



Seroquel (quetiapine)

Generic name: Quetiapine

Available strengths: 25 mg, 100 mg, 200 mg,
300 mg tablets

Available in generic: No

Drug class: Second-generation antipsychotic

General Information

Seroquel (quetiapine) is a **serotonin and dopamine antagonist** belonging to the class of second-generation antipsychotics that are often called *atypical* antipsychotics. (Refer to the handout on “Second-Generation Antipsychotics” for an explanation of how these antipsychotics work.) These agents are atypical in that they are significantly different, both in structure and pharmacology, from the older, *typical* antipsychotic medications such as Thorazine (chlorpromazine), Mellaril (thioridazine), and Haldol (haloperidol). The second-generation antipsychotics block both serotonin and dopamine receptors, whereas the typical antipsychotics are mainly dopamine-receptor antagonists.

The U.S. Food and Drug Administration approved Seroquel for the treatment of schizophrenia and acute mania in bipolar disorder. The use of a medication for its approved indications is called its *labeled use*. In clinical practice, however, physicians often prescribe medications for *unlabeled* (“off-label”) uses when published clinical studies, case reports, or their own clinical experiences support the efficacy and safety of those treatments. Like other second-generation antipsychotics, Seroquel is used to treat other psychiatric disorders, including schizoaffective disorder, psychotic depression, severe obsessive-compulsive disorder, and psychosis in Alzheimer’s disease and other neuropsychiatric disorders.

Dosing Information

For schizophrenia, the recommended starting dosage of Seroquel is 25–50 mg twice a day. The dosage is increased by 25–50 mg every day or two until a target dosage of 300–400 mg/day, taken twice a day, is reached. After several weeks, if needed, the dosage may be increased to a maximum of 800 mg/day. Seroquel has a wide dosing range. Effective doses for schizophrenia may range from 150 mg/day to 800 mg/day.

In treatment of acute mania in bipolar disorder, the usual starting dosage is 100 mg/day, divided in twice-daily dosing, and rapidly increased to 400 mg/day by the fourth day. If needed, the dosage is increased by 200 mg/day to a maximum of 800 mg/day by day 7. As acute mania abates, Seroquel may be continued as a single agent or in combination with another mood stabilizer, such as Depakote. Dosage adjustments may be needed to find the lowest dosage required to maintain remission.

A more cautious dosing approach is recommended for seniors or for patients with a medical condition, such as liver disease. The dosage should be increased slowly, with a lower starting and ending dosage.

Common Side Effects

The common side effects of Seroquel are drowsiness and dizziness. Drowsiness may be problematic during the daytime. Taking a larger portion of the divided dosage at bedtime and a smaller one in the morning may minimize daytime sleepiness. For example, if the total dosage were 300 mg/day, the patient would take 200 mg at bedtime and 100 mg in the morning.

There is a very low incidence of **extrapyramidal symptoms** (EPS) from Seroquel. EPS are neurological disturbances produced by antipsychotics (or other causes) in the area of the brain that controls motor coordination. These side effects include muscle rigidity, tremors, drooling, restlessness, a “mask-like” facial expression, shuffling gait, and muscle spasms that result in abnormal posture (**dystonia**). EPS mimic Parkinson’s disease, and many of the signs and symptoms are common in both conditions. Some patients experience **akathisia**, which is a subjective sense of restlessness accompanied by fidgeting and inability to sit or stand still. EPS may be managed by decreasing the antipsychotic dosage or adding another medication (anticholinergic medication) to counteract the side effect.

Patients frequently will gain weight when treated with Seroquel. It appears that Seroquel increases appetite and may produce some underlying metabolic changes. The major concern of this weight gain is the health consequences to the patient, including the potential for developing diabetes and increasing cholesterol and other lipids, which can increase the risk for cardiovascular disease. Furthermore, patients may want to stop taking their medication if they become self-conscious about putting on excessive weight. If this side effect becomes problematic, patients should not stop their medication, but should consult with their physician. Control of weight can usually be managed by diet and exercise without stopping Seroquel.

Seroquel may block a compensatory response—the narrowing of blood vessels—that counterbalances postural change, resulting in a momentary drop in blood pressure when the person rises too rapidly, which may cause dizziness and lightheadedness. This reaction is known as **orthostatic hypotension**. Patients, especially seniors and those taking antihypertensive medications, need to be cautious and rise slowly to allow their body to adjust to the change in position, avoiding a sudden drop in their blood pressure.

Adverse Reactions and Precautions

Seroquel may cause drowsiness and sedation and impair physical coordination and mental alertness. Patients should avoid potentially dangerous activities, such as driving a car or operating machinery, until they are sure that these side effects will not affect their ability to perform these tasks.

Tardive dyskinesia (TD) is a potential adverse reaction from antipsychotic medications. It consists of abnormal involuntary movements. It is a potentially irreversible condition that includes “pill-rolling” movements of the fingers, darting and writhing movements of the tongue, lip puckering, facial grimacing, and shoulder or neck movements. The risk of TD is believed to increase as the duration of treatment and the total cumulative amount of antipsychotic medications prescribed to the patient increases. The risk of TD associated with second-generation antipsychotics is significantly lower than with conventional antipsychotics.

Neuroleptic malignant syndrome (NMS) is a rare, toxic reaction to antipsychotics. The symptoms are severe muscle stiffness, rigidity, elevated body temperature, increased heart rate and blood pressure, irregular pulse, and sweating. NMS may lead to delirium and coma. It can be fatal if medical intervention is not immediately provided. There is no test to predict whether an individual may be susceptible to developing NMS when exposed to an antipsychotic. Thus NMS must be recognized early because it is a medical emergency that requires immediate discontinuation of the antipsychotic, hospitalization, and intensive medical treatment.

There have been reports of patients who showed transient and asymptomatic increases in liver enzymes, but it was concluded that the elevated enzymes were temporary and not serious. Nevertheless, patients' liver function should be monitored by laboratory tests before beginning treatment with Seroquel and then periodically during treatment.

Use in Pregnancy and Breastfeeding: Pregnancy Category C

Seroquel has not been tested in women to determine its safety in pregnancy. The effects of the medication on the developing fetus in pregnant women are unknown. In animal studies, there was no evidence of harm to the fetus when exposed to Seroquel. Animal studies, however, are not always predictive of effects in humans. Women who are pregnant or may become pregnant should discuss this with their physician. Some women may experience a recurrence of their psychosis when they stop Seroquel. In these circumstances, the physician may discuss the need to restart the medication or seek an alternative medication or treatment.

Nursing mothers should not take Seroquel, because small amounts will pass into breast milk and be ingested by the baby. If stopping the antipsychotic is not an alternative, breastfeeding should not be started or should be discontinued.

Possible Drug Interactions

Some medications when taken with Seroquel may result in drug interactions that alter their levels, which may produce undesired reactions. The possible drug interactions with Seroquel are summarized in the table below.

Antihypertensive medications	Antihypertensives such as Catapres and Inderal may increase the risk for orthostatic hypotension.
Nizoral (ketoconazole), Diflucan (fluconazole), and Sporanox (itraconazole)	Antifungal agents may decrease the metabolism of Seroquel, thus increasing blood levels and the likelihood of unwanted side effects.
Tegretol (carbamazepine) and Dilantin (phenytoin)	Tegretol and Dilantin may decrease the blood levels of Seroquel, making it less effective in treating the symptoms of the illness.
Central nervous system depressants	Sedating medications, such as barbiturates, benzodiazepines (e.g., Valium), narcotic analgesics, and antihistamines, may increase sedation when combined with Seroquel.

Patients taking Seroquel should not consume alcohol because the combination may impair thinking, judgment, and coordination.

Overdose

The most common signs of Seroquel overdose include extreme sedation, orthostatic hypotension, confusion, rapid and irregular heart rate, muscle rigidity, and seizures. The outcome depends on the amount ingested and whether Seroquel was combined with other medications.

Any suspected overdose should be treated as an emergency. The person should be taken to the emergency department for observation and treatment. The prescription bottle of medication (and any other medication suspected in the overdose) should be brought as well, because the information on the prescription label can be helpful to the treating physician in determining the number of pills ingested.

Special Considerations

- Do not discontinue Seroquel without consulting your physician.
- If you miss a dose, take it as soon as possible that day. If it is close to your next schedule dose, skip the missed dose and continue on your regular dosing schedule, but do not take double doses.
- Seroquel may be taken with or without food.
- Seroquel may cause sedation and drowsiness, especially during initiation of therapy, and impair your alertness. Use caution when driving or performing tasks that require alertness.
- Store the medication in its originally labeled, light-resistant container, away from heat and moisture. Heat and moisture may precipitate breakdown of the medication.
- Keep your medication out of reach of children.

If you have any questions about your medication, consult your physician or pharmacist.

Notes
