



SWLA

BEHAVIORAL HEALTH

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ZIPRASIDONE (GEODON)

FOR PATIENTS AND FAMILIES

Ziprasidone (Geodon) is an antipsychotic medication used in the treatment of psychotic disorders, including schizophrenia, schizoaffective disorder and psychotic depression, and acute mania in bipolar disorder. Ziprasidone is a second-generation antipsychotic, a new class of medicines with actions different from those of the older, first-generation antipsychotics such as **chlorpromazine** (Thorazine) and **haloperidol** (Haldol). The second-generation antipsychotics are more effective than the older antipsychotics in reducing the “negative” symptoms of schizophrenia, such as apathy, lack of motivation, flat emotional expression, depression, and withdrawal and isolation from people. Furthermore, second-generation antipsychotics at standard doses rarely cause side effects associated with movement disorders, such as extrapyramidal symptoms (EPS) and tardive dyskinesia (TD). This is a very important distinction between the newer and older antipsychotics.

Ziprasidone is marketed under the brand name **Geodon**. Geodon is available in 20-, 40-, 60-, and 80-mg capsules. It also comes in a short-acting injectable form for acute treatment.

HOW ZIPRASIDONE IS PRESCRIBED

The recommended starting dose is 20–40 mg twice a day taken with food. The dose is adjusted on the basis of individual response. The effective dosage range is usually between 60 and 80 mg twice a day (120–160 mg/day).

PROPER USE OF YOUR MEDICATION

Storing Your Medication

- Keep your medication in a tamper-resistant vial and out of reach of children.
- Store your medication so that it is kept from excessive heat, moisture, and direct light.
- Keep your medication in its original prescription vial with the label intact to prevent others from taking the medication inadvertently.

Taking Your Medication

- Take your medication as instructed by your physician. Do not abruptly stop taking your medication without telling your physician. Discontinuation of your medication may result in relapse.
- If you miss a dose, take it as soon as possible. However, if it is near the time of your next dose, skip the dose you missed and go back to your regular dosing schedule, but do not double-up the dose.
- Ziprasidone may be taken with or without food. If it upsets your stomach, take it at mealtime.

Use of Alcohol and Other Medications

Individuals should refrain from using alcohol while taking ziprasidone. When alcohol is combined with ziprasidone, sedation and drowsiness, common side effects of the medication, may be made significantly worse. This

may impair judgment, the ability to think clearly, and coordination and, therefore, the ability to perform tasks. Some medications, including over-the-counter medicines, may interact with ziprasidone. The drug interaction may *lower* the blood level of the affected drug and decrease the drug's effectiveness; or, it may *elevate* the blood level of the affected drug and result in toxicity. When certain drugs are combined with ziprasidone, they may make some side effects worse. Inform your doctor of all the prescription and over-the-counter medications you are taking. If you have any questions or concerns about your medications, consult your physician or pharmacist.

POSSIBLE SIDE EFFECTS

- *Sedation and drowsiness.* Sedation and drowsiness are the most common complaints expressed by patients taking ziprasidone, especially immediately after starting therapy. These side effects eventually subside as the patient develops tolerance to the medication.
- *Orthostatic hypotension.* Ziprasidone may oppose the body's ability to elevate blood pressure in response to a change in position. If the blood pressure cannot elevate in time to compensate for the change in position as the individual rises from a lying or sitting position, **orthostatic hypotension** ensues. As a result, the individual feels light-headed and dizzy, has a rapid heart rate, and may faint and fall. To prevent orthostatic hypotension after sitting for long periods or when getting out of bed, the patient should rise slowly to allow the blood pressure to adjust gradually. Orthostatic hypotension from ziprasidone is generally mild, and the patient can usually adapt to it after the first or second week of therapy. If the problem is severe, however, the physician may lower the dose or switch to another medication to correct this side effect.
- *Gastrointestinal side effects.* Dry mouth, nausea, vomiting, constipation, diarrhea, abdominal cramping, and pain are some of the gastrointestinal side effects experienced by patients taking ziprasidone, especially at the onset of therapy. These side effects are usually mild and become less bothersome as the patient develops tolerance to them.
- *Weight gain.* Ziprasidone induces very little weight gain as compared with other antipsychotics such as clozapine and olanzapine. However, some patients may experience weight gain from the ziprasidone. The patient should consult with the physician if excessive weight gain becomes a problem.
- *Extrapyramidal side effects.* Antipsychotic-induced neurologic side effects that cause movement disorders are commonly known as **extrapyramidal symptoms (EPS)**. EPS include akathisia, Parkinson-like symptoms, and dystonia. Conventional antipsychotic medications such as like haloperidol frequently induce EPS. Ziprasidone, on the other hand, rarely induces EPS, and when present, the symptoms generally occur at higher doses.

Some patients may experience **akathisia** from ziprasidone, which is described as an inner feeling of restlessness, expressed by constant pacing, inability to sit still, nervousness, and even agitation. Reducing the dose of antipsychotic is usually the most effective treatment of akathisia. If reducing the dose is not an option, the physician may add another medication to treat the akathisia. The agent commonly prescribed is **propranolol** (Inderal), which belongs to a class of medicines called **beta-blockers**. Beta-blocking agents have many different uses, but they are primarily used for treating heart disease and hypertension.

Parkinson-like symptoms are other possible EPS side effects from ziprasidone. Antipsychotic-induced Parkinson-like symptoms are similar to **Parkinson's disease**. Patients with Parkinson-like symptoms may experience a tremor of the fingers and hands, muscle stiffness, a shuffle when walking, stooped posture, drooling, and a masklike face. These side effects are reversible and effectively treated with an anticholinergic agent such as **benztropine** (Cogentin), **diphenhydramine** (Benadryl), or **trihexyphenidyl** (Artane).

Dystonia is another type of movement disorder induced by antipsychotics, although it rarely occurs with ziprasidone. However, as with all antipsychotics, there is the potential for dystonia with ziprasidone. This reaction is manifested by a sudden spasm of the muscles of the tongue, jaw, or neck. It is not an allergic reaction, but it can be very frightening for the patient. The patient should immediately seek medical attention, because a dystonic reaction can be rapidly reversed with an intramuscular injection of benztropine or diphenhydramine.

- *Other possible side effects.* Headache, stuffy nose, and skin rash are other possible side effects with ziprasidone.

Warning: Ziprasidone may cause drowsiness and sedation and impair physical coordination and mental alertness. Until you are sure that these side effects will not impair your ability to perform daily tasks, it is important to avoid potentially dangerous activities, such as driving a car or operating machinery.

POSSIBLE ADVERSE REACTIONS

- *Prolongation of electrical conduction.* Ziprasidone may impair electrical conduction of the heart. On an electrocardiogram (ECG), this impairment may show up as a prolonged interval (QT), a segment on the ECG graph, in the conduction cycle. This type of prolongation may be associated with arrhythmias, which are irregular heartbeats due to abnormal electrical conduction. Current data, however, show ziprasidone to be quite safe. The risk of developing arrhythmia from ziprasidone is very low. The risk, however, may be increased if the patient has a history of conduction defect or cardiac arrhythmia. Moreover, some drugs that prolong QT interval, when combined with ziprasidone, may potentiate the risk of arrhythmias. Therefore, your physician will determine if ziprasidone is safe for you and may order ECGs to monitor the medication therapy.
- *Tardive dyskinesia.* TD is by definition a late-onset abnormal, involuntary movement disorder. It is potentially an irreversible condition with symptoms that commonly include “pill-rolling” movements of the fingers, darting and writhing movements of the tongue, lip puckering, facial grimacing, and other irregular movements. From experience with conventional antipsychotics, it has been suggested that the risk of developing TD is associated with the duration and amount of antipsychotics the patient was exposed to over the life of treatment. As the duration and amount of exposure to antipsychotics increase, so does the patient’s risk of developing TD. However, the incidence of TD from atypical antipsychotics is much lower than from conventional antipsychotics. Because ziprasidone was just recently introduced to the United States, current data about the drug’s potential for causing TD are limited. The risk of developing TD from ziprasidone is expected to be low. As with all antipsychotics, routine monitoring for TD is important.
- *Seizures.* Ziprasidone may lower the seizure threshold and precipitate seizures in susceptible individuals, particularly those with a history of seizure disorders. The risk of seizures is very low, however. Ziprasidone should be prescribed cautiously in patients with a history of seizures.
- *Neuroleptic malignant syndrome (NMS).* NMS is a rare, toxic reaction to antipsychotics, including ziprasidone. The symptoms are severe muscle stiffness, rigidity, elevated body temperature, increased heart rate and blood pressure, irregular pulse, and sweating. NMS can lead to delirium and coma. It may be fatal if medical intervention is not provided promptly. There are no tests that can predict whether an individual is susceptible to developing NMS when exposed to an antipsychotic. Hence, NMS must be recognized early, because it is a medical emergency that requires immediate discontinuation of the antipsychotic, timely hospitalization, and intensive medical treatment.
- *Heatstroke.* Patients taking ziprasidone may be susceptible to heatstroke when exposed to very hot weather and become dehydrated. To prevent heatstroke, the patient should drink plenty of fluids and avoid prolonged exposure in hot weather.

USE IN PREGNANCY AND BREAST FEEDING

Ziprasidone is classified in **Category C** of the U.S. Food and Drug Administration (FDA) Pregnancy Risk Categories. There are no studies or adequate information to determine the extent of risk of aripiprazole during pregnancy. The risk to the fetus is unknown. In animal studies, however, some fetal abnormalities were found after maternal exposure to ziprasidone. Interpretation of these animal studies in regarding to human risk is unclear. Women who are pregnant, or who are planning to become pregnant, should not take ziprasidone. However, if the risk of not treating poses a greater danger for the mother and child, the benefits of treatment with ziprasidone may outweigh any unknown risks.

It is not known whether ziprasidone is excreted into human breast milk. It is recommended that women taking ziprasidone not breastfeed. Ziprasidone may have harmful effects on the infant if ingested.

If you have any questions about this handout, please consult your physician.