# TEST BANK for Focus on Nursing Pharmacology well Updated 2024/2025 Test Bank All Chapters 1-59. Questions & Answers ( Complete Solution)A+

Absorption - ANSWER-what happens to a drug from the time it enters the body until it enters the circulating fluid; intravenous administration causes the drug to directly enter the circulating blood, bypassing the many complications of absorption from other routes

Active Transport - ANSWER-the movement of substances across a cell membrane against the concentration gradient; this process requires the use of energy biotransformation

Chemotherapeutic Agents - ANSWER-synthetic chemicals used to interfere with the functioning of foreign cell populations; this term is frequently used to refer to the drug therapy of neoplasms, but it also refers to drug therapy affecting any foreign cell

Critical Concentration - ANSWER-the concentration a drug must reach in the tissues that respond to the particular drug to cause the desired effect

Distribution - ANSWER-the movement of a drug to body tissues; the places where a drug may be distributed depend on the drugs solubility, perfusion of the area, cardiac output, and binding of the site to plasma proteins

Enzyme Induction - ANSWER-process by which the presence of a chemical that is biotransformed by a particular enzyme system in the liver causes increased activity of that enzyme system

Excretion - ANSWER-removal of a drug by the body; primarily occurs in the kidneys, but can also occur in the kidneys, skin, lungs, bile or feces

First Pass Effect - ANSWER-a phenomenon of which drugs given orally are carried directly to the liver after absorption, where they may be largely inactivated by liver enzymes before they can enter the general circulation; oral drugs frequently are given in higher doses than drugs given in other routes because of this early breakdown

Glomerular Filtration - ANSWER-the passage of water and water soluble components from the plasma into the renal tubule

Half-Life - ANSWER-the time it takes for the amount of drug in the body to decrease to one half of the peak level it previously achieved

Hepatic Microsomal System - ANSWER-liver enzymes tightly packed together in the hepatic intracellular structure, responsible for the biotransformation of chemicals, including drugs

Loading Dose - ANSWER-use of a higher dose than that which is usually used for tx to allow the drug to reach the critical concentration sooner

Passive diffusion - ANSWER-movement of substances across a semipermeable membrane with the concentration gradient; this process does not require energy

Pharmacodynamics - ANSWER-the science that deals with the interactions between the chemical components of living systems and the foreign chemicals, including drugs, that enter living organisms; the way a drug affects the body

Pharmacogenomics - ANSWER-the study of genetically determined variations in the response to drugs

Pharmacokinetics - ANSWER-the way the body deals with a drug, including absorption, distribution, biotransformation, and excretion

Placebo Effect - ANSWER-documented effect of the mind on drug therapy; if a person perceives that a drug will be effective the drug is much more likely to actually be effective

Receptor Sites - ANSWER-specifics areas on cell membranes that react on certain chemicals to cause an effect in a cell

Selective Toxicity - ANSWER-property of a chemotherapeutic agent that affects only systems found in foreign cells w/o affecting healthy human cells [i.e.,specific antibodies can affect certain proteins or enzymes systems used by bacteria but not by humans]

_____ is the study of the way that drugs affect the body - ANSWER-pharmacodynamics

drugs work in what 4 ways - ANSWER-1- replace or act as substitute for missing chemicals

2- stimulate or increase certain cellular activity

3- depressing or slow cellular activity

4-to interfere with the functioning of foreign cells, such as invading microorganisms or neoplasms.(chemotherapeutic agents)

_____ agents work by interfering with normal cell function, causing cell death. the most desirable of which are those with selective toxicity to foreign cells and their activities - ANSWER-Chemotherapeutic

Drugs frequently act at _____ _____ sites on cell membranes to stimulate enzyme systems within the cell and to alter the cell's activities - ANSWER-specific receptor

_____ the study of the way the body deals with drugs-includes absorption, distribution, biotransformation and excretion - ANSWER-Pharmacokinetics

what is the goal of established dosing schedules - ANSWER-is to achieve a critical concentration of the drug in the body -the amount necessary to achieve the drug's therapeutic effect

arriving at a critical concentration involves a _____ _____ among the processes of drug absorption, distribution, metabolism or biotransformation and excretion - ANSWER-dynamic equilibrium

_____ involves moving a drug into the body for circulation. _____ drugs are absorbed from the small intestine. _____drugs are injected directly into the circulation. - ANSWER-absorption, Oral, IV

most drugs are bound to _____ _____ for transport - ANSWER-plasma proteins

drugs are _____ into less toxic chemicals by various enzyme systems in the body. the _____ is the primary site. it uses the cytochrome P450 enzyme system to alter the drug and start its biotransformation - ANSWER-metabolized, liver

where does drug excretion mainly occur - ANSWER-kidneys

____ _____ of a drug is the period of time it takes for an amount of drug in the body to decrease to _____ of its peak. - ANSWER-Half Life, one half

to provide the _____ and most _____ drug therapy, the nurse must consider all of the possible factors that influence drug concentrations and effectiveness - ANSWER-safest, effective

What is the difference between pharmacokinetics and pharmacodynamics? - ANSWER-Pharmacodynamics is the study of how a drug affects an organism and pharmacokinetics is the study of how the organism affects the drug.

Why are pharmacodynmaics and pharmacokinetics important? - ANSWER-They are why we have guidelines for how we administer drugs (i.e. intramuscular vs. oral vs. intravenous, why some are taken with food, etc.)

How do drug companies avoid drug problems and interactions? - ANSWER-They work to provide the most effective and least toxic chemicals required for therapeutic use.

What do agonists do? - ANSWER-They interact with receptor sites to cause the same action the natural chemical would have caused.

What factors are included in pharmacokinetics? - ANSWER-1. onset of drug action

2. drug half life

3. timing of the peak effect

4. Duration of the drug effects.

5. Metabolism or biotransformation of the drug

6. Site of excretion

Adverse Effects - ANSWER-drugs effects that are not to the desired therapeutic affects; may be unpleasant or even dangerous

Brand Name - ANSWER-name given to a drug the pharmaceutical company that developed it; also called a trade name

Chemical Name - ANSWER-name that reflects the chemical structure of a drug