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# AUTHOR GUIDELINES 2001

## Introduction

*CNS Spectrums* is a peer-reviewed journal that publishes original scientific literature and reviews on a wide variety of neuroscientific topics of interest to the clinician. *CNS Spectrums* publishes 12 issues in 2001. As the immense prevalence of comorbid diseases among patients seen by psychiatrists and neurologists increases, these physicians will jointly diagnose and treat the neuropsychiatrically ill. Our mission is to provide these physicians with an editorial package that will enhance and increase their understanding of neuropsychiatry; therefore, manuscripts that address crossover issues germane to neurology and psychiatry will be given immediate priority.

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*CNS Spectrums* will consider the following types of articles for publication:

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**Reviews:** Reviews are overview articles that summarize and synthesize the literature on various topics in a scholarly and clinically relevant fashion. Suitable topics include mood disorders, schizophrenia and related disorders, personality disorders, substance-use disorders, anxiety disorders, neuroscience, psychosocial aspects of psychiatry, child psychiatry, geriatric psychiatry, and other topics of interest to clinicians. nb: Original flowcharts designed to aid the clinician in diagnosis and treatment will be considered for publication in reviews and are encouraged.

**Case Reports:** Single or multiple case reports will be considered for publication.

**Letters to the Editor:** Letters will be considered for publication.

## Manuscript Submissions

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**Peer review:** Authors should provide five names of particularly qualified potential reviewers with no conflict of interest in reviewing the work. Contact information, including complete address, phone, fax numbers, E-mail address, and affiliations, should be included. The corresponding author will be notified by the editors when a decision regarding acceptance has been made. Accepted manuscripts and letters will be edited for clarity and style.

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**Length:** Reviews should not exceed 20 manuscript pages (10,000 words). Original reports should not exceed 15–25 manuscript pages (6,250 words, maximum). Letters should not exceed 2–6 manuscript pages (1,500 words, maximum). Single case reports should not exceed 10–15 manuscript pages (3,750 words, maximum) and may be submitted with a photograph, if applicable. Diagnostic/treatment algorithms (see Reviews) should contain an extensive introduction, a flowchart or series of graphs that fill 8–12 journal pages, and a concise summary.

**Spacing:** One space should be left after commas and periods. Manuscripts should also be double-spaced.

**Abstract:** Authors should provide a brief abstract.

**References:** American Medical Association style. See the following examples:

1. Jones J. Necrotizing *Candida* esophagitis. *JAMA*. 1980;244:2190-2191.
2. Stryer L. *Biochemistry*. 2nd ed. San Francisco, Calif: WH Freeman Co; 1980:559-596.

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6. Names and addresses of five potential reviewers.

# GUIDE TO *DSM-IV* AND *ICD-10* CODES

	<i>DSM-IV</i>	<i>ICD-10</i>
Dementia of the Alzheimer Type, With Early Onset With Depressed Mood Specify if: With Behavioral Disturbance	290.13	F00.03
Dementia of the Alzheimer's Type, With Late Onset With Depressed Mood Specify if: With Behavioral Disturbance	290.21	F00.13
Delirium Due to: Indicate General Medical Condition	293.0	F05.0
Psychotic Disorder Due to: Indicate General Medical Condition With Delusions With Hallucinations	293.81 293.82	F06.2 F06.0
Mood Disorder Due to: Indicate General Medical Condition	293.83	F06
Anxiety Disorder Due to: Indicate General Medical Condition	293.89	F06.4
Amnesic Disorder Due to: Indicate General Medical Condition	294.0	F02.8
Dementia NOS	294.8	F03
Amnesic Disorder NOS	294.8	R41.3
Schizophrenia	295	F20
Schizophrenia—Disorganized Type	295.10	F20.1
Schizophrenia—Catatonic Type	295.20	F20.2
Schizophrenia—Paranoid Type	295.30	F20.0
Schizophrenia—Residual Type	295.60	F20.5
Schizoaffective Disorder	295.70	F25
Schizophrenia—Undifferentiated Type	295.90	F20.3
Major Depressive Disorder	296	F32
Bipolar I Disorder	296	F30
Bipolar Disorder NOS	296.80	F39
Bipolar II Disorder	296.89	F31.8
Mood Disorder NOS	296.90	F39
Psychotic Disorder NOS	298.9	F29
Autistic Disorder	299.00	F84
Asperger's Disorder	299.80	F84.5
Pervasive Developmental Disorder NOS	299.80	F84.9
Anxiety Disorder NOS	300.00	F41.9
Panic Disorder Without Agoraphobia	300.01	F41
Generalized Anxiety Disorder	300.02	F41.1
Dissociative Identity Disorder	300.14	F44.81
Dissociative Disorder NOS	300.15	F44.9
Factitious Disorder NOS	300.19	F68.1
Panic Disorder With Agoraphobia	300.21	F40.01
Agoraphobia Without History of Panic Disorder	300.22	F40
Social Phobia	300.23	F40.1
Specific Phobia	300.29	F40.2
Obsessive-Compulsive Disorder	300.3	F42.8
Dysthymic Disorder	300.4	F34.1
Depersonalization Disorder	300.6	F48.1
Body Dysmorphic Disorder	300.7	F45.2
Somatization Disorder	300.81	F45
Somatoform Disorder NOS	300.81	F45.9
Cyclothymic Disorder	301.13	F34
Alcohol Dependence	303.90	F10.2
Cocaine Dependence	304.20	F14.2
Cannabis Dependence	304.30	F12.2
Amphetamine Dependence	304.40	F15.2
Alcohol Abuse	305.00	F10.1
Cannabis Abuse	305.20	F12.1
Cocaine Abuse	305.60	F14.1
Amphetamine Abuse	305.70	F15.1
Stuttering	307.0	F98.5
Anorexia Nervosa	307.1	F50
Tic Disorder NOS	307.20	F95.9
Tourette Disorder	307.23	F95.2
Primary Insomnia	307.42	F51.0
Primary Hypersomnia	307.44	F51.1
Sleepwalking Disorder	307.46	F51.3
Dyssomnia NOS	307.47	F51.9
Nightmare Disorder	307.47	F51.5
Parasomnia NOS	307.47	F51.8
Eating Disorder NOS	307.50	F50.9
Bulimia Nervosa	307.51	F50.2
Feeding Disorders of Infancy or Early Childhood	307.59	F98.2
Communication Disorder NOS	307.9	F80.9
Posttraumatic Stress Disorder	309.81	F43.1
Depressive Disorder NOS	311	F32.9
Impulse-Control Disorder NOS	312.30	F63.9
Pathological Gambling	312.31	F63.0
Pyromania	312.33	F63.1
Kleptomania	312.34	F63.2
Trichotillomania	312.39	F63.3
Disruptive Behavior Disorder NOS	312.9	F91.9
Attention-Deficit/Hyperactivity Disorder, Combined Type	314.01	F90
Attention-Deficit/Hyperactivity Disorder NOS	314.9	F90.9
Learning Disorder NOS	315.9	F81.9
Developmental Coordination Disorder	315.4	F82
Narcolepsy	347	G47.4
Sleep Disorder Due to: Indicate General Medical Condition	780	G47
Delirium NOS	780.09	F05.9

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- skim text
- did not read

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1 2 3 4 5

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**BRIEF SUMMARY (SEE PACKAGE INSERT FOR FULL PRESCRIBING INFORMATION)**

**INDICATIONS AND USAGE**

SEROQUEL is indicated for the management of the manifestations of psychotic disorders.

The antipsychotic efficacy of SEROQUEL was established in short-term (6-week) controlled trials of schizophrenic inpatients.

**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.

If a patient requires antipsychotic drug treatment after recovery from NMS, the potential risks 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 be highest among the elderly, especially elderly women, it is impossible to rely upon prevalence estimates to predict, 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.

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: General**

**Orthostatic Hypotension:** SEROQUEL may induce orthostatic hypotension associated with dizziness, blurred vision or falls, 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 with 0% (0/206) on placebo and about 0.5% (2/420) on active control drugs. 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, ischemic heart disease, heart failure or conduction abnormalities), cerebrovascular disease or conditions which would predispose patients to hypotension (dehydration, hypovolemia and treatment with antihypertensive medications).

**Cataracts:** The development of cataracts was observed in association with quetiapine treatment in chronic dog studies. Lens changes have also been observed in patients during long-term SEROQUEL treatment, but a causal relationship to SEROQUEL use has not been established. **Notwithstanding, the development of cataracts cannot be excluded at this time. Therefore, examination of the lens by methods adequate to detect cataract formation, such as slit lamp exam or other appropriately sensitive methods, is recommended at initiation of treatment or shortly thereafter, and at 6 month intervals during chronic treatment.**

**Seizures:** 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 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 decrease in total and free thyroxine (T<sub>4</sub>) of approximately 20% at the higher end of the therapeutic dose range 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 and free T<sub>4</sub>, irrespective of the duration of treatment. About 0.4% (10/2386) of SEROQUEL patients did experience TSH increases. Six of the patients with TSH increases needed replacement thyroid 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 triglyceride of 11% and 17%, respectively, compared to slight decreases for placebo patients. These changes were only weakly related to the increases in weight observed in SEROQUEL-treated patients.

**Hyperprolactinemia:** Although an elevation of prolactin levels was not demonstrated in clinical trials with SEROQUEL, increased prolactin 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 a previously undetected breast tumor. Conditions such as galactorrhea, amenorrhea, gynecomastia, 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 this class of drugs and tumorigenesis in humans; 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 enzyme elevations usually occurred within 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% of 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 prior to market introduction.

**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.

**Dysphagia:** Esophageal dysmotility and aspiration 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. Prescriptions for SEROQUEL should be written for the smallest quantity of tablets consistent with good patient management in order to reduce the risk of overdose.

**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 with these diagnoses were excluded from premarketing clinical studies. 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 primary CNS effects of SEROQUEL, 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 dopamine agonists.

**The Effect of Other Drugs on SEROQUEL**

**Phenyltin:** Coadministration of quetiapine (250 mg tid) and phenyltin (100 mg tid) increased the mean oral clearance of quetiapine by 5-fold. Increased doses of SEROQUEL may be required to maintain control of psychotic symptoms in patients receiving quetiapine and phenyltin, or other hepatic enzyme inducers (e.g., carbamazepine, barbiturates, rifampin, glucocorticoids). Caution should be taken if phenyltin is withdrawn and replaced with a non-inducer (e.g., valproate).

**Thioridazine:** The addition of thioridazine (100 mg bid) increased the oral clearance of quetiapine (300 mg bid) by 65%.

**Cimetidine:** Dosage adjustment for quetiapine is not required when it is given with cimetidine.

**P450 3A Inhibitors:** Coadministration of ketoconazole (200 mg once daily for 4 days), a potent inhibitor of cytochrome P450 3A, reduced oral clearance of quetiapine by 84%, resulting in a 333% 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 (60 mg once daily), imipramine (75 mg bid), haloperidol (7.5 mg bid), or risperidone (2 mg bid) with quetiapine (300 mg bid) did not alter the steady-state pharmacokinetics of quetiapine.

**Effect of Quetiapine on Other Drugs**

**Lorazepam:** 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.

**Antipyrene:** Study results indicate that quetiapine does not significantly induce hepatic enzymes responsible for cytochrome P450 mediated metabolism of antipyrene.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**

**Carcinogenesis:** Carcinogenicity studies were conducted in C57BL mice and Wistar rats.

The relevance of the increases in thyroid follicular cell adenomas to human risk, through whatever mechanism, is unknown.

The relevance of this increased incidence of prolactin-mediated mammary gland tumors in rats to human risk is unknown (see Hyperprolactinemia in PRECAUTIONS, General).

**Mutagenesis:** Quetiapine did produce a reproducible increase in mutations in one *Salmonella typhimurium* tester strain in the presence of metabolic activation. No evidence of clastogenic potential was obtained in an *in vitro* chromosomal aberration assay in cultured human lymphocytes or in the *in vivo* micronucleus assay in rats.

**Impairment of Fertility:** Drug-related effects included decreases in matings and in matings resulting in pregnancy, and an increase in the interval to mate.

**Pregnancy: Pregnancy Category C**

There are no adequate and well-controlled studies 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.

**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 different tolerability of SEROQUEL in the elderly compared to younger adults. 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 experiences 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.<sup>1</sup>

**Body as a Whole:** Headache, Asthenia, Abdominal pain, Back pain, Fever, **Nervous System:** Somnolence, Dizziness, **Digestive System:** Constipation, Dry Mouth, Dyspepsia, **Cardiovascular System:** Postural hypotension, Tachycardia, **Melanolic and Nutritional Disorders:** Weight gain, **Skin and Appendages:** Rash, **Respiratory System:** Rhinitis;

**Special Senses:** Ear pain.

<sup>1</sup> Events for which the SEROQUEL incidence was equal to or less than placebo are not listed, but included the following: pain, infection, chest pain, hostility, accidental injury, hypertension, hypotension, nausea, vomiting, diarrhea, myalgia, agitation, insomnia, anxiety, nervousness, akathisia, hypertonia, tremor, depression, paresthesia, pharyngitis, dry skin, anhidrosis and urinary tract infection.

**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 (akathisia, akinesia, cogwheel rigidity, extrapyramidal syndrome, hyperreflexia, neck rigidity, and tremor), and (3) use of anticholinergic medications to treat emergent EPS.

**Vital Sign Changes:** SEROQUEL is associated with orthostatic hypotension (see PRECAUTIONS).

**Weight Gain:** The proportions of patients meeting a weight gain criterion of  $\geq 7\%$  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 suggested that it is associated with asymptomatic increases in SGPT and increases 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 changes in ECG parameters, including QT, QTc, and PR intervals. However, the proportions of patients meeting the criteria for tachycardia were compared in four 3- to 6-week placebo-controlled clinical trials revealing a 1% (4/399) incidence for SEROQUEL compared to 0.6% (1/156) incidence for placebo.

SEROQUEL use was associated with a mean increase in heart rate, assessed by ECG, of 7 beats per minute compared to a mean increase of 1 beat per minute among placebo patients. This slight tendency to tachycardia may be related to SEROQUEL's potential for inducing orthostatic changes (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 Table 1 or elsewhere in labeling, those events for which a drug 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.

**Nervous System:** **Frequent:** hyperaetonia, dysarthria; **Intraque:** abnormal dreams, dyskinesia, thinking abnormal, tardive dyskinesia, vertigo, involuntary movements, confusion, amnesia, psychosis, hallucinations, hyperkinesia, libido increased\*, urinary retention, incoordination, paranoid reaction, abnormal gait, myoclonus, delusions, manic reaction, apathy, ataxia, depersonalization, stupor, bruxism, catatonie reaction, hemiplegia; **Rare:** aphasia, buccoglossal syndrome, choreoathetosis, delirium, emotional lability, euphoria, libido decreased\*, neuralgia, stuttering, subdural hematoma.

**Body as a Whole:** **Frequent:** flu syndrome; **Intraque:** neck pain, pelvic pain\*, suicide attempt, malaise, photosensitivity reaction, chills, face edema, moniliasis; **Rare:** abdomen enlarged.

**Digestive System:** **Frequent:** anorexia; **Intraque:** increased salivation, increased appetite, gamma glutamyl transpeptidase increased, gingivitis, dysphagia, flatulence, gastroenteritis, gastritis, hemorrhoids, stomatitis, thirst, tooth changes, facial incontinence, gastroesophageal reflux, gum hemorrhage, mouth ulceration, rectal hemorrhage, tongue edema; **Rare:** glossitis, hematemesis, intestinal obstruction, melena, pancreatitis.

**Cardiovascular System:** **Frequent:** palpitation; **Intraque:** vasodilatation, 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, atrial fibrillation, AV block first degree, congestive heart failure, ST elevated, thrombophlebitis, T wave flattening, ST abnormality, inferior subdural hematoma.

**Respiratory System:** **Frequent:** pharyngitis, rhinitis, cough increased, dyspnea; **Intraque:** pneumonia, epistaxis, asthma; **Rare:** hiccup, hyperinflation.

**Metabolic and Nutritional System:** **Frequent:** peripheral edema; **Intraque:** 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; **Intraque:** pruritis, acne, eczema, contact dermatitis, maculopapular rash, seborrhea, skin ulcer; **Rare:** exfoliative dermatitis, psoriasis, skin discoloration.

**Urogenital System:** **Intraque:** dysmenorrhea\*, vaginitis\*, urinary incontinence, metrorrhagia\*, impotence\*, dysuria, vaginal moniliasis\*, abnormal ejaculation\*, cystitis, urinary frequency, amenorrhea\*, female lactation\*, leukorrhea\*, vaginal hemorrhage\*, vulvovaginitis\* orchitis\*.

**Pediatric Use:** **Intraque:** nocturia, polyuria, acute kidney failure.

**Special Senses:** **Intraque:** conjunctivitis, abnormal vision, dry eyes, tinnitus, taste perception, blepharitis, eye pain; **Rare:** abnormality of accommodation, deafness, glaucoma.

**Musculoskeletal System:** **Intraque:** pathological fracture, myasthenia, twitching, arthralgia, arthritis, leg cramps, bone pain.

**Hemic and Lymphatic System:** **Frequent:** leukopenia; **Intraque:** leukocytosis, anemia, ecchymosis, eosinophilia, hypochromic anemia; **lymphadenopathy, cyanosis; Rare:** hemolysis, thrombocytopenia.

**Endocrine System:** **Intraque:** hypothyroidism, diabetes mellitus; **Rare:** hyperthyroidism.

\*adjusted 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 ABUSE AND DEPENDENCE**

**Controlled Substance Class:** SEROQUEL is not a controlled substance.

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Now available  
in 300-mg  
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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.

<sup>†</sup>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<sup>®</sup> (quetiapine fumarate) Professional Information Brochure, AstraZeneca Pharmaceuticals LP, Wilmington, Delaware. 4. Data on file, AstraZeneca Pharmaceuticals LP, Wilmington, Delaware.



**Seroquel<sup>®</sup>**  
quetiapine fumarate

25 mg, 100 mg,  
200 mg & 300 mg tablets

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