

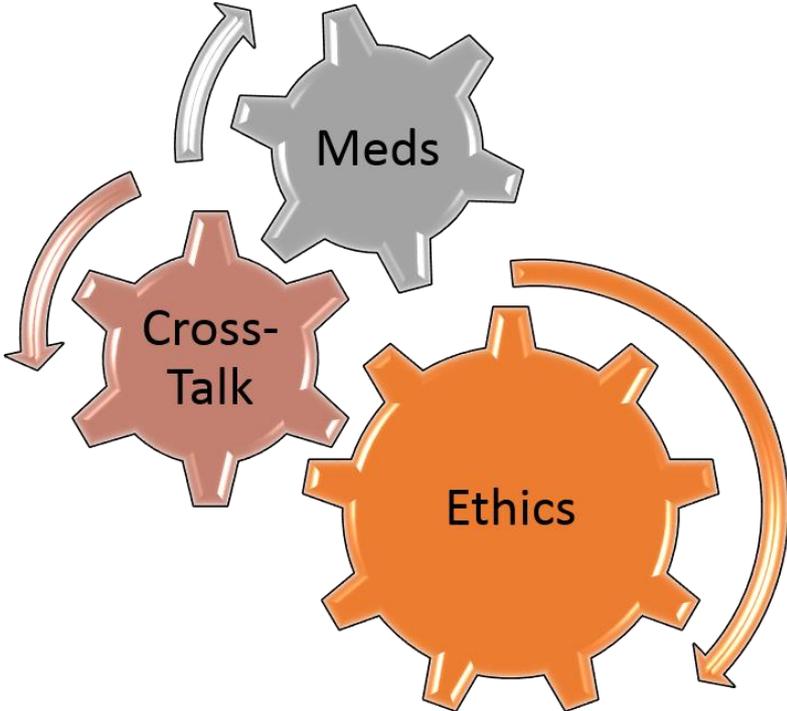
# Psychotropic Medications in the Classroom

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# Disclosures

- Dr. Sidhu receives royalties for writing continuing medical education questions for the American Psychiatric Association and *FOCUS*

# Outline



# Objectives

Upon completion of this session, participants will be able to better:

- 1) Identify students who are potentially in need of medication management
- 2) Recognize potential medication side effects in the classroom
- 3) Collaborate with school nurses and physicians around issues of medication management

# When Might You Urgently Consult a Mental Health Provider?

Acute/Precipitous Change in Functioning

Concerns Over Safety of Home Life

Suicidal/Homicidal Statements

Concerns of Psychosis/Hallucinations

Concern for Abuse

When Are Medications Generally  
Necessary?

# When Are Medications Generally Necessary?

“Inability to function”

Poor academic functioning (failure)

Poor social functioning in the classroom

Significant classroom disruption

Concerns about emotional/mental wellbeing

# Core Ethical Dilemma

Provider Beneficence versus Patient Autonomy (in the case of children Patient Autonomy is most often represented by the wishes of the parents)

State laws vary significantly

# Discussion with Parents

First get the family's opinion on how the child is doing and what they think would make things better

# Discussion with Parents

Next, discuss non-medical solutions to improve the student's level of functioning

- Behavioral Classroom Interventions

- School Counseling

- Speech & Language/OT/Academic Skills

- Social Skills

- 504/IEP interventions, possible 1:1 aides

Parent: “What Do You Think About Therapy?”

The potential reaches of therapy are even broader than medications

In non-emergent cases, and especially in children, often therapy is the best first approach

For most conditions, the best results are obtained when therapy is combined with medications

Sometimes medications allow the facilitation of therapy

# Parent: “Do Medications Even Work?”

- Each medication class is given a grade of evidence for a particular condition
- More experimental medications will have a lower grade of evidence
- Each child is unique and not all individuals respond the same way to medications
- May need to try several medications before you find the right one for each child

# Parent: “How Long Will My Child Need to Take Medications?”

- Depends on the condition and the student’s progress
- ADHD course typically stabilizes by mid-20s
- Depression/Anxiety: risk of remission reduces greatly with approximately 1 year of treatment (some studies showing as little as six months)
- Cases of severe psychosis/Schizophrenia or Bipolar Disorder may require lifetime medications

# QUESTION 1

Which of the following would you tell the parent of a child with ADHD regarding the course of ADHD and therefore how long the patient will need to be on the medication?

- A) The medication should clear up symptoms in a few weeks and then will no longer be necessary
- B) The child will need to be on medications for the rest of their life
- C) It is likely that the patient can attain full remission of symptoms without medications
- D) Many patients will stabilize by their mid-20s, after which some may continue to require medications into adulthood
- E) We do not know enough about the course of ADHD at this time to say

# Philosophical Approach

- Start Low, Go Slow (especially in kids)
- Find the lowest possible therapeutic dose
- Avoid polypharmacy whenever possible (maximize single agents before combining agents)
  - Difficult to assess effectiveness of any one agent
  - Drug-drug interactions increase the risk of side effects
  - Providers end up with laundry lists over years

# Psychotropics and Street Drugs/Alcohol

Some medications are more harmful to use with street drugs/alcohol than others. Similarly, some street drugs are more dangerous to use with psychotropic medications

Meth/Cocaine + stimulants: cardiac/stroke

Meth/Cocaine + anti-depressants: serotonin syndrome

Opiates (heroin) + anxiolytics: dangerous drops in blood pressure

Alcohol + Lithium: risk of kidney failure

# Psychotropic Medications

- Diagnosis is INCREDIBLY important
  - Input from teachers is VERY valuable in diagnosing children (teachers see children more than parents)
- Wrong Diagnosis = Wrong Meds
  - Decreases trust with parents
  - Unnecessarily exposes children to unneeded meds

# How Might Depression Look in a Classroom?

- Directly stating sadness
- Morbid themes in classwork
- Head down/isolative/disengaged
- Decreased energy/tired
- Lack of interest and motivation
- Cutting or other self-injurious behavior
- Suicidal thoughts/behaviors

# Anti-Depressants

- Older classes included MonoAmine Oxidases and Tricyclic Antidepressants (↑ side effects)
- Selective Serotonin Reuptake Inhibitors (SSRIs) are now the most commonly used
- Trade Names: Lexapro, Celexa, Zoloft, Prozac, Paxil.

# Anti-Depressants

- “Dual-Reuptake” Inhibitors include Effexor and Cymbalta
- Wellbutrin is a good augmenting agent and can help with attention as well
- Remeron can help with sleep and appetite

## QUESTION 2

Which of the following anti-depressants has the best evidence for use in bipolar disorder as far as likelihood of inducing a manic episode?

- A) Citalopram (Celexa)
- B) Bupropion (Wellbutrin)
- C) Venlafaxine (Effexor)
- D) Amitriptyline (Elavil)
- E) Selegiline (Emsam)

# Anti-Depressant Side Effects

- Common Side Effects:
  - Nausea/Diarrhea
  - Headache
  - Sleep Changes
  - Decreased Sexual Desire
- Rare but Dangerous Side Effects:
  - Serotonin Syndrome
  - Increased suicidal ideation

# Unique Side Effects

- Wellbutrin – Seizures
- Effexor – Hypertension / High Blood Pressure
- Cymbalta – Hepatotoxicity (liver damage)
- Paxil and Effexor – Very Bad Withdrawals
- Celexa – Possible cardiac arrhythmia at higher doses

# How Might Anxiety Look in a Classroom?

- Nervousness or Shy Temperament
- Hyperventilation/Sweating
- Separation Anxiety
- Obsessive/Perfectionistic Behavior
- Specific or Social Phobias
- **DON'T MISS INTERNALIZING CHILDREN!**

# Anxiolytics

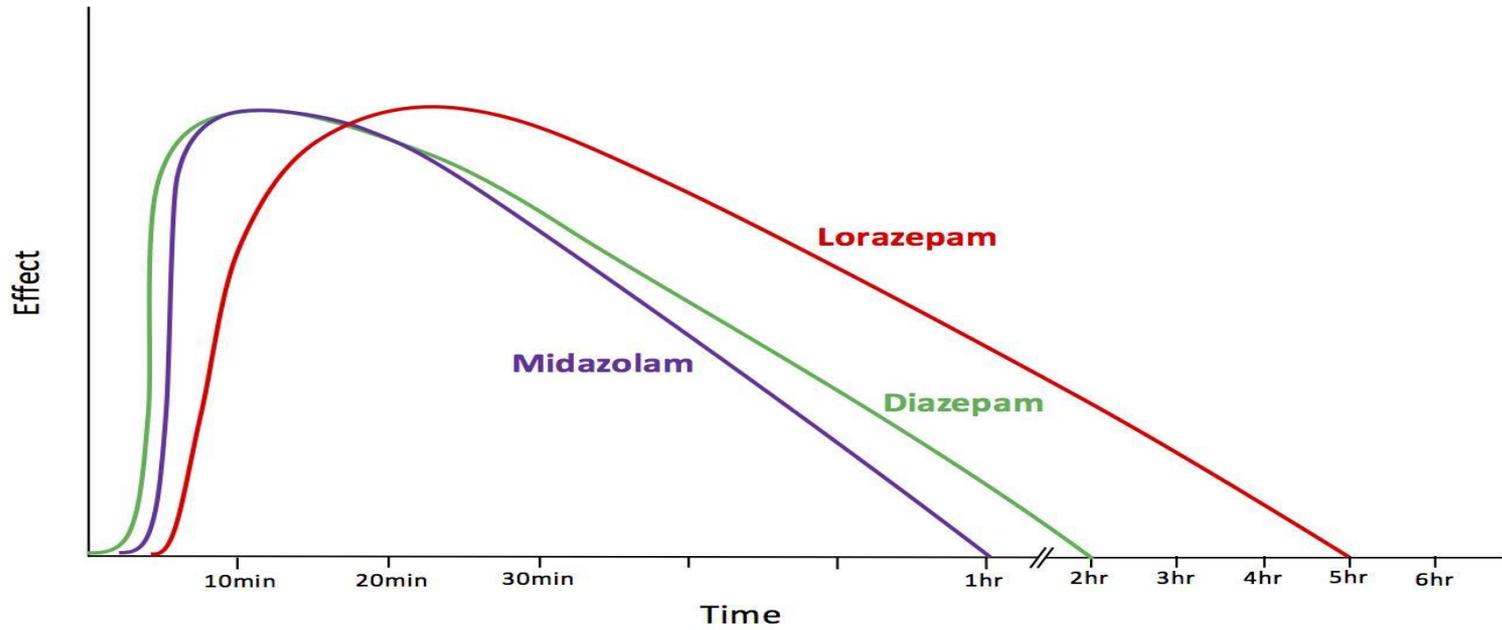
- Treatment of Choice is SSRIs given overwhelming evidence and favorable side effect profile
- Very rarely consider Benzodiazepines, such as Xanax, Ativan, Klonopin, Versed, or Librium. These medications are highly effective for short term use only.
- Buspirone, Gabapentin, Barbiturates (older(

# QUESTION 3

Which of the following benzodiazepines has the shortest onset of action?

- A) Lorazepam (Ativan)
- B) Chlordiazepoxide (Librium)
- C) Clonazepam (Klonopin)
- D) Diazepam (Valium)
- E) Zolpidem (Ambien)

# Benzodiazepine Metabolism



# Anxiolytic Side Effects

- Benzodiazepines
  - Habit-Forming
  - Potential for serious withdrawal including seizures
  - Behavioral Disinhibition
  - Delirium and/or Hallucinations
  - Sleep-Walking
  - If high dose or overdose, leads to respiratory suppression and potentially coma

# How Might ADHD Look in a Classroom?

- Hyperactivity
- Inattention/Decreased Focus
- Impulsivity
- Out of Seat/Talking in Class
- Increased Classroom Disruptions
- Difficulty with Task Completion/Multiple Reminders
- DO NOT MISS INATTENTIVE TYPE (more common in girls)!

# Most Common ADHD Doppelgangers

- Intellectual Disability (previously “MR”)
- Learning Disability
- Autism Spectrum Disorders/Developmental Delay
- Absence Seizures
- Oppositional Defiant Disorder/Conduct Disorder
- Reactive Attachment Disorder
- Bipolar Disorder
- Hyperkinesia/Akathisia without Attention Impairment

# ADHD Medications

- Stimulants (Gold Standard)
  - Ritalin, Adderall, Concerta ,Vyvanse, Dexedrine
- Non-Stimulants
  - Tenex, Clonidine, Strattera, Wellbutrin

# ADHD Medication Side Effects

- **Stimulants**

- Decreased Appetite/Weight Loss/Height Stunting
- Insomnia
- Paradoxical Increase in Agitation

- **Non-Stimulants**

- Tenex/Clonidine: Hypotension (low blood pressure) manifested as light-headedness, sedation, or dizziness
- Strattera: Elevated liver enzymes
- Wellbutrin: Seizures

# How Might Psychosis Look In a Classroom?

- Staring Off Into Space
- Disorganized Thought
- Disorganized Behavior
- Decline in Functioning
- Isolation/Withdrawal
- Delusions/Hallucinations

# Anti-Psychotics

- Older “Typical” or “First-Generation” and Newer “Atypical” or “Second-Generation”
- Trades Names: Abilify, Seroquel, Risperdal, Geodone, Clozaril, Haldol, Thorazine
- Multiple Uses: Psychosis, Aggression, Depression, Bipolar, Delirium

# Anti-Psychotic Side Effects

Movement Disorders

Weight Gain

Diabetes

Hormonal Issues (gynecomastia with Risperdal)

Cardiac (arrhythmia, blood pressure)

Sedation/Drooling

Lowered Seizure Threshold

# How Might Bipolar Disorder Look in a Classroom?

- **EPISODIC!!!**
- Decreased Need for Sleep for Multiple Days
- Grandiosity/Delusions
- Rapid-Pressured Speech
- Racing Thoughts
- Risk-Taking Behaviors
- Preceded or Followed by Depressive Episodes

# Bipolar Medications

- Anti-Convulsants
  - Depakote, Tegretol, Trileptal, Lamictal
- Lithium
- Anti-Psychotics
- Anti-Depressant Use in Bipolar Disorder

# Bipolar Medication Side Effects

- DEPAKOTE: Thyroid Abnormalities, Liver/Pancreas Toxicity, Reproductive/Ovarian Issues, Blood Cell Issues, Weight Gain, Electrolyte Imbalances, Drug Interactions, Birth Defects in Exposed Fetuses. Must check level.
- LITHIUM: Kidney Toxicity, Thyroid Abnormalities, Increased Blood Cells, Cardiac Issues, Weight Gain, Neurotoxicity. Must check level.
- LAMICTAL: Life-Threatening Rash
- TEGRETOL: Blood Cell Problems, Drug Interactions, Electrolyte Imbalances, Birth Defects in Exposed Fetuses

# Collaborative Care

- It is critical for Child and Adolescent Psychiatrists to receive information from teachers and other school personnel
- This information aides greatly in the diagnosis, formulation, and treatment planning for patients

# What Gets in the Way of Collaboration?

- Busy Schedules
- Concerns about Privacy
- Concerns about Parent Wishes
- Lack of Direct Access/Contact
- Bad Past Experiences with Interfacing

# Helpful Hints

- Be Persistent!!!
- Alternate Forms of Communication, such as E-mailing (so long as it is encrypted and patient protected)
- Increase Collaboration with “In-House” as well as outside team members
- Create a Culture of Collaboration (facilitation of team meetings, conferences for difficult cases, etc.).