual is capable of being trusted with a given responsibility.

P is professional and refers to the specialty or discipline in which one works.

A is activity and relates to the day-to-day tasks that define the profession. In medical education, these professional activities are observable and measurable units of work that are important to professional function and that a learner may (or may not) be entrusted to carry out without direct supervision.¹

Why focus on trust, entrustment?

Improving patient safety was a primary motivation behind the concept of EPAs.² Entrustment for a remotely supervised practice is arguably the most important decision that a medical educator make. When granted—or withheld—thoughtfully, it has the potential to impact the safety with which patients are cared for. However, EPAs also have the potential to enhance medical education for a number of reasons: they provide a framework for a shared vision of professional competence, they make explicit a previously implicit assessment process, and they provide context for formative feedback (and is so doing improve the meaning of assessment for the learner).

What determines which activities should be grouped into an EPA?

Aren't professional activities everything a medical learner does, from measuring blood pressure to writing a scholarly article to performing a complex procedure? Are there hundreds of EPAs? In a literal sense, there are. But in medical education, each EPA refers to a group of individual knowledge, skills, and behaviors within a specialty that together define a broader professional activity that can be taught, learned, and assessed.¹

For example, “timely provision of immunizations” becomes one of many elements within “Care for Children Within an Ambulatory Setting” rather than an activity to be assessed individually. To be practical for assessment, activities within an EPA must be closely enough related that entrustment can be granted without exhaustive documentation of every element of function within the EPA. A properly constructed EPA should allow entrustment based on clusters of knowledge, skills and attitudes that are carefully assessed and on others for which competence may be reasonably inferred. If an EPA is too broad, inference becomes more a matter of faith; if too narrow, it becomes one in another long checklist of individual behaviors to be assessed.

It is worth taking a moment to note that reluctance to extrapolate competence from one environment to a very different environment reflects a fundamental principle of learning and assessment: context specificity.³ Competence in one situation may not equate to competence in a different situation. For example, most would say that it would be hazardous to assume that entrustment of a resident to provide well child care in a continuity clinic would automatically extend to entrustment to provide acute care in an emergency department. Similarly, most would question whether one should assume that a resident who demonstrates competence in performing a health evaluation of a well 15 year old would demonstrate similar competence in performing a health evaluation of a newborn or even the same 15 year old after an automobile accident. This may seem to be common sense. But for many years medical educators felt that the most important element of medical learning was “knowing how to think,” that abilities could be transferred from one clinical encounter to another irrespective of context. It turns out that regardless of how systematic one’s thought processes, matters go awry without experience with the particular medical condition (“micro context”) within a specified clinical environment (“macro context”). An example of a useful EPA is Care for the Well Newborn. Most would agree that it is reasonable to infer that a resident who can diagnose and manage common conditions in term infants can care for the normal newborn without direct supervision with the important caveats, applicable to any EPA, that the resident must also be known to be conscientious, honest and aware of his or her limits and have ready access to non-judgmental help. 4-7

The idea that practice excellence is a function of certain abilities of the learner, independent of context, is one reason that our attempts to use the six Core Domains of Competence (Medical Knowledge, Systems-Based Practice etc.) as tools for meaningful assessment of learner performance have proven largely unsuccessful. For example, competence in Communication and Interpersonal Skills when speaking with a family about a common medical condition in an emergency department does not automatically imply competence in discussing an end-of-life decision.

How many EPAs are required to cover the range of activities in a specialty?

Ten Cate proposed that professional activities in most specialties can be grouped into no more than 20-30 EPAs.⁸ Rosenberg and Carraccio suggested 17 for Pediatrics.⁹ A draft document on the Association of Pediatric Program Directors web site (Table 1) suggests 16 for General Pediatrics.¹⁰ How many EPAs are needed? Although it is clear that an EPA cannot be, at one extreme, “ability to practice good Pediatrics” or, at the other extreme, an exhaustive list of every essential activity, designation of intermediate groupings is a matter of much debate. Debates will be settled only with research that tests the accuracy of inferences of competence within an EPA. For example, accurate faculty determinations of learner competence to “Care for the Well Child in an Ambulatory Setting” would support use of that EPA. If faculty are often wrong in inferring competence within an EPA as broad as “Care for [all] Children in an Ambulatory Setting,” (that is, if inference of competence of all important activities within the group are not justified by a *practical* sampling of activities), the candidate EPA would have to be divided into two or three constituent EPAs. A re-statement in terms of patient safety is how many elements within an EPA must be rigorously assessed in order to infer that patients will be safe in the care of the individual entrusted with their care. Important considerations in research are likely to be the character of the EPA and learning environment and characteristics of the resident.

Draft List of 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, single system diagnoses in an ambulatory, emergency, or inpatient setting.
5. Manage patients with acute complex multi-system disease in an ambulatory, emergency, or inpatient setting.
6. Provide a medical home for well children of all ages. (Entrustment decisions for this EPA may require stratification by age group)
7. 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)
8. Recognize, provide initial management and refer patients presenting with surgical problems
9. Facilitate the transition from pediatric to adult health care
10. Provide patient resuscitation, stabilization and triage that aligns care with severity of illness (Entrustment decisions for this EPA may require stratification by two age groups: neonate and non-neonate).
11. Provide consultation using a variety of media (e.g. telephone, e-mail, webcast, video conferencing)
12. Refer patients who require consultation
13. Perform operational functions in a group practice setting
14. Improve care for a population of patients
15. Lead a health care team
16. Facilitate handovers to another healthcare provider either within or across settings

(Table 1)

How do EPAs relate to Domains of Competence, Sub-competencies and the Pediatric Milestones?

The link between EPAs, domains of competence (e.g. Medical Knowledge, Systems-Based Practice, etc.), competencies (e.g. gather essential and accurate information about the patient), and milestones (the descriptions of the behaviors that reflect progression within each competency) will hopefully advance assessment. It should not be a matter of choosing EPAs or competencies and their milestones; rather, they should be viewed as complementary to one another. EPAs provide a wide-angle lens that allows one to assess the **integration** of competencies or tasks in care delivery activities. Competencies and their milestones provide a zoom lens to define task-specific abilities of an individual. While all domains of competence and many competencies are features of each EPA, some will be more relevant to one EPA than another.^{1,8}

Although EPAs and milestones were conceived of and developed independently of one another, the ABP and ACGME are devoting considerable effort to integrate EPAs with competencies and milestones.¹¹ One would expect that entrustment decisions for each EPA would require different levels of skill and ability in each of the domains of competence. For example, performance in a "Transition of Care" EPA will be heavily influenced by skill in the "Interpersonal and Communication Skills" and "Systems-Based Practice" Domains of Competence. In contrast, "Care of the Acutely Ill Child" would rely more heavily on "Patient Care" and "Medical Knowledge." Currently, EPAs for General Pediatrics and for each of the Pediatric Subspecialties are being "mapped" to several individual competencies and their associated milestones, in the hope that milestones will facilitate entrustment decisions by providing metrics for assessing performance and by guiding learner growth and development. How EPAs and milestones can be most effectively integrated by faculty and learners will be defined by experience and research as they are implemented in the coming years.

What are limitations of EPAs as tools for teaching and assessment?

EPAs can be useful, practical definitions of context for teaching and learning and provide an infrastructure for adding context to the assessment of competencies. They cannot be more than that. As we have found in our own program in Neonatal-Perinatal Medicine, simply asking faculty to evaluate fellows as to individual abilities to, for example, "Care for a 24-26 week Infant" or "Care for an Infant with a Life-threatening Infection" has not seemed to improve the consistency of assessment. Assessment seems to be only slightly better than gestalt statements like "She's terrific" or "She worries me." For EPAs to be effective, we must develop consensus as to the elements within EPAs that must be mastered and develop a shared understanding of what the different levels of entrustment mean. Without both, it seems to us that EPAs will add little to assessment, confirming the experience of Driessen and Scheele.²

Discussion and Reflection

As the popularity of EPAs has grown, they seem to us to be increasingly subject to what we regard as misconceptions. Some, which we initially shared, have been mentioned. First, the challenge with EPAs does not end with designation of groups of activities into an EPA; as difficult as that might be, it is only a beginning. Our experience in neonatology suggests that considerable work must be devoted to developing a shared understanding among the faculty about what levels of supervision really mean and what skills and attributes are essential to gain entrustment for each EPA. Each specialty and subspecialty must go on to examine how the EPA functions as a tool for improving medical learning and patient safety in that specialty.² EPAs as such are no more than categories for assessment; they are not in themselves assessment tools. In addition, to be useful, EPAs cannot violate the rules of context specificity or statistical inference. If they are too broad with the need for so much assessment as to be impractical, they will add little to medical education. For example, the American Board of Pediatrics has suggested extremely broad EPAs for subspecialties. We wonder if it is reasonable to infer competence across an EPA as broad as "Provide for and obtain consultation with other health care providers caring for children." It is certainly not possible for anyone but a program director with access to years of assessments across the breadth of a learner's experience. Even then, it may represent more guess than rigor. But these are only opinions. Let research begin!

Commentary on EPAs in Pediatrics: We are currently using three frameworks for assessment in graduate medical education: the six competencies, milestones and, most recently, EPAs. These three frameworks were developed in order to record and report the level of a resident's or fellow's performance and, as Drs. Jones and Parker point out, are not in themselves assessment tools. The most useful assessment tool we use in the residency program is the Descriptive Comments form which prompts faculty members to write detailed descriptions of what they see residents do in their day to day clinical work. When compiled together these comments provide the evidence for progression in the milestones and eventual entrustment in the EPAs. Please keep the comments coming – the residents appreciate the detailed information and use it to develop their learning goals and improve their practice.



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