

HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use ZOLPIDEM TARTRATE EXTENDED-RELEASE TABLETS safely and effectively. See full prescribing information for ZOLPIDEM TARTRATE EXTENDED-RELEASE TABLETS.

ZOLPIDEM TARTRATE extended-release tablets, for oral use C-IV
Initial U.S. Approval: 1992

WARNING: COMPLEX SLEEP BEHAVIORS
See full prescribing information for complete boxed warning.
Complex sleep behaviors including sleep-walking, sleep-driving, and engaging in other activities while not fully awake may occur following use of zolpidem tartrate extended-release tablets. Some of these events may result in serious injuries, including death. Discontinue zolpidem tartrate extended-release tablets immediately if a patient experiences a complex sleep behavior. (4, 5, 1)

RECENT MAJOR CHANGES

Indications and Usage (1)	2/2022
Dosage and Administration (2.1)	2/2022
Warnings and Precautions (5.5)	2/2022
Warnings and Precautions (5.7)	2/2022

INDICATIONS AND USAGE
 Zolpidem tartrate extended-release tablet, a gamma-aminobutyric acid (GABA) receptor positive modulator, is indicated for the short-term treatment of insomnia characterized by difficulties with sleep onset and/or sleep maintenance. (1)

DOSAGE AND ADMINISTRATION

- Use the lowest dose effective for the patient and must not exceed a total of 12.5 mg daily (2.1)
- Treatment should be as short as possible (2.1)
- Recommended initial dose is a single dose of 6.25 mg for women and a single dose of 6.25 or 12.5 mg for men, immediately before bedtime with at least 7 to 8 hours remaining before the planned time of awakening (2.1)
- Geriatric patients and patients with mild to moderate hepatic impairment: Recommended dose is 6.25 mg for men and women (2.2)
- Lower doses of CNS depressants may be necessary when taken concomitantly with zolpidem tartrate extended-release tablets (2.3)
- Tablets to be swallowed whole, not to be crushed, divided or chewed (2.4)
- The effect of zolpidem tartrate extended-release tablets may be slowed if taken with or immediately after a meal (2.4)

DOSAGE FORMS AND STRENGTHS
 Extended-Release Tablets: 6.25 mg and 12.5 mg. Tablets not scored. (3)

CONTRAINDICATIONS
 Patients who have experienced complex sleep behaviors after taking zolpidem tartrate extended-release tablets (4)
 Known hypersensitivity to zolpidem (4)

WARNINGS AND PRECAUTIONS

- CNS-Depressant Effects: Impaired alertness and motor coordination, including risk of morning impairment. Risk increases with dose and

use with other CNS depressants and alcohol. Caution patients against driving and other activities requiring complete mental alertness the morning after use. Instruct patients on correct use. (5.2)
 Need to Evaluate for Comorbid Diagnoses: Re-evaluate if insomnia persists after 7 to 10 days of use. (5.3)
 Severe Anaphylactic/Anaphylactoid Reactions: Angioedema and anaphylaxis have been reported. Do not rechallenge if such reactions occur. (5.4)
 Abnormal Thinking and Behavioral Changes: Changes including decreased inhibition, bizarre behavior, agitation and depersonalization have been reported. Immediately evaluate any new onset behavioral changes. (5.5)
 Depression: Worsening of depression or suicidal thinking may occur. Prescribe the least amount of tablets feasible to avoid intentional overdose. (5.6)
 Respiratory Depression: Consider this risk before prescribing in patients with compromised respiratory function. (5.7)
 Hepatic Impairment: Avoid zolpidem tartrate extended-release tablets use in patients with severe hepatic impairment. (5.8)
 Withdrawal Effects: Symptoms may occur with rapid dose reduction or discontinuation. (5.9, 9.3)

ADVERSE REACTIONS
 Most commonly observed adverse reactions (> 10% in either elderly or adult patients) are: headache, next-day somnolence and dizziness (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Lupin Pharmaceuticals, Inc. at 1-800-399-2561 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS

- CNS depressants, including alcohol: Possible adverse additive CNS-depressant effects (5.2, 7.1)
- Opioids: Concomitant use may increase risk of respiratory depression (5.7, 7.1)
- Imipramine: Decreased alertness observed (7.1)
- Chlorpromazine: Impaired alertness and psychomotor performance observed (7.1)
- CYP3A4 inducers (rifampin or St. John's wort): Combination use may decrease effect (7.2)
- Ketoconazole: Combination use may increase effect (7.2)

USE IN SPECIFIC POPULATIONS

- Pregnancy: May cause respiratory depression and sedation in neonates with exposure late in the third trimester. (8.1)
- Lactation: A lactating woman may pump and discard breast milk during treatment and for 23 hours after zolpidem tartrate extended-release tablets administration. (8.2)
- Pediatric use: Safety and effectiveness not established. Hallucinations (incidence rate 7%) and other psychiatric and/or nervous system adverse reactions were observed frequently in a study of pediatric patients with Attention-Deficit/Hyperactivity Disorder. (5.5, 8.4)

See 17 for PATIENT COUNSELING INFORMATION and Medication Guide.

Revised: 04/2022

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FULL PRESCRIBING INFORMATION

WARNING: COMPLEX SLEEP BEHAVIORS

Complex sleep behaviors including sleep-walking, sleep-driving, and engaging in other activities while not fully awake may occur following use of zolpidem tartrate extended-release tablets. Some of these events may result in serious injuries, including death. Discontinue zolpidem tartrate extended-release tablets immediately if a patient experiences a complex sleep behavior (see CONTRAINDICATIONS (4) and WARNINGS AND PRECAUTIONS (5.1)).

1 INDICATIONS AND USAGE
 Zolpidem tartrate extended-release tablets are indicated for the short-term treatment of insomnia characterized by difficulties with sleep onset and/or sleep maintenance (as measured by wake time after sleep onset).
 The clinical trials performed in support of efficacy were up to 3 weeks (using polysomnography measurement up to 2 weeks in both adult and elderly patients) and 24 weeks (using patient-reported assessment in adult patients only) in duration (see CLINICAL STUDIES (14)).

2 DOSAGE AND ADMINISTRATION
2.1 Dosage in Adults
 Use the lowest effective dose for the patient. The recommended initial dose is 6.25 mg for women and either 6.25 or 12.5 mg for men, taken only once per night immediately before bedtime with at least 7 to 8 hours remaining before the planned time of awakening. If the 6.25 mg dose is not effective, the dose can be increased to 12.5 mg. In some patients, the higher morning blood levels following use of the 12.5 mg dose increase the risk of next-day impairment of driving and other activities that require full alertness (see WARNINGS AND PRECAUTIONS (5.2)). The total dose of zolpidem tartrate extended-release tablets should not exceed 12.5 mg daily immediately before bedtime. Zolpidem tartrate extended-release tablets should be taken as a single dose and immediately before bedtime on the same night.
 The recommended initial doses for women and men are different because zolpidem clearance is lower in women.
 Treatment with zolpidem tartrate extended-release tablet should be as short as possible. Extended treatment should not take place without re-evaluation of the patient's status, since the risk of abuse and dependence increases with duration of treatment (see DRUG ABUSE AND DEPENDENCE (9.3)).

2.2 Special Populations
 Elderly or debilitated patients may be especially sensitive to the effects of zolpidem tartrate. The recommended dose of zolpidem tartrate extended-release tablet in these patients is 6.25 mg once daily immediately before bedtime (see WARNINGS AND PRECAUTIONS (5.2)).
 Patients with mild to moderate hepatic impairment do not clear the drug as rapidly as normal subjects. The recommended dose of zolpidem tartrate extended-release tablets in these patients is 6.25 mg once daily immediately before bedtime. Avoid zolpidem tartrate extended-release tablets use in patients with severe hepatic impairment as it may contribute to encephalopathy (see WARNINGS AND PRECAUTIONS (5.8)).
2.3 Use with CNS Depressants
 Dosage adjustment may be necessary when zolpidem tartrate extended-release tablets are combined with other CNS-depressant drugs because of the potentially additive effects (see WARNINGS AND PRECAUTIONS (5.2, 5.7)).

2.4 Administration
 Zolpidem tartrate extended-release tablets should be swallowed whole, and not be divided, crushed, or chewed. The effect of zolpidem tartrate extended-release tablets may be slowed by ingestion with or immediately after a meal.
3 DOSAGE FORMS AND STRENGTHS
 Zolpidem tartrate extended-release tablets USP are available as extended-release tablets containing 6.25 mg or 12.5 mg of zolpidem tartrate for oral administration.
 Zolpidem tartrate extended-release tablets, USP 6.25 mg are pink colored, round, biconvex, film-coated tablets debossed with "E61" on one side and "LU" on the other side.
 Zolpidem tartrate extended-release tablets, USP 12.5 mg are blue colored, round, biconvex, film-coated tablets debossed with "E62" on one side and "LU" on the other side.

4 CONTRAINDICATIONS
 Zolpidem tartrate extended-release tablets are contraindicated in patients
 • who have experienced complex sleep behaviors after taking zolpidem tartrate extended-release tablets (see WARNINGS AND PRECAUTIONS (5.1)).
 • with known hypersensitivity to zolpidem. Observed reactions include anaphylaxis and angioedema (see WARNINGS AND PRECAUTIONS (5.4)).

5 WARNINGS AND PRECAUTIONS
5.1 Complex Sleep Behaviors
 Complex sleep behaviors, including sleep-walking, sleep-driving, and engaging in other activities while not fully awake, may occur following the first or any subsequent use of zolpidem tartrate extended-release tablets. Patients can be seriously injured or injure others during complex sleep behaviors. Such injuries may result in a fatal outcome. Other complex sleep behaviors (e.g., preparing and eating food, making phone calls, or having sex) have also been reported. Patients usually do not remember these events. Postmarketing reports have shown that complex sleep behaviors may occur with zolpidem tartrate extended-release tablets alone at recommended doses, with or without the concomitant use of alcohol or other central nervous system (CNS) depressants (see DRUG INTERACTIONS (7.1)). Discontinue zolpidem tartrate extended-release tablets immediately if a patient experiences a complex sleep behavior (see CONTRAINDICATIONS (4)).

5.2 CNS-Depressant Effects and Next-Day Impairment
 Zolpidem tartrate extended-release tablets are CNS depressant and can impair daytime function in some patients even when used as prescribed. Prescribers should monitor for excess depressant effects, but impairment can occur in the absence of subjective symptoms, and may not be reliably detected by ordinary clinical exam (i.e. less than formal psychomotor testing). While pharmacodynamic tolerance or adaptation to some adverse depressant effects of zolpidem tartrate extended-release tablets may develop, patients using zolpidem tartrate extended-release tablets should be cautioned against driving or engaging in other hazardous activities or activities requiring complete mental alertness the day after use. Additive effects occur with concomitant use of other CNS depressants (e.g., benzodiazepines, opioids, tricyclic antidepressants, alcohol), including daytime use (see DRUG INTERACTIONS (7.1)). Downward dose adjustment of zolpidem tartrate extended-release tablets and concomitant CNS depressants should be considered (see DOSAGE AND ADMINISTRATION (2.3)).
 The use of zolpidem tartrate extended-release tablet with other sedative-hypnotics (including other zolpidem products) at bedtime or in the middle of the night is not recommended.
 The risk of next-day psychomotor impairment is increased if zolpidem tartrate extended-release tablet is taken with less than a full night of sleep remaining (7 to 8 hours); if higher than the recommended dose is taken; if additional symptoms such as dyspnea, throat closing or nausea and vomiting that suggest anaphylaxis. Some patients have had additional symptoms such as dyspnea, throat closing or nausea and vomiting that suggest anaphylaxis. Some patients have required medical therapy in the emergency department. If angioedema involves the throat, glottis or larynx, airway obstruction may occur and be fatal. Patients who develop angioedema after treatment with zolpidem should not be rechallenged with the drug.

5.3 Abnormal Thinking and Behavioral Changes
 Abnormal thinking and behavior changes have been reported in patients treated with sedative-hypnotics, including zolpidem tartrate extended-release tablets. Some of these changes included decreased inhibition (e.g., aggressiveness and extroversion that seemed out of character), bizarre behavior, agitation and depersonalization. Visual and auditory hallucinations have been reported.
 In controlled trials, <1% of adults with insomnia reported hallucinations. In a clinical trial, 7% of pediatric patients treated with Ambien 0.25 mg/kg taken at bedtime reported hallucinations versus 0% treated with placebo (see USE IN SPECIFIC POPULATIONS (8.4)). There have been postmarketing reports of delirium with zolpidem use (see ADVERSE REACTIONS (6.2)).
 It can rarely be determined with certainty whether a particular instance of the abnormal behaviors listed above is drug induced, spontaneous in origin, or a result of an underlying psychiatric or physical disorder. Nonetheless, the emergence of any new behavioral signs or symptoms of concern requires careful and immediate evaluation.

5.4 Severe Anaphylactic and Anaphylactoid Reactions
 Cases of angioedema involving the tongue, glottis or larynx have been reported in patients after taking the first or subsequent doses of sedative-hypnotics, including zolpidem. Some patients have had additional symptoms such as dyspnea, throat closing or nausea and vomiting that suggest anaphylaxis. Some patients have required medical therapy in the emergency department. If angioedema involves the throat, glottis or larynx, airway obstruction may occur and be fatal. Patients who develop angioedema after treatment with zolpidem should not be rechallenged with the drug.

5.5 Abnormal Thinking and Behavioral Changes
 Abnormal thinking and behavior changes have been reported in patients treated with sedative-hypnotics, including zolpidem tartrate extended-release tablets. Some of these changes included decreased inhibition (e.g., aggressiveness and extroversion that seemed out of character), bizarre behavior, agitation and depersonalization. Visual and auditory hallucinations have been reported.
 In controlled trials, <1% of adults with insomnia reported hallucinations. In a clinical trial, 7% of pediatric patients treated with Ambien 0.25 mg/kg taken at bedtime reported hallucinations versus 0% treated with placebo (see USE IN SPECIFIC POPULATIONS (8.4)). There have been postmarketing reports of delirium with zolpidem use (see ADVERSE REACTIONS (6.2)).
 It can rarely be determined with certainty whether a particular instance of the abnormal behaviors listed above is drug induced, spontaneous in origin, or a result of an underlying psychiatric or physical disorder. Nonetheless, the emergence of any new behavioral signs or symptoms of concern requires careful and immediate evaluation.

5.6 Use in Patients with Depression
 In primarily depressed patients treated with sedative-hypnotics, worsening of depression, and suicidal thoughts and actions (including completed suicides), have been reported. Suicidal tendencies may be present in such patients and protective measures may be required. Intentional overdose is more common in this group of patients; therefore, the lowest number of tablets that is feasible should be prescribed for the patient at any one time.

5.7 Respiratory Depression
 Although studies with 10 mg zolpidem tartrate did not reveal respiratory depressant effects at hypnotic doses in healthy subjects or in patients with mild to moderate chronic obstructive pulmonary disease (COPD), a reduction in the Total Arterial Index, together with a reduction in lowest oxygen saturation and increase in the times of oxygen desaturation below 80% and 90%, was observed in patients with mild to moderate sleep apnea when treated with zolpidem compared to placebo. Since sedative-hypnotics have the capacity to depress respiratory drive, precautions should be taken if zolpidem tartrate extended-release tablets are prescribed to patients with compromised respiratory function or concomitant use with opioids or other CNS depressants. Postmarketing reports of respiratory insufficiency in patients receiving 10 mg of zolpidem tartrate, most of whom had pre-existing respiratory impairment, have been reported. The risk of respiratory depression should be considered prior to prescribing zolpidem tartrate extended-release tablets in patients with respiratory impairment including sleep apnea and myasthenia gravis or with concomitant opioid use (see DOSAGE AND ADMINISTRATION (2.3)).

5.8 Precipitation of Hepatic Encephalopathy
 Drugs affecting GABA receptors, such as zolpidem tartrate, have been associated with precipitation of hepatic encephalopathy in patients with hepatic insufficiency. In addition, patients with hepatic insufficiency do not clear zolpidem tartrate as rapidly as patients with normal hepatic function. Avoid zolpidem tartrate extended-release tablets use in patients with severe hepatic impairment as it may contribute to encephalopathy (see DOSAGE AND ADMINISTRATION (2.2)).
5.9 Withdrawal Effects
 There have been reports of withdrawal signs and symptoms following the rapid dose decrease or abrupt discontinuation of zolpidem. Monitor patients for tolerance, abuse, and dependence (see DRUG ABUSE AND DEPENDENCE (9.2, 9.3)).

6 ADVERSE REACTIONS
 The following serious adverse reactions are discussed in greater detail in other sections of the labeling:

- Complex Sleep Behaviors (see WARNINGS AND PRECAUTIONS (5.1))
- CNS-Depressant Effects and Next-Day Impairment (see WARNINGS AND PRECAUTIONS (5.2))
- Severe Anaphylactic and Anaphylactoid Reactions (see WARNINGS AND PRECAUTIONS (5.4))
- Abnormal Thinking and Behavioral Changes (see WARNINGS AND PRECAUTIONS (5.5))
- Withdrawal Effects (see WARNINGS AND PRECAUTIONS (5.9))

6.1 Clinical Trials Experience
Associated with Discontinuation of Treatment
 In 3-week clinical trials in adults and elderly patients (> 65 years), 3.5% (7/201) patients receiving zolpidem tartrate extended-release tablets 6.25 or 12.5 mg discontinued treatment due to an adverse reaction as compared to 0.9% (2/216) of patients on placebo. The reaction most commonly associated with discontinuation in patients treated with zolpidem tartrate extended-release tablets were somnolence (1%).
 In a 6-month study in adult patients (18 to 64 years of age), 8.5% (57/669) of patients receiving zolpidem tartrate extended-release tablets 12.5 mg as compared to 4.6% on placebo (19/349) discontinued treatment due to an adverse reaction. Reactions most commonly associated with discontinuation of zolpidem tartrate extended-release tablets included anxiety (anxiety, restlessness or agitation) reported in 1.5% (10/669) of patients as compared to 0.3% (1/349) of patients on placebo, and depression (depression, major depression or depressed mood) reported in 1.5% (10/669) of patients as compared to 0.9% (1/349) of patients on placebo.
 Data from a clinical study in which selective serotonin reuptake inhibitor (SSRI)-treated patients were given zolpidem tartrate extended-release tablets revealed that four of the seven discontinuations during double-blind treatment with zolpidem (n=95) were associated with continued continuation, continuing or aggravated depression, and manic reaction; one patient treated with placebo (n=97) was discontinued after an attempted suicide.
Most Commonly Observed Adverse Reactions in Controlled Trials
 During treatment with zolpidem tartrate extended-release tablets in adults and elderly at daily doses of 12.5 mg and 6.25 mg, respectively, each for three weeks, the most commonly observed adverse reactions associated with the use of zolpidem tartrate extended-release tablets were headache, next-day somnolence, and dizziness.
 In the 6-month trial evaluating zolpidem tartrate extended-release tablets 12.5 mg, the adverse reaction profile was consistent with that reported in short-term trials, except for a higher incidence of anxiety (6.3% for zolpidem tartrate extended-release tablets versus 2.6% for placebo).

Adverse Reactions Observed at an Incidence of ≥ 1% in Controlled Trials
 The following tables enumerate treatment-emergent adverse reaction frequencies that were observed at an incidence equal to 1% or greater among patients with insomnia who received zolpidem tartrate extended-release tablets in placebo-controlled trials. Events reported by investigators were classified utilizing the MedDRA dictionary for the purpose of establishing event frequencies. The prescriber should be aware that these figures cannot be used to predict the incidence of side effects in the course of usual medical practice, in which patient characteristics and other factors differ from those that prevailed in these clinical trials. Similarly, the cited frequencies cannot be compared with figures obtained from other clinical investigators involving related drug products and uses, since each group of drug trials is conducted under a different set of conditions. However, the cited figures provide the physician with a basis for estimating the relative contribution of drug and nondrug factors to the incidence of side effects in the population studied.
 The following tables were derived from results of two placebo-controlled efficacy trials involving zolpidem tartrate extended-release tablets. These trials involved patients with primary insomnia who were treated for 3 weeks with zolpidem tartrate extended-release tablets at doses of 12.5 mg (Table 1) or 6.25 mg (Table 2), respectively. The tables include only adverse reactions occurring at an incidence of at least 1% for zolpidem tartrate extended-release tablets patients and with an incidence greater than that seen in the placebo patients.

Table 1. Incidences of Treatment-Emergent Adverse Reactions in a 3-Week Placebo-Controlled Clinical Trial in Adults (percentage of patients reporting)

Body System Adverse Reaction*	Zolpidem Tartrate Extended-Release Tablets, 12.5 mg (N = 102)	Placebo (N = 110)
Infections and infestations		
Influenza	3	0
Gastroenteritis	1	0
Labyrinthitis	1	0
Metabolism and nutrition disorders		
Appetite disorder	1	0
Psychiatric disorders		
Hallucinations [†]	4	0
Disorientation	3	2
Anxiety	2	0
Depression	2	0
Psychomotor retardation	2	0
Binge eating	1	0
Depersonalization	1	0
Disinhibition	1	0
Euphoric mood	1	0
NIH Mood swings	1	0
Stress symptoms	1	0
Nervous system disorders		
Headache	14	16
Somnolence	15	2
Dizziness	12	5
Memory disorders [‡]	3	0
Balance disorder	2	0
Disturbance in attention	2	0
Hypoaesthesia	2	1
Ataxia	1	0
Paresthesia	1	0
Eye disorders		
Visual disturbance	3	0
Eye redness	2	0
vision blurred	2	1
Altered visual depth perception	1	0
Asthenopia	1	0
Ear and labyrinth disorders		
Tinnitus	2	0
Tinnitus	1	0
Respiratory, thoracic and mediastinal disorders		
Throat irritation	1	0
Gastrointestinal disorders		
Nausea	7	4
Constipation	2	0
Abdominal discomfort	1	0
Abdominal tenderness	1	0
Bowel movement	1	0
Gastroesophageal reflux disease	1	0
Vomiting	1	0
Skin and subcutaneous tissue disorders		
Rash	1	0
Skin wrinkling	1	0
Urticaria	1	0
Musculoskeletal and connective tissue disorders		
Back pain	4	3
Myalgia	4	0
Neck pain	1	0
Reproductive system and breast disorders		
Body System	1	0
General disorders and administration site conditions		
Fatigue	3	2
Asthenia	3	0
Chest discomfort	1	0
Investigations		
Blood pressure increased	1	0
Body temperature increased	1	0
Injury, poisoning and procedural complications		
Contusion	1	0
Social circumstances		
Exposure to poisonous plant	1	0

* Reactions reported by at least 1% of patients treated with zolpidem tartrate extended-release tablets and at greater frequency than in the placebo group.
[†] Hallucinations included hallucinations NOS as well as visual and hypnagogic hallucinations.
[‡] Memory disorders include: memory impairment, amnesia, anterograde amnesia.

Table 2. Incidences of Treatment-Emergent Adverse Reactions in a 3-Week Placebo-Controlled Clinical Trial in Elderly (percentage of patients reporting)

Body System Adverse Reaction*	Zolpidem Tartrate Extended-Release Tablets, 6.25 mg (N=99)	Placebo (N=105)
Infections and infestations		
Nasopharyngitis	6	4
Lower respiratory tract infection	1	0
Otitis externa	1	0
Upper respiratory tract infection	1	0
Psychiatric disorders		
Anxiety	3	2
Psychomotor retardation	2	0
Apathy	1	0
Depressed mood	1	0
Nervous system disorders		
Headache	14	11
Dizziness	8	3
Somnolence	6	5
Burning sensation	1	0
Dizziness postural	1	0
Memory disorders [†]	1	0
Muscle contractions involuntary	1	0
Paresthesia	1	0
Tremor	1	0
Cardiac disorders		
Palpitations	2	0
Respiratory, thoracic and mediastinal disorders		
Dry throat	1	0
Gastrointestinal disorders		
Flatulence	1	0
Vomiting	1	0
Skin and subcutaneous tissue disorders		
Urticaria	1	0
Musculoskeletal and connective tissue disorders		
Arthralgia	2	0
Muscle cramp	2	1
Neck pain	2	0
Renal and urinary disorders		
Dysuria	1	0
Reproductive system and breast disorders		
Vulvovaginal dryness	1	0
General disorders and administration site conditions		
Influenza like illness	1	0
Pyrexia	1	0
Injury, poisoning and procedural complications		
Neck injury	1	0

* Reactions reported by at least 1% of patients treated with zolpidem tartrate extended-release tablets and at greater frequency

Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Liver and biliary system

Acute hepatocellular, cholestatic or mixed liver injury with or without jaundice (i.e., bilirubin $\geq 2 \times$ ULN, alkaline phosphatase $\geq 2 \times$ ULN, transaminase $\geq 5 \times$ ULN).

Psychiatric disorders/clinical depression

7 DRUG INTERACTIONS

7.1 CNS-Active Drugs

CNS-Depressants

Coadministration of zolpidem with other CNS depressants increases the risk of CNS depression. Concomitant use of zolpidem with these drugs may increase drowsiness and psychomotor impairment, including impaired driving ability (see **WARNINGS AND PRECAUTIONS (5.1, 5.2)**). Zolpidem tartrate was evaluated in healthy volunteers in single-dose interaction studies for several CNS drugs.

Alcohol

An additive adverse effect on psychomotor performance between alcohol and oral zolpidem was demonstrated (see **WARNINGS AND PRECAUTIONS (5.1, 5.2)**).

Opioids

The concomitant use of zolpidem tartrate extended-release tablets with opioids may increase the risk of respiratory depression. Limit dosage and duration of concomitant use of zolpidem tartrate extended-release tablets and opioids (see **DOSEAGE AND ADMINISTRATION (2.3)**, **WARNINGS AND PRECAUTIONS (5.7)**).

Imipramine, Chlorpromazine

Imipramine in combination with zolpidem produced no pharmacokinetic interaction other than a 20% decrease in peak levels of imipramine, but there was an additive effect of decreased alertness. Similarly, chlorpromazine in combination with zolpidem produced no pharmacokinetic interaction, but there was an additive effect of decreased alertness and psychomotor performance (see **CLINICAL PHARMACOLOGY (12.3)**).

Sertraline

Coadministration of zolpidem and sertraline increases exposure to zolpidem (see **CLINICAL PHARMACOLOGY (12.3)**).

Fluoxetine

After multiple doses of zolpidem tartrate and fluoxetine an increase in the zolpidem half-life (17%) was observed. There was no evidence of an additive effect in psychomotor performance (see **CLINICAL PHARMACOLOGY (12.3)**).

Haloperidol

A study involving haloperidol and zolpidem revealed no effect of haloperidol on the pharmacokinetics or pharmacodynamics of zolpidem. The lack of a drug interaction following single-dose administration does not predict the absence of an effect following chronic administration (see **CLINICAL PHARMACOLOGY (12.3)**).

7.2 Drugs that Affect Drug Metabolism via Cytochrome P450

Some compounds known to induce or inhibit CYP3A may affect exposure to zolpidem. The effect of drugs that induce or inhibit other P450 enzymes on the exposure to zolpidem is not known.

CYP3A4 Inducers

Rifampin

Rifampin, a CYP3A4 inducer, significantly reduced the exposure to and the pharmacodynamic effects of zolpidem. Use of rifampin in combination with zolpidem may decrease the efficacy of zolpidem and is not recommended (see **CLINICAL PHARMACOLOGY (12.3)**).

St. John's wort

Use of St. John's wort, a CYP3A4 inducer, in combination with zolpidem may decrease blood levels of zolpidem and is not recommended.

CYP3A4 Inhibitors

Ketozonazole

Ketozonazole, a potent CYP3A4 inhibitor, increased the exposure to and pharmacodynamic effects of zolpidem. Consideration should be given to using a lower dose of zolpidem when a potent CYP3A4 inhibitor and zolpidem are given together (see **CLINICAL PHARMACOLOGY (12.3)**).

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

Neonates born to mothers using zolpidem late in the third trimester of pregnancy have been reported to experience symptoms of respiratory depression and sedation (see **Clinical Considerations and Data**). Published data on the use of zolpidem during pregnancy have not reported a clear association with zolpidem and major birth defects (see **Data**). Oral administration of zolpidem to pregnant rats and rabbits did not indicate a risk for adverse effects on fetal development at clinically relevant doses (see **Data**).

The estimated background risk of major birth defects and miscarriage for the indicated populations are unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

Clinical Considerations

Fetal/neonatal adverse reactions:

Zolpidem crosses the placenta and may produce respiratory depression and sedation in neonates. Monitor neonates exposed to zolpidem tartrate extended-release tablets during pregnancy and labor for signs of excessive sedation, hypotonia, and respiratory depression and manage accordingly.

Data

Human data: Published data from observational studies, birth registries, and case reports on the use of zolpidem during pregnancy do not report a clear association with zolpidem and major birth defects.

There are limited postmarketing reports of severe to moderate cases of respiratory depression that occurred after birth in neonates whose mothers had taken zolpidem during pregnancy. These cases required artificial ventilation or intratracheal intubation. The majority of neonates recovered within hours to a few weeks after birth onset.

Zolpidem has been shown to cross the placenta.

Animal data:

Oral administration of zolpidem to pregnant rats during the period of organogenesis at 4, 20, and 100 mg base/kg/day, which are approximately 4, 20, and 100 times the maximum recommended human dose (MRHD) of 12.5 mg/day (10 mg zolpidem base) based on mg/m² body surface area, caused delayed fetal development (incomplete fetal skeletal ossification) at maternally toxic (data uses CO and 100 times the MRHD based on mg/m² body surface area).

Oral administration of zolpidem to pregnant rabbits during the period of organogenesis at 1, 4, and 16 mg base/kg/day, which are approximately 2, 8, and 30 times the MRHD of 12.5 mg/day (10 mg zolpidem base) based on mg/m² body surface area caused embryo-fetal death and delayed fetal development (incomplete fetal skeletal ossification) at a maternally toxic (decreased body weight gain) dose 30 times the MRHD based on mg/m² body surface area.

Oral administration of zolpidem to pregnant rats from day 15 of gestation through lactation at 4, 20, and 100 mg base/kg/day, which are approximately 4, 20, and 100 times the MRHD of 12.5 mg/day (10 mg zolpidem base) based on a mg/m² body surface area, caused offspring growth and decreased survival at doses 20 and 100 times, respectively, the MRHD based on mg/m² body surface area.

8.2 Lactation

Risk Summary

Limited data from published literature report the presence of zolpidem in human milk. There are reports of excess sedation in infants exposed to zolpidem through breastmilk (see **Clinical Considerations**). There is no information on the effects of zolpidem on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for zolpidem and any potential adverse effects on the breastfed infant from zolpidem tartrate or from the underlying maternal condition.

Clinical Considerations

Infants exposed to zolpidem through breastmilk should be monitored for excess sedation, hypotonia, and respiratory depression. A lactating woman may consider interrupting breastfeeding and pumping and discarding breast milk during treatment and for 23 hours (approximately 5 elimination half-lives) after zolpidem tartrate administration in order to minimize drug exposure to a breast fed infant.

8.4 Pediatric Use

Zolpidem tartrate extended-release tablets are not recommended for use in children. Safety and effectiveness of zolpidem in pediatric patients below the age of 18 years has not been established.

In an 8-week study in pediatric patients (aged 6 to 17 years) with insomnia associated with attention-deficit/hyperactivity disorder (ADHD) an oral solution of zolpidem tartrate dosed at 0.25 mg/kg at bedtime did not decrease sleep latency compared to placebo. Psychiatric and nervous system disorders comprised the most frequent (>5%) treatment-emergent adverse reactions observed with zolpidem versus placebo and included dizziness (63.3% vs 1.5%), headache (12.5% vs 9.2%), and hallucinations were reported in 7% of the pediatric patients who received zolpidem; none of the pediatric patients who received placebo reported hallucinations (see **WARNINGS AND PRECAUTIONS (5.5)**). Ten patients on zolpidem (17.4%) discontinued treatment due to an adverse drug reaction.

FDA has not required pediatric studies of zolpidem tartrate extended-release tablets in the pediatric population based on these efficacy and safety findings.

8.5 Geriatric Use

A total of 99 elderly (> 65 years of age) received daily doses of 6.25 mg zolpidem tartrate extended-release tablets in a 3-week placebo-controlled study. The adverse reaction profile of zolpidem tartrate extended-release tablets 6.25 mg in this population was similar to that of zolpidem tartrate extended-release tablets 12.5 mg in younger adults (<64 years of age). Dizziness was reported in 8% of zolpidem tartrate extended-release tablets treated patients compared with 3% of those treated with placebo.

The dose of zolpidem tartrate extended-release tablets in elderly patients is 6.25 mg to minimize adverse effects related to impaired motor and/or cognitive performance and unusual sensitivity to sedative/hypnotic drugs (see **WARNINGS AND PRECAUTIONS (5.2)**).

8.6 Gender Difference in Pharmacokinetics

Women clear zolpidem tartrate from the body at a lower rate than men. C_{max} and AUC parameters of zolpidem from zolpidem tartrate extended-release tablets were, respectively, approximately 50% and 75% higher at the same dose in adult female subjects compared to adult male subjects. Between 6 and 12 hours after dosing, zolpidem concentrations were 2 to 3 fold higher in adult female compared to adult male subjects. Dizziness was reported in 15.3% of female subjects compared to men at a given dose, the recommended initial dose of zolpidem tartrate extended-release tablets for adult women is 6.25 mg, and the recommended dose for adult men is 6.25 or 12.5 mg.

In geriatric patients, clearance of zolpidem is similar in men and women. The recommended dose of zolpidem tartrate extended-release tablets in geriatric patients is 6.25 mg regardless of gender.

8.7 Hepatic Impairment

The recommended dose of zolpidem tartrate extended-release tablets in patients with mild to moderate hepatic impairment is 6.25 mg once daily immediately before bedtime. Avoid zolpidem tartrate extended-release tablets use in patients with severe hepatic impairment as it may contribute to encephalopathy (see **DOSEAGE AND ADMINISTRATION (2.2)**, **WARNINGS AND PRECAUTIONS (5.8)**, **CLINICAL PHARMACOLOGY (12.3)**).

9 DRUG ABUSE AND DEPENDENCE

9.1 Controlled Substance

Zolpidem tartrate is classified as a Schedule IV controlled substance by federal regulation.

9.2 Abuse

Abuse and addiction are separate and distinct from physical dependence and tolerance. Abuse is characterized by misuse of the drug for non-medical purposes, often in combination with other psychoactive substances. Tolerance is a state of adaptation in which exposure to a drug results in diminished effects (or loss of most of the effects) of the drug over time. Tolerance may occur to both desired and undesired effects of drugs and may develop at different rates for different effects.

Addiction is a primary, chronic, neurological disease with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and craving. Drug addiction is a treatable disease, using a multidisciplinary approach, but relapse is common.

Studies of abuse potential in former drug abusers found that the effects of single doses of zolpidem tartrate 40 mg were similar, but not identical, to diazepam 20 mg, while zolpidem tartrate 10 mg effects were difficult to distinguish from placebo.

Because persons with a history of addiction to, or use of, drugs or alcohol are at increased risk for misuse, abuse and addiction of zolpidem, they should be monitored carefully when receiving zolpidem or any other hypnotic.

9.3 Dependence

Use of zolpidem tartrate extended-release tablets may lead to development of physical and/or psychological dependence. This risk of dependence increases with dose and duration of treatment. The risk of abuse and dependence is also greater in patients with history of alcohol or drug abuse. Zolpidem tartrate extended-release tablets should be used with extreme caution in patients with current or past alcohol or drug abuse.

Physical dependence is a state of adaptation that is manifested by a specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist.

Sedative/hypnotics have produced withdrawal signs and symptoms following abrupt discontinuation. These reported symptoms range from mild dysphoria and insomnia to a withdrawal syndrome that include one or more of the following: impaired cardiac output, convulsive use, compulsive use, continued use despite harm, and craving. Drug addiction is a treatable disease, using a multidisciplinary approach, but relapse is common.

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The following adverse events, which are considered to meet the DSM-III-R criteria for uncomplicated sedative/hypnotic withdrawal, were reported during zolpidem tartrate extended-release tablets clinical trials following placebo substitution occurring within 48 hours following the last dose of treatment: fatigue, nausea, flushing, lightheadedness, uncontrolled crying, emesis, stomach cramps, panic attack, nervousness, and abdominal discomfort. These reported adverse events occurred at an incidence of 1% or less. However, additional data cannot provide a reliable estimate of the incidence, if any, of dependence during treatment at recommended doses. There have been postmarketing reports of abuse, dependence and withdrawal with zolpidem.

10 OVERDOSAGE

10.1 Signs and Symptoms

In postmarketing experience of overdose with zolpidem tartrate, alone, or in combination with CNS-depressant agents, impairment of consciousness ranging from somnolence to coma, cardiovascular and/or respiratory compromise, and fatal outcomes have been reported.

10.2 Recommended Treatment

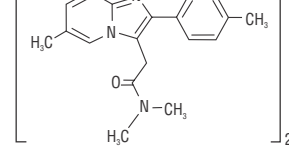
General symptomatic and supportive measures should be used along with immediate gastric lavage where appropriate. Intravenous fluids should be administered as needed. Zolpidem's sedative/hypnotic effect was shown to be reduced by flumazenil and therefore may be useful; however, flumazenil administration may contribute to the appearance of neurological symptoms (convulsions). As in all cases of drug overdose, respiration, pulse, blood pressure, and other appropriate signs should be monitored and general supportive measures employed. Hypotension and CNS depression should be monitored and treated by appropriate medical intervention. Sedating drugs should be withheld following zolpidem overdose, even if excitation occurs. The value of dialysis in the treatment of overdose has not been determined, although hemodialysis studies in patients with renal failure receiving therapeutic doses have demonstrated that zolpidem is not dialyzable.

As with the management of all overdose, the possibility of multiple drug ingestion should be considered. The physician may wish to consider contacting a poison control center for up-to-date information on the management of hypnotic drug product overdose.

11 DESCRIPTION

Zolpidem tartrate extended-release tablets USP contains zolpidem tartrate, a gamma-aminobutyric acid (GABA) A receptor positive modulator of the imidazopyridine class. Zolpidem tartrate extended-release tablets USP are available in 6.25 mg and 12.5 mg strength tablets for oral administration.

Chemically, zolpidem is N,N,6-trimethyl-2-p-tolylimidazo[1,2-a]pyridine-3-acetamide L-(+)-tartrate (2:1). It has the following structure:



Zolpidem tartrate is a white or almost white, crystalline powder, hygroscopic that is slightly soluble in water, sparingly soluble in methanol and practically insoluble in methylene chloride. It has a molecular weight of 764.87.

Zolpidem tartrate extended-release tablets USP consist of a coated two-layer tablet: one layer that releases its drug content immediately and another layer that allows a slower release of additional drug content. The 6.25 mg zolpidem tartrate extended-release tablets USP contain the following inactive ingredients: colloidal silicon dioxide, FD&C Blue # 2 aluminum lake, hypromellose, iron oxide red, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyethylene glycol, potassium bitartrate, sodium starch glycolate and titanium dioxide. The 12.5 mg zolpidem tartrate extended-release tablets USP contain the following inactive ingredients: colloidal silicon dioxide, FD&C Blue # 2 aluminum lake, hypromellose, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyethylene glycol, potassium bitartrate, sodium starch glycolate and titanium dioxide.

Zolpidem tartrate extended-release tablets USP meets USP Dissolution Test 6.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Zolpidem is a GABA A receptor positive modulator presumed to exert its therapeutic effects in the short-term treatment of insomnia through binding to the benzodiazepine site of α 1 subunit containing GABA A receptors, increasing the frequency of chloride channel opening resulting in the inhibition of neuronal excitation.

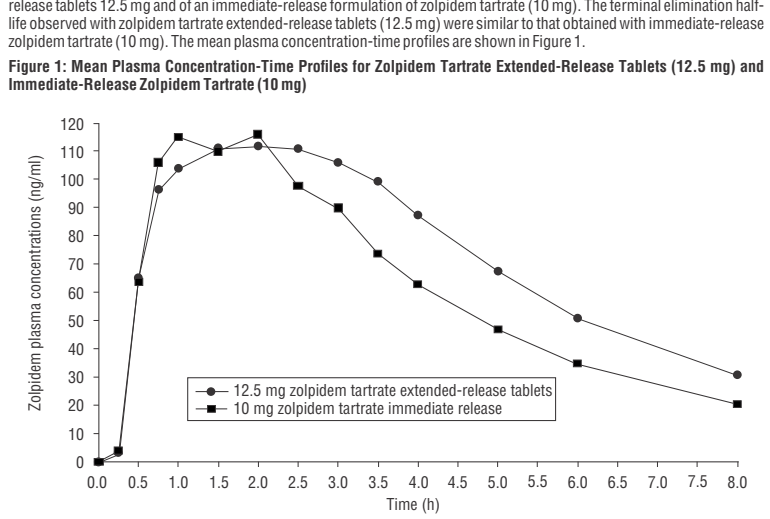
12.2 Pharmacokinetics

Zolpidem binds to GABA A receptors with greater affinity for α 1 subunit relative to α 2 and α 3 subunit containing receptors. Zolpidem has no appreciable binding affinity for α 5 subunit containing GABA A receptors. This binding profile may explain the relative absence of myorelaxant effects in animal studies. Zolpidem has no appreciable binding affinity for dopaminergic D2, serotonergic 5HT_{1A}, adrenergic, histaminergic or muscarinic receptors.

12.3 Pharmacokinetics

Zolpidem tartrate extended-release tablets exhibits biphasic absorption characteristics, which results in rapid initial absorption from the gastrointestinal tract similar to zolpidem tartrate immediate-release, but provides extended plasma concentrations beyond three hours after administration. A study in 24 healthy male subjects was conducted to compare zolpidem tartrate immediate-release tablets and zolpidem tartrate extended-release tablets. Following oral administration of zolpidem tartrate extended-release tablets 12.5 mg and of an immediate-release formulation of zolpidem tartrate (10 mg), the terminal elimination half-life observed with zolpidem tartrate extended-release tablets (12.5 mg) were similar to that obtained with immediate-release zolpidem tartrate (10 mg). The plasma concentration-time profiles are shown in Figure 1.

Figure 1: Mean Plasma Concentration-Time Profiles for Zolpidem Tartrate Extended-Release Tablets (12.5 mg) and Immediate-Release Zolpidem Tartrate (10 mg)



In adult and elderly patients treated with zolpidem tartrate extended-release tablets, there was no evidence of accumulation after repeated once-daily dosing for up to two weeks.

Absorption

Following administration of zolpidem tartrate extended-release tablets, administered as a single 12.5 mg dose in healthy male adult subjects, the mean peak concentration (C_{max}) of zolpidem was 134 ng/mL (range: 68.9 to 197 ng/mL) occurring at a median time (T_{max}) of 1.5 hours. The mean AUC of zolpidem was 740 ng•hr/mL (range: 295 to 1359 ng•hr/mL).

A food-effect study in 45 healthy subjects compared the pharmacokinetics of zolpidem tartrate extended-release tablets 12.5 mg when administered with or without food 30 minutes after a meal. Results demonstrated that for total, mean AUC and C_{max} were decreased by 23% and 30%, respectively, while median T_{max} was increased from 2 hours to 4 hours. The half-life was not changed. These results suggest that, for faster sleep onset, zolpidem tartrate extended-release tablets should not be administered with or immediately after a meal.

Distribution

Total plasma binding was found to be 92.5 ± 0.1% and remained constant, independent of concentration between 40 and 790 ng/mL.

Metabolism

Zolpidem is converted to inactive metabolites that are eliminated primarily by renal excretion.

Elimination

When zolpidem tartrate extended-release tablets was administered as a single 12.5 mg dose in healthy male adult subjects, the mean zolpidem elimination half-life was 2.8 hours (range: 1.6 to 4.05 hr).

Special Populations

Elderly (≥ 65 years) healthy subjects administered a single 6.25 mg dose of zolpidem tartrate extended-release tablets, the mean peak concentration (C_{max}) of zolpidem was 70.6 (range: 35.0 to 161) ng/mL, occurring at a median time (T_{max}) of 2.0 hours. The mean AUC of zolpidem was 413 ng•hr/mL (range: 124 to 1190 ng•hr/mL) and the mean elimination half-life was 2.8 hours (range: 1.9 to 5.30 hours).

Hepatic Impairment

Zolpidem tartrate extended-release tablets were not studied in patients with hepatic impairment. The pharmacokinetics of an immediate-release formulation of zolpidem tartrate in eight patients with chronic hepatic insufficiency was compared to results in healthy subjects. Following a single 20 mg oral zolpidem tartrate dose, mean C_{max} and AUC were found to be two times (250 vs 499 ng/mL) and five times (788 vs 4,023 ng•hr/mL) higher, respectively, in hepatically compromised patients. T_{max} did not change. The mean half-life in cirrhotic patients of 9.9 hr (range: 4.1 to 25.8 hr) was greater than that observed in normal subjects of 2.2 hr (range: 1.6 to 2.4 hr) (see **DOSEAGE AND ADMINISTRATION (2.2)**, **WARNINGS AND PRECAUTIONS (5.8)**, **USE IN SPECIFIC POPULATIONS (8.7)**).

Renal Impairment

Zolpidem tartrate extended-release tablets were not studied in patients with renal impairment. The pharmacokinetics of an immediate-release formulation of zolpidem tartrate were studied in 11 patients with end-stage renal failure (mean Cl_{cr} = 6.5 ± 1.5 mL/min) undergoing hemodialysis three times a week, who were dosed with zolpidem tartrate 10 mg orally each day for 14 or 21 days. No statistically significant differences were observed for C_{max} , T_{max} , half-life, and AUC between the first and last day of drug administration when baseline concentration adjustments were made. Zolpidem was not hemodialyzable. No accumulation of unchanged drug was observed after 14 or 21 days. Zolpidem pharmacokinetics were not significantly different in renally-impaired patients. No dosage adjustment is necessary in patients with compromised renal function.

Drug Interactions

CNS-Depressants

Coadministration of zolpidem with other CNS depressants increases the risk of CNS depression (see **WARNINGS AND PRECAUTIONS (5.2)**). Zolpidem tartrate was evaluated in healthy volunteers in single-dose interaction studies for several CNS drugs. Imipramine in combination with zolpidem produced no pharmacokinetic interaction other than a 20% decrease in peak levels of imipramine, but there was an additive effect of decreased alertness. Similarly, chlorpromazine in combination with zolpidem produced no pharmacokinetic interaction, but there was an additive effect of decreased alertness and psychomotor performance.

A study involving haloperidol and zolpidem revealed no effect of haloperidol on the pharmacokinetics or pharmacodynamics of zolpidem. The lack of a drug interaction following single-dose administration does not predict the absence of an effect following chronic administration.

An additive adverse effect on psychomotor performance between alcohol and oral zolpidem was demonstrated (see **WARNINGS AND PRECAUTIONS (5.2)**).

Following administration of zolpidem tartrate 10 mg in the presence of sertraline 50 mg (17 consecutive daily doses, at 7:00 AM, in healthy female volunteers), zolpidem C_{max} was significantly higher (43%) and T_{max} was significantly decreased (-53%). Pharmacokinetics of sertraline and N-desmethylsertraline were unaffected by zolpidem.

A single-dose interaction study with zolpidem tartrate 10 mg and fluoxetine 20 mg at steady-state levels in male volunteers did not demonstrate any clinically significant pharmacokinetic or pharmacodynamic interactions. When multiple doses of zolpidem and fluoxetine were given at steady state the concentrations evaluated in healthy females, an increase in the zolpidem half-life (17%) was observed. There was no evidence of an additive effect in psychomotor performance.

Drugs that affect drug metabolism via cytochrome P450

Zolpidem tartrate extended-release tablets may increase exposure to zolpidem. The effect of inhibitors of other P450 enzymes on the pharmacokinetics of zolpidem is unknown.

A single-dose interaction study with zolpidem tartrate 10 mg and itraconazole 200 mg at steady-state levels in male volunteers resulted in a 34% increase in AUC₀₋₂₄ of zolpidem tartrate. There were no pharmacodynamic effects of zolpidem tartrate on itraconazole, postprandial, or psychomotor performance.

A single-dose interaction study with zolpidem tartrate 10 mg and rifampin 600 mg at steady-state levels in female subjects showed significant reductions of the AUC (-73%), C_{max} (-58%), and T_{max} (-36 %) of zolpidem together with significant reductions in the pharmacodynamic effects of zolpidem tartrate. Rifampin, a CYP3A4 inducer, significantly reduced the exposure to and pharmacodynamic effects of zolpidem (see **DOSEAGE AND ADMINISTRATION (2.2)**, **WARNINGS AND PRECAUTIONS (5.8)**, **USE IN SPECIFIC POPULATIONS (8.7)**).

Similarly, St. John's wort, a CYP3A4 inducer, may also decrease the blood levels of zolpidem.

A single-dose interaction study with zolpidem tartrate 5 mg and ketozonazole, a potent CYP3A4 inhibitor, given as 200 mg twice daily for 7 days increased C_{max} of zolpidem (30%) and the total AUC of zolpidem (70%) compared to zolpidem alone and there was no evidence of a clinically significant pharmacokinetic or pharmacodynamic interaction (see **DOSEAGE AND ADMINISTRATION (2.2)**, **WARNINGS AND PRECAUTIONS (5.8)**, **USE IN SPECIFIC POPULATIONS (8.7)**).

Additionally, fluvoxamine (a strong inhibitor of CYP1A2 and a weak inhibitor of CYP3A4 and CYP2C9) and ciprofloxacin (a strong inhibitor of CYP1A2 and a moderate inhibitor of CYP3A4) are also likely to inhibit zolpidem's metabolic pathways. The effect of these drugs on zolpidem is under investigation.

Other drugs with no interactions with zolpidem