

Science / Medicine

NR 565 - advanced pharmacology midterm - Chamberlain

During what trimester is a pregnant woman most at risk for adverse drug reactions with potential long term consequences?	1st trimester (fetus most at risk d/t rapid growth)
What is BEERS criteria?	Recommendations of medications inappropriate for elderly (65 and older), prescriber ultimately decides
What is the CYP450 (cytochrome P450)	liver enzyme system where medications are metabolized, can either be inducers or inhibitors and create drug-drug interactions
CYP450 inducers	Speed up metabolism of drugs (drug is cleared faster), drug has lesser effect (decrease blood levels of drug), elevate CYP450 enzymes
CYP450 inducers mnemonic	"Bullshit Crap GPS INDUCES rage"
CYP450 inducer drug names	Barbituates, St John wort, Carbamazepine, rifampin, alcohol, phenytoin, griseofulvin, phenobarbital, sulfonyleureas
CYP450 inhibitors	inhibit metabolism, increase blood levels of medications
CYP450 mnemonic	"VISA credit card debt INHIBITS spending on designers like CK to look GQ"
CYP450 inhibitors drug names	Valproate, isoniazid, sulfonamides, amiodarone, chloramphenicol, ketoconazole, grapefruit juice, quinidine
Physiological changes during pregnancy that impact pharmacodynamics and pharmacokinetic properties of drugs?	increase glomerular filtration rate leads to increase drug excretion increase hepatic metabolism decrease tone and motility of bowel increase drug absorption
Examples of medications that can be teratogenic	Antiepileptic drugs, antimicrobials such as tetracyclines and fluoroquinolones, vitamin A in large doses, some anticoagulants, and hormonal medications such as diethylstilbestrol (DES).
How is absorption of intramuscular medications different in neonates?	slow and erratic due to low blood flow in muscles first few days of life
Why is absorption of medication in the stomach increased in infancy?	delayed gastric emptying
Some medications that should be avoided in the pediatric patient?	glucocorticoids, discoloration of developing teeth with tetracyclines, and kernicterus with sulfonamides, levofloxacin (antibiotics) aspirin (Severe intoxication from acute overdose)
what should be included in medication administration patient education?	dosage size and timing route and technique of administration duration of treatment drug storage nature and time course of desired responses nature and time course of adverse responses finish taking antibiotic

<p>What are some things that put the elderly patient at higher risk for adverse drug reactions?</p>	<p>reduced renal function polypharmacy (the use of five or more medications daily) greater severity of illness presence of comorbidities use of drugs that have a low therapeutic index (e.g., digoxin) increased individual variation secondary to altered pharmacokinetics inadequate supervision of long-term therapy poor patient adherence</p>
<p>How can healthcare providers decrease likelihood of an elderly patient experiencing an adverse drug reaction?</p>	<p>obtaining a thorough drug history that includes over-the-counter medications considering pharmacokinetic and pharmacodynamics changes due to age monitoring the patient's clinical response and plasma drug levels using the simplest regimen possible monitoring for drug-drug interactions and iatrogenic illness periodically reviewing the need for continued drug therapy encouraging the patient to dispose of old medications taking steps to promote adherence and to avoid drugs on the Beers list</p>
<p>How can we promote medication adherence with elderly patients?</p>	<p>simplifying drug regimens providing clear and concise verbal and written instructions using an appropriate dosage form clearly labeling and dispensing easy-to-open containers developing daily reminders monitoring frequently affordability of drugs support systems</p>
<p>Why do nitrates need to be taken no later than 4 PM?</p>	<p>Need nitrate free interval so tolerance doesn't develop</p>
<p>Nine factors that impact outcome of medication?</p>	<p>Gender and race Genetics and pharmacogenomics Variability in absorption placebo effect Tolerance patho age bodyweight</p>
<p>Do you need informed consent for genetic testing?</p>	<p>yes</p>
<p>What is the purpose of the Genetic Information Non-Discriminatory Act?</p>	<p>Protects patients from discrimination by employers and insurance providers based on genetic information</p>
<p>Difference between practice authority and prescriptive authority?</p>	<p>Practice authority refers to the nurse practitioner's ability to practice without physician oversight, whereas prescriptive authority refers to the nurse practitioner's authority to prescribe medications independently and without limitations.</p>
<p>Who regulates prescriptive authority?</p>	<p>the jurisdiction of a health professional board. This may be the State Board of Nursing, the State Board of Medicine, or the State Board of Pharmacy, as determined by each state.</p>