Psychotropic Medications: An Extensive Guide

This document provides an extensive overview of major classes of psychotropic medications,
their mechanisms, uses, key risks, and monitoring recommendations. It is for educational and clinical reference purposes only and not a substitute for medical advice.

1. Major Classes of Psychotropic Medications

- Antidepressants (SSRIs, SNRIs, TCAs, MAOIs, atypicals)
- Antipsychotics (first- and second-generation)
- Mood stabilizers (lithium, valproate, lamotrigine, carbamazepine)
- Anxiolytics (benzodiazepines, buspirone, hydroxyzine)
- ADHD agents (stimulants and non-stimulants)

2. Antidepressants

Mechanism: Primarily modulate serotonin and norepinephrine transmission.
Indications: Major depressive disorder, generalized anxiety, PTSD, OCD, panic disorder.
Examples: Fluoxetine, Sertraline, Venlafaxine, Duloxetine, Bupropion, Mirtazapine.

Key Points:
- SSRIs/SNRIs are first-line for most mood/anxiety disorders.
- Therapeutic onset: 4–6 weeks.
- Boxed warning: Increased suicidality risk in ages <25 (FDA, 2018).
- Common adverse effects: GI upset, insomnia, sexual dysfunction.
- Monitoring: mood changes, suicidality, adherence.

3. Antipsychotics

Mechanism: Dopamine D2 and serotonin 5-HT2 receptor antagonism.
Indications: Schizophrenia, bipolar disorder, augmentation for depression.
Examples: Risperidone, Olanzapine, Quetiapine, Aripiprazole, Clozapine.

Risks and Monitoring:

- Metabolic syndrome (weight, glucose, lipids).
- Neurologic side effects (EPS, tardive dyskinesia).
- Cardiac (QT prolongation).
- Clozapine: agranulocytosis—requires ANC monitoring.
- Monitor metabolic labs at baseline, 3 months, and annually.

4. Mood Stabilizers

Lithium: First-line for bipolar I disorder; reduces suicide risk.
Monitoring: Renal, thyroid, ECG (>50), serum level (0.6–1.2 mmol/L).
Valproate: Effective for acute mania; monitor LFTs, CBC, teratogenic risk.
Lamotrigine: Bipolar depression; titrate slowly to prevent rash (SJS/TEN).
Carbamazepine: Mania; monitor CBC, LFTs, sodium, drug levels.

5. Anxiolytics and Hypnotics

Benzodiazepines: Short-term for anxiety or panic. Avoid long-term use.
Buspirone: Non-sedating, non-habit-forming; delayed onset.
Z-drugs (Zolpidem, Eszopiclone): Short-term insomnia treatment.
FDA 2020 warning: benzodiazepine dependence, withdrawal, overdose with opioids.

6. ADHD Medications

Stimulants (Methylphenidate, Amphetamines): First-line for ADHD; monitor BP/HR.
Non-stimulants (Atomoxetine, Guanfacine): Use if stimulant contraindicated.
Atomoxetine: Boxed warning for suicidality in youth.

7. Cross-Cutting Safety Considerations

- Avoid polypharmacy unless clearly indicated.
- Assess for suicidality at medication initiation and dose changes.
- Monitor metabolic and cardiovascular risk factors regularly.
- Adjust for renal/hepatic impairment and age.
- Use shared decision-making with patients regarding risks and benefits.

References

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