





















Advanced Pharmacology DCE™ Learning Objectives

Learning Objectives	Learning Activities	UTI	Community Acquired Pneumonia	Hypertension and Type 2 Diabetes	COPD	Pain Management
Recognize the therapeutic uses and effects of broad categories of drugs across the lifespan	<ul style="list-style-type: none"> Complete a patient interview to collect relevant subjective data Identify the specific category of drugs associated to the disease pathology Identify the appropriate drug to treat the patient's specific disease or condition Document in the EHR accurately, using professional terminology Create a prescription that reflects clinical decision making skills Provide patient education to communicate importance of a long-term drug regimen Variety of patients from college-aged to geriatric 	 Patient Age: 21 years old	 Patient Age: 72 years old	 Patient Age: 38 years old	 Patient Age: 55 years old	 Patient Age: 30 years old
Describe the relationship between drugs and disease process	<ul style="list-style-type: none"> Review the relationship between pharmacologic agents and pathological responses through mechanism of action Concept Labs Record expected physiologic responses to treatment in medical records with timeline to monitor Order the appropriate labs to monitor physiological responses Educate the patient about the expected pharmacologic impact on their disease pathology Create a prescription that considers the disease pathology and patient traits 	 Prescribing for UTI and urination pain/increased frequency	 Prescribing for pneumococcal infection and productive cough	 Prescribing for uncontrolled hypertension and uncontrolled type 2 diabetes	 Prescribing for long term inhaler, short term inhaler, and smoking cessation	 Prescribing for lower back pain
Describe the course, effects, and mechanism of action of broad categories of drugs	<ul style="list-style-type: none"> Review the relationship between pharmacologic agents and their mechanism of action through Concept Labs Calculate appropriate dosage and rate/schedule of administration for drugs to be prescribed Provide patient education to communicate course, effects, and mechanism of action of drugs 					
Identify patient motivation and willingness to follow prescribed regimens using relevant patient information	<ul style="list-style-type: none"> Conduct a pharmacologic assessment of home medications addressing genetic risks and complex medical regimens Provide patient education on how to follow prescribed regimens Interview patient to determine history of compliance or non-compliance with prior medications 				 Low compliance with complicated medication regimens	 Patient did not fill his prescription from the ED, thinking that OTC and prescribed ibuprofen were the same. The OTC dosage did not alleviate his pain.

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Safely and appropriately select drugs to treat diseases in adult patients based on factors such as pharmacokinetics, cost, efficacy, genetics, adherence, and quality of life issues	<ul style="list-style-type: none"> Select the appropriate drug for treatment considering patient's physiology and pathophysiology Assess patient's socioeconomic and cultural factors that may determine choice of prescribed drugs and adherence to regimen Demonstrate competency navigating through provider-level pharmacology databases and prescribing guidelines Develop a plan that includes specific orders and patient education with implementation and evaluation strategies Create a prescription to demonstrate awareness of the disease pathology, genetic characteristics, adverse drug outcomes, cost, efficacy, adherence, and quality of life issues 	<p>✔</p> <p>Penicillin sensitivity and antibiotic resistances in Shadowville mean the student must take care when selecting an antibiotic</p>	<p>✔</p>	<p>✔</p> <p>Low socioeconomic status due to recent change in professions</p>	<p>✔</p>	<p>✔</p>
Apply appropriate patient education in relation to prescribed drugs	<ul style="list-style-type: none"> Use empathetic, nonjudgmental communication to establish rapport Educate the patient regarding discovered medication issues and strategies for adherence Educate the patient in areas of low health literacy Create a prescription that involves other therapeutic interventions, including but not limited to: over-the-counter medications, complementary alternatives, and patient's ability to self-manage drugs 	<p>✔</p> <p>Provide effective therapeutic communication around sensitive topics such as sex</p>	<p>✔</p>	<p>✔</p>	<p>✔</p>	<p>✔</p> <p>Provide effective therapeutic communication to a transgender patient</p>
Analyze the adverse effect and drug interaction profiles of the major drug classes and individual drugs within these classes	<ul style="list-style-type: none"> Identify signs, symptoms, and treatment for adverse reactions to drugs Perform medication reconciliation to uncover issues with drug regimens, side effects, and intended and unintended interactions of drugs Educate the patient regarding drug regimens, side effects, intended and unintended interactions of drugs that are used in combinations for therapeutic purposes Create a prescription maintaining awareness of drug interactions and other adverse events such as dose dependent drug toxicity 	<p>✔</p>	<p>✔</p> <p>Some first line drugs for CAP conflict with patient's anti-hypertensive medications and renal function</p>	<p>✔</p>	<p>✔</p>	<p>✔</p>