



Antipsychotic Medications Table

Week 3

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THIS ASSIGNMENT SHOULD BE SUBMITTED TO THE WEEK 3 MEDICATION TABLE DROPBOX BY SUNDAY

Drug name	Indication Target symptoms: state if positive or negative effect Potency (if noted. receptor occupancy if noted) Neurotransmitter(s) affected	Half-life (T1/2), metabolism (CYP 450 enzyme)	Notable side effects (as NT)
Typical antipsychotics (conventional)			
Haloperidol (Haldol) P. 361	<p>Indication: (bold for FDA-approved)</p> <p>Manifestations of psychotic disorders (oral, immediate-release injection).</p> <p>Tics and vocal utterances in Tourette's syndrome (oral, immediate-release injections)</p> <p>Second-line treatment of severe behavior problems in children with combative, explosive, and hyperexcitability (oral).</p> <p>Second line short-term treatment of hyperactive children (oral).</p> <p>Treatment of schizophrenic patients who require prolonged parenteral antipsychotic therapy (depot intramuscular decanoate).</p> <p>Bipolar disorder. Behavioral disturbances and dementias. Delirium (with lorazepam).</p> <p>Blocks dopamine 2 receptors, reducing positive symptoms of psychosis and possibly combative, explosive, and hyperactive behaviors. Blocks dopamine 2 in the nigrostriatal pathway, improving tics and other symptoms in Tourette's.</p>	Decanoate half-life approx. 3 weeks. Oral dose half-life approx. 12-38 hours.	Acute blockade of dopamine 2 receptors in the striatum can cause Parkinsonism, dystonia, and oculogyric crisis. Chronic blockade of dopamine 2 receptors in the striatum can cause tardive dyskinesia. Blocking dopamine 2 receptors in the mesolimbic pathway can cause elevations in prolactin. Blocking dopamine 2 receptors in the mesocortical and mesolimbic pathways, especially at high doses, can cause worsening of negative symptoms (neuroleptic syndrome). Blocking alpha 1 adrenergic receptors can cause dizziness, hypotension, and blurred vision. The mechanism of weight gain is unclear, but a possible increased incidence of dyslipidemia with conventional antipsychotics is unknown.

<p>Thioridazine (Mellaril) P. 791</p>	<p>Indications: (bold for FDA-approved) Schizophrenic patients who fail to respond to treatment with other antipsychotic drugs.</p> <p>Blocks dopamine 2 receptors, reducing positive symptoms of psychosis.</p>	<p>Half-life 24 hours (Feinberg, et al., 2023). Metabolized by CYP450 2D6</p>	<p>Acute blockade of dopamine receptors in the striatum can cause orthostatic hypotension, Parkinsonism, dystonia, and tardive dyskinesia. Chronic blockade of dopamine receptors in the striatum can cause tardive dyskinesia. Blocking dopamine 2 receptors can cause elevations in prolactin levels. Blocking dopamine 2 receptors in the mesocortical and mesolimbic pathways, especially at the D₂ receptor, can cause worsening of negative and cognitive symptoms (neuroleptic-induced syndrome). Blocking muscarinic cholinergic receptors can cause dry mouth, blurred vision, urinary retention, constipation, and tachycardia. Antihistaminic actions may cause sedation and weight gain. Blocking A₁ adrenergic receptors can cause dizziness, hypotension, and tachycardia. The mechanism of weight gain is unclear, but a possible increased incidence of dyslipidemia with conventional antipsychotics is unknown. The mechanism of potential QTc prolongation may be related to hERG channels.</p>
<p>Thiothixene (Navane) P. 797</p>	<p>Indications: (bold for FDA-approved) Schizophrenia. Other psychotic disorders. Bipolar disorder.</p>	<p>The initial elimination half-life is approximately 3.4 hours. Terminal</p>	<p>Acute blockade of dopamine receptors in the striatum can cause orthostatic hypotension, Parkinsonism, dystonia, and tardive dyskinesia.</p>

	<p>Blocks dopamine 2 receptors, reducing positive symptoms of psychosis.</p>	<p>elimination half-life is approximately 34 hours.</p>	<p>Chronic blockade of dopamine receptors in the striatum can cause tardive dyskinesia. Blocking dopamine 2 receptors can cause elevations in prolactin. Blocking dopamine 2 receptors in the mesocortical and mesolimbic pathways, especially at the D₂ receptor, can cause worsening of negative symptoms (neuroleptic-induced syndrome). Blocking muscarinic cholinergic receptors can cause dry mouth, blurred vision, urinary retention, constipation, and weight gain. Antihistaminic actions may cause sedation and weight gain. Blocking alpha 1 adrenergic receptors can cause dizziness, hypotension, and weight gain. The mechanism of weight gain is unknown. Possible increased incidence of dyslipidemia with conventional antipsychotics is unknown.</p>
<p>Fluphenazine (Prolixin) P. 327</p>	<p>Indications: (bold for FDA approved) Psychotic Disorders. Bipolar disorder.</p> <p>Blocks dopamine 2 receptors, reducing positive symptoms of psychosis. Commonly prescribed for bipolar disorder.</p>	<p>The mean half-life of the oral formulation is approximately 15 hours. Mean half-life of intramuscular formulation is approximately 6.8-9.6 days.</p>	<p>Acute blockade of dopamine receptors in the striatum can cause acute dystonia, Parkinsonism, and tardive dyskinesia. Chronic blockade of dopamine receptors in the striatum can cause tardive dyskinesia. By blocking dopamine 2 receptors in the pituitary, it can cause elevated prolactin. Blocking dopamine 2 receptors in the mesocortical and mesolimbic pathways, especially at the D₂ receptor, can cause worsening of negative symptoms.</p>

			<p>symptoms. (neuroleptic syndrome).</p> <p>Blocking muscarinic cholinergic receptors can cause dry mouth, blurred vision, urinary retention, constipation, and weight gain.</p> <p>Antihistaminic actions may cause sedation and weight gain.</p> <p>Blocking alpha 1 adrenergic receptors can cause dizziness, hypotension, and weight gain.</p> <p>The mechanism of weight gain is unknown. Possible increased incidence of dyslipidemia with conventional antipsychotics is unknown.</p>
<p>Chlorpromazine (Thorazine) P. 153</p>	<p>Indications: (bold for FDA-approved)</p> <p>Schizophrenia (oral).</p> <p>Severe behavioral problems associated with oppositional defiant disorder or other disruptive behavioral disorders, or attention deficit hyperactivity disorder (ADHD) in pediatric patients who show excessive motor activity with accompanying conduct disorders (oral, intramuscular for acute, severe agitation in hospitalized patients).</p> <p>Acute psychosis (intramuscular).</p> <p>Nausea, vomiting (oral, rectal, intramuscular, intravenous).</p> <p>Acute intermittent porphyria (oral, intramuscular).</p> <p>Tetanus (intramuscular, adjunct).</p> <p>Intractable hiccups (oral, intramuscular, intravenous).</p> <p>Bipolar disorder.</p> <p>Restlessness and apprehension before surgery.</p>	<p>Half-life is approximately 8-33 hours.</p>	<p>Acute blockade of dopamine receptors in the striatum can cause orthostatic hypotension, Parkinsonism, dystonia, and tardive dyskinesia.</p> <p>Chronic blockade of dopamine receptors in the striatum can cause tardive dyskinesia.</p> <p>Blocking dopamine 2 receptors in the mesocortical and mesolimbic pathways, especially at the level of the nucleus accumbens, can cause worsening of negative affective symptoms (neuroleptic syndrome).</p> <p>Blocking muscarinic cholinergic receptors can cause dry mouth, blurred vision, urinary retention, constipation, and weight gain.</p> <p>Antihistaminic actions may cause sedation and weight gain.</p> <p>Blocking alpha 1 adrenergic receptors can cause dizziness, hypotension, and weight gain.</p>