



## DOCTOR OF PHARMACY EDUCATIONAL COMPETENCIES

*August 2010*

1. Integrate and utilize knowledge of biochemistry, physiology, pathophysiology, and anatomy in order to design a pharmaceutical care plan. Acquire, comprehend, synthesize, apply, and evaluate information about the chemical structure and pharmacology of therapeutic agents in order to design, implement, monitor, evaluate, and adjust pharmaceutical care plans that are patient specific and evidence based.
2. Taking into consideration differences in patients' biochemistry, anatomy, physiology, and pathophysiologic states and, based on the differences in chemical and pharmacological properties between drugs, recommend changes in pharmacotherapeutic regimens that will minimize drug interactions, reduce adverse drug events, increase adherence, and improve therapeutic outcomes.
3. Formulate a patient-centered pharmaceutical care plan (new or revised) in collaboration with healthcare professionals and patients or their caregivers.
4. Design or modify dosage regimens using patient-specific or population pharmacokinetic data, plasma concentration-time profiles of drugs, and factors that alter them.
5. Explain how pharmacogenomics can be utilized to individualize dosage regimens and to anticipate adverse drug events.
6. Identify and explain the physical, chemical, and formulation properties of a drug that influence its ADME, stability, and dosage form design.
7. Identify and explain dosage form features that influence therapeutic outcomes.
8. Make appropriate selection decisions for multisource drug products.
9. Compound and dispense safe and effective extemporaneous pharmaceutical products prescribed or recommended as part of a patient's care plan.
10. Prepare and dispense safe and effective sterile dosage forms and enteral nutrition products prescribed or recommended as part of a patient's care plan.
11. Apply social/behavioral principles and theories in the design, delivery, and evaluation of pharmaceutical care.
12. Apply relevant legal, ethical, social, economic, and professional principles to assure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in the provision of patient care.
13. State the trade and generic names, mechanisms of action, warnings, adverse effects, contraindications, drug interactions, dosage forms, and dosing regimens of the top 200 drug products and representatives from other major therapeutic drug classes.
14. Complete training in patient physical assessment and review of systems as required for Pharmacist Clinician certification.
15. Complete educational training to qualify students for any prescriptive authority certification(s) as currently granted by the New Mexico Board of Pharmacy.

16. Develop population-specific, evidence-based, and effective disease prevention and management programs.
17. Develop and implement population-specific and evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmaco-economic data, medication use criteria, medication use review, and risk reduction strategies.
18. Apply patient- and population-specific data, quality assurance strategies, and research processes to: assure that medication use systems minimize drug misadventuring, optimize patient outcomes, develop drug use and public health policy, design pharmacy benefits, and resolve public health problems.
19. Use appropriate scientific terminology to convey anatomical, pathophysiologic, physiologic, chemical, pharmacological, and therapeutic concepts.
20. Communicate and collaborate with patients, caregivers, prescribers, population members, other healthcare providers, and administrative and support personnel to engender a team approach to patient care and to assure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in the provision of pharmaceutical care as well as to identify and resolve medication use problems.
21. Develop strategic efforts to communicate and collaborate with policy makers, members of the community, and other healthcare providers and administrative and supportive personnel to identify, promote, and resolve public health problems as well as to develop public healthcare policy.
22. Evaluate the biomedical literature with regard to the pharmacokinetics and pharmacodynamics of drugs.
23. Demonstrate appropriate utilization of management principles and use of healthcare resources in the American healthcare system.
24. Manage pharmacy operations and personnel.
25. Optimize physical and technological resources required to fulfill the practice mission.
26. Manage medication distribution, control, and use systems.
27. Retrieve, analyze, and interpret the professional and lay literature to provide drug information to patients, their families, as well as other healthcare providers and the public.
28. Carry out professional duties in accordance with legal, ethical, social, and economic guidelines.
29. Maintain professional competence by identifying and analyzing emerging issues, products, and services that might:
  - a. affect the efficacy or quality of disease prevention services.
  - b. impact the management of human, physical, medical, informational, and technological resources in the provision of pharmaceutical care.
  - c. impact patient-specific and population-based therapeutic outcomes.
30. Maintain professional competence in providing pharmaceutical care by becoming an independent, lifelong learner.