**Medications**

NUR212

<https://www.youtube.com/watch?v=uOcpsXMJcJk>

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**Defining Key Terms**

**Medication**

* + It is a substance administered for the diagnosis, cure, treatment or relief of a symptom or for prevention of disease.

**Prescription**

* + It is a written direction for the preparation and administration of a drug.

**Generic Name**

* + Is the name assigned by the United States Adopted Names (USAN) Council and is used throughout the drug’s lifetime.

**Trade Name** (brand name)

* + The name given by the drug manufacturer and identifies it as property of that company.

**Pharmacology**

* + Is the study of the effect of drugs on living organisms

**Pharmacy**

* + Is the art of preparing, compounding and dispensing drugs.
  + The place where drugs are prepared and dispensed.

**Pharmacist**

* + The licensed pharmacist prepares, makes and dispenses drugs as ordered by a physician, dentist, nurse practitioner, or physician assistant.

**Legal Aspects of Drug Administration**

**Nurses needs to:**

a. know how nursing practice acts in their areas define and limit their functions

b. be able to recognize the limits of their own knowledge and skill.

* + Nurses are responsible for their own actions regardless of whether there is a written order.
  + Use of controlled substances, controlled substances are kept in a locked drawer, cupboard and medication cart or a computer-controlled dispensing system.

**Effects of Drugs**

**Therapeutic Effect**

* + Referred to as the desired effect
  + The primary effect intended which is the reason the drug is prescribed.

**Side Effect**

* + The secondary effect of a drug is one that is unintended
  + Usually predictable and may be either harmless or potentially harmful
  + Some side effects are tolerated for the drug’s therapeutic effect

**Adverse Effect**

* + More severe side effects
  + Justifies the discontinuation of a drug

**Drug Toxicity**

* + Harmful effects of a drug on an organism or tissue
  + Results from overdosage

**Drug Allergy**

* + An immunologic reaction to a drug

**Drug Interaction**

* + occurs when the administration of one drug before, at the same time as, or after another drug alters the effect of one or both drugs.
  + It can be beneficial or harmful.
  + Potentiating effect – increasing effect of one or both drugs
  + Inhibiting effect – decreased effect of one or both drugs

**Drug Misuse**

This refers to the improper use of common medications in ways that lead to acute and chronic toxicity.

**Drug abuse**

* + The inappropriate intake of a substance, either continually or periodically.

**Drug dependence**

* + a person’s reliance on or need to take a drug or substance.
  + 2 types of depended:
    - **Physiological** – is due to biochemical changes in body tissues, especially the nervous system
    - **Psychological** – is emotional reliance on a drug to maintain a sense of well-being, accompanied by feelings of need or cravings for that drug

**Actions of Drugs on the Body**

**Drug actions:**

* + **Onset of action**: the time after administration when the body initially responds to the drug
  + **Peak plasma level**: the highest plasma level achieved by a single dose when the elimination rate of the drug equals the absorption rate.
  + **Drug half-life** (elimination half-life): the time required for the elimination process to reduce the concentration of the drug to one-half what it was at initial administration.
  + **Plateau**: a maintained concentration of a drug in the plasma during a series of scheduled doses.

**Pharmacodynamics**

This is the mechanism of drug action and the relationship between drug concentration and responses in the body.

**Receptor:** is the drug’s specific target usually a protein located on the surface of a cell membrane or within the cell.

A**gonist:** when a drug produces the same type of response as the physiological or endogenous substance.

**Antagonist**: prevents natural body substances or other drugs from activating the function of the cell by occupying the receptor sites.

**Pharmacokintics**

This is the study of ;

**Absorption:** The process by which a drug passes into the blood-stream.

**Distribution:** Is the transportation of a drug from its site of absorption to its site of action.

**Biotransformation:** also called detoxification or metabolism; mostly takes place in the liver

* + metabolites – are products of biotransformation
    - * **Active metabolite** – has a pharmacologic action itself
      * **Inactive metabolite** – does not have a pharmacologic action

**Excretion**

* + Is the process by which the metabolites and drugs are eliminated from the body .