

## BRIEF SUMMARY OF PRESCRIBING INFORMATION

### INDICATIONS AND USAGE

SEROQUEL is indicated for the treatment of schizophrenia.

The efficacy of SEROQUEL in schizophrenia was established in short-term (6-week) controlled trials of schizophrenic inpatients. (See CLINICAL PHARMACOLOGY.) The effectiveness of SEROQUEL in long-term use, that is, for more than 6 weeks, has not been systematically evaluated in controlled trials. Therefore, the physician who elects to use SEROQUEL for extended periods should periodically re-evaluate the long-term usefulness of the drug for the individual patient.

### CONTRAINDICATIONS

SEROQUEL is contraindicated in individuals with a known hypersensitivity to this medication or any of its ingredients.

### WARNINGS

**Neuroleptic Malignant Syndrome (NMS):** A potentially fatal symptom complex sometimes referred to as Neuroleptic Malignant Syndrome (NMS) has been reported in association with administration of antipsychotic drugs. Two possible cases of NMS (2/2387 (0.1%)) have been reported in clinical trials with SEROQUEL. Clinical manifestations of NMS are hyperreflexia, muscle rigidity, altered mental status, and evidence of autonomic instability (irregular pulse or blood pressure, tachycardia, diaphoresis, and cardiac dysrhythmia). Additional signs may include elevated creatine phosphokinase, myoglobinuria (rhabdomyolysis) and acute renal failure. The diagnostic evaluation of patients with this syndrome is complicated. In arriving at a diagnosis, it is important to exclude cases where the clinical presentation includes both serious medical illness (e.g., pneumonia, systemic infection, etc.) and untreated or inadequately treated extrapyramidal signs and symptoms (EPS). Other important considerations in the differential diagnosis include drug fever or an allergic reaction, heat stroke, drug fever and primary central nervous system (CNS) pathology. The management of NMS should include: 1) immediate discontinuation of antipsychotic drugs and other drugs not essential to concurrent therapy; 2) intensive symptomatic treatment and medical monitoring; and 3) treatment of any concomitant serious medical problems for which specific treatments are available. There is no general agreement about specific pharmacologic treatment regimens for NMS, but treatment requires antipsychotic drug withdrawal after recovery from NMS. The potential reintroduction of drug therapy should be carefully considered. The patient should be carefully monitored since recurrences of NMS have been reported. **Tardive Dyskinesia:** A syndrome of potentially irreversible, involuntary, dyskinetic movements may develop in patients treated with antipsychotic drugs. Although the prevalence of the syndrome appears to increase with the elderly, especially elderly women, it is impossible to rely upon prevalence estimates. Precipitation at the inception of antipsychotic treatment, which patients are likely to develop the syndrome. Whether antipsychotic drug products differ in their potential to cause tardive dyskinesia is unknown. The risk of developing tardive dyskinesia and the likelihood that it will become irreversible are believed to increase as the duration of treatment and the total cumulative dose of antipsychotic drugs increase, but these estimates are not available. However, the syndrome does occur, although much less commonly, after relatively brief treatment periods at low doses. There is no known treatment for established cases of tardive dyskinesia, although the syndrome may remit, partially or completely, if antipsychotic treatment is withdrawn. Antipsychotic treatment, if used, however, may suppress (or partially suppress) the signs and symptoms of the syndrome and thereby may possibly delay the underlying process. The effect of continuing treatment on the long-term course of the syndrome is unknown. Given these considerations, SEROQUEL should be prescribed in a manner that is most likely to minimize the occurrence of tardive dyskinesia. Chronic antipsychotic treatment should generally be reserved for patients who appear to suffer from a chronic illness that (1) is known to respond to antipsychotic drugs, and (2) for whom alternative, equally effective, but potentially less hazardous, treatments are not available or appropriate. In patients who do require chronic treatment, the smallest dose and the shortest duration of treatment producing a satisfactory clinical response should be sought. The need for continued treatment should be reassessed periodically. If signs and symptoms of tardive dyskinesia appear in a patient on SEROQUEL, drug discontinuation should be considered. However, some patients may require treatment with SEROQUEL despite the presence of the syndrome.

### PRECAUTIONS

**Orthostatic Hypotension:** SEROQUEL may induce orthostatic hypotension associated with dizziness, tachycardia and, in some patients, syncope, especially during the initial dose-titration period, probably reflecting its  $\alpha_1$ -adrenergic antagonist properties. Syncope was reported in 1% (22/2162) of the patients treated with SEROQUEL compared to 0% in patients treated with placebo and 1% (2/142) in active control groups. The risk of orthostatic hypotension and syncope may be minimized by limiting the initial dose to 25 mg bid. If hypotension occurs during titration to the target dose, a return to the previous dose in the titration schedule is appropriate. SEROQUEL should be used with particular caution in patients with known cardiovascular disease (history of myocardial infarction or ischemic heart disease, recent failure or unstable angina, congestive heart failure, or other conditions which would predispose patients to hypotension) or in patients receiving hypotensive and/or antihypertensive medications. **Cataracts:** The development of cataracts was observed in association with quetiapine treatment in chronic drug studies (see Animal Toxicology). Lens changes have also been observed in patients during long-term SEROQUEL treatment, but a causal relationship to SEROQUEL use has not been established. **Vertebral Examination of the Lumbar Vertebrae:** Vertebral body osteoporosis, as assessed by the use of bone density methods adequate to detect fracture formation, such as self-lip ex-rays or other appropriately sensitive methods, is recommended at initiation of treatment or shortly thereafter, and at 6-month intervals during chronic treatment.

**Seizures:** During clinical trials, seizures occurred in 0.8% (18/2387) of patients treated with SEROQUEL compared to 0.5% (1/226) in placebo and 1% (14/1420) in active control groups. As with other antipsychotics, SEROQUEL should be used cautiously in patients with a history of seizures or with conditions that potentially lower the seizure threshold, e.g., Alzheimer's dementia. Conditions that potentially lower the seizure threshold may be more prevalent in a population of 65 years or older.

**Hypothyroidism:** Clinical trials with SEROQUEL demonstrated a dose-related increase in total thyroxine (T<sub>4</sub>) and free thyroxine (fT<sub>4</sub>) levels. The majority of the therapeutic dose range and was maximal in the first two to four weeks of treatment and maintained without adaptation or progression during more chronic therapy. Generally, these changes were of no clinical significance and TSH was unchanged in most patients, and levels of T<sub>4</sub> were unchanged. In nearly all cases, cessation of SEROQUEL treatment was associated with a reversal of the effects on total T<sub>4</sub> and free T<sub>4</sub>, respectively. Quetiapine treatment did not affect the high sensitivity SEROQUEL patients did exhibit a TSH increase. Six of the patients with TSH increases needed replacement therapy treatment. **Cholesterol and Triglyceride Elevations:** In a pool of 3- to 6-week placebo-controlled trials, SEROQUEL-treated patients had increases from baseline in cholesterol and triglycerides of 11% and 17%, respectively, compared to slight decreases for placebo patients. These changes were only weakly related to the increase in weight observed in SEROQUEL-treated patients. Hyperlipidemia: Although an elevation of protein levels was not demonstrated in clinical trials with SEROQUEL, increased protein levels were observed in rat studies with this compound, and were associated with an increase in mammary gland neoplasia in rats (see Carcinogenesis). Tissue culture experiments indicate that approximately one-third of human breast cancers are prolactin dependent *in vitro*, a factor of potential importance if the prescription of these drugs is contemplated in a patient with previously detected breast cancer. Although disturbances such as galactorrhea, amenorrhea, gynecostasia, and impotence have been reported with prolactin-elevating compounds, the clinical significance of elevated serum prolactin levels is unknown for most patients. Neither clinical studies nor epidemiologic studies conducted to date have shown an association between chronic administration of antipsychotic drugs and prolactin levels. The available evidence is considered too limited to be conclusive at this time.

**Transaminase Elevations:** Asymptomatic, transient and reversible elevations in serum transaminases (primarily ALT) have been reported. The proportions of patients with transaminase elevations of > 3 times the upper limits of the normal reference range in a pool of 3- to 6-week placebo-controlled trials were approximately 6% for SEROQUEL compared to 1% for placebo. These hepatic elevations usually occurred during the first 3 weeks of drug treatment and promptly returned to pre-study levels with ongoing treatment with SEROQUEL. **Potential for Cognitive and Motor Impairment:** Somnolence was a commonly reported adverse event reported in patients treated with SEROQUEL especially during the 3-5 day period of initial dose-titration. In the 3- to 6-week placebo-controlled trials, somnolence was reported in 18% of patients on SEROQUEL compared to 11% in placebo patients. Since SEROQUEL has the potential to impair judgment, thinking, or motor skills, patients should be cautioned about performing activities requiring mental alertness, such as operating a motor vehicle (including automobiles) or operating hazardous machinery until they are reasonably certain that SEROQUEL therapy does not affect them adversely. **Priapism:** One case of priapism in a patient receiving SEROQUEL has been reported to market information. While a causal relationship to use of SEROQUEL has not been established, other drugs with alpha-adrenergic blocking effects have been reported to induce priapism, and it is possible that SEROQUEL may share this capacity. Severe priapism may require surgical intervention. **Body Temperature Regulation:** Although not reported with SEROQUEL, disruption of the body's ability to reduce core body temperature has been attributed to antipsychotic agents. Appropriate care is advised when prescribing SEROQUEL for patients who, under certain conditions, which may contribute to an elevation in core body temperature, e.g., exercising strenuously, exposure to extreme heat, receiving concomitant medication with anticholinergic activity, or being subject to dehydration. **Dysphagia:** Esophageal dysmotility and aspiration

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have been associated with antipsychotic drug use. Aspiration pneumonia is a common cause of morbidity and mortality in elderly patients, in particular those with advanced Alzheimer's dementia. SEROQUEL and other antipsychotic drugs should be used cautiously in patients at risk for aspiration pneumonia. **Suicide:** The possibility of a suicide attempt is inherent in schizophrenia and close supervision of high risk patients should accompany drug therapy. Patients completing SEROQUEL should be monitored for suicidal ideation. Patients who are at high risk for suicidal ideation should be closely monitored. **Use in Patients with Concomitant Illness:** Clinical experience with SEROQUEL in patients with certain concomitant systemic illnesses is limited. SEROQUEL has not been evaluated or used to any appreciable extent in patients with a recent history of myocardial infarction or unstable heart disease. Patients who are being treated with SEROQUEL should be monitored closely. Because of the risk of orthostatic hypotension with SEROQUEL, caution should be observed in cardiac patients (see Orthostatic Hypotension). **Information for Patients:** Physicians are advised to discuss the following issues with patients for whom they prescribe SEROQUEL. **Orthostatic Hypotension:** Patients should be advised of the risk of orthostatic hypotension, especially during the 3-5 day period of initial dose titration, and also at times of re-initiating treatment or increases in dose. **Interference with Cognitive and Motor Performance:** Since somnolence was a commonly reported adverse event associated with SEROQUEL treatment, patients should be advised of the risk of somnolence, especially during the 3-5 day period of initial dose titration. Patients should be cautioned about performing any activity requiring mental alertness, such as operating a motor vehicle (including automobiles), or operating hazardous machinery until they are reasonably certain that SEROQUEL therapy does not affect them adversely. **Pregnancy:** Patients should be advised to notify their physician if they become pregnant or intend to become pregnant during therapy. **Nursing:** Patients should be advised not to breast feed if they are taking SEROQUEL. **Concomitant Medication:** As with other medications, patients should be advised to notify their physicians if they are taking or plan to take any prescription or over-the-counter drugs. **Alcohol:** Patients should be advised to avoid consuming alcoholic beverages while taking SEROQUEL. **Heat Exposure and Dehydration:** Patients should be advised regarding appropriate care in avoiding overheating and dehydration. **Laboratory Tests:** No specific laboratory tests are recommended. **Drug Interactions:** The risks of using SEROQUEL in combination with other drugs have not been extensively evaluated in systematic studies. Given the potential for orthostatic hypotension, caution should be used when it is taken in combination with other centrally acting drugs. SEROQUEL potentiated the cognitive and motor effects of alcohol in a clinical trial in subjects with selected psychotic disorders, and alcoholic beverages should be avoided while taking SEROQUEL. Because of its potential for inducing hypotension, SEROQUEL may enhance the effects of certain antihypertensive agents. SEROQUEL may antagonize the effects of levodopa and dopaminergic agents. **The Effect of Other Drugs on SEROQUEL Phenylenolamine:** Coadministration of quetiapine (250 mg tid) and phenylenolamine (100 mg tid) increased the mean oral clearance of quetiapine by 5-fold. Increased doses of SEROQUEL may be required to maintain control of symptoms of schizophrenia in patients receiving quetiapine and phenylenolamine, or other hepatic enzyme inducers (e.g., carbamazepine, barbiturates, rifampin, glucocorticoids). Caution should be used when SEROQUEL is administered with other centrally acting drugs (e.g., valproic acid, thioridazine, thioridazine 200 mg bid) increased the oral clearance of quetiapine (300 mg bid) by 65%. **Cimetidine:** Administration of multiple daily doses of cimetidine (400 mg tid for 4 days) resulted in a 20% decrease in the mean oral clearance of quetiapine (150 mg tid). **P450 3A4 Inhibitors:** Coadministration of ketoconazole (200 mg once daily for 4 days), a non-inhibitor of cytochrome P450 3A, reduced oral clearance of quetiapine by 84%, resulting in a 135% increase in maximum plasma concentration of quetiapine. Caution is indicated when SEROQUEL is administered with ketoconazole and other inhibitors of cytochrome P450 3A (e.g., itraconazole, fluconazole, and erythromycin). **Fluoxetine, Imipramine, Haloperidol, and Risperidone:** Coadministration of fluoxetine (80 mg once daily); risperidone (1 mg tid); imipramine (75 mg tid); and haloperidol (5 mg tid) with quetiapine (300 mg bid) did not alter the steady-state pharmacokinetics of quetiapine. **Effect of Quetiapine on Other Drugs:** The mean oral clearance of lorazepam (2 mg, single dose) was reduced by 20% in the presence of quetiapine administered as 250 mg tid dosing. **Lithium:** Concomitant administration of quetiapine (250 mg tid) with lithium had no effect on any of the steady-state pharmacokinetic parameters of lithium. **The Effect of Other Drugs on Quetiapine:** Coadministration of quetiapine (300 mg bid) with lithium had no effect on any of the steady-state pharmacokinetic parameters of quetiapine. **Carbonyl Compounds:** Carbonyl compounds, including formaldehyde, acetaldehyde, and acrolein, were administered in the diet to mice at doses of 20, 75, 250, and 750 mg/kg and to rats by gavage at doses of 25, 75, and 250 mg/kg for two years. These doses are equivalent to 0.1, 0.5, 1.5, and 4.5 times the maximum human dose (800 mg/day) on a mg/m<sup>2</sup> basis (mice) or 0.3, 0.9, and 3.0 times the maximum human dose on a mg/m<sup>2</sup> basis (rats). There were statistically significant increases in thyroid glandular adenomas in female mice at doses of 250 and 750 mg/kg and in 4.5 and 4.5 times the maximum human dose on a mg/m<sup>2</sup> basis and in male rats at 2.5 and 4.5 times the maximum human dose on a mg/m<sup>2</sup> basis. Mammary gland adenocarcinomas were statistically significantly increased in female rats at all doses tested (25, 75, and 250 mg/kg or 0.3, 0.9, and 3.0 times the maximum recommended human dose on a mg/m<sup>2</sup> basis). Thyroid follicular cell adenomas may have resulted from chronic stimulation of the thyroid gland by thyroid stimulating hormone (TSH) resulting from enhanced metabolism and clearance of thyroxine by rodent liver. Changes in TSH, thyroxine, and thyroxine clearance consistent with this mechanism were observed in subchronic toxicity studies in rat and mouse and in a 1-year toxicity study in rat; however, the results of these studies were not definitive. The relevance of the increases in thyroid follicular cell adenomas to the carcinogenic risk of quetiapine in humans is unknown. Antipsychotic drugs have been shown to chronically elevate prolactin levels in rodents. Serum measurements in a 1-yr toxicity study showed that quetiapine increased median serum prolactin levels a maximum of 32- and 13-fold in male and female rats, respectively. Increases in mammary neoplasms have been found in rodents after chronic administration of other antipsychotic drugs and are considered likely to be prolactin-mediated. The relevance of the increases in mammary gland adenomas to the carcinogenic risk of quetiapine in humans is unknown. **Hyperproliferation in PRECAUTIONS. Mutagenesis:** The mutagenic potential of quetiapine was tested in six *in vitro* bacterial gene mutation assays and in an *in vivo* mammalian gene mutation assay in Chinese Hamster Ovary cells. However, sufficiently high concentrations of quetiapine may not have been used for all *in vitro* assays. Quetiapine produced a reproducible increase in mutation frequency in *Salmonella typhimurium* tester strain in the presence of metabolic activation. No evidence of clastogenic potential was obtained in an *in vitro* chromosome aberration assay in cultured human lymphocytes or in the *in vivo* micronucleus assay in rats. **Impairment of Fertility:** Quetiapine decreased mating and fertility in male Sprague-Dawley rats at oral doses of 50 and 150 mg/kg or 0.6 and 1.8 times the maximum human dose on a mg/m<sup>2</sup> basis. Drug-related effects included increases in interval to mate and in the number of matings required for successful impregnation. These effects continued to be observed at 150 mg/kg even after a two-week period without treatment. The no-effect dose for impaired mating and fertility in male rats was 25 mg/kg, or 0.3 times the maximum human dose on a mg/m<sup>2</sup> basis. Quetiapine adversely affected mating and fertility in female Sprague-Dawley rats at an oral dose of 50 mg/kg or 0.6 times the maximum human dose on a mg/m<sup>2</sup> basis. Drug-related effects included decreases in matings and in matings resulting in pregnancy, and an increase in the interval to mate. An increase in irregular estrus cycles was observed at doses of 10 and 50 mg/kg, or 0.1 and 0.6 times the maximum human dose on a mg/m<sup>2</sup> basis. The no-effect dose in female rats was 1 mg/kg, or 0.01 times the maximum human dose on a mg/m<sup>2</sup> basis. **Pregnancy Category C:** The teratogenic potential of quetiapine was studied in rat and rabbit studies. Drug-related effects during the period of organogenesis were observed in rat fetuses at doses of 25 to 100 mg/kg or 0.3 to 2.4 times the maximum human dose on a mg/m<sup>2</sup> basis or in rabbits at 25 to 100 mg/kg or 0.6 to 2.4 times the maximum human dose on a mg/m<sup>2</sup> basis. There was, however, evidence of embryofetal toxicity. Delays in skeletal ossification were detected in rat fetuses at doses of 50 and 200 mg/kg or 0.6 and 2.4 times the maximum human dose on a mg/m<sup>2</sup> basis and in rabbits at 50 and 200 mg/kg (1.2 and 2.4 times the maximum human dose on a mg/m<sup>2</sup> basis). Fetal body weight was reduced in rat fetuses at 200 mg/kg and rabbit fetuses at 100 mg/kg (2.4 times the maximum human dose on a mg/m<sup>2</sup> basis for both species). There was an increased incidence of a minor soft tissue anomaly (carpal/tarsal flexure) in rabbit fetuses at a dose of 100 mg/kg (2.4 times the maximum human dose on a mg/m<sup>2</sup> basis). Drug-related effects on the fetus (i.e., decreases in body weight gain and/or deaths) was observed at the high dose in the rat study and at all doses in the rabbit study. In a perinatal reproductive study in rats, no drug-related effects were observed at doses of 1, 10, and 20 mg/kg or 0.01, 0.1, and 0.24 times the maximum human dose on a mg/m<sup>2</sup> basis. However, in a preliminary perinatal study, there were increases in fetal mortality and decreases in mean body weight in rat fetuses at 10 mg/kg (0.12 times the maximum human dose on a mg/m<sup>2</sup> basis). There was no adequate and well-controlled study in pregnant women and quetiapine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. **Labor and Delivery:** The effect of SEROQUEL on labor and delivery in humans is unknown.

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**Nursing Mothers:** SEROQUEL was excreted in milk of treated animals during lactation. It is not known if SEROQUEL is excreted in human milk. It is recommended that women receiving SEROQUEL should not breast feed. **Pediatric Use:** The safety and effectiveness of SEROQUEL in pediatric patients have not been established. **Geriatric Use:** Of the approximately 2400 patients in clinical studies with SEROQUEL, 8% (190) were 65 years of age or over. In general, there was no indication of any inherent tolerability of SEROQUEL in the elderly compared to younger patients. Nevertheless, the presence of factors that might decrease pharmacokinetic clearance, increase the pharmacodynamic response to SEROQUEL, or cause poorer tolerance or orthostasis, should lead to consideration of a lower starting dose, slower titration, and careful monitoring during the initial dosing period in the elderly. The mean plasma clearance of SEROQUEL was reduced by 30% to 50% in elderly patients when compared to younger patients.

### ADVERSE REACTIONS

**Adverse Events Occurring at an Incidence of 1% or More Among SEROQUEL Treated Patients in Short-Term, Placebo-Controlled Trials:** The most commonly observed adverse events associated with the use of SEROQUEL (incidence of 5% or greater) and observed at a rate on SEROQUEL at least twice that of placebo were dizziness (10%), postural hypotension (7%), dry mouth (7%), and dyspepsia (6%). The following treatment-emergent adverse events occurred at an incidence rate of 1% or more, and were at least as frequent among SEROQUEL treated patients, treated at doses of 75 mg/day or greater than among placebo treated patients in 3- to 6-week placebo-controlled trials:

**Body as a Whole:** Headache, Asthenia, Abdominal pain, Back pain, Fever, Nausea, Vomiting, Pain, Dizziness, Rash, Pruritus, Itching, Chest pain, Hot flashes, Diarrhea, Pain, Dizziness, Disorientation, Postural hypotension, Tachycardia, Myalgia, Myocardial Infarction, Syncope, Weight gain, Skin and Appendages: Rash, Respiratory System: Rhinitis, Special Senses: Ear pain

Events for which the SEROQUEL incidence was equal to or less than placebo are not listed in the table, but included the following: Infection, chest pain, hot flashes, accidental injury, anxiety, nervousness, akathisia, vertigo, tremor, fatigue, depression, paresthesia, pharyngitis, dry skin, anisocoria and urinary tract infection. Explorations for interactions on the basis of gender, age, and race did not reveal any clinically meaningful differences in the adverse event occurrence on the basis of these demographic factors. **Dose Dependency of Adverse Events in Short-Term, Placebo-Controlled Trials Dose-Related Adverse Events:** Spontaneously elicited adverse event data from a study comparing five fixed doses of SEROQUEL (75 mg, 150 mg, 300 mg, 600 mg, and 750 mg/day) to placebo were explored for dose-relatedness of adverse events. Logistic regression analyses revealed a positive dose response (p<0.05) for the following adverse events: dyspepsia, abdominal pain, and weight gain. **Extrapyramidal Symptoms:** Data from one 6-week clinical trial comparing five fixed doses of SEROQUEL (75, 150, 300, 600, 750 mg/day) provided evidence for the lack of treatment-emergent extrapyramidal symptoms (EPS) and dose-relatedness for EPS associated with SEROQUEL treatment. Three methods were used to measure EPS: (1) Simpson-Angus total score (mean change from baseline) which evaluates parkinsonism and akathisia; (2) incidence of spontaneous complaints of EPS (which includes akathisia, parkinsonism, rigidity, extrapyramidal syndrome, hyperreflexia, dystonia, neck rigidity, tremor); and (3) total score of anticholinergic medications to treat emergent EPS. In three additional placebo-controlled clinical trials using variable doses of SEROQUEL, there were no differences between the SEROQUEL and placebo treatment groups in the incidence of EPS, as assessed by Simpson-Angus total scores, spontaneous complaints of EPS and the use of concomitant anticholinergic medications to treat EPS. **Weight Gain:** SEROQUEL is associated with orthostatic hypotension. (see PRECAUTIONS). **Weight Data:** The proportions of patients meeting a weight gain criterion of >7% of body weight were compared in a pool of four 3- to 6-week placebo-controlled clinical trials, revealing a statistically significantly greater incidence of weight gain for SEROQUEL (23%) compared to placebo (6%).

**Laboratory Changes:** An assessment of the premarketing experience for SEROQUEL in patients with schizophrenia is provided in the following table. Changes in laboratory parameters in both total cholesterol and triglycerides (see PRECAUTIONS). An assessment of hematological parameters in short-term, placebo-controlled trials revealed no clinically important differences between SEROQUEL and placebo. **ECG Changes:** Between group comparisons for pooled placebo-controlled trials revealed no statistically significant SEROQUEL-placebo differences in the proportions of patients experiencing potentially important ECG parameters of clinical concern, including QTc interval and orthostatic hypotension. (see PRECAUTIONS). **Other Adverse Events Observed During the Pre-Marketing Evaluation of SEROQUEL:** Following is a list of COSTART terms that reflect treatment-emergent adverse events as defined in the introduction to the ADVERSE REACTIONS section reported by patients treated with SEROQUEL at multiple doses  $\geq$  75 mg/day during any phase of a trial within the premarketing database of approximately 2200 patients. All reported events are included except those already listed in this table or elsewhere in this labeling, those events for which the cause was remote, and those event terms which were so general as to be uninformative. It is important to emphasize that, although the events reported occurred during treatment with SEROQUEL, they were not necessarily caused by it. Events are further categorized by body system and listed in order of decreasing frequency according to the following definitions: frequent adverse events are those occurring in at least 1/100 patients (only those not already listed in the tabulating results from placebo-controlled trials appear in this listing); infrequent adverse events are those occurring in 1/100 to 1/1000 patients; rare events are those occurring in fewer than 1/1000 patients.

**Nervous System:** **Frequent:** hypotension, dizziness, vertigo, involuntary movements, dyskinesia, thinking abnormal, tardive dyskinesia, vertigo, involuntary movements, confusion, amnesia, psychomotor retardation, incoordination, abnormal gait, myoclonus, delirium, manic reaction, apathy, ataxia, paranoid reaction, stupor, bruxism, catastonic reaction, hemiparesis. **Rare:** aphasia, buccoglossal syndrome, choreoathetosis, delirium, emotional lability, euphoria, libido decreased, neurgia, clattering, sudoral hyperhidrosis.

**Body as a Whole:** **Frequent:** flu syndrome. **Infrequent:** neck pain, pelvic pain, suicide attempt, injury, pharyngitis, chest pain, back pain, chest pain, hot flashes, eye pain, abdominal enlarged. **Digestive System:** **Frequent:** epigastric pain, increased salivation, increased appetite, gamma globulin transpherrase increased, gingivitis, dysphagia, flatulence, gastroenteritis, gastritis, hemorrhoids, stomatitis, thirst, tooth caries, fecal incontinence, gastroesophageal reflux, gum hemorrhage, mouth ulceration, rectal hemorrhage, tongue edema. **Rare:** glossitis, hematemesis, intestinal obstruction, melena, pancreatitis. **Cardiovascular System:** **Frequent:** palpitation. **Infrequent:** vasodilation, QT interval prolonged, migraine, bradycardia, cerebral ischemia, irregular pulse, T wave abnormality, bundle branch block, cerebrovascular accident, deep thrombophlebitis, T wave inversion. **Rare:** angina pectoris, aortic fibrillation, AV block first degree, congestive heart failure, ST elevated, thrombophlebitis, T wave flattening, ST abnormality, increased QRS duration. **Respiratory System:** **Frequent:** pharyngitis, rhinitis, cough increased, dyspnea. **Infrequent:** pneumonia, epistaxis, asthma. **Rare:** hiccup, hyperventilation. **Metabolic and Nutritional System:** **Frequent:** peripheral edema. **Infrequent:** weight loss, alkaline phosphatase increased, hyperlipemia, alcohol intolerance, dehydration, hyperglycemia, creatinine increased, hypoglycemia. **Rare:** glycosuria, gout, hand edema, hypokalemia, water intoxication.

**Skin and Appendages System:** **Frequent:** sweating. **Infrequent:** pruritus, acne, eczema, contact dermatitis, macular rash, seborrhea, skin dryness, hair loss, alopecia, dermatitis, psoriasis, skin discoloration. **Urogenital System:** **Infrequent:** dysmenorrhea, vaginitis, urinary incontinence, metrorrhagia, impotence, dysuria, vaginal moniliasis, abnormal ejaculation, cystitis, urinary frequency, amenorrhea, female lactation, leukorrhea, vaginal hemorrhage, vulvovaginitis, orchitis, rare: gynecomastia, nocturia, polyuria, acute kidney failure. **Special Senses:** **Infrequent:** conjunctivitis, abnormal vision, dry eyes, tinnitus, taste perversion, abnormal eye pain. **Rare:** abnormality of accommodation, decreased lacrimation. **Musculoskeletal System:** **Infrequent:** pathological fracture, myasthenia, twitching, arthralgia, arthritis, leg cramps, bone pain. **Hemic and Lymphatic System:** **Frequent:** leukopenia. **Infrequent:** leukocytosis, anemia, echymosis, eosinophilia, hypochromic anemia, hemiparesis, cyanosis. **Rare:** hemolysis, thrombocytopenia. **Endocrine System:** **Infrequent:** hypothyroidism, diabetes mellitus. **Rare:** hyperparathyroidism, hyperthyroidism for gender. **Post-Marketing Experience:** Adverse events reported since market introduction which were temporally related to SEROQUEL therapy include the following: rarely leukopenia/neutropenia. If a patient develops a low white cell count consider discontinuation of therapy. Possible risk factors for leukopenia/neutropenia include pre-existing low white cell count and history of drug induced leukopenia/neutropenia.

**DRUG INTERACTIONS:** SEROQUEL is not a controlled substance.

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# STRENGTH\*

*to achieve a more  
normal life*

In patients with schizophrenia...

- SEROQUEL is proven to reduce both positive and negative symptoms<sup>1-3</sup>
- Open-label extension trials suggest that >65% of patients achieve clinical benefit at a dosing range of 400 mg to 800 mg per day<sup>4</sup>
- SEROQUEL is the only first-line treatment with an EPS<sup>†</sup> profile no different from placebo across the entire dosing range<sup>2</sup>



The most common adverse events associated with the use of SEROQUEL are dizziness (10%), postural hypotension (7%), dry mouth (7%), and dyspepsia (6%). The majority of adverse events are mild or moderate.<sup>3</sup>

As with all antipsychotic medications, prescribing should be consistent with the need to minimize the risk of tardive dyskinesia, seizures, and orthostatic hypotension.<sup>3</sup>

\*Defined as efficacy to improve the positive and negative symptoms of schizophrenia.  
†Extrapyramidal symptoms.

**References:** 1. Small JG, Hirsch SR, Arvanitis LA, et al, and the Seroquel Study Group. Quetiapine in patients with schizophrenia: a high- and low-dose double-blind comparison with placebo. *Arch Gen Psychiatry*. 1997;54:549-557. 2. Arvanitis LA, Miller BG, and the Seroquel Trial 13 Study Group. Multiple fixed doses of "Seroquel" (quetiapine) in patients with acute exacerbation of schizophrenia: a comparison with haloperidol and placebo. *Biol Psychiatry*. 1997;42:233-246. 3. SEROQUEL® (quetiapine fumarate) Professional Information Brochure, AstraZeneca Pharmaceuticals LP, Wilmington, Delaware. 4. Data on file, AstraZeneca Pharmaceuticals LP, Wilmington, Delaware.



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