# *Psychiatric Agents*

## Antipsychotics and Anxiolytics

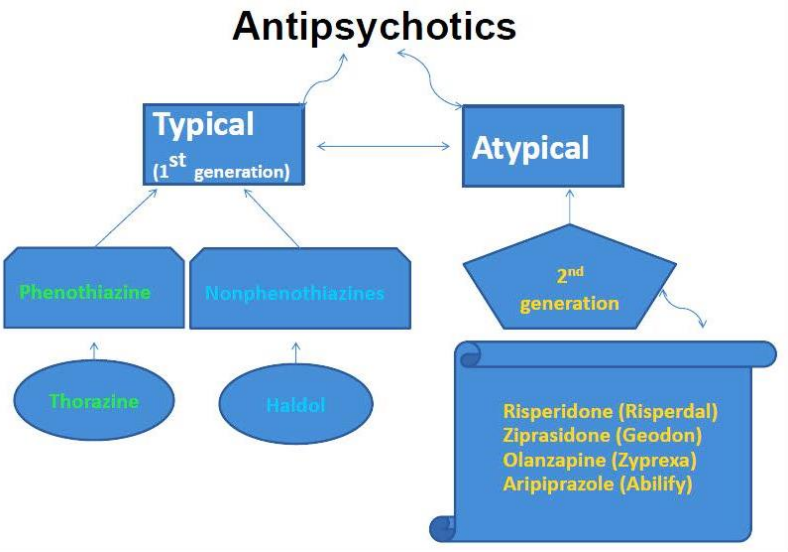
## Psychosis

- A mental and behavioral disorder
- Causes gross distortion of mental capacity, inability to recognize reality, and inability to effectively relate to others
- Interferes with a person's capacity to cope with ordinary demands of everyday life
- Symptoms
  - Delusions
  - Incoherence
  - Hallucinations
  - Catatonia
  - Difficulty in processing information
  - Aggressive or violent behaviors
- Theory
  - Dopamine imbalance in brain

## Antipsychotic Agents (Neuroleptics, Psychotropics)

- Action
  - Block action of dopamine
- Two major categories
  - Typical or first generation
    - Phenothiazines and nonphenothiazines
  - Atypical or second generation
    - Used when intolerance or not responsive to typical antipsychotics

## Antipsychotics



## Typical Antipsychotics (Phenothiazines)

- Indication
  - Management of Schizophrenia
- Common Medications
  - Chlorpromazine (Thorazine)
  - Fluphenazine (Prolixin)
- Alternative Uses:
  - Antiemetic effect (example = Compazine)
  - Thorazine = Treat uncontrolled hiccups
- Adverse Effects
  - Sedation, orthostatic hypotension
  - Development of extra pyramidal symptoms (EPS)
  - Anticholinergic Effects

## Typical Antipsychotics (Nonphenothiazines)

- Common Drug = Haloperidol (Haldol)
  - Action
    - Blocks dopamine receptors
  - Administration
    - Oral – absorbed well
    - IM – Z-track
  - Side effects
    - Sedation, orthostatic hypotension
    - Development of extra pyramidal symptoms (EPS)
    - Anticholinergic Effects
  - Use
    - Treat acute and chronic psychoses
    - Treat schizophrenia, Tourette's syndrome, dementia

## Extrapyramidal Syndrome (EPS)

- Pseudoparkinsonism symptoms
  - Stooped posture
  - Masklike features
  - Rigidity
  - Tremors at rest
  - Shuffling gait
  - Bradykinesia
  - Pill-rolling motion of the hand

*The anticholinergic drug benztropin (Cogentin) is commonly prescribed to reduce symptoms of EPS*

- Acute dystonia
  - Muscle spasms of face, tongue, neck, and back

    - Facial grimacing
    - Involuntary upward eye movements
    - Laryngeal spasms
- Akathisia
    - Constant motion (pacing)
- Tardive dyskinesia – Late Phases of therapy
    - Protrusion and rolling of tongue, chewing action

## Phenothiazine Overdose

- Symptoms
    - Unable to arouse
    - Tachycardia, fluctuating blood pressure
    - Agitation, delirium, + S/S of EPS
    - Seizures, dysrhythmias
    - Cardiopulmonary failure
- Treatment
    - Cardiopulmonary Life Support
    - Gastric Lavage
    - Activated charcoal

## Neuroleptic Malignant Syndrome

- Rare, potentially fatal condition
- Symptoms
    - Muscle rigidity, sudden high fever, altered mental status, BP fluctuations, tachycardia, dysrhythmias, seizures, rhabdomyolysis, acute renal failure, respiratory failure, coma
- Treatment
    - Immediate withdrawal of antipsychotics
    - Symptomatic
        - Hydration, hypothermic blankets, antipyretics, benzodiazepines, muscle relaxants

## Atypical Antipsychotics

- Action
    - Block serotonin and dopaminergic receptors
- Advantage
    - Effective in treating both positive and negative symptoms of schizophrenia
    - Less likely to cause EPS
- Common Medications
    - Clozapine (Clozaril)
    - Risperidone (Risperdal)
    - Ziprasidone (Geodon)
    - Olanzapine (Zyprexa)

    - Aripiprazole (Abilify)
    - Quetiapine (Seroquel)
- Adverse Effects
    - Weight Gain
    - Dizziness, agitation, insomnia or sedation
    - Prolonged Q-T with Geodon
        - Contraindicated if history of dysrhythmia
- Agranulocytosis with Clozaril
    - Monitor weekly WBC counts

### *Schizophrenia*

- Positive symptoms
    - Delusions
    - Paranoia
    - Hallucinations
    - Incoherent speech
- Negative symptoms
    - Poor self-care
    - Poverty of speech
    - Social withdrawal

## Nursing Interventions Antipsychotics

- Monitor vital signs
    - Orthostatic hypotension likely
    - Encourage client to change position slowly
- Administer with food – decreases GI distress
- Liquid meds must be protected from light
- No SQ meds
- Give IM route deep into muscle
- Observe for EPS
- Monitor client for “cheeking” medication
- Monitor for neuroleptic malignant syndrome
- Stress importance of taking drug as scheduled
- Warn client therapeutic response may take 6 weeks
- Caution client to avoid alcohol and other CNS meds
- Guide client to maintain good oral hygiene
- Warn client against abrupt discontinuation
- Recommend wearing an ID bracelet indicating what med is taken

# Anxiety

## *Benzodiazepines*

- Indication
  - Anxiety
    - Relief of acute symptoms – Not a cure!
  - Anxiety with Depression
  - Insomnia
    - Short-term use
  - Seizures / Status Epilepticus
  - Alcohol withdrawal
  - Skeletal Muscle Spasms
  - Preoperative Medications

## *Anxiolytics*

- Common Medications = Benzodiazepines
  - Alprazolam (Xanax)
  - Lorazepam (Ativan)
  - Chlordiazepoxide HCL (Librium)
  - Diazepam (Valium)
- Benzodiazepine Antagonist
  - Flumazenil (Romazicon)
- Misc Anxiolytic
  - Buspirone (BuSpar)
- Side Effects
  - Drowsiness, dizziness, weakness, confusion, blurred vision, GI distress, sleep disturbance, restlessness, hallucinations
- Withdrawal
  - Develops slowly – 2-10 days, and may last several weeks
  - Withdrawal symptoms
    - Tremor, agitation, nervousness
    - Sweating, insomnia
    - Anorexia, muscle cramps

# Nursing Interventions Anxiolytics

- Monitor vital signs
- Encourage client to change position slowly
- Warn client therapeutic response may take 1-2 weeks
- Advise not to drive a motor vehicle or operate dangerous equipment with anxiolytics
- Monitor for signs of drug tolerance and decreased effectiveness; particularly when taken longer than recommended 2-4 month period
- Warn client against abrupt discontinuation

# Antidepressants and Mood Stabilizers

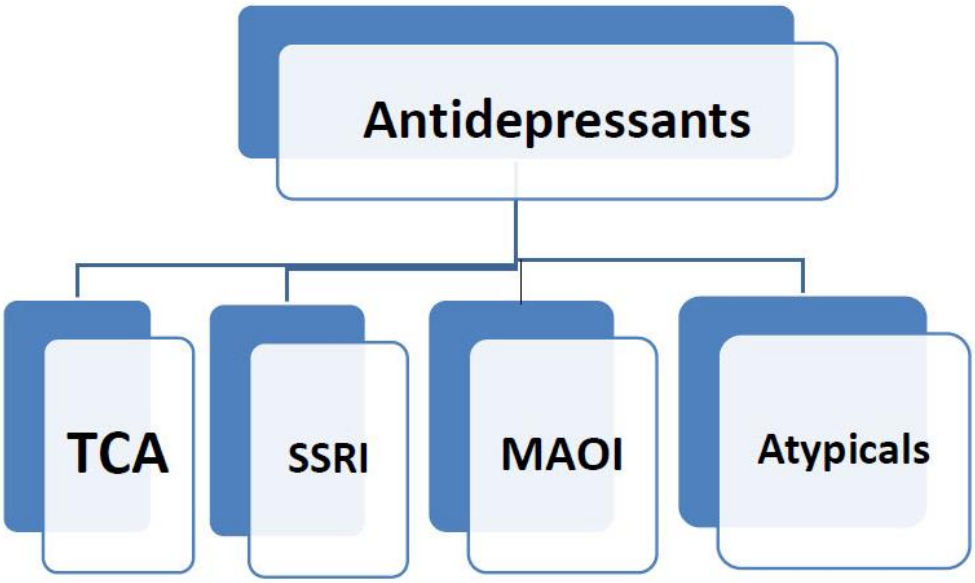
## Depression

- Mood disorder
  - Characterized primarily by mood changes, and loss of interest in normal activities
- Pathophysiology
  - Insufficient amount of neurotransmitters (norepinephrine, serotonin, dopamine)
- Other etiology
  - Genetic predisposition
  - Social and environmental factors
- Three Types
  - Reactive
    - Usually sudden onset resulting from precipitating event
  - Major
    - Characterized by sustained loss of interest in work, home, inability to complete tasks
  - Bipolar
    - Mood swings between manic (euphoric) and depressive (dysphoria)

## Four Groups of Antidepressant Agents

- Tricyclic antidepressants (TCAs)
  - Amitriptyline (Elavil), imipramine (Tofranil)
- Selective serotonin reuptake inhibitors (SSRIs)
  - Fluoxetine (Prozac), sertraline (Zoloft)
  - Paroxetine (Paxil), escitalopram (Lexapro)
- Atypical antidepressants
  - Bupropion (Wellbutrin), Venlafaxine (Effexor)
- Monoamine oxidase inhibitors (MAOIs)
  - Phenelzine sulfate (Nardil), tranylcypromine sulfate (Parnate), isocarboxazid (Marplan)

## Antidepressants




## Tricyclic Antidepressants

- Action
  - Block uptake of neurotransmitters norepinephrine and serotonin in brain
  - Elevates mood, increases interest in ADLs, decreases insomnia
- Use
  - Major depression and agitated depression
- Effectiveness
  - Well documented
- Administration – Oral
  - Given at HS to avoid sedation
  - Clinical response 2-4 weeks
  - Taper when discontinuing drug
- Interactions
  - Increased CNS effects with alcohol and other CNS depressants
  - Increased sedation and anticholinergic effects with phenothiazines
- Common side effects
  - Sedation, weight gain, sexual dysfunction
  - Anticholinergic effects
  - Orthostatic hypotension
  - + EPS

## Selective Serotonin Reuptake Inhibitors

- Action
  - Block uptake of neurotransmitter serotonin
  - Elevates mood, increases interest in ADLs

- Use
    - Major depression and anxiety disorders
    - Prevention of migraine headaches
- Effectiveness
    - Treat wide array of mental disorders
        - Depression, obsessive/compulsive, panic, phobias, post-traumatic stress disorder, and general anxiety
    - Common, costly, preferred
- Administration – Oral
    - Given in am to avoid insomnia
    - Clinical Response 2-4 weeks
    - Taper when discontinuing drug
- Interactions
    - Increased CNS effects with alcohol and other CNS depressants
    - Grapefruit juice increases drug levels
- Side effects/adverse reactions
    - Nervousness, restlessness, insomnia, tremors
    - GI distress, sexual dysfunction
    - Serotonin Syndrome = agitation, confusion, disorientation, hallucinations

## Monoamine Oxidase Inhibitors (MAOI's)

- Action
    - Monamine oxidase enzyme inactivates norepinephrine, dopamine, epinephrine, and serotonin
- Use
    - Depression not responsive to TCA's or SSRI's
- Effectiveness
    - Not antidepressant of choice
- Administration – Oral
    - Clinical Response 2-4 weeks
    - Taper when discontinuing drug
- Interactions
    - Increased CNS effects with alcohol and other CNS depressants
- Side effects/adverse effects
    - Tremors, agitation, restlessness, insomnia
    - Orthostatic hypotension
    - Hypertensive crisis from fatal tyramine interaction (cheese, coffee, cream, yogurt, bananas, yeast, chocolate, beer, red wine)

## Atypical antidepressants

- Action
    - Affect 1-2 of the neurotransmitters norepinephrine, dopamine, or serotonin

- Use
    - Depression
- Effectiveness, Administration & Interactions
    - Work similar to TCA's
- Side Effects
    - Review individual drug considerations in nursing drug book

### WARNING – Anti-depressants can increase suicidal tendencies in children and young adults

## Mood Stabilizer: Lithium

- Action
    - Increased receptor sensitivity to serotonin
- Use
    - Treatment of bipolar affective disorder
- Effectiveness
    - Calming effect without impairing intellectual activity
    - Controls flight of ideas and hyperactivity
- *Special note for lab monitoring*
    - *Narrow therapeutic range 0.5-1.5 mEq/L*
    - *Monitor Na levels causes hyponatremia*
    - *Monitor tsh with prolonged use*
- Interactions
    - Increase lithium level with thiazides, phenothiazines, NSAIDs, antidepressants, theophylline
- Side effects (multiple)
    - Increased urination, dry mouth, thirst
    - Metallic taste, bloated feeling, weight gain
    - Dysrhythmias, blood dyscrasias, nephrotoxicity

## Nursing Interventions

- Encourage client to increase fluid intake (2 liters/day) and maintain adequate sodium intake
- Encourage client to take with meals to reduce GI irritation
- Ensure lithium levels are immediately before next dose
- Encourage client to keep medical appointments
- Instruct to take lithium as prescribed
- Inform client therapeutic level isn't achieved for approximately 2 weeks