

## Introduction to Psychotropic Drugs

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## TYPES OF PSYCHOTROPIC DRUGS

- ☐ Antipsychotics
- ☐ Mood stabilizers or antimanic agents:
- ☐ Antidepressants:
- ☐ Antianxiety drugs:
- ☐ Drugs used for Alzheimer's disease:
- ☐ Antiparkinsonian & Anti-EPS drugs:

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## IMPORTANT POINTS ABOUT PSYCHOTROPIC DRUGS

- ☐ Not always...
- ☐ Not always...
- ☐ Best outcomes occur ...
- ☐ Many have significant...
- ☐ Trial and error might...

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## NURSING RESPONSIBILITIES

- ☐ Understand key dimensions of psychotropic drug use.
- ☐ Assess...
- ☐ Apply preventive care to reduce...
- ☐ Determine use of PRN medications

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## PHARMACOKINETICS

- ☐ Absorption:
- ☐ Distribution:
- ☐ Metabolism:
- ☐ Excretion:

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## ABSORPTION

- ☐ Drug taken orally...
- ☐ Drug must pass through...
- ☐ Molecules pass through cell membranes.
- ☐ 100% of drug given intravenously (IV) reach...
- ☐ Bioavailability:

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## ABSORPTION (Cont.)

- ☐ First-pass metabolism:
- ☐ Drugs are shunted directly from the GI tract to...
- ☐ Only absorbed drugs can have an effect.

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## DISTRIBUTION

- ☐ Distribution:
- ☐ Lipid soluble:
- ☐ Water soluble:
- ☐ Protein binding:

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## METABOLISM

- ☐ What does that mean???
- ☐ Most drugs are metabolized...
- ☐ Excretion via?
- ☐ Not all drugs are converted to inactive...
- ☐ It is important to know the metabolism...

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## METABOLISM (Cont.)

- ▣ Metabolism occurs...
- ▣ Some occur in the ...

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## HALF-LIFE OF DRUGS

- ▣ "Amount of time required for..."
- ▣ Linear kinetics:
- ▣ Washout period:

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## PHARMACODYNAMICS

- ▣ Effect that drug has on body:...
- ▣ Down-regulation:...
- ▣ Pharmacodynamic tolerance...

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## BLOOD-BRAIN BARRIER

- ☐ Protects the brain ...
- ☐ Three dimensions of the barrier
  - Anatomic:
  - Physiologic:
  - Metabolic:

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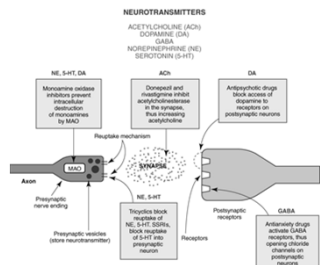
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## EFFECT OF PSYCHOTROPIC DRUGS ON NEUROTRANSMITTERS



Modified from Stuart G, Sundeen S: *Principles and practice of psychiatric nursing*, ed 5, St. Louis, 1995, Mosby.

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## NEUROTRANSMITTERS AND RELATED MENTAL DISORDERS

- ☐ ↑Dopamine                      Schizophrenia
- ☐ ↓Norepinephrine              Depression
- ☐ ↓Serotonin                      Depression
- ☐ ↓Acetylcholine                Alzheimer's disease
- ☐ ↓GABA                            Anxiety
- ☐ ↑Glutamate                    Excitotoxicity leading to neuronal death
  
- ☐ ↓Glutamate                    Psychotic thinking

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## RECEPTORS (Cont.)

- ☐ Receptor antagonism:
- ☐ Receptor agonist:
- ☐ Autoreceptor:

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## PATIENT EDUCATION

- ☐ Enhances adherence to medication regimen
- ☐ Discuss side effects.
- ☐ Discuss safety issues.
- ☐ Attitude of patient and PT about meds
- ☐ Drug interactions
- ☐ Discuss cognitive, affective effects.

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## PATIENT EDUCATION (Cont.)

- ☐ Instructions for older adult pts or children of older patients
- ☐ Instructions for pregnant or breast-feeding pts
- ☐ Awareness of metabolic differences in diverse races and ethnicities
- ☐ Emphasize regular follow-up.
- ☐ Discuss desired effect.

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## CASE STUDY

- ▣ A family from Honduras has come to the Behavioral Unit to discuss their son's psychosis and his treatment. Jorge is a 19 y. o. & a freshman in college. During his second semester, he began to hear voices telling him he is stupid and unworthy of going to school. He became suspicious and has not been able to sleep prior to admission. His family wants to know why the meds are ordered, what are the side effects, and why does Jorge need them. They wonder whether he needs a spiritual advisor to cleanse his soul.
- ▣ What is the tech's role with this patient? What is the first thing the P.T. should do with this family? How should the tech present the info to the family for them to be able to use the pt teaching to reach a decision regarding the medications?

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## PATIENT EDUCATION

- ▣ Instructions for use
- ▣ Potential for dependence
- ▣ Discontinuance—need to taper?
- ▣ Attitudes about taking medication
- ▣ Potential ramifications of nonadherence

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## REASONS FOR NONADHERENCE

- ▣ 1
- ▣ 2
- ▣ 3
- ▣ 4
- ▣ 5
- ▣ 6
- ▣ 7
- 8.
- 9.
- 10.
- 11.

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