

## Atypical Antipsychotics

Atypical antipsychotics are a class tranquilizing drugs used to treat psychiatric conditions. Common indications for these drugs are the positive and negative symptoms of schizophrenia, mania, Tourette's syndrome, bipolar disorder, OCD and depression. The mechanism of action for this drug class is not entirely understood, but it is known that there are varied effects on 5HT<sub>2</sub>, dopamine,  $\alpha$  and H<sub>1</sub> receptors. These drugs have less anticholinergic and extrapyramidal side effects than their typical counterparts, but can still cause seizure, prolonged QT syndrome, agranulocytosis and weight gain. Examples of atypical antipsychotic drugs are olanzapine, clozapine, quetiapine, risperdone, aripiprazole and ziprasidone.



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### Indications

#### Schizophrenia

##### Sketchy-fern

Atypical antipsychotics are used for schizophrenia (both positive and negative symptoms), and can also be indicated for bipolar disorder, OCD, anxiety, depression, Tourette's syndrome and mania.

### Mechanism of Action

#### Unknown Mechanism

##### Question-mark Mechanism

The pharmacology behind these drugs is unclear and the mechanism of action behind each drug varies. However, they are believed to have varied antagonistic effects on 5HT/D2 receptors as well as D2 agonist effects.

### Side Effects

#### Seizures

##### Caesar

Clozapine must be closely monitored, as it causes this side effect. 3-5% percent of patients on this drug experience seizures. Patients with a history of seizures should avoid this medication.

#### Prolonged QT Interval

##### Stretched QT-heart

Several SGAs have been tied to the side effect of prolonged QT interval, however the medication Ziprasidone has been associated with the highest risk.

#### Agranulocytosis

##### A-granny-side-toe

Clozapine is a commonly used atypical antipsychotic for treatment resistant schizophrenia. Prescribers need to demonstrate their competence prior to being able to prescribe this medication, as it is important to routinely monitor this medication at specific intervals to avoid agranulocytosis. Patients require weekly WBC monitoring for the first 6 months then regular monitoring thereafter.

### **Weight Gain**

[Up-arrow Scale](#)

Olanzapine and Clozapine have been known to cause weight gain in patients.

### **Fewer Extrapyramidal Side Effects**

[Down-arrow Fx X-pyramid](#)

Atypical antipsychotics have a more favorable side effect profile, with less extrapyramidal side effects when compared to typical antipsychotics.

### **Fewer Anticholinergic Side Effects**

[Down-arrow Fx Ant-tie-cola](#)

In comparison to typical antipsychotics, these medications are better tolerated because they cause fewer anticholinergic effects.