

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.

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

Jennifer Danielson
University of Washington

Members

Kathy Besinque
Loma Linda University

Lea Bonner
Mercer University

Andrea Cameron
University of Toronto

Cheryl Clarke
Drake University

Deb Copeland
Northeastern University

Cambria DeHoag
Ferris State University

Vincent Dennis
University of Oklahoma

Mike Doherty
University of Cincinnati

Michelle Holt-Macey
Wilkes University

Denise Klinker
University of Florida

Michael MacEvoy
D'Youville College School of Pharmacy

Lena Maynor
West Virginia University

Kate Newman
SIUE School of Pharmacy

Nancy Ordonez
University of Houston

Jean Rogers
Palm Beach Atlantic University

See-Won Seo
Albany College of Pharmacy and Health Sciences

James Scott
Western University of Health Sciences

Toyin Tofade
University of Maryland

Cathy Worrall
Medical University of South Carolina

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

EE Section Task Force on Essential Elements for Core APPEs

Ambulatory Care (*Kathy Besinque, Deb Copeland, Kate Newman, James Palmieri, James Scott, See-Won Seo*)

Element	Example Learning Objectives or Activities*	Comments
Pharmacist Patient Care (PPC)		
<p>PPC 1. Demonstrate appropriate depth and breadth of pharmacotherapeutics and disease-related knowledge for common conditions in the ambulatory care clinic population.</p>	<ul style="list-style-type: none"> • Participate and/or lead topic discussions. • Apply the PPCP to every patient assigned by preceptor, essentially independently, and present to preceptor. 	<p>We recognize that the patients seen on this rotation could represent a variety of specialty and primary care clinics depending on the geographic area and local practice model. The goal is to see the most common disease states generally encountered in the clinic setting. This is not a dispensing experience.</p>
<p>PPC 2. Efficiently and appropriately optimize patient-specific outcomes for ambulatory care patients using the Pharmacist Patient Care Process (PPCP), in collaboration with other healthcare providers.</p>	<ul style="list-style-type: none"> • Perform a patient history and systematically collect information sufficient to identify drug related problems and to support decisions regarding drug therapy. • Perform, obtain and interpret physical assessments needed for managing medication therapy. • Assess collected information to evaluate/identify drug related problems. • Make decisions about a care plan for treatment; prevention; and wellness to optimize patient outcomes that includes, but not limited to, strategies that overcome patient-specific barriers to care. • Implement a care plan in collaboration with health care team and patient that includes monitoring and continuity of care, and considerations for triage, patient 	<p>Practicing the PPCP as it applies in the clinic setting should form the majority of this experience.</p>

EE Section Task Force on Essential Elements for Core APPEs

	<p>referral, and follow-up.</p> <ul style="list-style-type: none"> • Monitor and evaluate care plan, make needed adjustments. 	
Communication and Education (C&E)		
C&E 1. Document patient care activities and care plan clearly and concisely to reflect the PPCP in the appropriate site-specific system.	<ul style="list-style-type: none"> • Accurately and efficiently perform types of documentation pharmacists do in this setting: <ul style="list-style-type: none"> ○ SOAP notes for inclusion in medical record. ○ Care notes from face-to-face patient visits. ○ Interventions/recommendations made to team for patient care. • Report in writing cost outcomes necessary for ACO reporting. 	As pharmacists gain provider status (especially in the clinic setting) documentation becomes imperative for appropriate reimbursement to happen. Students should gain experience at documentation practices while on this experience.
C&E 2. Advocate for patient access to medications to optimize patient outcomes.	<ul style="list-style-type: none"> • Identify common avenues for accessing drug/medication assistance programs for un/non-insured patients. • Assist a patient whose insurance has denied coverage for a necessary medication in obtaining that medication through either an insurance appeal or a medication assistance program 	Not all insurance companies are able to add new, and often essential, medications to their formularies, and the pharmacist is the ideal practitioner to help the patient access the medication.
C&E 3. Perform patient-centered medication education.	<ul style="list-style-type: none"> • Demonstrate teach back method for instructing patients with devices. • Appropriately apply techniques to assess patient understanding. 	Recommendation: Push students to show this skill proactively and/or independently to emphasize leadership and self-awareness abilities.
C&E 4. Adjust communication style, techniques, and language in response to patient-specific needs and individual social determinants of health.	<ul style="list-style-type: none"> • Demonstrate common communication techniques used in this setting: <ul style="list-style-type: none"> ○ motivational interviewing, ○ coaching 	Practice in the clinic involves significant communication and cooperation with patients to help them take their medications properly. It is the cornerstone of practice in this setting.

EE Section Task Force on Essential Elements for Core APPEs

	<ul style="list-style-type: none"> ○ counseling/education ○ teach back ○ teaching for devices ● Social determinants of health that should be given attention include culture, religion, health literacy, literacy, disabilities, and cognitive impairment. 	<p>Students should spend significant time performing these skills.</p>
<p>Interprofessional Collaboration (IPC)</p>		
<p>IPC 1. Actively contribute as a member of an interprofessional healthcare team.</p>	<ul style="list-style-type: none"> ● Independently communicate medication therapy recommendations to members of the healthcare team ● Share accountability for patient care decisions with the team ● Demonstrate effective teamwork/collaboration skills ● Present patient cases to other members of the team 	<p>Collaborating with others on the health care team happens in many settings. However, it can be difficult to achieve the community pharmacy setting. Yet it is necessary to experience teamwork unique to the ambulatory care setting. While schools may choose to incorporate team collaboration into other APPEs, we feel it should at a minimum be required during this experience because the likelihood of shared decision-making is greater in the clinic setting as opposed to a community pharmacy.</p>
<p>Evidence Based Medicine (EBM)</p>		
<p>EBM 1. Apply evidence-based medicine practices to demonstrate knowledge of information applicable to ambulatory care practice.</p>	<ul style="list-style-type: none"> ● Retrieve, interpret, and apply biomedical literature applicable to the patients seen on this rotation. ● Respond to questions with the appropriate level of detail necessary to ensure proper patient care and communication with other relevant parties. ● Analyze a clinical study. ● Prepare and lead a Journal club ● Defend/justify recommendations using with published evidence in support of a clinical situation. 	

EE Section Task Force on Essential Elements for Core APPEs

	<ul style="list-style-type: none"> • Present patient cases, disease or medication related topics to health care professionals. 	
Practice-Specific Responsibilities (PSR)		
<p>PSR 1. Use population-level data and quality metrics to identify and develop practices or strategies for improving outcomes and/or addressing health promotion and disease prevention for the population served by the clinic.</p>	<ul style="list-style-type: none"> • Participate in a MUE/DUE or other type of data collection and review to assess the effectiveness of a treatment regimen or pathway. 	<p>The need for pharmacists to help manage a costs and drug prescribing for a panel (i.e. population) of patients is ever growing. Students should get experience doing this as it is becoming a core component of practice 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.

Kassam R, Poole G, Collins J. Development of an instrument to assess the impact of an enhanced experiential model on pharmacy students' learning opportunities,

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

Entry-level Competencies Needed for Pharmacy Practice in Hospitals and Health-Systems. ASHP-ACPE Task Force, 2010.

Entry-level Competencies Needed for Ambulatory Care Practice. ASHP Section of Ambulatory Care Practitioners, 2010.

Entry-Level Competencies Needed for Community Pharmacy Practice. NACDS Foundation-NCPA-ACPE Task Force, 2012.

Entry-level Competencies Needed for Managed Care Pharmacy Practice. AMCP-ACPE Task Force, 2012.

Medina MS, Plaza CM, Stowe CD, et al. Center for the Advancement of Pharmacy Education (CAPE) Educational Outcomes 2013. *Am J Pharm Educ* 2013; 77(8): Article 172.

Vlasses P, Patel N, Rouse M, et al. Employer Expectations of New Pharmacy Graduates: Implications for the Pharmacy Degree Accreditation Standards. *Am J Pharm Educ* 2013; 77(3) Article 47.

O'Sullivan T, Danielson J, Weber S. "Qualitative analysis of common definitions for core advanced pharmacy practice experiences" *Am J Pharm Educ* 2014, 78(5): Article 91.

Pharmacist Patient Care Process. Joint Commission on Pharmacy Practice, 2014. Available at: <http://www.pharmacist.com/sites/default/files/files/PatientCareProcess.pdf> (accessed 4/10/17)

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)

Accreditation Standards and Key Elements for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. (Standards 2016) ACPE 2015.

Ried D, Doty R, Nemire R. A Psychometric Evaluation of an Advanced Pharmacy Practice Experience Clinical Competency Framework. *Am J Pharm Educ* 2015; 79 (2) Article 19.

Core Entrustable Professional Activities for New Pharmacy Graduates. AACP Task Force, 2016. Available at: <http://www.aacp.org/resources/education/cape/Pages/EPAs.aspx> (accessed 2/5/17)