

Antipsychotic Medications

First generation antipsychotics block dopamine type (D2) receptors in the limbic system, while second generation antipsychotics have a variable profile of receptor activity. Second generation antipsychotics overall have a lower incidence of tardive dyskinesia and other movement disorders, however, their use is associated with higher risk of metabolic side effects.

DRUG CATEGORY	MEDICATIONS	COMMON SIDE EFFECTS	MONITORING PARAMETERS	ADDITIONAL COMMENTS
First Generation (Typical) Antipsychotics	<ul style="list-style-type: none"> ▪Chlorpromazine (IR, Inj)* ▪Fluphenazine (IR, Liq, Inj, Depot) ▪Haloperidol (IR, Liq, Inj, Depot) ▪Loxapine (IR, Inh) ▪Molindone (IR) ▪Perphenazine (IR) ▪Pimozide (IR) ▪Prochlorperazine (IR, Inj, supp) ▪Thioridazine (IR) ▪Thiothixene (IR) ▪Trifluoperazine (IR) 	<ul style="list-style-type: none"> ▪Extrapyramidal symptoms (EPS) ▪Drowsiness, dizziness ▪Hyperprolactinemia (can cause sexual side effects, gynecomastia) ▪Anticholinergic effects (greatest with chlorpromazine, thioridazine) ▪Hypotension 	<ul style="list-style-type: none"> ▪Mental status/vital signs ▪Abnormal involuntary movements or Parkinsonian signs ▪CBC ▪Ophthalmologic exam if prolonged use <p><u>Additional Monitoring That May Be Indicated:</u></p> <ul style="list-style-type: none"> ▪Weight, height, body mass index (BMI), and waist circumference ▪Fasting plasma glucose level/HbA1c ▪Lipid panel ▪Electrolytes ▪LFTs ▪Serum prolactin ▪ECG 	<p><u>Black Box Warnings:</u></p> <ul style="list-style-type: none"> ▪Increased mortality in elderly patients with dementia related psychosis ▪Loxapine can cause bronchospasm that has the potential to lead to respiratory distress and respiratory arrest ▪Thioridazine has been shown to prolong the QT interval in a dose-related manner <p><u>Additional:</u></p> <ul style="list-style-type: none"> ▪Use chlorpromazine, fluphenazine, perphenazine, and pimozide with caution in patients with renal impairment ▪Use chlorpromazine, pimozide, prochlorperazine, and thioridazine with caution in patients with hepatic impairment ▪Use of fluphenazine, perphenazine, and trifluoperazine is contraindicated in patients with hepatic disease
Second Generations (Atypical) Antipsychotics	<ul style="list-style-type: none"> ▪Aripiprazole (IR, Liq, ODT, Depot) ▪Asenapine (SL, Patch) ▪Brexpiprazole (IR) ▪Cariprazine (IR) ▪Clozapine (IR, ODT, Liq) ▪Iloperidone (IR) ▪Lurasidone (IR) ▪Olanzapine (IR, ODT, Inj, Depot) ▪Paliperidone (ER, Depot) ▪Pimavanserin (IR) ▪Quetiapine (IR, ER) ▪Risperidone (IR, Liq, ODT, Inj, Depot) ▪Ziprasidone (IR, Inj) 	<ul style="list-style-type: none"> ▪Weight gain, hypertriglyceridemia, and risk of insulin resistance and type 2 diabetes (greatest with clozapine & olanzapine, lowest with ziprasidone) ▪Altered cardiac conduction and prolonged QT interval (greatest with ziprasidone) ▪Extrapyramidal symptoms (EPS): much lower extent than the 1st generation agents, risperidone carries the highest risk, clozapine carries the lowest risk ▪Hyperprolactinemia (highest in risperidone) ▪Anticholinergic effects (clozapine, olanzapine, quetiapine, risperidone) ▪Hypothyroidism (quetiapine) ▪Drowsiness, dizziness ▪Headache ▪Insomnia ▪Clozapine: neutropenia, DVT/PE, hepatotoxicity, sialorrhea, and glaucoma 	<ul style="list-style-type: none"> ▪Mental status/vital signs ▪Abnormal involuntary movements or Parkinsonian signs ▪Personal and family history of obesity, diabetes, dyslipidemia, hypertension, or cardiovascular disease ▪Weight, height, body mass index (BMI), waist circumference ▪Blood pressure ▪Fasting plasma glucose level/HbA1c ▪Lipid panel ▪ANC (clozapine) <p><u>Additional Monitoring That May Be Indicated:</u></p> <ul style="list-style-type: none"> ▪CBC ▪LFTs ▪Renal function ▪Serum prolactin ▪Electrolytes ▪Neurologic function ▪Thyroid function tests ▪ECG ▪Clozapine, olanzapine levels may be lower in patients who smoke 	<p><u>Black Box Warnings:</u></p> <ul style="list-style-type: none"> ▪Increased mortality in elderly patients with dementia-related psychosis ▪Aripiprazole (excluding ER injection), brexpiprazole, lurasidone, quetiapine: increased risk of suicidal ideation in children and adolescents ▪Clozapine: severe neutropenia, seizures, myocarditis, cardiomyopathy, and mitral valve incompetence, orthostatic hypotension, bradycardia, syncope ▪Olanzapine ER injection: Post-injection delirium/sedation syndrome <p><u>Additional:</u></p> <ul style="list-style-type: none"> ▪Use clozapine, lurasidone, olanzapine, paliperidone, quetiapine, risperidone, and ziprasidone with caution in patients with renal impairment ▪Use clozapine, lurasidone, olanzapine, quetiapine, risperidone, and ziprasidone with caution in patients with hepatic impairment ▪Clozapine and olanzapine ER injection must be prescribed in conjunction with the corresponding REMS program ▪Upon discontinuing antipsychotic therapy, gradual tapering is recommended

*Dosage forms available: IR = Immediate Release Oral Formulation, ER= Extended Release Oral Formulation, Liq= Oral Liquid, Inj= Injectable, Depot= Long-acting Injectable, Inh= Inhalation, Supp= Rectal Suppository, SL= Sublingual Tablet, Patch= Patch, ODT= Orally Disintegrating Tablet