Entry-level Competencies Needed for Ambulatory Care Practice

Developed by the ASHP Section of Ambulatory Care Practitioners

Introduction

A joint Task Force of the American Society of Health-System Pharmacists (ASHP) and the Accreditation Council for Pharmacy Education (ACPE) recently published guidelines for the competencies that entry-level pharmacy practitioners should have prior to pharmacy practice in hospitals and health-systems.[1] This collaborative document was created out of a need to identify gaps in the readiness of new pharmacy graduates to practice in the hospital environment or to enter a hospital residency, and describes competencies that were judged by the task force to be critical to success for an entry-level practitioner in those settings.

Academicians and preceptors in ambulatory practice settings have a similar need for identifying areas where entry-level practitioners should be competent in key areas of ambulatory care practice. Some elements of competence apply to all areas of pharmacy practice. However, the expression of those competencies may differ among various practice settings, and there are also differences in the depth of competency expected of different members of the pharmacy team (e.g. practitioners as compared to residents or PharmD students).

This document is a resource that can be used in various ambulatory care settings for evaluating existing staff professional development and training related to competency program assessment. The elements listed here may help to identify competency gaps, in which case training can be efficiently focused. For new program development, these elements can be used to design training programs and job descriptions for staff that are providing new services or working in a new practice environment.

Methods

The key actions taken by a subcommittee of the Section of Ambulatory Care Practitioners was to review and identify relevant ambulatory care competencies related to practitioners, residents, students, and technician oversight from the following resources:

1. Practitioners:

    a. The 2010 joint ASHP-ACPE taskforce on Entry-Level Competencies Needed for Pharmacy Practice in Hospitals and Health-Systems. The lead numbers in the competency grid designates this document.[1]

    b. The 2009 Scope of Contemporary Pharmacy Practice: Roles, Responsibilities, and Functions of Pharmacists and Pharmacy Technicians[2]

    c. The 2008 ACCP White Paper on Clinical Pharmacist Competencies[3]

    d. The 2006 ASHP Guidelines on Pharmacist-Conducted Patient Education and Counseling[4]

    e. The 2000 ASHP Guidelines on the Pharmacist's Role in Home Care[5]

    f. The 1999 ASHP Guidelines: Minimum Standards for Pharmaceutical Services in Ambulatory Care[6]

    g. The 1996 ASHP Guidelines on a Standardized Method for Pharmaceutical Care[7]

    h. The 1996 ASHP Guidelines on the Provision of Medication Information by Pharmacists[8]

    i. The 1995 ASHP Guidelines: Minimum Standards for Pharmacies in Hospitals[9]

2. Residents:

    a. The 2007 ASHP Accreditation Standards for Postgraduate Year One (PGY1) Pharmacy Residency Programs[10]

        i. The 2008 ASHP Required Elective Educational Outcomes, Goals, Objectives, and Instructional Objectives for Postgraduate Year One (PGY1) Pharmacy Residency Programs 2nd Edition[11]

    b. The ASHP Educational Outcomes, Goals, and Objectives for Postgraduate Year Two (PGY2) Ambulatory Care Pharmacy Residency Programs[12]

3. Students: Designated by (italics)

    a. The ACPE Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree[13]

    b. The 2010 ACPE Pre-APPE Core Performance Domains and Abilities[14]

    c. The 2004 Center for the Advancement of Pharmaceutical Education (CAPE) - Educational Outcomes[15]

4. Technicians: Designated by [bolded]

    a. Pharmacy Practice Model Initiative (PPMI) Summit Recommendations, February 1, 2011, section D, "Advancing the Use of Pharmacy Technicians"[16]

    b. Model Curriculum for Pharmacy Technician Training, 2nd ed. ASHP, 2001.[17]

    c. The 2009 Scope of Contemporary Pharmacy Practice: Roles, Responsibilities, and Functions of Pharmacists and Pharmacy Technicians[2]

Technician Section

Pharmacy technicians play a very important role in providing pharmacy services today, and as the profession works toward meeting the goals of the Pharmacy Practice Model Initiative (PPMI), the role of the pharmacy technician will expand further. In fact, a major tenet of the PPMI is that the use of appropriately trained pharmacy technicians should be advanced so that pharmacists' time can be redeployed to drug-therapy management activities.[16] Pharmacists will not be able to increase the time spent on clinical patient care without highly-trained, highly-motivated, and highly-competent technicians supporting the pharmacy department. When the Model Curriculum for Pharmacy Technician Training was last updated in 2001, the preface to the 2nd Edition included a reference to the role pharmacy technicians may play in "facilitating pharmacist engagement in direct patient care activities".[17] Technician competencies are therefore included in this document.

References

1. American Society of Health System Pharmacy and Accreditation Council for Pharmacy Education. Entry-level competencies needed for pharmacy practice in hospitals and health-systems. 2010. (accessed 2012 Jan 10).

2. Council on Credentialing in Pharmacy. Scope of contemporary pharmacy practice: roles, responsibilities, and functions of pharmacists and pharmacy technicians. 2009. http://www.pharmacycredentialing.org/ccp/Contemporary_Pharmacy_Practice.pdf (accessed 2012 Jan 10).

3. Burke JM, Miller WA, Spencer AP, et. al. Clinical pharmacist competencies. Pharmacotherapy. 2008;28(6):806–15.

4. American Society of Health-System Pharmacists. ASHP guidelines on pharmacist-conducted patient education and counseling. Am J Health-Syst Pharm. 1997; 54:431–4.

5. American Society of Health-System Pharmacists. ASHP guidelines on the pharmacist's role in home care. Am J Health-Syst Pharm. 2000; 57:1252–7.

6. American Society of Health-System Pharmacists. ASHP guidelines: minimum standard for pharmaceutical services in ambulatory care. Am J Health-Syst Pharm. 1999; 56:1744–53.

7. American Society of Health-System Pharmacists. ASHP guidelines on a standardized method for pharmaceutical care. Am J Health-Syst Pharm. 1996; 53:1713–6.

8. American Society of Health-System Pharmacists. ASHP guidelines on the provision of medication information by pharmacists. Am J Health-Syst Pharm. 1996; 53:1843–5.

9. American Society of Health-System Pharmacists. ASHP guidelines: minimum standard for pharmacies in hospitals. Am J Health-Syst Pharm. 1995; 52:2711–7.

10. American Society of Health-System Pharmacy. ASHP accreditation standard for postgraduate year one (PGY1) pharmacy residency programs. http://www.ashp.org/s_ashp/docs/files/RTP_PGY1AccredStandard.pdf (accessed 2012 Jan 10).

11. American Society of Health-System Pharmacists. Required and elective educational outcomes, goals, objectives, and instructional objectives for postgraduate year one (PGY1) pharmacy residency programs. http://www.ashp.org/DocLibrary/Accreditation/RegulationsStandards/RTPPGY1GoalsObjectives.aspx (accessed 2012 Jan 10).

12. American Society of Health-System Pharmacists. Educational outcomes, goals, and objectives for postgraduate year two (PGY2) ambulatory care pharmacy residency programs.

http://www.ashp.org/DocLibrary/Accreditation/Regulations-Standards/RTPObjAmbulatory032608.aspx (accessed 2012 Jan 10).

13. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the Doctor of Pharmacy degree, S2007 Guidelines 2.0. (effective date January 23, 2011) https://www.acpe-accredit.org/students/standards.asp (accessed 2012 Jan 10).

14. American Association of Colleges of Pharmacy. Pre-APPE Core Performance Domains and Abilities. 2010. http://www.aacp.org/governance/SECTIONS/experientialeducation/Pages/ExperientialEducationSpecialProjectsandInformation.aspx (accessed 2012 Jan 10).

15. American Association of Colleges of Pharmacy. Center for the advancement of pharmaceutical education - educational outcomes. 2004. http://www.aacp.org/resources/education/Pages/CAPEEducationalOutcomes.aspx (accessed 2012 Jan 10).

16. American Society of Health-System Pharmacists. Pharmacy practice model initiative summit recommendations. 2011. http://www.ashp.org/DocLibrary/PPMI/Summit-Recommendations.aspx (accessed 2012 Jan 10).

17. American Association of Pharmacy Technicians, American Pharmaceutical Association, American Society of Health-System Pharmacists, National Association of Chain Drug Stores, Pharmacy Technician Educators Council. Model curriculum for pharmacy technician training, 2nd Edition. 2001. http://www.ashp.org/Import/ACCREDITATION/TechnicianAccreditation/StartingaTrainingProgram/ModelCurriculum.aspx (accessed 2012 Jan 10).

Table – Competencies for Ambulatory Care Practice that Should be Achieved as Assigned

Category	Competency	Practitioner	Resident	Student	Technician
Pharmacy Systems					
1	Describe the medication use process in health-systems, including how pharmacy impacts the safety of storage, prescribing, transcription, dispensing, administration, and monitoring steps.	X	X	*X*	**X**
2	Describe the basic and specialized drug procurement process including drug selection, inventory management, backorders, recalls, handling of drug shortages and their relationship to safe, effective patient care. (specialized procurement: 340b, patient assistance, and samples where applicable)	X	X	*X*	**X**
3	Describe the integration and interface of clinical and distributive functions, including the synergy that translates into safe and effective medication therapy.	X	X	*X*	**[Overview only]**

4	Outline the basic functionality of commonly used automated systems related to medication use (such as automated dispensing cabinets, computerized prescriber order entry systems, bar code medication administration systems, programmable infusion devices, and robotics), understanding their appropriate and safe use as well as unintended consequences.	X	X	*X*	
	4.a. Technicians successfully set up, calibrate, operate and troubleshoot automated dispensing cabinets, automated IV compounders, bar code systems, and robotics as applicable to the site of care.				**X**
	4.b. Technicians appropriately clean, disinfect and test programmable infusion devices.				**X**
5	Perform activities within a typical health-system drug distribution system,	X	X	*X*	**[Focus on tech duties]**

	including order receipt, evaluation and review, and describe the appropriate roles of pharmacy technicians and pharmacists in these processes.			
6	Demonstrate aseptic technique and describe processes and facilities needed to provide sterile compounded parenteral solutions, including the basic requirements of USP 797.	X	X	*X*	
	6.a. Compound sterile preparations accurately and safely, following USP Chapter 797 requirements. Pharmacists supervise technicians performing sterile compounding tasks.	X	X	*X*	**X**
	Develop, maintain and update medication use policies.	X	X	*(X)**	
	Collect outcomes data to support financial justification of the establishment and expansion of clinical services.	X	X	*(X)**	
	Develop policy / procedures related to preventive and post-exposure programs	X	X	*(X)**	

	(HIV, TB, hepatitis, immunizations, etc)				
	Develop and participate in the health-system's substance abuse prevention, education and employee/patient assistance programs.	X	X	*(X)**	
	Develop policy / procedures for providing pharmaceutical services during facility, local or area-wide disasters affecting the health-system's patients.	X	X	*(X)**	
7	Describe the appropriate use of injectable medications, including intravenous, intrathecal, intraocular, intradermal and other routes. Description should include unique preparation techniques, concentration considerations, rates of administration, special infusion devices, and compatibility considerations.	X	X	*X*	
8	In real or simulated scenarios, supervise pharmacy technicians in their	X	X	*X*	**[X within scope of duties]**

	work in medication preparation and delivery. *[For Technicians, some practice settings may employ Tech-check-Tech processes]*				
	Develop, maintain and update medication use policies.	X	X		
	Develop policy / procedures related to preventive and post-exposure programs (HIV, TB, hepatitis, immunizations, etc)	X	X		
	Develop and participate in the health-system's substance abuse prevention, education and employee/patient assistance programs.	X	X		
	Develop policy / procedures for providing pharmaceutical services during facility, local or area-wide disasters affecting the health-system's patients.	X	X		
Patient Safety					
	Accurately prepare and dispense medications or supervise the preparation of medications	X	X	*X*	**[X within scope of duties]**

	Evaluate the accuracy of a prescription and verify that the information is correct	X	X	*X*	
	Evaluate the appropriateness of medication orders with patient specific data and drug information	X	X	*X*	
	Demonstrate a commitment to and a valuing of patient safety by assuring accurate preparation, labeling, dispensing and distribution of prescriptions and medication orders.	X	X	*X*	**[X within scope of duties]**
Medication Safety and Quality					
9	Summarize current National Patient Safety Goals and articulate those goals that relate to medication use, pharmaceutical care and pharmacy's role in each. [For techs, focus on NPSGs related to quality control and safety rather than medication use]	X	X	*X*	**X**
10	Describe how organizations such as the Joint Commission strive to assure quality of health care through the accreditation process, giving examples of relevant standards related to safe and appropriate medication use.	X	X	*X*	**[Overview only]**

11	Describe those national standards, guidelines, best practices, and established principles and process related to quality and safe medication use (e.g. storage of look-alike/sound-alike medications, high alert medications, storage of concentrated potassium in patient care areas, dangerous abbreviations, leading decimal points and trailing zeros, quality measure related to medications, etc.). [for techs, include all but measures related to drug therapy management]	X	X	*X*	**X**
12	Given a real or simulated case of a patient transitioning from one care setting to another, effectively reconcile his/her medications and make appropriate communications to involved pharmacy providers.	X	X	*X*	
	12.a. Employ pharmacy technicians to initiate medication reconciliation, identify allergies from a patient's chart / history, and screen for patients that require pharmacist	X	X		**X**

	intervention.				
13	Employ performance improvement techniques used in health-systems and describe how they are used to improve the medication use process.	X	X	*(X)**	
	13a. Conduct / evaluation medication use evaluations to ensure proper use of specific medications	X	X	*(X)**	
Clinical Applications					
	Maintain patient privacy / Adhere to patient privacy standards	X	X	*X*	**X**
	Collect patient histories inclusive of cultural, social, educational, economic and other specific factors which affect self-care behaviors, medication utilization and adherence	X	X	*X*	
	Appropriately triage patients	X	X	*X*	
	Obtain in an appropriate medical format a patient history to include: drug allergies, medications (Rx and OTC/herbals), actual vs. prescribed use of medications, and patient specific factors stated above	X	X	*X*	
	Interpret patient information to determine the	X	X	*X*	

	presence of disease, illness, and drug related problems requiring treatment and or referral				
	Apply disease-oriented knowledge to effectively solve actual / potential drug related problems and treatment of medical conditions	X	X	*X*	
	Screen patients medication profile to identify medication allergies, appropriate dosing, duplicate medications, omitted medications, and relevant drug interactions (medication-related outcomes)	X	X	*X*	
	Monitor patients in the health care setting and set policies and process for point-of-care testing	X	X	*X*	
	Design a comprehensive medication therapy plan for patient specific problems to include disease prevention and treatment	X	X	*X*	
	Record / Document all information accurately, legally, and concisely	X	X	*X*	
14	Given a drug information question, access appropriate drug information resources, including primary literature, and provide an accurate and credible answer. Present the answer successfully in both written and oral forms.	X	X	*X*	

15	Given a real or simulated case requiring practical application of pharmacokinetic and pharmacogenomic dosing principles for commonly used drugs that are rely on serum levels for dosing, determine the correct dose.	X	X	*X*	
16	Make useful contributions to the establishment of medication use policies, criteria and maintenance of the formulary as a member of the Pharmacy and Therapeutics Committee using an evidence-based approach to evaluation of the literature.	X	X	*X*	
	Promote the importance of health and wellness, disease prevention (immunizations, tobacco cessation, etc) and management of patient's disease to optimize patient outcomes.	X	X	*X*	
	Participate in the management of medical emergencies	X	X	*X*	
	Document a medication reconciliation and medication adherence based on a patient interaction.	X	X	*X*	
	Track and trend pharmacists interventions	X	X	*X*	

Professional Practice

	Demonstrate leadership and practice management skills	X	X	*X*	

17	Demonstrate effective verbal and written communications to staff, patients, and healthcare team members.	X	X	*X*	**[X within scope of duties]**
	17a. Describe the role of the pharmacist in interdisciplinary care team.	X	X	*(X)* *	
18	Demonstrate professional behavior (attitude, dress, appearance, etc.) in practice settings.	X	X	*X*	**X**
19	Given a real or simulated case, document appropriate therapeutic recommendations or actions related to medication therapy and or monitoring.	X	X	*X*	
	19 a. Pharmacy technicians effectively gather lab data for pharmacist review	X	X	*X*	**X**
20	Accurately triage multiple patient care priorities in times of high activity and workload.	X	X	*X*	
21	Given a real or simulated case, respond to questions with the appropriate level of detail necessary to ensure proper patient care and communication with other relevant parties.	X	X	*X*	
22	Given a real or simulated pharmacy-related problem, demonstrate effective problem solving skills.	X	X	*X*	
23	Given a real or simulated case, demonstrate an appropriate level of clinical knowledge related to	X	X	*X*	

	medications and therapeutics in making decisions or recommendations.				
24	Interpret biomedical literature with regard to study, design, methodology, statistical analysis, significance of reported data, and conclusions (adapted from ASHP Hospital Competency Standard 24)	X	X	*X*	
25	Describe the impact of pharmacist involvement on medication safety and quality using appropriate literature.	X	X	*X*	
	Demonstrate a caring, ethical and professional behavior when interacting with peers, patients, and caregivers	X	X	*X*	
	Demonstrate sensitivity to patient's culture, race, age, socioeconomic status, gender, sexual orientation, religion, disability, and others diverse aspects when interacting with patients caregivers, and other health care professionals	X	X	*X*	
	Participate in the development and implementation of collaborative interdisciplinary practice agreements	X	X	*X*	
	Participate in interdisciplinary teams / medical homes models.	X	X	*X*	**[X within scope of duties]**

*(X) – For Students – each measurable objective marked with (X), the objectives should focus on describe / explain components.

Special Acknowledgement:
Developed by the Section of Ambulatory Care Practitioners

Seena Haines, PharmD, BCACP, FASHP, FAPhA, BC-ADM, CDE
Professor and Associate Dean for Faculty
Residency Director (PGY-1)
Palm Beach Atlantic University, Gregory School of Pharmacy
West Palm Beach, FL

Jenny A. Van Amburgh, BS Pharm, PharmD, FAPhA, BCACP, CDE
Associate Clinical Professor and Assistant Dean for Academic Affairs
Residency Program Director PGY1
Northeastern University - Bouve College of Health Sciences - School of Pharmacy
Boston, MA

Pamela L. Stamm, PharmD, CDE, BCPS
Associate Professor of Pharmacy Practice
Auburn University Harrison School of Pharmacy
Auburn University, AL

Cathy Johnson, R.Ph.
National Director, Clinical Pharmacy Operations
BioScrip
Cincinnati, OH

Jennifer A. Buxton, BS, PharmD, CPP
Deputy Director, Pharmacy Services
Cape Fear Clinic, Inc.
Wilmington, NC