

University of Michigan, College of Pharmacy
Program Outcomes (ABOs) and Skills (EPAs)
 May 2024

	Ability-Based Outcomes (ABOs)	Entrustable Professional Activities (EPAs)
1	KNOWLEDGE	
1.1	Seek, analyze, integrate, and apply foundational knowledge of medications and pharmacy practice (biomedical; pharmaceutical; social, behavioral, administrative; and clinical sciences; drug classes; and digital health)	
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 and understand how they apply to patient care	
1.1.3	Explain how patient-specific parameters and pharmacokinetic/pharmacodynamic principles apply when calculating a dosing regimen for 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	Explain techniques to effectively retrieve and criteria to critically evaluate and interpret scientific literature	
1.1.7	Describe how social determinants of health serve as facilitators/barriers to patient health outcomes	
2	SKILLS	
2.1	Use problem solving and critical thinking skills, along with an innovative mindset, to address challenges and to promote positive change	
2.1.1	Apply the scientific method (collect, analyze, synthesize, apply) to answer a research question.	
2.1.2	Apply problem solving and critical thinking skills to identify and prioritize solutions for practice or care problems, implement a solution, and assess its effectiveness.	
2.2	Actively engage, listen, and communicate verbally, nonverbally, and in writing when interacting with or educating an individual, group, or organization	
2.2.1	Use tailored, patient-centered verbal and nonverbal communication skills when collecting and providing information to patients and caregivers.	Develop proficiency in using communication strategies—including verbal and non-verbal cues, teach-back methods, and motivational interviewing—to enhance patient understanding, address sensitive topics effectively, and facilitate behavior change during interactions with patients and caregivers. Provide education to patients about a new medication.

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2	SKILLS (cont'd)	
2.2.2	Use effective verbal and nonverbal communication skills when collecting and providing information to healthcare professionals.	Verbally communicate information to health care providers (e.g., present a patient case, answer drug information questions, medication recommendations).
2.2.3	Communicate appropriately in writing taking into account the needs of the audience.	Prepare written information (e.g., educational flier or medication action plan) tailored to an individual patient
		Prepare written information (e.g., note documenting findings, response to clinical questions) to communicate with other healthcare professionals.
		Analyze published literature and prepare a formal written document (e.g., scientific abstract, manuscript, poster, quality improvement report, P&T monograph, drug information, formulary, clinical practice guidelines)
2.2.4	Prepare and deliver a presentation with current content that uses effective strategies to educate and assess audience comprehension.	Deliver a formal presentation (excludes patient case).
2.3	Mitigate health disparities by considering, recognizing, and navigating cultural and structural factors (e.g. social determinants of health, accessibility) to improve access and health outcomes.	
2.3.1	Provide appropriate treatment recommendations taking into account a patient's culture, preference regarding traditional therapies, and lifestyle choices.	Display cultural intelligence in providing respectful care to patients with diverse values, beliefs, and behaviors and tailoring that care to patients' social, cultural, and linguistic needs.
		Elicit information about culture, the use of traditional therapies, and lifestyle choices in non-judgmental ways
2.4	Provide whole person care to individuals as the medication specialist using the Pharmacists' Patient Care Process	
2.4.1	Utilize the Pharmacists' Patient Care Process (collect patient information, assess medication-related problems, develop patient-specific care plans, implement interventions, and monitoring patient outcomes) to optimize medication therapy and improve patient health.	Collect data from patients, caregivers, health care professionals, and medical records to support direct patient care. (Collect)
		Assess data regarding individual patients in order to identify overall health care needs (e.g., medical, dietary, social service, and social determinants of health). (Assess)
		Assess data to identify medication-related problems (e.g., appropriateness, safety, effectiveness, adherence). (Assess)
		Develop a plan to effectively manage a patient's health conditions or problem. (Plan)
2.4.2	Perform calculations.	Perform pharmacokinetic calculations.
		Perform pharmaceutical calculations.

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2	SKILLS (cont'd)	
2.5	Promote the best interests of patients and/or the pharmacy profession within healthcare settings and at the community, state, or national level	
2.5.1	Use evidence-based approaches for cost-effective care and medication access, advocate for efficient resources, support patients with affordability concerns, and address barriers to adherence.	Address barriers to accessing medications (e.g., identify formulary alternatives, the need for prior authorizations, and patient assistance programs). Identify barriers to adherence that an individual patient may experience and collaborate with the patient to identify strategies for overcoming them.
2.6	Optimize patient healthcare outcomes using human, financial, technological, and physical resources to improve the safety, efficacy, and environmental impact of medication use systems	
2.6.1	Ensure the accuracy/completeness of medication orders and distribution, safe compounding practices, and integration of technology to optimize patient health outcomes.	Accurately review medication orders for completeness, clinical appropriateness, adherence to medication guidelines, and formulary status. Prepare and dispense medications and process claims, as needed, according to Federal and state laws and regulations. Perform sterile and non-sterile compounding.
2.6.2	Comply with legal, ethical and professional standards, including quality improvement strategies, to optimize resource use and prevent medication errors.	Identify and report medication errors and near misses using standardized or formal reporting procedures to minimize medication-related risk (e.g., ISMP, Assess-ERR Medication Symptoms Worksheet, MedWatch). Collect and assess data from resources such as primary literature, drug information systems, or chart review to support indirect and direct patient care (e.g., medication use systems, medication use policy, cost-benefit analyses) to make recommendations.
2.7	Actively engage and contribute as a healthcare team member by demonstrating core interprofessional competencies	
2.7.1	Collaborate with patients, caregivers, and healthcare professionals to foster a team approach, utilizing active listening and valuing diverse opinions to enhance team functioning.	Differentiate each team member's role, scope of practice, and responsibility in promoting health outcomes. (IPEC 2023) Collaborate with others within and outside the health system to improve health outcomes. (IPEC 2023) Communicate in a responsive, responsible, respectful, and compassionate manner with team members. (IPEC 2023)
2.8	Assess factors that influence the health and wellness of a population and develop strategies to address those factors	
2.8.1	Assess and address healthcare needs, considering social determinants of health, and provide strategies for optimizing health and wellness, including prevention and education.	Conduct health screenings, education, and care to prevent and treat prevalent diseases in the community setting.
2.9	Demonstrate the ability to influence and support the achievement of shared goals on a team, regardless of one's role	
2.9.1	Perform a self- and peer-evaluation to identify opportunities to optimize team performance.	

3	ATTITUDES	
3.1	Self-Awareness (Self-Aware) - Examine, reflect on, and address personal and professional attributes (e.g., knowledge, metacognition, skills, abilities, beliefs, biases, motivation, help-seeking strategies, and emotional intelligence that could enhance or limit growth, development, & professional identity formation)	
3.1.1	Perform a self-evaluation to identify strengths and weaknesses to promote personal and professional development.	
3.1.2	Use a systematic approach to establish, document, and evaluate goals (e.g., SMART goals, curriculum vitae)	
3.2	Professionalism (Professional) - Exhibit attitudes and behaviors that embody a commitment to building and maintaining trust with patients, colleagues, other health care professionals, and society	
3.2.1	Display preparation, initiative, and accountability consistent with a commitment to excellence	
3.2.2	Display openness to receiving and responding to constructive feedback	

Approved: Curriculum and Assessment Committee, May 2024