University of Michigan
College of Pharmacy
Ability-Based Outcomes
October 2014

Upon completion of the doctor of pharmacy program, the student will be able to:

1. Foundational Knowledge

1.1 Develop, integrate, and apply knowledge from the foundational sciences (i.e., pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and patient-centered care (learner):

> 1.1.1   Relate the chemical, biochemical, structural and pharmacological mechanisms of drug action to the identification and resolution of medication-related problems
> 1.1.2   Explain physiochemical aspects of pharmaceutical products and drug delivery systems
> 1.1.3   Describe pharmacokinetic and pharmacodynamic principles that must be considered when defining and modifying a dosage regimen in an individual patient
> 1.1.4   Describe the pathophysiology and therapeutic principles required to solve therapeutic problems, provide patient-centered care, and advance population health
> 1.1.5   Describe the components of the US healthcare system and the ways in which pharmacists can optimize medication use
> 1.1.6   Retrieve, analyze, and interpret scientific literature to provide drug information to patients, caregivers, and other healthcare providers
> 1.1.7   Apply research principles and processes
> 1.1.8   Apply the tenets of professionalism and ethical behavior

2. Essentials for Practice and Care

2.1 Provide patient-centered care as the medication expert across the continuum of care (caregiver):

> 2.1.1   Gather, organize, and interpret relevant patient or population specific data
> 2.1.2   Identify pharmacotherapy problems
> 2.1.3   Formulate and implement evidence-guided care plans, assessments, and recommendations based on individualized data
> 2.1.4   Monitor treatment outcomes and modify therapeutic plan as needed

2.2 Manage patient health care needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems (manager):

> 2.2.1   *Ensure the safe and accurate dispensing of medications*
> > 2.2.1.1 Assure the accuracy and completeness of medication orders
> > 2.2.1.2 Provide accurate medication distribution (including dispensing of individual prescriptions), ensuring integrity of drug products
> > 2.2.1.3 Ensure safe compounding of extemporaneous and parenteral products
> > 2.2.1.4 Comply with all legal, ethical, and professional standards

2.2.2   Use technology to optimize the medication use system

2.2.2.1 Integrate technology, automation, and processes to improve medication use for the purposes of improving health outcomes for patients

2.2.3   Identify and utilize human, physical, medical, information and technological resources to optimize the medication use system

2.2.3.1 Promote efficient and cost-effective resource utilization

2.2.3.2 Apply standards, guidelines, best practices, established processes and quality improvement strategies to optimize outcomes.

2.2.3.3 Utilize medication-use criteria, medication use review and risk reduction strategies to minimize medication misadventures

2.3 Design prevention, intervention, and educational strategies for individuals and communities to manage chronic diseases and improve health and wellness (promoter):

2.3.1   Evaluate personal, social, economic, and environmental conditions to maximize health and wellness

2.3.2   Provide prevention, intervention, educational strategies and technology for individuals and communities to optimize health and wellness (e.g., screening, immunizations, etc)

2.4 Describe how population-based care influences patient-centered care and the development of practice guidelines and evidence-based best practices (provider):

2.4.1   Assess the health care status and needs of targeted patient populations

2.4.2   Explain evidence-based approaches that consider the cost, care, access, and satisfaction of targeted patient populations (eg, *institutional or managed-care recommendations for how a drug should be used*)

3.   Approach to Practice and Care

3.1 Identify problems in practice or care; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution (problem solver)

3.1.1   Identify problems *related to practice or care*, and systematically gather, analyze, and synthesize information using available methods and research tools to explore possible solutions

3.1.2   Organize, prioritize, and defend possible solutions and choose an appropriate course of action for a practice or care problem.

3.1.3   Implement and monitor a solution and assess its effectiveness (intended and unintended consequences)

3.2 Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding (educator)

3.2.1   Select the most effective techniques/strategies to educate a given learner or audience

3.2.2   Ensure instructional content contains the most current information relevant for the intended audience

3.2.3   Assess audience comprehension

3.3 Assure that patients' best interests are represented (advocate)

3.3.1   Encourage patients to take responsibility for, and control of, their health

3.3.2   Advocate for and assist patients in obtaining the resources and care required

3.4 Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs (collaborator)

3.4.1   Communicate and collaborate effectively with patients/caregivers and other healthcare professionals to engender a team approach (interprofessional education)

3.4.2   Use active listening, gather input/feedback, value diverse opinions, and foster collaboration to help build consensus and enhance team functioning

3.4.3   Demonstrate professional skills, attitudes, abilities, and values and a sense of personal responsibility and confidence for interactions with patients, patients' agents, and other healthcare providers

3.5 Recognize social determinants of health to diminish disparities and inequities in access to quality care (includer)

3.5.1   Demonstrate an attitude that is respectful of different cultures (cultural sensitivity) and consider cultural beliefs and practices when developing health and wellness care plans

3.5.2   Assess the health literacy of patients and modify communication strategies to meet their needs

3.6 Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization (communicator, oral and written)

3.6.1   Interview patients using an organized, structured, specific question technique (e.g. motivational interviewing) with medical terminology adapted for the audience

3.6.2   Use effective interpersonal skills (verbal and nonverbal communication) to establish rapport and demonstrate empathy

3.6.3   Communicate assertively, persuasively, confidently, and clearly

3.6.4   Document pharmaceutical care activities and associated outcomes

3.6.5   Develop professional documents pertinent to organizational needs (e.g., monographs, policy documents)

4.   Demonstrate Personal and Professional Development

4.1 Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth (self-aware)

4.1.1   Identify and reflect on personal knowledge, skills, abilities, beliefs, biases, motivations, and emotions.

4.1.2   Approach tasks with a desire to learn and demonstrate a willingness to recognize, correct, and learn from errors

4.1.3   Create, implement, evaluate and modify plans for personal and professional development for the purpose of individual growth

4.2 Demonstrate responsibility for creating and achieving shared goals, regardless of position (leadership)

    4.2.1   Compare and contrast leadership and management

    4.2.2   Use a systematic approach to establish and evaluate goals (e.g., SMART goals)

4.3 Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals (innovation)

    4.3.1   Demonstrate initiative, innovative thinking, and creative decision-making when confronted with novel problems or challenges

4.4 Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society (professionalism)

    4.4.1   Adopt personal and professional ethical principles (e.g., altruism, integrity, trustworthiness, and respect) that place the health and safety of patients above personal gain

    4.4.2   Display preparation, initiative, and accountability consistent with a commitment to excellence

Approved: Curriculum and Assessment Committee, 10/20/14