

Essential Elements for Core APPEs  
AACP Experiential Education (EE) Section Task Force  
August 2017

**Executive Summary**

**Overview**

In the summer of 2015, ACPE approached EE Section leadership about developing common standards for the core APPEs that all schools must require of their students. These standards could be used to guide schools in performing quality assurance across practice sites. If common practice activities and skills were established for what students should be doing on each of these experiences, individual schools can improve accountability across practice sites and ACPE can provide site teams with standardized criteria to assess programmatic quality.

Consequently, the EE Section Chair charged a task force with conducting a peer-reviewed, consensus-building process to develop a set of practice activities for the core APPEs. The goal was to produce a set of standards that define these experiences that balance rigorous, progressive practice with realistic expectations—results that represent standards all or most schools could support and implement. We are pleased to release this final version to the section.

**Process and Results**

In fall 2015, the task force was formed from volunteers within the section representing all regions of the US, including members of most EE-related consortia in existence and representing an even distribution across type (public vs. private, newer vs. established) and size of school. The task force was further divided into workgroups, each focused on one of the 4 core APPEs (inpatient general medicine patient care, ambulatory patient care, community pharmacy, and hospital/health system pharmacy).

Using available literature (see Resource List, Appendix A), each workgroup developed activities/skills for an assigned APPE. Task force members then reviewed the results for all APPEs in an iterative process (comparing/contrasting: 1. acute care vs. health system and ambulatory care vs. community pharmacy, and 2. acute care vs. ambulatory care and health system vs. community pharmacy). At each stage, task force members were asked to share drafts with their school's EE team and members of their consortia to get input. Edits were incorporated iteratively.

In summer 2016, draft practice activities/skills for all 4 core APPEs were shared with the membership in the EE section business meeting at the AACP Annual Meeting in Anaheim, CA. Task force members gathered input and edits from membership in a series of round table discussions. The task force met to consolidate the input, then the chair served as editor to combine all drafts and input into a near final version. This near final version was disseminated electronically to the EE section in spring 2017 for final comment. The task force met one last time to finalize the document at the AACP Annual Meeting in July 2017.

**Implications**

While only 43 schools (31%) responded to the survey about the hospital/health system APPE, responses were consistent enough to support the following conclusions. Schools remain divided amongst three general approaches to the hospital/health system APPE experience:

- Operations and distribution, medication-use process (primarily non-direct patient care).
- Clinical responsibilities blended with operations (primarily direct patient care).
- Administration and management (non-direct patient care only).

The ability for students to practice supervising technicians is variable across hospital sites. This is an important part of what hospital pharmacists do, but it seems many doubt that students can accomplish this before graduation. Nearly half of respondents stated such a skill should not even be included in the hospital/health system APPE.

Most survey respondents also had concerns about requiring students to participate in sterile compounding. They pointed out that hospitals usually require rigorous training and certification before staff members are allowed to do this. As such, most sites do not allow students to participate in sterile compounding. While most felt familiarity with USP 797 and 800 is important for students to get, actual experience making IVs is probably not a universally realistic expectation.

Many respondents mentioned that activities/skills related to order entry/review, pharmacist patient care process, and interprofessional collaboration should be included in the hospital/health system APPE. Yet others stated that quality improvement projects and other non-patient care activities should be emphasized. No clear consensus was reached about whether the health system APPE is a patient care or non-patient care experience. Half of respondents said the experience should be a blend of clinical and administrative activities. Therefore, we cannot release a set of practice activities/skills for the health system APPE at this time.

The task force identified many professional competencies such as problem solving/critical thinking, professionalism, communication, leadership, cultural awareness, and evidenced-based medicine practices that should be required during these and other APPEs. These competencies are already outlined in the Center for Advancement of Pharmacy Education (CAPE) Outcomes (see resource list), and schools are already assessing student performance of them. Because these competencies should occur in multiple, if not all APPEs, the task force chose to focus on developing a set of practice activities/skills specific to the required experiences that could be used for program evaluation and quality improvement.

The task force recognizes that the common core can be easily confused with CAPE Outcomes and the newly published Entrustable Professional Activities (EPAs) (see resource list). We do not offer these skill sets as another check list to complete about students. We offer this document in the spirit of helping schools to standardize experiences and to provide context for quality assurance, so that all students get a minimum, similar set of experiences with common expectations. Faculty and staff in EE programs can use this construct to develop and provide guidance to sites about what they should have students do. How schools go about assessing student performance will depend on their assessment plan and chosen strategies. We encourage schools to use rigorous (valid and reliable), evidence-based assessment methods for measuring student performance in practice.

We encourage schools to assess student performance of professional competencies during APPEs in conjunction with their regional EE consortia using assessment tools developed regionally. We encourage schools to collaborate to analyze the performance of their assessment tools in order to validate them. This work represents important scholarship opportunity for EE faculty as opposed to dictating a “one size fits all” evaluation form developed by a select few.

## **Conclusion**

The essential elements of core APPEs represent work completed over 1½ years in an inclusive and iterative, peer-reviewed process. The task force determined consensus had been reached for all APPEs except the hospital/health system APPE. Therefore, essential elements for the inpatient general medicine patient care, ambulatory patient care, and community pharmacy APPEs presented here are final.

*Questions and further comments can be sent to Jennifer Danielson, University of Washington at: [jendan@uw.edu](mailto:jendan@uw.edu).*

## Mapping the Essential Elements to CAPE Outcomes and the EPAs

# Entrustable Professional Activities (EPAs)

Units of work that pharmacists perform on the job

## Center for Advancement of Pharmacy Education (CAPE) Outcomes

Competencies (knowledge, skills and attitudes) that entry-level pharmacists should have upon graduation to be able to work as a pharmacist

## Common Practice Activities/Skills for APPEs (APPE Essential Elements)

Required activities/skills that students should do so that they are sufficiently familiar with the responsibilities of pharmacists in the most common practice settings

# EE Section Task Force on Essential Elements for Core APPEs

## Task Force Members

### Chair

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*University of Washington*

### Members

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### EE Consortia Represented

- Big Ten Consortium
- Canadian Pharmacy Experience Program Special Interest Group (PEP-SIG)
- Florida Consortium
- Iowa Consortium
- Michigan (MCPEP) Consortium
- MidAtlantic Education Consortium
- Northeast (NERDEE) Consortium
- Northwest Pharmacy Education Consortium (NWPEC)
- Ohio Consortium
- Oklahoma Pharmacy Experience Program (OK-PEP) Consortium
- Southeastern Pharmacy Experiential Education Consortium (SPEEC)
- Texas Consortium on Experiential Programs (TCEP)
- Western New York Consortium

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### Community Pharmacy (*Lea Bonner, Cheryl Clarke, Cambria DeHoag, Mike Doherty*)

Element	Example Learning Objectives or Activities*	Comments
<b>Pharmacist Patient Care (PPC)</b>		
<p>PPC 1. Efficiently and appropriately optimize patient-specific outcomes using the Pharmacist Patient Care Process (PPCP) in the community pharmacy setting.</p>	<ul style="list-style-type: none"> <li>• Collect patient information and interpret it based on results of monitoring parameters to support improved patient outcomes</li> <li>• Perform disease state management services</li> <li>• Conduct formal MTM process</li> <li>• Assess and resolve problems identified as part of prospective or retrospective drug utilization review.</li> <li>• Make recommendations and/or modify care plans to address patient specific needs</li> <li>• When possible, initiate/change drug therapy to address patient specific needs</li> <li>• Perform CMR when appropriate and make recommendations/changes accordingly</li> <li>• Prepare and deliver a patient case presentation</li> </ul>	<p>Preferred that this competency include Disease State Management (DSM) <b>AND/OR</b> Medication Therapy Management (MTM) so that this experience is an advanced community experience as opposed to the introductory community experience.</p> <p>We have split out disease state management (DSM) from MTM, because in reality it is a different process. DSM refers to collaborative practice, which varies site-to-site and state-to-state, where as MTM is a specific reimbursed service/process.</p> <p>Recognizing that MTM is delivered in many ways and may vary with plans, we did not specify "Perform a CMR" as the competency itself but provided some flexibility in demonstrating this competency.</p>
<p>PPC 2. Proactively identify and resolve drug-related problems including patient-specific barriers to medication adherence.</p>	<ul style="list-style-type: none"> <li>• Perform effective prospective, concurrent, and retrospective drug utilization review</li> </ul>	<p>This element can be accomplished through a variety of tasks (formal and informal) in the course of identifying and resolving drug related problems for patients. This could be accomplished as part of MTM and/or preparing</p>

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	<ul style="list-style-type: none"> <li>• Create and implement care plans to resolve identified potential or existing drug therapy problems</li> <li>• Identify medication adherence concerns and construct patient-specific interventions to improve adherence</li> <li>• Conduct formal MTM process</li> <li>• Perform CMR when appropriate and make recommendations/changes accordingly</li> <li>• Prepare and deliver a patient case presentation</li> </ul>	<p>a patient case presentation. The responsibilities will need to be made site specific.</p>
<p>PPC 3. Educate patients about self-care and medication self-administration including making recommendations regarding medications (prescription and OTC) and non-drug therapy alternatives.</p>	<ul style="list-style-type: none"> <li>• Provide appropriate OTC counseling/consulting.</li> <li>• Perform self-care consults.</li> </ul>	<p>This could be accomplished as part of MTM.</p>
<p>PPC 4. Triage and refer patients to other members of the health care team to meet a specific patient's health needs.</p>	<ul style="list-style-type: none"> <li>• Perform an assessment including History of Present Illness (HPI) to determine the appropriate level of care</li> <li>• Match patient health needs to the roles and responsibilities of other healthcare professionals</li> <li>• Make recommendations and/or modify care plans to address patient specific needs</li> </ul>	
<p><b>Communication and Education (C&amp;E)</b></p>		
<p>C&amp;E 1. Proactively perform patient-centered counseling and medication education using the most current and relevant information.</p>	<ul style="list-style-type: none"> <li>• Provide medication education on all new prescriptions</li> </ul>	

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	<ul style="list-style-type: none"> <li>• Provide medication education on refills when appropriate</li> <li>• Proactively perform patient-tailored counseling and medication education using the most current and relevant information.</li> </ul>	
<p>C&amp;E 2. Adjust communication styles and techniques (e.g. motivational interviewing, coaching, counseling/education) in response to patient specific needs and individual social determinants of health (e.g. culture, religion, health literacy, literacy, disabilities, and cognitive impairment).</p>	<ul style="list-style-type: none"> <li>• Implement motivational interviewing techniques to improve patient adherence</li> <li>• Alter prescription counseling strategies based on patient or caregiver needs</li> <li>• Assess effectiveness of counseling or other communication using the teach back method and re-adjust technique until understanding is confirmed</li> </ul>	<p>This could be included in the process of MTM, prescription filling, or OTC consults. Consider including communicating with other health care providers as part of this element.</p>
<p><b>Population Health (PH)</b></p>		
<p>PH 1. Provide patients with health and wellness strategies including provision of community screening and education services when indicated.</p>	<ul style="list-style-type: none"> <li>• Provide patients with health and wellness strategies including provision of community screening and education services when indicated.</li> <li>• Deliver preventative disease screening services.</li> <li>• Participate in immunization services.</li> <li>• Participate in point-of-care testing services.</li> <li>• Accurately provide OTC counseling/consulting.</li> <li>• Participate in health fairs.</li> </ul>	

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	<ul style="list-style-type: none"> <li>• Prepare and deliver a patient case presentation.</li> </ul>	
<b>Dispensing System and Safety Management (D&amp;S)</b>		
D&S 1. Accurately apply the prescription verification process (e.g. legitimate prescription, appropriate dose, interactions, DUR).	<ul style="list-style-type: none"> <li>• Accurately fill prescriptions while operating within the workflow of the practice site.</li> </ul>	
D&S 2. Use a computerized pharmacy management system and best practices related to safe medication use in distribution of medications to patients.	<ul style="list-style-type: none"> <li>• Accurately fill prescriptions while operating within the workflow of the practice site.</li> </ul>	
<b>Practice Management (PM)</b>		
PM 1. Demonstrate the role of a pharmacist in managing legal, human, financial, technological and/or physical resources for day-to-day operations in the pharmacy.	<ul style="list-style-type: none"> <li>• Identifies situations requiring the intervention and management of the pharmacist in the community pharmacy setting.</li> <li>• Identifies strengths and areas for improvement within the practice or business model, considering alternatives and potential strategies.</li> <li>• Discusses site's budget and financial projections.</li> <li>• Identifies opportunities for staff training and creates a training plan.</li> <li>• Provides an in-service to pharmacy staff.</li> <li>• Given a human resources conflict, describes perspectives of all involved.</li> <li>• Completes a needs assessment regarding technology at the site.</li> </ul>	

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	<ul style="list-style-type: none"> <li>• Examines the pros and cons of the site’s physical layout and develops an improvement plan.</li> <li>• Conducts an inventory analysis and creates a plan to increase turnover.</li> <li>• Writes a report about strategies to manage drug shortages.</li> <li>• Contrasts pharmacist and pharmacy technician activities at the site and makes recommendations to improve workflow.</li> <li>• Reviews the drug storage policies to ensure proper drug storage.</li> </ul>	
<p>PM 2. Participate in continuous quality improvement techniques to optimize the medication use process.</p>	<ul style="list-style-type: none"> <li>• Apply the CQI process within the site’s procedures for quality improvement.</li> <li>• Evaluate CQI data to determine improvement opportunities.</li> <li>• Create a report recommending potential improvements based on site data.</li> <li>• 4. Participate in the reporting of quality-related events.</li> </ul>	<p>While CQI is often emphasized in hospital practice, it is important in the outpatient setting too. Students should have opportunity to engage in these activities in the community pharmacy to see how they occur in this setting.</p>

\*Example learning objectives are provided as additional information but are neither comprehensive nor expected of all schools or students.

## EE Section Task Force on Essential Elements for Core APPEs

### Appendix A Resource List

Hill L, Delafuente J, Sicat B, Kirkwood C. Development of a Competency-Based Assessment Process for Advanced Pharmacy Practice Experiences. *Am J Pharm Educ* 2006; 70 (1) Article 01.

Haase K, Smythe M, Orlando P, et al. Quality Experiential Education. ACCP White Paper. *Pharmacotherapy* 2008; 28(12):1547.

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Skills and attitudes: A retrospective comparative-experimentalist study. *BMC Medical Education* 2008, 8:17.

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Core entrustable professional activities for entering residency. AAMC 2014. Available at <https://members.aamc.org/eweb/upload/Core%20EPA%20Curriculum%20Dev%20Guide.pdf> (accessed 4/14/17)

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