

Psychiatric Medications: Indications, Side Effects & Issues

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Medication Assessment

- Medication lists, history
- Side effect profile
- Tolerance
- Blood work
- Allergies
- Idiosyncrasies

Assessment Issues

- Why drugs on board?
- Are they effective?
- Side effects?
- Newer drugs with less side effects?
- Costs
- Compliance issues
- Patient education & understanding

Other Medications

- Generic vs. trade
- OTCs
- Pain
- Medical conditions
- Vitamins
- Complementary

Pharmacokinetics & Aging

- Absorption is slowed
- Total body water & lean body mass is ↓
- ↑ total body fat(women)
- ↓ renal blood flow & filtration
- ↓ liver enzyme activity
- ↑ receptor activity

Goals

- Remission over decrease in symptoms
- Combination of medications & therapy most effective
- Prevention
- Recurrence risks

Past Categories

- Antidepressants to treat depression
- anti-anxiety drugs to treat anxious states (& sleep)
- antimanic drugs to treat bipolar
- antipsychotics to treat psychosis

New Categories

- Antidepressants treat anxiety
- Anxiolytic drugs treat psychoses, depressive sx's & BAD
- All categories treat eating, panic & impulse-control disorders
- Overlap in terms

Antidepressant Categories

- Tricyclics
- SSRIs
- SNRIs
- MAOIs
- Mood Stabilizers

In the olden days

- Minor tranquilizers
- Major tranquilizers

Antidepressants

- Celexa (Citalopram)
- Cymbalta (Duloxetine)
- Effexor (Venlafaxine)
- Lexapro (Escitalopram)
- Luvox (Fluvoxamine)
- Paxil (Paroxetine)

Antidepressants

- Prozac (Fluoxetine)
- Norpramin (Desipramine)
- Remeron (Mirtazepine)
- ?Desyrel (Trazadone)
- Wellbutrin (Bupropion)
- Zoloft (Sertraline)

Chemical "Jobs"

Serotonin

- Regulates
- mood
- sleep
- emesis
- sexuality
- appetite
- impulsiveness/aggression

Serotonin Medications

- Prozac
- Zoloft
- Paxil
- Celexa
- Lexapro
- Luvox

Chemical "Jobs"

Dopamine	Norepinephrine
Attention	Vigilance
Pleasure	↑ Observance
Emotions	↓ Daydreaming
Reward	Heart/BP rates
Motivation	Stress
Movement	

Examples

Dopamine
Stimulants
Antipsychotics

Norepinephrine
Tricyclics
MAOIs
Amphetamines
ECT

Tricyclics

- Norpramin (Desipramine)
- Tofranil (Imipramine)

Concerns

- Mania - drug-induced
- Sedation
- Orthostatic hypotension
- Cardiac effects
- Anticholinergic effects
dry mouth, constipation, blurred vision,
urinary retention

SSRIS

- SSRIs (Serotonin-specific reuptake inhibitors)
 - inhibits the reuptake of serotonin w/o seriously affecting the reuptake of dopamine & norepinephrine

SSRIs

- Prozac
- Zoloft
- Celexa
- Lexapro
- Luvox
- Paxil

Concerns

- Anxiety
- Insomnia
- GI symptoms
- Headache
- ↓Appetite
- Sexual dysfunction

SSNRIs

SNRIs (Serotonin-norepinephrine reuptake inhibitors)

- Effexor
- Cymbalta

Concerns

- Headache
- Somnolence
- Dizziness
- Nervousness
- ↓ Appetite
- Insomnia

MAOIs

- Nardil (Phenelzine)
- Marplan (Isocarboxazid)

Concerns

- Blood pressure problems
- Dietary requirements
- Weight gain
- Insomnia
- Edema
- Drug-drug interactions

Other

- Remeron

Dosing Information

Drug	Depression Dose Range	Half Life
Citalopram	20-60 mg QD	36 hr
Escitalopram	10-30mg QD	27-32hr
Fluoxetine	20-80 mg QD	4-16d
Paroxetine	20-50 mg QD	21hr
Sertraline	50-200 mg QD	26 hr
Bupropion SR	300-400 mg (BID dose)	21 hr
Bupropion XL	150-450mg QD	21hr

Dosing Information

Drug	Depression Dose Range	Half Life
Mirtazapine	15-45 mg QD	20-40 hr
Nefazodone	200-600 mg (BID dose)	2-4 hr.
Venlafazine XR	75-225 mg QD	5-11hr
Duloxetine	30-90mg QD	8-17hr

Depression Issues

- Adequate trial of medications & dosages
- 3 trials before next option
- Agitated vs. psychomotor retardation
- Previous response
- Acuteness
- Combination therapy

Augmentation Strategies

- Lithium
- Thyroid
- Another antidepressant
- Mood stabilizers

BAD Symptoms

- ↑energy, activity, restlessness
- "High," euphoric mood
- Racing thoughts, rapid speech
- Distractable
- ↓sleep
- Poor judgement
- Unrealistic beliefs

BAD Symptoms

- Spending sprees
- Provocative, intrusive, aggressive behavior

Medication Rationale

- Treat acutely
- May need rapid acting drug then
- Start mood stabilizer
 - Takes longer to build up
- Monitor, evaluate, adjust

Mood Stabilizer Indications

- Augmentations
- Bipolar Disorders
- Resistant Depressions
- Severe Anxiety
- OCD

Mood Stabilizers

- Depakote (Valproic Acid)
- Eskalith (Lithium)
- Lamictal (lamotrigine)
- Tegretol (Carbamazepine)
- Antipsychotics
 - Risperdol
 - Symbyax
 - Abilify

Concerns

- GI symptoms
- Skin disorders
- Confusion
- Blood levels required
 - CBC w platelets
 - LFT, lytes
 - ECG

Anxiety Treatments

- Psychotherapy, Behavioral Supportive & Milieu
- Psychopharmacological: Short-acting Anxiolytics, Longer-acting for Severe Problems
- Combination
- Referral to Behavioral Medicine Clinician

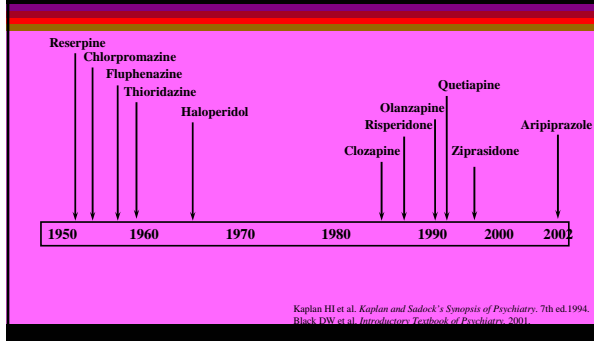
Anxiolytics

- Short Acting Anxiolytic
 - Ativan (Lorazepam)
 - Xanax (Alprazolam)
- Buspar (Buspirone)
- Desyrel (Trazadone)
- Long Acting Anxiolytics
 - Valium (Diazepam)

Indications

- Anxiety
- Insomnia
- Depression
- BAD
- Panic & Social Phobias
- Akathisia
- Medical Indications
- Other Psychiatric Indications

Antipsychotic therapy: Historical perspective in the United States



Thought Disorders

- Schizophrenia
- Paranoia/Delusions
- Psychosis
 - Depression
 - Dementia
 - BAD
 - Sensory Loss

Antipsychotic Action

Treat psychosis caused by increased dopamine activity in the areas of the brain involving emotional behavior, voluntary movement, & inhibition of prolactin secretion

Antipsychotic Drugs

Drugs block receptors that control agitation, delusions, & hallucinations

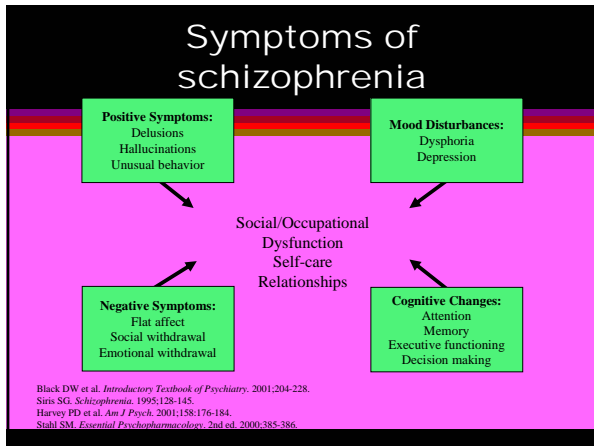
They can cause serious side effects which need to be monitored for

Antipsychotics

- Abilify (Aripiprazole)
- Geodon (Ziprasidone)
- Risperdol (Risperidone)
- Seroquel (Quetiapine)
- Zyprexa (Olanzapine)

Considerations in prescribing atypical antipsychotics

- Efficacy in
 - positive symptoms
 - negative symptoms
 - depressive symptoms
 - cognitive symptoms
- Potential for side effects
 - weight gain
 - prolactin elevation
 - sedation
 - dyslipidemia
 - metabolic effects (glucose dysregulation)



- ## Antipsychotics
- Traditional
 - Atypicals (new generation)

- ## Considerations in prescribing atypical antipsychotics
- Potentially improved compliance rates
 - Reduced incidence of EPS compared with conventional agents
 - Potentially reduced TD liability
- www.mesinc.com/education/monographs2/cme002/content/10.html.
Wirshing DA et al. *J Clin Psychiatry*. 2002;63:856-865.

Atypical Tips

Before starting

- Blood pressure
- Blood work: liver chemistries, metabolic panel (FBS)
- Cardiac status: ECG- check for QTc prolongation
- Stroke risk

Atypical Tips

Assessment of potential side effects

- Anxiety - causes or treats?
- EPS/parkinsonian symptoms
- GI symptoms
- Increased prolactin levels
- Increased risk for diabetes
- Insomnia vs sedation
- Orthostatic blood pressure changes
- Weight gain

Atypical tips

Formulation

- How to administer?
- Once-daily or multiple dosing
- Tablets, dissolvable, liquids, or IM

Abilify

- Schizophrenia, BAD, Dementia
- Tablets, liquid, once daily
- Slight risk of seizures
- Side effects
 - Headache, constipation, weight gain, hypotension
 - Akathesia, anxiety

Geodon

- Schizophrenia, BAD, Paranoia
- Can treat depression
- Use cautiously with MIs, arrhythmias, prolonged QT interval
- Tablets, IM, twice daily
- Side effects
 - Somnolence or restlessness, agitation
 - Dizziness
 - Akathesia/EPS

Risperdol

- Psychotic disorders
- Tablets, liquid, 2-3 times daily
- Side effects
 - Increased BP, stroke risk, orthostatic BP, QTc changes
 - Akathesia, restlessness, agitation, anxiety
 - Weight gain/loss, constipation

Seroquel

- Manage psychotic disorders
- Tablets 2-4 times daily
- Side effects
 - Akathisia, restlessness, drowsiness
 - Weight gain, constipation, indigestion
 - Palpitations, increased BP

Zyprexa

- Schizophrenia, BAD, psychosis
- Oral, IM, dissolvable, once daily
- Side effects
 - Weight gain, NMS, restlessness, somnolence,
 - BP changes, increased prolactin
 - CVD/stroke risk with elderly

Anticholinergics

- Drug-induced movement disorders
 - Cogentin (Benztropine)
 - Akineton (Biperiden)
 - Artane (Trihexyphenidyl)

Concerns

- Metabolic Syndrome
 - Lipids, LFTs, Thyroid, FBS, weight gain, ↑ waist
- Long-term side-effects
- Dosing issues
- Adequate follow-up

Pearls

- All drugs have side effects
- All drugs have risks/benefits
- Observation, assess, & monitor
- Quality of life issues
- Long-term use & concerns
- Weaning
- Newer drugs & information
- Ask questions

Resources

National Institute of Mental Health
• www.nimh.nih.gov/publication

Federal Drug Administration
• www.fda.gov/cder/index.html

Individual Drug
