



Psychotropic Medications

Learning Objectives

- Review the classes of psychotropic medications
- Discuss which medication could be used for a particular mental health diagnosis
- Describe common side effects of psychotropic medications
- Identify considerations for seniors, children, and pregnant women
- Describe the value of integrated healthcare with psychotropic medication management

What are Psychotropic Medications?

According to National Alliance on Mental Illness: “medicines that alter chemical levels in the brain” by:

- Impact mood and behavior by treating symptoms
- Are usually more effective when combined with psychotherapy
- Don't cure the disorder, they work to help minimize symptoms
- May cause side effects



How Do Psychotropic Medications Work?

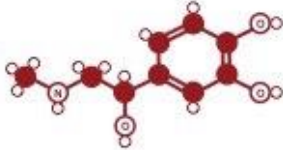
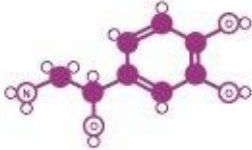





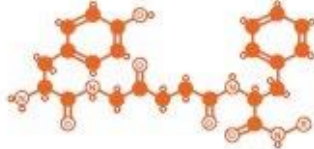
ADRENALINE	NORADRENALINE	DOPAMINE	SEROTONIN
			
Fight or flight neurotransmitter	Concentration neurotransmitter	Pleasure neurotransmitter	Mood neurotransmitter
GABA	ACETYLCHOLINE	GLUTAMATE	ENDORPHINS
			
Calming neurotransmitter	Learning neurotransmitter	Memory neurotransmitter	Euphoria neurotransmitter

Image Source: http://ib.bioninja.com.au/_Media/types-of-neurotransmitters_med.jpeg

Different Classes of Psychotropic Medications

- Antidepressants
- Antipsychotics
- Mood stabilizers
- Sedatives, Hypnotics, Anxiolytics
- Stimulants
- Medications used to treat substance use



Antidepressants

Antidepressant Benefits

Decreases

- Sadness
- Thoughts of guilt and hopelessness
- Suicidal thoughts

Improves

- Energy
- Appetite
- Sleep
- Concentration

Antidepressant Categories

- MAOIs - Monoamine Oxidase Inhibitors
- SARI - Serotonin Antagonist and Reuptake Inhibitors
- NDRI - Norepinephrine Dopamine Reuptake Inhibitors
- TCAs - Tricyclic Antidepressants
- SNRI - Serotonin Norepinephrine Reuptake Inhibitors
- SSRI - Selective Serotonin Reuptake Inhibitors

Antidepressant Black Box Warning

SSRIs and SNRIs

- Fewer side effects than older antidepressants
- Headache
- Nausea
- Sleeplessness
- Drowsiness
- Agitation
- Sexual problems

Tricyclics

- Dry mouth
- Constipation
- Bladder problems
- Sexual problems

Antidepressant Black Box Warning

Suicidality and Antidepressant Drugs

Antidepressants increased the risk compared to placebo of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults in short-term studies of major depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of [Insert established name] or any other antidepressant in a child, adolescent, or young adult must balance this risk with the clinical need. Short-term studies did not show an increase in the risk of suicidality with antidepressants compared to placebo in adults beyond age 24; there was a reduction in risk with antidepressants compared to placebo in adults aged 65 and older. Depression and certain other psychiatric disorders are themselves associated with increases in the risk of suicide. Patients of all ages who are started on antidepressant therapy should be monitored appropriately and observed closely for clinical worsening, suicidality, or unusual changes in behavior. Families and caregivers should be advised of the need for close observation and communication with the prescriber. [Insert Drug Name] is not approved for use in pediatric patients. [The previous sentence would be replaced with the sentence, below, for the following drugs: Prozac: Prozac is approved for use in pediatric patients with MDD and obsessive compulsive disorder (OCD). Zoloft: Zoloft is not approved for use in pediatric patients except for patients with obsessive compulsive disorder (OCD). Fluvoxamine: Fluvoxamine is not approved for use in pediatric patients except for patients with obsessive compulsive disorder (OCD).] (See Warnings: Clinical Worsening and Suicide Risk, Precautions: Information for Patients, and Precautions: Pediatric Use)



Antipsychotics

Antipsychotic Medications

General benefits

- Decrease in hallucinations and delusions
- Improved organization of thinking and speech
- Decreased paranoia and increased social contact
- Can be prescribed in pill, liquid, or injectable form
- Two types: typical and atypical

Antipsychotics – Side Effects

Typical

- Conventional antipsychotics
- Developed in the 1950s
- Thorazine, Haldol, Trilafon, Prolixin

Atypical

- Second generation
- Developed in the 1990s
- Risperdal, Zyprexa, Seroquel, Geodon, Abilify, Invega, Clozaril

Antipsychotics - Side Effects

Often resolve after few days

- Drowsiness
- Dizziness when changing positions
- Blurred vision
- Rapid heartbeat
- Sensitivity to the sun
- Skin rashes
- Menstrual problems for women

Antipsychotics – Integrated Care

Psychological treatment

- Related to lowered self-esteem
- Fears of recurrence of symptoms
- Stigmatization
- Interpersonal difficulties
- Academic & occupation problems
- Comorbid drug use (especially alcohol)



Mood Stabilizers

Mood Stabilizers

Decrease abnormal activity in the brain

Used to treat:

- Bipolar Disorder
- Depression (usually along with an antidepressant)
- Schizoaffective Disorder
- Impulse control disorders
- Certain mental illnesses in children

Mood Stabilizers – Side Effects

- Itching, rash
- Excessive thirst
- Frequent urination
- Hand tremor
- Nausea and vomiting
- Slurred speech
- Fast, slow, irregular, or pounding heartbeat
- Blackouts
- Changes in vision
- Seizures
- Hallucinations
- Loss of coordination
- Swelling of the eyes, face, lips, tongue, throat, hands, feet, ankles, or lower legs

Mood Stabilizers - Lithium

- First mood stabilizer approved by FDA in 1970's
 - capsules, solution, and tablets
- Eliminated via kidney, may need to drink extra fluids
- Body water loss (sweating or diarrhea) can cause lithium levels to rise
- Kidney damage uncommon when lithium blood levels stay within therapeutic range
- Integrated care: regular bloodwork needed to check lithium levels and make sure kidneys/thyroid are working normally

Mood Stabilizers - Anticonvulsants

Originally developed to treat seizures, but found to help control moods

Helpful in treatment of rage/explosive behavior

- Depakote
- Lamictal
- Tegratol

Figure 1: Anticonvulsant Adverse Events

	phenytoin	Carbamazepine	phenobarbital	Valproic Acid	Gabapentin	Levetiracetam	Tiagabine	Lamotrigine	Oxcarbazepine	Topiramate	Zonisamide
Osteoporosis	X	X	X								
Platelet function				X							
Rash	X	X					X				
Renal Stones										X	X
Sedation	X		X			X				X	
Slowed Thinking			X		X	X	X		X		
Tiredness				X							



Anxiolytics (Anti-Anxiety)

Sedative-Hypnotics and Anxiolytics

Used to treat anxiety disorders

- Obsessive compulsive disorder (OCD)
- Post-traumatic stress disorder (PTSD)
- Generalized anxiety disorder (GAD)
- Panic disorder
- Social phobia

Social phobia	Panic disorder	GAD
Klonopin	Ativan	Klonopin
	Xanax	Xanax

Sedative-Hypnotics

Commonly Prescribed

- Zolpidem (Ambien)
- Eszopiclone (Lunesta)
- Zaleplon (Sonata)
- Ramelteon (Rozerem)
- Suvorexant (Belsomra)

Side Effects

- Retrograde amnesia
- Erratic behavior
- Tolerance
- Dependence

Anxiolytics - Benzodiazepines

Benefits

- Rapid relief of symptoms of anxiety, panic, or fear
- Improved relaxation and ability to sleep
- Prescribed for short-term periods

Side effects

- Upset stomach
- Blurred vision
- Headache
- May need higher dosages to get same effect
- Don't stop suddenly; need to taper with medical supervision



Stimulants

Stimulants

Used to treat:

- Children, adolescents, or adults diagnosed with ADHD
- Narcolepsy
- Depression, especially in older or chronically medically ill people and in those who have not responded to other treatments

Dosages

- Short-acting
- Long-acting
 - ✓ Sustained
 - ✓ Extended release

Stimulants

Examples of short acting stimulants:

- Amphetamine (Adderall)
- Dexmethylphenidate (Focalin)
- Methylphenidate (Ritalin, Metadate, Methylin)
- Dextroamphetamine (Dexedrine, Dextrostat)

Examples of long acting stimulants:

- Amphetamine (Adderall XR)
- Dexmethylphenidate (Focalin XR)
- Methylphenidate (Concerta)
- Lisdexamfetamine (Vyvance)

Stimulants

Benefits

- Improved attention span
- Reduced impulsivity
- Improved on-task behavior

Side Effects

- Decreased appetite
- Sleep problems
- Stomachaches and headaches
- Less common side effects include tics and changes in personality



Medications Used to Treat Substance Abuse Disorders

Medications Used to Treat Substance Use Disorders

Medications for alcohol dependence

- Naltrexone (ReVia, Vivitrol, Depade)
- Disulfiram (Antabuse)
- Acamprosate Calcium (Campral)

Medications for opioid dependence

- Methadone
- Buprenorphine (Suboxone, Subutex)
- Naltrexone

Medications Used to Treat Substance Use Disorders: Methadone

According to SAMHSA's 2017 National Survey on Drug Use and Health:

- In 2017 there were 11.4 million past year opioid misusers aged 12 or older in the United States.
- About 652,000 people aged 12 or older were current heroin users
 - Risk premature death
 - Often suffer from HIV, Hepatitis B or C, sexually transmitted diseases, liver disease from alcohol abuse, and other physical and mental health problems

Medications Used to Treat Substance Use Disorders: Methadone

Methadone

- Synthetic agent
- How it works:
 - ✓ Blocks euphoric and sedating effects of opiates
 - ✓ Relieves the cravings for opiates
 - ✓ Relieves symptoms associated with withdrawal
 - ✓ Causes less intense euphoria or intoxication
 - ✓ Secreted slowly so can be taken once a day

Methadone

Reduces

- I.V. Drug use
- Risk of overdose or acquiring/transmitting disease
- Mortality
- Criminal activity

Improves

- Family stability
- Employment potential
- Pregnancy outcomes



Special Groups:
Children, Older Adults,
Pregnant Women

Special Groups: Children

- Not all medications have been studied or approved for use with children or adolescents
- FDA warnings about potentially dangerous side effects
- Psychotherapy, family therapy, educational courses, and behavior management techniques should be tried before psychotropic medications
- Different reactions and side effects than adults
- Provider might prescribe “off-label”

Special Groups: Older Adults

- Higher risk for experiencing bad drug interactions, missing doses, or overdosing
- Higher sensitivity to dosages
- Could affect alertness, memory, or coordination, increase fall risk
- Tracking medication is important
 - What tool/tools would be helpful in helping an older adult track their medication?

Special Groups: Pregnant Women

- National Institute of Mental Health (NIMH): “No medication is considered perfectly safe for all women at all stages of pregnancy”
- Small amounts of medication pass into breast milk
- Potential side effects depend on type of stage of pregnancy and medication taken
- Monitor for postpartum depression
- Limited research available



Medical Co-morbidity Considerations

Medical Co-morbidity Considerations

- Atypical anti-psychotics place members at risk for metabolic syndrome
- Hypothyroidism mimics symptoms of depression
- History of heart attack places members at high risk for depression
- Steroids should be used cautiously in someone with bipolar disorder
- Mood stabilizers and anti-psychotics can be dangerous during pregnancy

Adverse Reactions

- Are uncommon and unexpected; May be an allergic reaction
- Are likely harmful if the member keeps taking the medication
- Member should immediately speak to their doctor and follow doctor's directions if there is an adverse reaction
- May be life long and threatening

Recovery

- Remember that medication management is only ONE portion of a successful treatment plan!
- In order to facilitate member recovery, other avenues should also be evaluated and encouraged:
 - Psychotherapy
 - Peer & family supports
 - Community resources



Questions?

Clinical Training Opportunities

- We support our communities in many ways, including clinical training
- A variety of topics are available
- Trainings are free!
- Sign up for clinical provider trainings: www.envolveU.com
- Contact us: Lakeisha.w.davis@centene.com

Learning Objectives Revisited

- List three classes of psychotropic medications
- Discuss which medication could be used for a particular mental health diagnosis
- Describe common side effects of psychotropic medications
- Identify considerations for seniors, children, and pregnant women

References

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