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Title

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Permalink

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Journal

Academic Medicine, 91(2)

ISSN

1040-2446

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Publication Date

2016-02-01

DOI

10.1097/acm.0000000000000988

Peer reviewed

Developing Entrustable Professional Activities for Entry into Clerkships

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Disclosures: This project was funded by an Innovations Funding for Education Grant from the UCSF Academy of Medical Educators. In addition, Dr. Chen's work in medical education is supported in part by the Abraham Rudolph Endowed Chair in Pediatric Education from the UCSF Academy of Medical Educators.

Abstract

Purpose

Despite growing emphasis on early clinical experiences, preceptors continue to face challenges integrating and assessing pre-clerkship medical students in their practices. Entrustable professional activities (EPAs), which frame competencies within the context of clinical workplace activities, may provide explicit guidance for students' clinical roles and activities. This study describes the development and appraisal of content validity evidence for pre-clerkship EPAs.

Methods

The authors employed a multi-step process from November 2012 to June 2014. They first identified EPA content domains using study data, student focus groups, and preceptor interviews. They mapped each domain to pre-clerkship course objectives, graduation competencies, and resident-level EPAs to ensure content relevancy and adequacy. They then developed, with expert consultation, full EPA descriptions for each domain with activity specifications; expected knowledge, skills, and attitudes; associated competencies; and assessment information. Subsequently, they conducted local, national, and international workshops to verify appropriateness of content and supervision level before finalizing each EPA with additional expert and stakeholder review.

Results

Five pre-clerkship EPAs were developed: 1) information gathering, 2) information integration for differential diagnosis, 3) healthcare team communication, 4) information sharing with patients, and 5) resource identification.

Conclusions

Workshop participants accepted the constructs and associated content for all EPAs. Participants agreed on a single level of supervision (practice under reactive supervision) associated with each EPA for entry into clerkship, and tailored content breadth/complexity to fit this level. The development of these pre-clerkship EPAs indicates support for EPAs in setting a standard for pre-clerkship clinical experiences and entry into clerkships.

Calls for medical education reform advocate for curricular designs that integrate didactic knowledge with experiential learning.¹ Medical schools strive to provide this integrated experience by imbedding in the pre-clerkship curriculum a variety of early clinical experiences such as preceptorship placements in the hospital or ambulatory clinic settings.^{2,3} Ideally, clinical preceptorships allow learning of clinical and reasoning skills by placing students in actual student-patient interactions in the clinical workplace.⁴⁻⁶ The richness of learning in the workplace depends on the degree of student engagement in workplace activities.⁷ Yet, preceptors, frequently volunteer faculty, are challenged to identify activities in which to integrate students into their clinical practices. Students are similarly unclear about their roles. Consequently, preceptorships may consist mostly of shadowing experiences rather than the desired hands-on clinical experiences.⁸⁻¹¹

Entrustable professional activities (EPAs) offer a potential solution by identifying work activities early students can be expected to perform. EPAs are aligned with workplace learning and place competencies in the context of practice.¹² Here multiple competencies are evaluated through the lens of specific activities a physician performs.¹³ By defining the educational goals and objectives of early clinical experiences in the language of professional activities, we provide students and preceptors with explicit guidance for students' roles. We can clarify what developmentally appropriate activities students can perform and how students may be effectively integrated into the preceptor's clinical workplace.

While EPAs have primarily been applied to graduate medical education (GME), we have argued for their applicability to undergraduate medical education.¹⁴ Also, EPAs particularly define expectations at transition points in medical training – at entry into residency, fellowship, and/or practice.^{13,15-19} Clerkship entry is an earlier key transition point. We therefore developed EPAs for pre-clerkship students to clarify competency expectations for students at clerkship entry.

Approach

To develop these EPAs, we first determined a level of supervision or entrustment with which to anchor the EPAs to ensure consistency. The supervision scale for EPAs includes five levels of supervision/entrustment.¹² EPAs for entry into practice are defined at level 4: learner may practice unsupervised. Since students will not be expected to perform clinical activities without supervision, we designed the EPAs for entrustment level 3: learner may practice under reactive supervision. For some activities this would mean that a student could complete the activity alone in the room with a patient, with the supervisor outside the room but immediately available.

Approaches to EPA development have commonly included the use of the Delphi or nominal group process.^{15,16,20-25} Both use experts to define what the EPAs should be, leading to a list of EPA titles. However, the real essence of an EPA is in its fully elaborated description, which includes a detailed explanation containing limitations of the activity; expected knowledge, skills, and attitudes; associated competencies; and assessment information.^{26,27} While the tasks described in an EPA title may seem self-evident and require little explanation for a learner transitioning to practice, novices to the workplace, and those working with them, need explicit details to understand the specific circumstances and limitations of activities being asked of the novices. This complete information is required to implement EPAs for performance assessment.

The purpose of this paper is to report the novel methodology we used to develop fully described EPAs for clerkship entry. A full EPA description includes seven parts: 1) EPA title; 2) specification and limitations; 3) required knowledge, skills, and attitudes; 4) link to existing competency framework; 5) information sources to assess progress; 6) methods to arrive at entrustment decision; 7) conditions and implications for entrustment.^{26,27} We emphasize the steps taken during development to ensure content validity. Standards set by the *Standards for Educational and Psychological Testing* for content-related validity state that the procedures in specifying assessment content should be described and justified with reference to the intended population and the construct the assessment is intended to measure.²⁸

We describe the methods and results of our multi-step process by each phase of the process, providing the rationale, data sources, and data analysis for each step. See Figure 1. In brief, the process consisted of development, sharing with stakeholders, and professional review repeated through several data-informed cycles. The process took approximately two years and all steps in the process were approved by the University of California San Francisco (UCSF) institutional review board.

Phase I: Identification of EPA Content Domains

Rationale

The identification of EPA content domains should be based on demonstrated student capabilities. To determine what professional activities pre-clerkship students were capable of, and could feasibly be incorporated into the curriculum, we started with a study of pre-clerkship student roles and activities in UCSF's student-run clinics (SRCs), that revealed students perform direct patient care activities such as histories and physical examinations, patient education, encounter documentation, and minor procedures (e.g. phlebotomy, vaccinations).²⁹ They also helped patients access local health programs and performed quality improvement activities.²⁹ We confirmed this information via preceptor interviews and student focus groups.

Methods

Between November 2012 and June 2013, we conducted 20-45 minute structured telephone interviews with preceptors in UCSF's pre-clerkship clinical course. We selected preceptors with demonstrated ability to incorporate students into the workplace. Seventy-one of 363 preceptors met this criteria with consistent high student ratings (over 3 academic years, 2009-2012) for provision of history-taking and physical exam opportunities and teaching effectiveness. To capture student activities across various clinical workplaces, we used purposive sampling to recruit 40 of the 71 preceptors who worked in outpatient clinics, emergency departments, and inpatient wards; in general or subspecialty practices; and cared for adult or pediatric patients. We asked the preceptors about patient care activities they have students perform and their ability to provide students with clinical skills practice opportunities.

We invited all second-year (MS2) and third-year (MS3) UCSF students to focus groups, and included the first respondents from each class. We conducted two 60-minute focus groups, one

with MS2s who had recently completed their first pre-clerkship year and one with MS3s currently in their clerkships. We asked students to reflect on what they found most valuable in their preceptorship experiences, their ability to practice various clinical skills, and whether they could have engaged in additional learning or patient care activities.

All interviews and focus groups were audio-recorded, transcribed, and de-identified. One author (HCC) used the constant comparative method with open coding to analyze the transcripts for types of clinical workplace activities.^{30,31} Two authors (HCC, MM) triangulated these with activities described in the SRC study.²⁹

Results

Twenty-two of 40 preceptors responded, and 19 were interviewed. Eight students participated in the MS2 focus group and 3 participated in the MS3 focus group. Using the clinical workplace activities described from the SRC study, preceptor interviews, and student focus groups, we identified five initial EPA content domains: A) information gathering, B) information sharing with providers, C) information sharing with patients, D) patient advocacy and quality improvement, and E) information management for lifelong learning.

Phase II: EPA Content Domain Mapping and Confirmation

Rationale

To ensure relevance and adequacy of each EPA content domain, we mapped them to existing competency frameworks as recommended by ten Cate and Young for establishing credibility with stakeholders and providing a framework for observation and assessment.³²

Methods

We performed mapping between May and November 2013. First, we mapped the EPA content domains to the preceptorship objectives and pre-clerkship clinical course competencies. Then we mapped the domains to UCSF's graduation competencies and milestones. Finally, we mapped the EPA domains to GME EPAs from medicine¹⁸ and pediatrics¹⁷ and the Association of American Medical Colleges (AAMC) Core EPAs for Entering Residency (CEPAER)¹⁵ when available in November 2013. Two authors (HCC, MM) independently mapped at each step and met to discuss and reconcile differences.

Results

We linked all existing curricular objectives and competencies to each of the five EPA content domains except "facilitate learning by giving, receiving, and applying feedback"; this was an important competency but not specific to, and therefore not linked to, any EPA content domain. We were also able to map the five EPA content domains to 10 of the 13 AAMC CEPAER¹⁵, 11 of the 16 medicine EPAs¹⁸, and 8 of the 16 pediatric EPAs¹⁷. Because our EPA content domains were of narrower scope, representing foundational and smaller units of activity than the GME EPAs, some of the domains mapped to multiple GME EPAs. Our mapping results confirmed the

relevance of the pre-clerkship EPA content domains to current and future expectations of learners.

Phase III: EPA Content Description And Expert Consultation

Rationale

To be operationalized, the content of each EPA needs to be elaborated beyond its content domain to include a detailed delineation of the expected observable behaviors and the context for those behaviors. We developed comprehensive 7-part descriptions of each EPA using published guidelines noted above²⁷ and the assistance of an EPA expert.

Methods

During July to December 2013, using level 3 supervision (practice under reactive supervision), and guidance from the curricular mapping, we developed titles for each EPA content domain and delineated the scope of each EPA with specifications of the parameters or conditions limiting each activity. For instance, for the activity of gathering information from the history and physical examination of a patient, we limited the activity to types of patients appropriate for a pre-clerkship student (e.g. medically stable). We also identified the knowledge, skills, and attitudes needed for successful completion of each EPA. We then used the pre-clerkship course objectives to identify where students would learn, for instance, the required foundational science knowledge to support these clinical activities. Finally, we determined the sources of information for determining student progress, the conditions and methods for granting level 3 entrustment, and implications for the student once level 3 entrustment is granted. As we developed the comprehensive 7-part EPA description²⁷, we received expert consultation and iterative feedback from our EPA-expert author (OtC) regarding the structure, clarity, and adequacy of the descriptions. We also sought and received feedback on the clarity of our EPA descriptions from health professions educators working with our EPA expert at the University Medical Center Utrecht.

Results

Full detailed descriptions for each EPA were developed. (See Appendix A for an example). Upon review, we revised the EPAs domains to improve their suitability for early learners. See Table 1. We separated generating a differential diagnosis and assessment and plan from information sharing into its own EPA. This makes explicit an important activity that naïve early learners may not recognize and emphasizes it as an entrustable contribution to patient care that can serve as a prerequisite for more advanced patient care activities. We also merged the last two EPAs (D and E) into one EPA. In early learners, the practice of information management is most often observable when applied to researching resources for patients or the healthcare team. Here, information management is also a patient advocacy and quality improvement behavior.

Phase IV: Assurance of Appropriate EPA Content

Rationale

To ensure appropriateness of each EPA, we engaged internal and external subject matter experts to assess the specifications/limitations of each activity for correct level of complexity and alignment with expected student competencies. We opted to use focused workshop discussions to elicit in-depth feedback from diverse stakeholders in medical education. These workshops allowed us to explain the intended use of the EPAs and expected supervision/entrustment level, explore perspectives, understand concerns, and work collaboratively with workshop participants to refine content.

Methods

From January to April 2014, we held four content validation workshops: two local, one national, and one international. The first two workshops were at UCSF; one with pre-clerkship clinical course leaders and another with the clerkship curriculum committee. The third workshop was at the 2014 annual meeting of the AAMC Western Group on Educational Affairs (WGEA). The last workshop was at the 2014 Ottawa Conference, a biennial international medical education conference focused on assessment. See Table 2 for details about workshop participants, procedures, and outcomes.

All workshops were led by two authors (HCC, MM) and followed the same format. Up to two additional authors (AT, OtC, or PO'S) participated to provide small group facilitation. After a brief introduction including how the EPAs were developed and the expected level of supervision/entrustment, participants divided into small working groups, sorting themselves by background (clinician/non-clinician, UME/GME, institution) to ensure diversity in each group (see Table 2). Each small group focused on a specific EPA, discussed its title and detailed specifications/limitations, and provided written comments. Small groups were followed by large group discussion for each EPA. Finally, participants discussed whether there were EPAs missing. Participant and small group notes were collected. All workshops were audio-recorded and workshop facilitators took additional notes. All information was compiled and reviewed by HCC and MM.

Results

Based on the local workshops, we refined the EPA title and detailed specifications/limitations, including a substantive change in language, for EPA #5. Smaller refinements followed every subsequent workshop. Table 2 details the refinement process. Consensus groups of local, national, and international workshop participants did not identify missing EPAs, though some participants suggested an EPA for common procedures.

Phase V: Finalization of EPA Content With Expert And Stakeholder Review

Rationale

Because the EPA descriptions underwent several refinements, we performed final reviews with our expert-EPA consultant as well as local stakeholders to ensure adherence to EPA principles and appropriateness and alignment of content with curricular expectations.

Method

In May 2014, our expert-EPA consultant author (OtC) reviewed the refined EPA descriptions for conceptualization, wording and semantics, resulting in the final version of the EPA descriptions. This version was sent to UCSF's pre-clerkship clinical course leaders and clerkship curriculum committee members for review and approval in June 2014.

Results

Our expert-EPA consultant revealed that our EPAs were written with a learner focus similar to that seen in typical competency language (what a learner will do). With his guidance, we reframed the language so to focus on the activity/unit of work within a specific context. We made no other alterations to the EPAs. Local stakeholders approved the final version of EPAs for implementation in Fall 2014. See Table 1 for titles of the finalized EPAs and Appendix A and B for each EPA's specifications/limitations.

Discussion

We described the methodology we used to identify and develop detailed descriptions of five EPAs that are core for entry into clerkships. These EPAs clarify the developmentally appropriate activities that pre-clerkship students can perform to allow their engagement in the clinical workplace. They are mapped to local curricular expectations and aligned with EPAs developed by external agencies. They are also supported by content validity evidence from both internal and external subject matter experts. Our detailed descriptions and validity evidence may allow others to operationalize these EPAs to improve early clinical experiences at their own institutions.

Workshop participants readily accepted the constructs and content domains for the five EPAs. They agreed on the level of supervision (practice under reactive supervision) and helped to tailor the EPA content (expanding or limiting breadth/complexity of the detailed specifications and limitations) to fit this level. Despite variable pre-clerkship clinical preparation across institutions, participants were able to come to agreement on expectations. Participants from some institutions expressed interest in a procedures-oriented EPA. This highlights that these EPAs are a core set. Individual institutions may choose to include additional elective EPAs such as one related to procedures to suit institution-specific objectives or student needs.

In addition, the sources of information used to arrive at an entrustment decision will likely differ based on local resources and circumstances. For those reasons we do not include any information specific to implementation at UCSF in the full EPA description in Appendix A. We encourage institutions interested in implementing these core pre-clerkship EPAs to complete parts 3, 4a, 4b, 5, and 6 of the EPA descriptions based on their local curriculum. Discussions around the information sources for assessment should look beyond existing assessments and

address the validity of assessments for making entrustment decisions. We recommend that multiple and preferably different types of information sources (e.g. faculty evaluation, multi-source feedback, standardized-patient exams) be used to gauge progress and that entrustment decisions be based on the input of more than one person or time point (e.g. three faculty members recommending entrustment).

A valuable outcome of the EPA development process was the promotion of discussion among the pre-clerkship and clerkship faculty, who may have differing expectations of students' clinical skills.³³ At our institution, it created consensus among the faculty for clerkship entry expectations. Now these expectations can be explicit and clearly laid out for students. The framing of student roles and responsibilities as clinical workplace activities also generated valuable conversations about the importance of learning through participation and the ability of early students to contribute to the care of patients. Through careful considerations about the levels of supervision, meaning of entrustment, and detailed specifications/limitations for each activity, the faculty reached consensus on which tasks and in what circumstances early students could safely engage in authentic patient care activities. This can begin to alter faculty expectations and their perceptions of early students from that of potential burden to contributors in the clinical workplace.

We began this project a year before the AAMC CEPAER were publicly available.¹⁵ Later, we found the CEPAER too broad in scope relative to pre-clerkship students' capabilities. EPAs that are too broad may prevent pre-clerkship students from assuming the degree of responsibility desired for legitimate participation in the workplace, and our primary goal was to define EPAs that could promote student participation. It is also unclear whether pre-clerkship students should be capable of performing each of the 13 CEPAER to a small degree or only a subset of the CEPAER with the expectation of expanding their skills during clerkships. Therefore we elected not to work backwards from the CEPAER but to work forwards based on evidence of actual pre-clerkship student capabilities. The ability to link or nest our pre-clerkship EPAs up to the CEPAER, as demonstrated by our mapping process, reinforces their content validity and allows their use with the CEPAER.

We acknowledge that EPAs should not be too granular.³⁴ However, for pre-clerkship students, seemingly small tasks can be experienced as major responsibilities that will only later become part of a broader responsibility. For instance, EPA#2, "integrate information gathered about a patient to construct a reasoned and prioritized differential diagnosis as well as a preliminary plan for common chief complaints", becomes part of the broader resident task of "manage care of patients with acute common diseases".¹⁸ We deliberated EPA#2's validity since it is an activity that would not necessarily be prohibited without supervision. We retained it, deciding that for very junior learners, the activity should be conceptualized and presented as a responsibility that contributes to patient care. This evolution of small activities into broader responsibilities adds to the holistic sense of growth in clinical performance.

It is important to note where our EPAs may have digressed from recommendations in the literature. As is visible from Table 1, the EPA titles increased in length during our development process, despite the recommendation to keep titles short.^{34,35} We felt that adding limitations to the title, rather than mentioning them only in the elaborated EPA description, would emphasize their

appropriateness for pre-clerkship students and help prevent any misunderstandings or concerns that might occur upon initial encounter with these EPAs. Also EPA#5 (provide the health care team with resources to improve an individual patient's care or collective patient care), is similar to and incorporates elements of two AAMC CEPAER (form clinical questions and retrieve high-quality evidence to advance patient care, identify systems failures and contribute to a culture of safety and improvement). Ten Cate has questioned whether these two AAMC CEPAER are true EPAs.³⁵ However, EPA#5 differs from the two AAMC CEPAER in meeting the definition of an EPA in two respects: 1) it is a discrete task that relates back to care of a patient rather than an ongoing habit and 2) students can advance to higher levels of autonomy for this task.³⁴

There are limitations to the methodology we used. First it was a lengthy process, taking almost two years. However, basing the EPAs on evidence of demonstrated pre-clerkship student capabilities facilitated their acceptance by various stakeholders. This was particularly important since many do not appreciate the extent to which pre-clerkship students are capable of engaging in patient care activities. Second, our use of workshops restricted the number of content experts we could engage in our process. It also limited our ability to control who was engaged at the national and international levels as participation was based on conference attendance. However, we did specifically hold our workshops at meetings we knew would be attended by individuals experienced in medical education. Both workshops were well attended. We kept track of our participants' educational roles, clinical background, and institutions; had them work in diverse groups; and checked for broad representation of institutions and regions in evaluating the workshop feedback. In fact, we found the workshop approach to collecting content validity evidence highly advantageous for allowing rich discussions and fine-tuning of the detailed specifications and limitations of expected activities – something that would be more difficult to achieve using strategies such as the Delphi process or nominal group technique. Third, the validity evidence that we collected focused entirely on content validity. Additional validity evidence regarding use in student assessment is required. The EPAs are being implemented locally and future work will focus on this.

We developed full EPA descriptions for five core EPAs for clerkship entry following published guidelines for EPA development, and with special attention to validity standards for educational testing. We endorse their use by other programs anticipating that they can provide explicit guidance for the engagement of pre-clerkship students in clinical workplace activities with attention to patient safety.

Acknowledgements: The authors would like to thank Charlie DeVries and Dr. Charlotte Wills for their assistance in conducting the student focus groups and preceptor interviews. They also thank the UCSF pre-clerkship clinical course directors, members of UCSF clinical core curriculum committee, and workshop participants at the 2014 AAMC Western Group on Educational Affairs Annual Meeting in Honolulu, Hawaii and 2014 Ottawa Conference in Ottawa, Canada.

Funding/Support: This project was funded by an Innovations Funding for Education Grant from the UCSF Academy of Medical Educators. In addition, Dr. Chen's work in medical education is supported in part by the Abraham Rudolph Endowed Chair in Pediatric Education from the UCSF Academy of Medical Educators.

Other disclosures: None reported

Ethical approval: All steps in this project received ethical approval waivers from the UCSF institutional review board: waiver for student focus groups and preceptor interviews granted on August 27, 2012 (study number 12-09569), waiver for use of workshop data granted on June 30, 2014 (study number 14-13848).

Disclaimers: None reported

Previous presentations: This work was presented as an oral presentation at the annual meeting of the Association for Medical Education in Europe on September 3, 2014 in Milan, Italy and as a poster presentation at the AAMC Medical Education Meeting on November 6, 2014 in Chicago, Illinois.

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Figure 1: Steps in the Development of and Collection of Content Validity Evidence for Pre-clerkship EPAs.

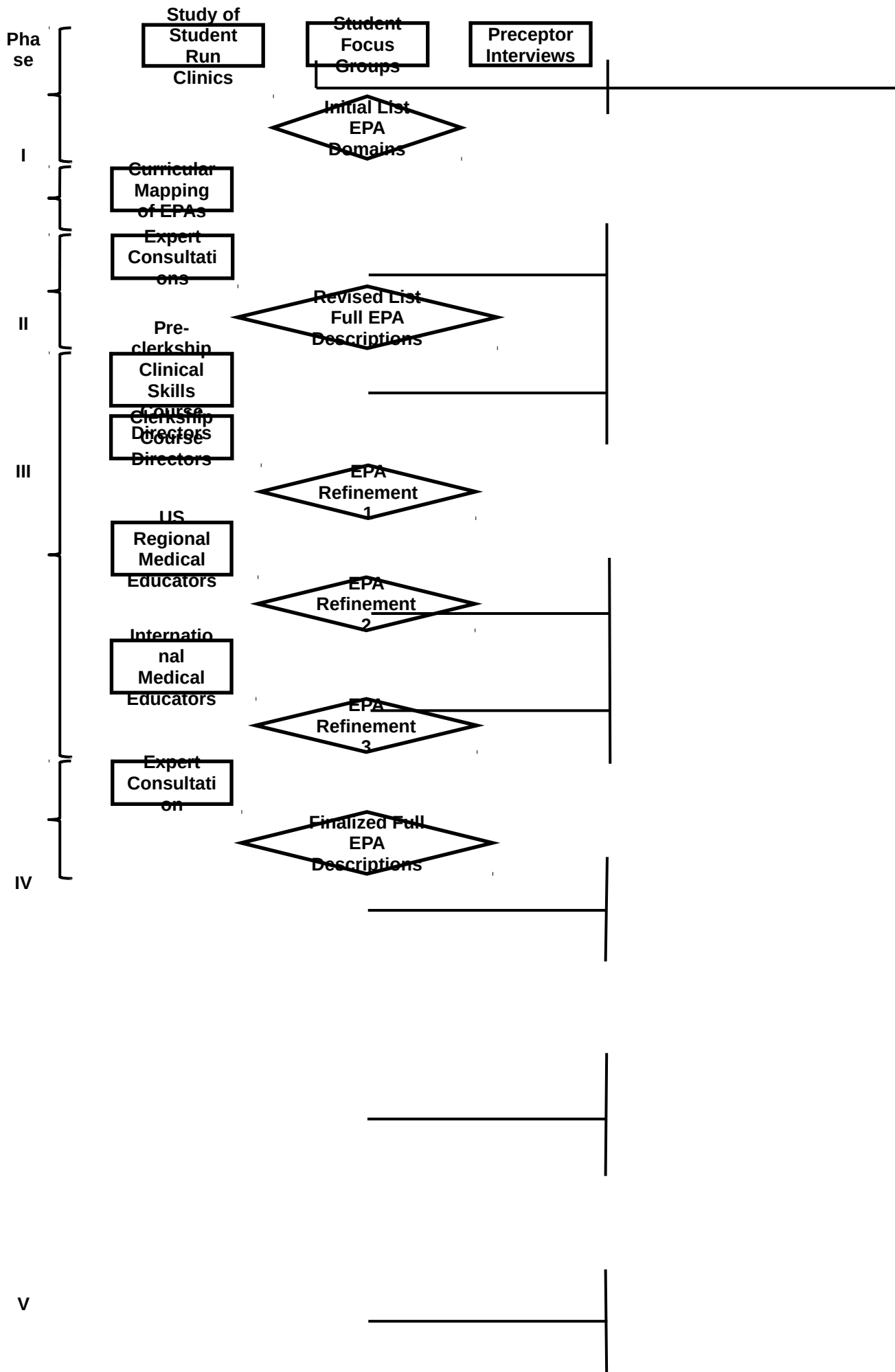


Table 1: Evolution of List of EPA Content Domains/Titles

Initial List of EPA Content Domains	Revised List of EPA Titles	Finalized EPA Titles
A. Information gathering	1. Information gathering from a cooperative patient in no distress with a common chief complaint and no complicated underlying medical problems	1. Gather information from a medically stable patient with a common chief complaint
B. Information sharing with providers	2. Integrate information gathered about the patient to construct an initial assessment and plan for common chief complaints	2. Integrate information gathered about a patient to construct a reasoned and prioritized differential diagnosis as well as a preliminary plan for common chief complaints
	3. Communication of information relevant to patient's care with other members of the health care team	3. Communicate information relevant to a patient's care with other members of the health care team
D. Information sharing with patients	4. Information sharing with a patient in no distress about the patient's diagnosis and/or management plan	4. Share information about the patient's care, including diagnosis and management plan, with a patient in no significant physical or emotional distress
E. Patient advocacy and quality improvement	5. Identify and share relevant resources to improve quality of patient care	5. Provide the health care team with resources to improve an individual patient's care or collective patient care
F. Information management for lifelong learning		

Table 2: Workshops Providing Content Validity Evidence

	Workshop 1: Pre-clerkship Clinical Skills Course Directors	Workshop 2: Clerkship Curriculum Committee	Workshop 3: National Medical Education Conference	Workshop 4: International Medical Education Conference
Characteristics	<ul style="list-style-type: none"> • 60 minutes • 7 participants • 4 departments 	<ul style="list-style-type: none"> • 45 minutes • 18 participants (including 2 students) • 7 departments 	<ul style="list-style-type: none"> • 90 minutes • 26 participants • 12 US schools and 1 international school 	<ul style="list-style-type: none"> • 90 minutes • 23 participants • At least 15 schools from 7 countries (US, Canada, UK, Germany, Switzerland, New Zealand, Thailand)*
Small groups	<ul style="list-style-type: none"> • 2 small groups • Each group with at least 1 clinician and 1 non-clinician • 2-3 EPAs/group 	<ul style="list-style-type: none"> • 5 small groups • Each group with at least 1 clerkship director • 1 EPA/group 	<ul style="list-style-type: none"> • 5 small groups • Each group with at least 3 schools represented • 1 EPA/group 	<ul style="list-style-type: none"> • 5 small groups • 4 groups with at least 3 schools and 3 countries represented* • 1 EPA/group
EPAs provided	Revised list		Refinement 1	Refinement 2
General feedback	<ul style="list-style-type: none"> • Liberalize activity parameters (increase expectations) • Clarify EPA 5 	<ul style="list-style-type: none"> • Add interpreter use • Clarify EPA 5 	<ul style="list-style-type: none"> • Increase emphasis on clinical reasoning, basic science application • ? add EPA for systems-based practice and procedures • Refine language and parameters 	<ul style="list-style-type: none"> • Exclude sensitive parts of exam (e.g GU exam) • ?add EPA for systems-based practice and procedures • Refine language and parameters
Revisions made	<ul style="list-style-type: none"> • Updated language in EPAs (major rewrite of EPA 5) • Clarified parameters, in many cases liberalizing them 		<ul style="list-style-type: none"> • Refined language • Adjusted parameters 	<ul style="list-style-type: none"> • Refined language • Adjusted parameters (excluded sensitive part of exam)
Resulting EPAs	Refinement 1		Refinement 2	Refinement 3

*Worksheet with participant demographics from one table was lost from the conference room, so tally of schools and countries do not include that table.

Appendix A: EPA #1 Showing Categories of Information Included in its Full Description

For space considerations, only information for the title, detailed specifications and limitations, and alignment with EPAs from external agencies is shown.

<p>1. EPA #1 title</p>	<p>Gather information from a medically stable patient with a common chief complaint</p>
<p>2. Specifications and limitations</p>	<p>Use the chief complaint to gather a history and perform a complete or focused physical exam appropriate to the context, within a reasonable timeframe (i.e. considering setting, complexity) in the following circumstances:</p> <ul style="list-style-type: none"> • The patient has a common chief complaint (e.g. earache, headache, cough, shortness of breath, abdominal pain, vomiting/diarrhea, back pain, dysuria, fever, or rash) • The patient may have underlying medical problems (e.g. chronic conditions such as hypertension, COPD/asthma, or diabetes) • The physical exam does not include the genitourinary, rectal, or female breast exam • The patient is medically stable and is not in significant physical or emotional distress as determined by a supervising clinician • The setting can be in the outpatient clinic, emergency department, or inpatient ward (but not intensive care units) • The patient is mostly cooperative (e.g. non-combative, adult or child greater than 7 years of age), relatively cognitively intact (e.g. non-sedated, not delirious or demented or psychotic) <ul style="list-style-type: none"> • History could be obtained from a cooperative family member of patient (e.g. parent of a child) • Physical exam where the patient is able to ambulate/transfer him/herself • Interactions are conducted in a language in which both parties are fluent or through a qualified interpreter.
<p>3. Specific knowledge, skills, and attitudes needed to execute the EPA well</p>	<p>List of knowledge, skills, and attitudes with links to where in the local curriculum a student would learn them</p>
<p>4a. Link to preceptorship objectives and clinical skills competencies</p>	<p>List of associated local preceptorship objectives and clinical skills competencies</p>
<p>4b. Link to graduation competencies and milestones most applicable to this EPA</p>	<p>List of local graduation competencies and milestones sorted by ACGME competency domain</p>

<p>4c. Link to EPAs from professional organizations</p>	<p><u>AAMC CEPAER</u></p> <ul style="list-style-type: none"> • Gather a history and perform a physical examination <p><u>GME</u></p> <ul style="list-style-type: none"> • Manage care of patients with acute common diseases across multiple care settings (medicine) • Manage patients with acute, common, single system diagnoses in an ambulatory, emergency or inpatient setting (pediatrics)
<p>5. Information sources to gauge progress</p>	<p>List of local learner assessment sources</p>
<p>6. Method for formal entrustment decision</p>	<p>Description of number of times ability needs to be demonstrated under what circumstances locally</p>
<p>7. Conditions and implications of entrustment for the student</p>	<ul style="list-style-type: none"> • Student will be allowed to (without in-room supervision) gather information from history and physical examination of medically stable patients with common chief complaints to support his/her role as a primary care provider in the outpatient clinic, emergency department, or inpatient ward. • The supervising clinician is not with the student but is nearby and available, and will recheck the student's findings

Appendix B: EPAs #2 to #5 with Titles and Detailed Specifications and Limitations

EPA #2	
Title	Integrate information gathered about the patient to construct a reasoned and prioritized differential diagnosis as well as a preliminary plan for common chief complaints.
Specifications and limitations	<p>Integrate information from the history and physical exam in the following circumstances and with the following characteristics:</p> <ul style="list-style-type: none"> • The patient has a common chief complaint (e.g. earache, headache, cough, shortness of breath, abdominal pain, vomiting/diarrhea, back pain, dysuria, fever, or rash). • The patient has up to three significant, stable medical problems (e.g. controlled hypertension, asthma, or diabetes). • The differential diagnosis and plan: <ul style="list-style-type: none"> • Are based on the patient’s history of present illness • Incorporate factors from the patient’s past medical, social, and family histories, and the patient’s medical record (e.g., considers a patient’s travel history in the differential diagnosis of fever.) • Incorporate foundational science knowledge (e.g. pathophysiology or molecular mechanisms of disease) • The differential diagnosis includes more than one possible diagnosis, and is prioritized and supported by clinical reasoning. • The plan includes suggestions for next steps as appropriate (e.g. commonly ordered diagnostic tests/imaging and/or initial treatment, medications, or interventions).
EPA #3	
Title	Communicate information relevant to patient’s care with other members of the health care team
Specifications and limitations	<p>The following conditions and limitations apply:</p> <ul style="list-style-type: none"> • Findings following a patient encounter (e.g. patient interview, physical exam, chart review, test results, etc) are organized and prioritized and then communicated via: <ul style="list-style-type: none"> • Oral case presentation using an accepted standard format • Written documentation using an accepted standard format (e.g. EHR or other) • The setting can be in the outpatient clinic, emergency department, or inpatient ward (but not intensive care units) • Encounters may include also include interactions outside the clinical setting (e.g. home visit, telephone call, email correspondence, etc.) • Findings are presented and discussed with the supervising clinician before sharing with other members of the health care team (e.g. nursing staff, consulting service, etc.)

EPA #4	
Title	Share information about the patient’s care, including diagnosis and management plan, with a patient in no significant physical or emotional distress.
Specifications and limitations	<p>The following conditions and limitations apply:</p> <ul style="list-style-type: none"> • The information to be shared is straightforward and has been vetted by the supervising clinician. <ul style="list-style-type: none"> • Information can include diagnosis, management plan, next steps, patient education, anticipatory guidance, or health coaching. • The discussion is anticipated not to surprise or provoke undue anxiety in the patient. (e.g.counseling patients on eating habits, medications, or hgb A1C but not providing cancer diagnosis). • The patient is medically stable and has a common acute or chronic diagnosis that is not immediately life threatening, critical, or emergent. • The patient is generally cooperative (non-combative, older child or adult), relatively cognitively intact (non-sedated, not delirious or demented or psychotic). <ul style="list-style-type: none"> • Communication may be with a family member of the patient (e.g. parent of a child) • Communication is in language in which the provider and patient are both fluent or through a qualified interpreter. • Sharing information includes checking the patient’s understanding of the information conveyed and seeking assistance from a supervising clinician if there is notable patient surprise or anxiety.
EPA #5	
Title	Provide the health care team with resources to improve an individual patient’s care or collective patient care.
Specifications and limitations	<p>Information that has been researched and appraised may only be shared with permission of the supervising clinician. Resources include:</p> <ul style="list-style-type: none"> • Information from the medical literature such as practice guidelines and possible treatment options from clinical reviews and studies weighted by quality and relevance of evidence • Patient education materials from the electronic medical record system or other vetted, evidence-based sources (e.g. Up To Date Patient Handouts, clinic-specific information, instructions on how to take medications). • Local, community-based resources for support of patients and/or patients’ families (e.g. non-profit organizations, support groups, food bank, hotline numbers). • National organizations for information, support, and advocacy for patients and/or patients’ families (e.g. American Heart Association, American Cancer Society, Cystic Fibrosis Foundation). • Expert opinion related to a given problem from other members of the health care team (e.g. medical or nurse specialist, pharmacist,

	nutritionist, social worker, etc)
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