HIGHLIGHTS OF PRESCRIBING INFORMATION highlights do not include all the information CITALOPRAM TABLETS safely and effectively. See full prescribing information for CITAL OPRAM TARLETS

Initial U.S. Approval: 1998 WARNING: SUICIDAL THOUGHTS AND BEHAVIORS See full prescribing information for complete boxed warning creased risk of suicidal thoughts and behavior in pedia and young adult patients taking antidepressants. Closel

worsening and emergence of suicidal thoughts and behaviors (5.1). Citalopram tablets are not approved for use in pediatr

08/2023 Warnings and Precautions (5.3, 5.4) --- INDICATIONS AND USAGE -inappropriate antidiuretic hormone secretion (5.9).

for the treatment of major depressive disorder (MDD) in adults (1). ----DOSAGE AND ADMINISTRATION--. Administer once daily with or without food (2). Initial dosage is 20 mg once daily; after one week may increase to aximum dosage of 40 mg once daily (2.1).

Patients greater than 60 years of age natients with henatic

impairment, and CYP2C19 poor metabolizers: maximum recommended dosage is 20 mg once daily (2.2). • When discontinuing citalopram tablets, reduce dosage gradually (2.4, 5.6). --- DOSAGE FORMS AND STRENGTHS-

Tablets: 10 mg; 20 mg, scored; and 40 mg, scored (3)
----- CONTRAINDICATIONS----- Concomitant use of monoamine oxidase inhibitors (MAOIs) or use within 14 days of discontinuing a MAOI (4). Concomitant use of pimozide (4).

ingredients of citalogram tablets (4).

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CONTRAINDICATIONS

5.7 Seizures

20769600

tor oral use

CITALOPRAM tablets,

Young Adults

i.3 Serotonin Syndrome

5.4 Increased Risk of Bleeding

5.5 Activation of Mania or Hypo 5.6 Discontinuation Syndrome

5.8 Angle-closure Glaucoma

5.9 Hyponatremia 5.10 Sexual Dysfunction

-- WARNINGS AND PRECAUTIONS--• QT-Prolongation and Torsade de Pointes: Dose-dependent QTc prolongation, Torsade de pointes, ventricular tachycardia, and sudden death have occurred. Avoid use of citalopram tablets in

2.2 Screen for Bipolar Disorder Prior to Starting Citalopran

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 DOSAGE FORMS AND STRENGTHS

5.2 QT-Prolongation and Torsade de Pointes

• Known hypersensitivity to citalopram or any of the inactive

patients with congenital long QT syndrome, bradycardia, hypokalemia or hypomagnesemia, recent acute myocardial infarction, or uncompensated heart failure and patients taking other drugs that prolong the QTc interval. Monitor electrolytes in patients at high risk for hypokalemia or hypom neasurements > 500 ms (5.2, 7).

Serotonin Syndrome: Increased risk when co-administered with other serotonergic agents, but also when taken alone. If occurs, discontinue citalogram tablets and serotonergic agents and initiate supportive measures (5.3).

Increased Risk of Bleeding: Concomitant use of aspirin,

nonsteroidal anti- inflammatory drugs, other antiplatelet drugs, Serotonin syndrome signs and symptoms may include mental status changes (e.g., agitation, hallucinations, delirium, and coma), autonomic Activation of Mania/Hypomania: Screen patients for bipolar disorder (5.5).

---- ADVERSE REACTIONS---

Most common adverse reaction (incidence \geq 5% and twice placebo) is ejaculation disorder (primarily ejaculation delay) (6.1).

To report SUSPECTED ADVERSE REACTIONS contact Torren

arma Inc. at 1-800-912-9561 or FDA at 1-800-FDA-1088 or

--- DRUG INTERACTIONS ---

CYP2C19 Inhibitors: Citalopram tablets 20 mg daily is the maximum

--- USE IN SPECIFIC POPULATIONS -

recommended dosage for patients taking concomitant CYP2C19

• Pregnancy: SSRI use, particularly late in pregnancy, may increase the risk for persistent pulmonary hypertension and

symptoms of poor adaptation (respiratory distress,

temperature instability, feeding difficulties, hypotonia,

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13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility 13.2 Animal Toxicology and/or Pharmacology

*Sections or subsections omitted from the full prescribing

Revised: 7/2024

sexual dysfunction. (5.10)

www.fda.gov/medwatch.

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inhibitors (5.2, 7.1)

instability (e.g., tachycardia, labile blood pressure, dizziness, diaphoresis, flushing, hyperthermia), neuromuscular symptoms (e.g., tremor, rigidity, myoclonus, hyperreflexia, incoordination), seizures, and gastrointestinal symptoms (e.g., nausea, vomiting, diarrhea). The concomitant use of citalopram tablets with MAOIs is contraindicated. In addition, do not initiate citalopram tablets in a patient being treated Seizures: Use with caution in patients with seizure disorder (5.7). with MAOIs such as linezolid or intravenous methylene blue. No reports involved the administration of methylene blue by other routes (such as oral Angle-Closure Glaucoma: Avoid use of citalopram tablets in tablets or local tissue injection). If it is necessary to initiate treatment with an MAOI such as linezolid or intravenous methylene blue in a patient patients with untreated anatomically narrow angles (5.8). taking citalopram tablets, discontinue citalopram tablets before initiating treatment with the MAOI [see Contraindications (4), Drug Interactions (7)]. Hyponatremia: Can occur in association with syndrome of Monitor all patients taking citalopram tablets for the emergence of serotonin syndrome. Discontinue treatment with citalopram tablets and any concomitant serotonergic agents immediately if the above symptoms occur, and initiate supportive symptomatic treatment. If concomitant use of Sexual Dysfunction: Citalopram tablets may cause symptoms of citalopram tablets with other serotonergic drugs is clinically warranted, inform patients of the increased risk for serotonin syndrome and monitor

above, and those taking other drugs that may prolong the QTc interval.

tiate further evaluation, including cardiac monitoring.

5.3 Serotonin Syndrome

Increased Risk of Bleeding Drugs that interfere with serotonin reuptake inhibition, including citalopram tablets, increase the risk of bleeding events. Concomitant use of pirin, nonsteroidal anti-inflammatory drugs (NSAIDS), other antiplatelet drugs, warfarin, and other anticoagulants may add to this risk. Case ports and epidemiological studies (case-control and cohort design) have demonstrated an association between use of drugs that interfere with rotonin reuptake and the occurrence of gastrointestinal bleeding. Based on data from the published observational studies, exposure to SSRIs, articularly in the month before delivery, has been associated with a less than 2-fold increase in the risk of postpartum hemorrhage [see Use in

syndrome were noted in 0.1% of MDD patients treated with citalopram tablets in premarketing clinical trials.

pecific Populations (8.1)]. Bleeding events related to drugs that interfere with serotonin reuptake have ranged from ecchymosis, hematoma, epistaxis, and petechiae to life-threatening hemorrhages. nform patients about the increased risk of bleeding associated with the concomitant use of citalopram tablets and antiplatelet agents or 5.5 Activation of Mania or Hypomania In patients with bipolar disorder, treating a depressive episode with citalogram tablets or another antidepressant may precipitate a mixed/manic

iSRIs, including citalopram tablets, can precipitate serotonin syndrome, a potentially life-threatening condition. The risk is increased with

ncomitant use of other serotonergic drugs (including triptans, tricyclic antidepressants, fentanyl, lithium, tramadol, meperidine, methadone,

yptophan, buspirone, amphetamines, and St. John's Wort) and with drugs that impair metabolism of serotonin, i.e., MAOIs [see

nindications (4), Drug Interactions (7)]. Serotonin syndrome can also occur when these drugs are used alone. Symptoms of serotonin

episode. In controlled clinical trials, patients with bipolar disorder were excluded; however, symptoms of mania or hypomania were reported in 0.1% of undiagnosed patients treated with citalopram tablets. Prior to initiating treatment with citalopram tablets, screen patients for any personal or family history of bipolar disorder, mania, or hypomania [see Dosage and Administration (2.2)]. 5.6 Discontinuation Syndrome
Adverse reactions after discontinuation of serotonergic antidepressants, particularly after abrupt discontinuation, include: nausea, sweating, dysphoric mood, irritability, agitation, dizziness, sensory disturbances (e.g., paresthesia, such as electric shock sensations), tremor, anxiety, confusion, headache, lethargy, emotional lability, insomnia, hypomania, tinnitus, and seizures. A gradual reduction in dosage rather than abrupt cessation is recommended whenever possible [see Dosage and Administration (2.6)].

pram tablets have not been systematically evaluated in patients with seizure disorders. Patients with a history of seizures were excluded from clinical studies. In clinical trials of citalopram tablets, seizures occurred in 0.3% of patients treated with citalopram tablets (a rate of one patient per 98 years of exposure) and 0.5% of patients treated with placebo (a rate of one patient per 50 years of exposure). Citalopram tablets

The pupillary dilation that occurs following use of many antidepressant drugs, including citalopram tablets, may trigger an angle closure attack in a patient with anatomically narrow angles who does not have a patent iridectomy. Avoid use of antidepressants, including citalopram tablets, in patients with untreated anatomically narrow angles.

5.9 Hyponatremia tremia may occur as a result of treatment with SSRIs, including citalopram tablets. Cases of serum sodium lower than 110 mmol/L have reported. Signs and symptoms of hyponatremia include headache, difficulty concentrating, memory impairment, confusion, weakness, and unsteadiness, which may lead to falls. Signs and symptoms associated with more severe and/or acute cases have included hallucination, syncope, seizure, coma, respiratory arrest, and death. In many cases, this hyponatremia appears to be the result of the syndrome of inappropriate

antidiuretic hormone secretion (SIADH). In patients with symptomatic hyponatremia, discontinue citalopram tablets and institute appropriate medical intervention. Elderly patients, patients taking diuretics, and those who are volume-depleted may be at greater risk of developing hyponatremia with SSRIs [see Use in Specific 5.10 Sexual Dysfunctio

Use of SSRIs, including citalogram tablets, may cause symptoms of sexual dysfunction [see Adverse Reactions (6, 1)]. In male patients, SSRI use may result in ejaculatory delay or failure, decreased libido, and erectile dysfunction. In female patients, SSRI use may result in decreased libido and delayed or absent orgasm. It is important for prescribers to inquire about sexual function prior to initiation of citalogram tablets and to inquire specifically about changes in

restribution during treatment, because sexual function may not be spontaneously reported. When evaluating changes in sexual function, obtaining a detailed history (including timing of symptom onset) is important because sexual symptoms may have other causes, including the underlying psychiatric disorder. Discuss potential management strategies to support patients in making informed decisions about treatment. 6 ADVERSE REACTIONS

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical studies of another drug and may not reflect the rates observed in clinical practice.

The safety for citalogram tablets included citalogram exposures in patients and/or healthy subjects from 3 different groups of studies: 429 healthy

label and double-blind studies, inpatient and outpatient studies, fixed-dose and dose-titration studies, and short-term and long-term exposure.

(N=1,063)

up to 6 weeks duration, 16% discontinued treatment due to an adverse reaction, as compared to 8% of 446 patients receiving placebo. The

Table 3 enumerates the incidence of adverse reactions that occurred among 1,063 patients with MDD who received citalopram tablets at doses

ranging from 10 mg to 80 mg once daily in placebo-controlled trials of up to 6 weeks duration.
The most common adverse reaction that occurred in citalopram-treated patients with an incidence of 5% or greater and at least twice the

Citalopram

(N=1.063)

ncidence in placebo patients was ejaculation disorder (primarily ejaculatory delay) in male patients (see *Table 3*) Table 3: Adverse Reactions (\geq 2% and Greater than Placebo) Among Citalopram-Treated Patients*

erse reactions associated with discontinuation (i.e., associated with discontinuation in at least 1% of citalopram-treated patients at a rate at

t in Short-Term, Placebo-Controlled MDD Trials

(N=446)

e following adverse reactions are discussed in greater detail in other sections of the labeling: Hypersensitivity reactions [see Contraindications (4)] Suicidal thoughts and behaviors in adolescents and young adults [see Warnings and Precautions (5.1)]

QT-prolongation and torsade de pointes [see Warnings and Precautions (5.2)]

Serotonin syndrome [see Warnings and Precautions (5.3)]

Seizures [see Warnings and Precautions (5.7)]

Table 2: Adverse Reactions Associated with D

Body System/Adverse Reaction

Body System/Adverse Reaction

Autonomic Nervous System Disorders

Central & Peripheral Nervous System Dis

Respiratory System Disorders

Dyspepsia

Vomiting

Dry Mouth Sweating Increase

General

Asthenia

Gastrointestinal Dis

Dry Mouth

6.1 Clinical Trials Experience

Hyponatremia [see Warnings and Precautions (5.9)]

Increased risk of bleeding [see Warnings and Precautions (5.4)]

Discontinuation syndrome [see Warnings and Precautions (5.6)]

Angle-closure glaucoma [see Warnings and Precautions (5.8)]

al Dysfunction [see Warnings and Precautions (5.10)]

Activation of mania or hypomania [see Warnings and Precautions (5.5)]

FULL PRESCRIBING INFORMATION

treated patients for clinical worsening, and for emergence of suicid Warnings and Precautions (5.1)]. Citalopram tablets are not approved for use in pediatric patients [see Use in Specific Populations (8.4)].

italopram tablets are indicated for the treatment of major depressive disorder (MDD) in adults [see Clinical Studies (14)]. DOSAGE AND ADMINISTRATION

ster citalopram tablets once daily, with or without food, at an initial dosage of 20 mg once daily, with an increase to a maximum dosage of 40 mg once daily at an interval of no less than one week. sages above 40 mg once daily are not recommended due to the risk of QT prolongation [see Warnings and Precautions (5.2)]. 2.2 Screen for Bipolar Disorder Prior to Starting Citalogram Tablets

WARNING: SUICIDAL THOUGHTS AND BEHAVIORS

depressants increased the risk of suicidal thoughts and behaviors in pediatric and young adult patients in short- term studi

Prior to initiating treatment with citalopram tablets or another antidepressant, screen patients for a personal or family history of bipolar disorde mania, or hypomania [see Warnings and Precautions (5.5)]. 2.3 Recommended Dosage for Specific Populations

The maximum recommended dosage of citalopram tablets for patients who are greater than 60 years of age, patients with hepatic impair and for CYP2C19 poor metabolizers is 20 mg once daily [see Warnings and Precautions (5.2), Clinical Pharmacology (12.3)]. 2.4 Dosage Modifications with Concomitant Use of CYP2C19 Inhibitors commended dosage of citalopram tablets when used concomitantly with a CYP2C19 inhibitor is 20 mg once daily [see Warnings

nd Precautions (5.2), Drug Interactions (7)]. 2.5 Switching Patients to or from a Monoamine Oxidase Inhibitor Antidepressant
At least 14 days must elapse between discontinuation of a monoamine oxidase inhibitor (MAOI) antidepressant and initiation of therapy with

citalopram tablets. Conversely, at least 14 days must elapse after stopping citalopram tablets before starting an MAOI antidepressant [see ndications (4) and Warnings and Precautions (5.3)]. 2.6 Discontinuing Treatment with Citalopram tablets dyerse reactions may occur upon discontinuation of citalogram tablets *[see Warnings and Precautions (5.6)]*. Gradually reduce the dosage

ts abruptly whenever possible.

10 mg: Tan coloured, round shaped, biconvex film coated tablets with '10' debossed on one side and plain on the other side. 20 mg; Tan coloured, oval shaped, biconvex film coated tablets with '2 | 0' debossed ('2' on left side and '0' on right side of the break line) on 40 mg: Tan coloured, oval shaped, biconvex film coated tablets with '4 | 0' debossed ('4' on left side and '0' on right side of the break line) on

one side and '1011' on the other side taking, or within 14 days of stopping, MAOIs (including MAOIs such as linezolid or intravenous methylene blue) because of an increased risl

of serotonin syndrome [see Warnings and Precautions (5.3), Drug Interactions (7)]. • taking pimozide because of risk of QT prolongation [see Drug Interactions (7)]. with known hypersensitivity to citalopram or any of the inactive ingredients in citalopram tablets. Reactions have included angioede

anaphylaxis [see Adverse Reactions (6.2)] WARNINGS AND PRECAUTIONS

5.1 Suicidal Thoughts and Behavior in Adolescents and Young Adults In pooled analyses of placebo-controlled trials of antidepressant drugs (SSRIs and other antidepressant classes) that included approximately in police analyses of placedo-controlled trais of antidepressant drugs costs and other antidepressant classes) that included approximately 77,000 adult patients, and 4,500 pediatric patients, the incidence of suicidal thoughts and behaviors in antidepressant-treated patients age 24 years and younger was greater than in placebo-treated patients. There was considerable variation in risk of suicidal thoughts and behaviors among drugs, but there was an increased risk identified in young patients for most drugs studied. There were differences in absolute risk of suicidal thoughts and behaviors across the different indications, with the highest incidence in patients with MDD. The drug-placebo differences in the number of cases of suicidal thoughts and behaviors per 1,000 patients treated are provided in *Table 1*.

Table 1: Risk Differences of the Number of Patients with Suicidal Thoughts and Behaviors in the Pooled Placebo-Controlled Trials of

Age Range*	Drug-Placebo Difference in Number of Patients with Suicidal Thoughts or Behaviors per 1,000 Patients Treated
	Increases Compared to Placebo
<18 years old	14 additional patients
18 to 24 years old	5 additional patients
	Decreases Compared to Placebo
25 to 64 years old	1 fewer patient
≥65 years old	6 fewer patients

It is unknown whether the risk of suicidal thoughts and behaviors in children, adolescents, and young adults extends to longer-term use, i.e., beyond four months. However, there is substantial evidence from placebo-controlled maintenance trials in adults with MDD that antide delay the recurrence of depression and that depression itself is a risk factor for suicidal thoughts and behaviors. Monitor all antidepressant-treated patients for clinical worsening and emergence of suicidal thoughts and behaviors, especially during the initial few months of drug therapy and at times of dosage changes. Counsel family members or caregivers of patients to monitor for changes in behavior and to alert the healthcare provider. Consider changing the therapeutic regimen, including possibly discontinuing citalopram tablets, in patients

 $e\,depression\,is\,persistently\,worse, or\,who\,are\,experiencing\,emergent\,suicidal\,thoughts\,or\,behaviors.$ Citalopram tablets cause dose-dependent QTc prolongation an ECG abnormality that has been associated with Torsade de Pointes (TdP), ventricular tachycardia, and sudden death, all of which have been observed in postmarketing reports for citalogram [see Adverse Reactions (6.2)].

Because of the risk of QTc prolongation at higher citalopram tablet doses, it is recommended that citalopram tablets not be given at doses above 40 mg once daily [see Dosage and Administration (2.1), Clinical Pharmacology (12.2)]. Citalopram tablets should be avoided in patients with congenital long QT syndrome, bradycardia, hypokalemia or hypomagnesemia, recent acute myocardial infarction, or uncompensated heart failure unless the benefits outweigh the risks for a particular patient. Citalopram tablets should also be avoided in patients who are taking other drugs that prolong the QTc interval [see Drug Interactions (7)]. Such drugs include Class 1A (e.g., quinidine, procainamide) or Class III (e.g., amiodarone, sotalol) antiarrhythmic medications, antipsychotic medications (e.g., chlorpromazine, thioridazine), antibiotics (e.g., gatifloxacin, moxifloxacin), or any other class of medications known to prolong the QTc interval (e.g., pentamidine,

levomethadyl acetate, methadone). The citalogram dose should be limited in certain populations. The maximum dose should be limited to 20 mg once daily in patients who are CYP2C19 poor metabolizers or those patients receiving concomitant climetidine or another CYP2C19 inhibitor, since higher citalopram exposures would be expected. The maximum dose should also be limited to 20 mg once daily in patients with hepatic impairment and in patients who are

greater than 60 years of age because of expected higher exposures [see Dosage and Administration (2.3, 2.4), Drug Interactions (7), Use in Specific Populations (8.5), Clinical Pharmacology (12.3)]. Electrolyte and/or ECG monitoring is recommended in certain circumstances. Patients being considered for treatment with citalopram tablets who are at risk for significant electrolyte disturbances should have baseline serum potassium and magnesium measurements with periodic

monitoring, Hypokalemia (and/or hypomagnesemia) may increase the risk of QTc prolongation and arrhythmia, and should be corrected prior to initiation of treatment and periodically monitored. ECG monitoring is recommended in patients for whom citalogram use is not recommended unless the benefits clearly outweigh the risks for a particular patient (see above). These include those patients with the cardiac conditions noted Musculoskeletal System Disorder Discontinue citalopram tablets in patients who are found to have persistent QTc measurements >500 ms. If patients taking citalopram tablets experience symptoms that could indicate the occurrence of cardiac arrhythmias, e.g., dizziness, palpitations, or syncope, the prescriber should

Adverse reactions reported by at least 2% of patients treated with citalogram are reported, except for the following adverse reactions which ha ence on placebo ≥ citalopram: headache, asthenia, dizziness, constipation, palpitation, vision abnormal, sleep disorder, nervousness pharyngitis, micturition disorder, back pain inator used was for females only (N=638 citalogram; N=252 placebo).

Impotence

Denominator used was for males only (N=425 citalopram; N=194 placebo).

Dose Dependent Adverse Reactions
The potential relationship between the dosage of citalopram and the incidence of adverse reactions was examined in a fixed-dose study in patients with MDD receiving placebo or citalopram tablets 10 mg, 20 mg 40 mg, or 60 mg (1.5 times the maximum recommended dosage). A positive dose response (p<0.05) was revealed for the following adverse reactions: fatigue, impotence, insomnia, increased sweating,

Male and Female Sexual Dysfunction with SSRIs Although changes in sexual desire, sexual performance, and sexual satisfaction often occur as manifestations of a psychiatric disorder, they may also be a consequence of SSRI treatment. However, reliable estimates of the incidence and severity of untoward experiences involving sexual desire, performance, and satisfaction are difficult to obtain, in part because patients and healthcare providers may be reluctant to discuss them.

Accordingly, estimates of the incidence of untoward sexual experience and performance cited in labeling may underestimate their actual

Table 4 displays the incidence of sexual adverse reactions reported by at least 2% of male patients taking citalopram tablets in a pool of placebo Table 4: Adverse Reactions (≥2%) Related to Sexual Dysfunction in citalogram-Treated Male Patients in Pooled Placebo-Controlled

425 (%) 194 (%) ecreased libido

In female depressed patients receiving citalopram tablets, the reported incidence of decreased libido and anorgasmia was 1.3% (n=638 females and 1.1% (n=252 females), respectively.

2.8

Weight Changes Patients treated with citalogram tablets in controlled trials experienced a weight loss of about 0.5 kg compared to no change for placebo patients. In a thorough QT study, citalopram tablets were found to be associated with a dose-dependent increase in the QTc interva

Electrocardiograms from citalopram (N=802) and placebo (N=241) groups were compared with respect to outliers defined as subjects with QTc changes over 60 msec from baseline or absolute values over 500 msec post-dose, and subjects with heart rate increases to over 100 bpm or decreases to less than 50 bpm with a 25% change from baseline (tachycardic or bradycardic outliers, respectively). In the citalopram group 1.9% of the patients had a change from baseline in QTCF >60 msec compared to 1.2% of the patients in the placebo group. None of the patients in the placebo group had a post-dose QTcF > 500 msec compared to 0.5% of the patients in the citalogram group. The incidence of tachycardic outlier as 0.5% in the citalopram group and 0.4% in the placebo group. The incidence of bradycardic outliers was 0.9% in the citalopram group and 0.4% in the placebo group.

Other Adverse Reactions Observed During the Premarketing Evaluation of Citalogram Tablets

The following list of adverse reactions does not include reactions that are: 1) included in *Table 3* or elsewhere in labeling, 2) for which a drug cause was remote, 3) which were so general as to be uninformative, and those occurring in only one patient. Adverse reactions are categorized by body system and listed in order of decreasing frequency according to the following definitions: frequent adverse reactions are those occurring on one or more occasions in at least 1/100 patients; infrequent adverse reactions are those occurring in less than 1/100 patients to 1/1,000 patients; rare adverse reactions are those occurring in fewer than 1/1,000 patients. Cardiovascular - Frequent: tachycardia, postural hypotension, hypotension. Infrequent: hypotension, bradycardia, edema (extremities), angina

ectoris, extrasystoles, cardiac failure, flushing, myocardial infarction, cerebrovascular accident, myocardial ischemia. Rare: transient ischemic attack, phlebitis, atrial fibrillation, cardiac arrest, bundle branch block. Central and Peripheral Nervous System Disorders - Frequent: paresthesia, migraine. Infrequent: hyperkinesia, vertigo, hypertonia, extrapyramidal disorder, leg cramps, involuntary muscle contractions, hypokinesia, neuralgia, dystonia, abnormal gait, hypoesthesia, ataxia.

Rare: abnormal coordination, hyperesthesia, ptosis, stupor.

estinal Disorders - Frequent: saliva increased, flatulence. Infrequent: gastritis, gastroenteritis, stomatitis, eructation, hemorrhoids, dysphagia, teeth grinding, gingivitis, esophagitis. Rare: colitis, gastric ulcer, cholecystitis, cholelithiasis, duodenal ulcer, gastroesophageal reflux, glossitis, jaundice, diverticulitis, rectal hemorrhage, hiccups.

General-Infrequent: hot flushes, rigors, alcohol intolerance, syncope, influenza-like symptoms. **Rare: hay fever.

Hemic and Lymphatic Disorders - Infrequent: purpura, anemia, epistaxis, leukocytosis, leucopenia, lymphadenopathy. Rare: pulmonary embolism, granulocytopenia, lymphocytosis, lymphopenia, hypochromic anemia, coaquiation disorder, gingival bleeding.

Metabolic and Nutritional Disorders - Frequent: decreased weight, increased weight. Infrequent: increased hepatic enzymes, thirst, dry eyes, increased alkaline phosphatase, abnormal glucose tolerance, Rare: bilirubinemia, hypokalemia, obesity, hypoglycemia, hepatitis, dehydration

lusculoskeletal System Disorders - Infrequent: arthritis, muscle weakness, skeletal pain. *Rare:* bursitis, osteopor Psychiatric Disorders - Frequent: impaired concentration, amnesia, apathy, depression, increased appetite, aggravated depression, suicide attempt, confusion. Infrequent: increased libido, aggressive reaction, paroniria, drug dependence, depersonalization, hallucination, euphoria, psychotic depression, delusion, paranoid reaction, emotional lability, panic reaction, psychosis. Rare: catatonic reaction, melancholia.

Respiratory System Disorders - Frequent: coughing. Infrequent: bronchitis, dyspnea, pneumonia. Rare: asthma, laryngitis, bronchospasm, ikin and Appendages Disorders - Frequent: rash, pruritus. Infrequent: photosensitivity reaction, urticaria, acne, skin discoloration, eczema, alopecia, dermatitis, skin dry, psoriasis. Rare: hypertrichosis, decreased sweating, melanosis, keratitis, cellulitis, pruritus ani.

Reproductive Disorders/Female* - Frequent: amenorrhea. Infrequent: galactorrhea, breast pain, breast enlargement, vaginal hemorrhage. (*%

Special Senses - Frequent: abnormal accommodation, taste perversion. Infrequent: tinnitus, conjunctivitis, eye pain. Rare: mydriasis, photophobia, diplopia, abnormal lacrimation, cataract, taste loss. Urinary System Disorders - Frequent: polyuria. Infrequent: micturition frequency, urinary incontinence, urinary retention, dysuria. Rare: facial 6.2 Postmarketing Experience

The following adverse reactions have been identified during postapproval use of citalogram, the racemate, or escitalogram, the S-enantiomer of citalopram. 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.

Blood and Lymphatic System Disorders: hemolytic anemia, thrombocytopenia, prothrombin decrease Cardiac Disorders: torsade de pointes, ventricular arrhythmia, QT prolonged

Eye Disorders: angle-closure glaucoma testinal Disorders: gastrointestinal hemorrhage, pancreatit

Endocrine Disorders: hyperprolactinemia

Endocrine Disorders - Rare: hypothyroidism, goiter, gynecomastia.

subjects in clinical pharmacology/pharmacokinetic studies; 4,422 exposures from patients in controlled and uncontrolled clinical trials, corresponding to approximately 1,370 patient-exposure years. There were, in addition, over 19,000 exposures from mostly open-label, European postmarketing studies. The conditions and duration of treatment with citalopram tablets varied greatly and included (in overlapping categories) open-General Disorders and Administrative Site Conditions: withdrawal syndrome Adverse Reactions Associated with Discontinuation of Treatment

Among 1,063 patients with MDD who received citalopram tablets at doses ranging from 10 mg to 80 mg once daily in placebo- controlled trials of Immune System Disorders: anaphylaxis, allergic reaction Musculoskeletal and Connective Tissue Disorders: rhabdomyolysis

Nervous System Disorders: grand mal convulsion(s), myoclonus, choreoathetosis, dyskinesia, akathisia, nystagmus Pregnancy, Puerperium and Perinatal Conditions: spontaneous abortion

Renal and Urinary Disorders: acute renal failure Reproductive System and Breast Disorders: priapism Respiratory, Thoracic and Mediastinal Disorders: anosmia, hyposmia

Skin and Subcutaneous Tissue Disorders: Stevens Johnson Syndrome, epidermal necrolysis, angioedema, erythema multiforme, ecchymosis

7 DRUG INTERACTIONS

able 5 presents clinically important drug interactions with citalogram able 5: Clinically Important Drug Interactions with Citalopram

Monoamine Uxidase	innibitors (MAUIS)
Clinical Impact	Concomitant use of SSRIs, including citalopram, and MAOIs increases the risk of serotonin syndrome.
Intervention	Citalopram is contraindicated in patients taking MAOIs, including MAOIs such as linezolid or intravenous methylene blue [see Dosage and Administration (2.5), Contraindications (4), Warnings and Precautions (5.3)
Pimozide	
Clinical Impact:	Concomitant use of citalopram with pimozide increases plasma concentrations of pimozide, a drug with a narrow therapeutic index, and may increase the risk of QT prolongation and/or ventricular arrhythmias compared to use of citalopram alone [see Clinical Pharmacology (12.2)].
Intervention:	Citalopram is contraindicated in patients taking pimozide [see Contraindications (4), Warnings and Precautions (5.2)].
Drugs that Prolong t	he QTc Interval
Clinical Impact:	Concomitant use of citalopram with drugs that prolong QT can cause additional QT prolongation compared the use of citalopram alone [see Clinical Pharmacology (12.2)].
Intervention:	Avoid concomitant use of citalopram with drugs that prolong the QT interval (citalopram is contraindicated in patients taking pimozide)[see Contraindications (4), Warnings and Precautions (5.2)].
CYP2C19 Inhibitors	
Clinical Impact:	Concomitant use of citalopram with CYP2C19 inhibitors increases the risk of QT prolongation and/or ventricular arrhythmias compared to the use of citalopram alone [see Clinical Pharmacology (12.2)].
Intervention:	The maximum recommended dosage of citalopram is 20 mg daily when used concomitantly with a CYP2C19 inhibitor [see Dosage and Administration (2.4), Warnings and Precautions (5.2)].
Other Serotonergic I	Drugs
Clinical Impact:	Concomitant use of citalopram and other serotonergic drugs (including other SSRIs, SNRIs, triptans, tricyclic antidepressants, opioids, lithium, buspirone, amphetamines, tryptophan, and St. John's Wort) increases the risk of serotonin syndrome.
Intervention:	Monitor patients for signs and symptoms of serotonin syndrome, particularly during citalopram initiation and dosage increases. If serotonin syndrome occurs, consider discontinuation of citalopram and/or concomitant serotonergic drugs [see Warning and Precautions (5.3)].
Drugs That Interfere	With Hemostasis (antiplatelet agents and anticoagulants)
Clinical Impact:	$Concomitant use of cital opram and an antiplate let or anticoagulant may potentiate the {\it risk} of bleeding.$
Intervention:	Inform natients of the increased risk of bleeding associated with the concomitant use of citalogram and

USE IN SPECIFIC POPULATIONS 3.1 Pregnancy

Pregnancy Exposure Registry There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to antidepressants during pregnancy. Healthcare providers are encouraged to advise patients to register by calling the National Pregnancy Registry for Antidepressants at 1-844-405-6185 or visiting online at https://womensmentalhealth.org/research/pregnancyregistry/antidepressants

 $antiplate let\ agents\ and\ anticoagulants.\ For\ patients\ taking\ warfarin, carefully\ monitor\ the\ international$

on data from published observational studies, exposure to SSRIs, particularly in the month before delivery, has been associated with a less than 2-fold increase in the risk of postpartum hemorrhage [see Warnings and Precautions (5.4) and Clinical Considerations]. Available data from published epidemiologic studies and postmarketing reports with citalopram use in pregnancy have not established an increased risk of major birth defects or miscarriage. Published studies demonstrated that citalopram levels in both cord blood and amniotic fluid are similar to those observed in maternal serum. There are risks of persistent pulmonary hypertension of the newborn (PPHN) (see Data) and/or poor neonatal adaptation with exposure to selective serotonin reuptake inhibitors (SSRIs), including citalopram, during pregnancy. There also are risks associated with untreated depression in pregnancy (see Clinical Considerations).

In animal reproduction studies, citalopram caused adverse embryo/fetal effects at doses that caused maternal toxicity (see Data).

The estimated background risk of major birth defects and miscarriage for the indicated population is 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 the clinically recognized pregnancies is 2% to 4% and 15% to 20%, respectively.

<u>Clinical Considerations</u> <u>Disease-Associated Maternal and/or Embryo/Fetal Risk</u>

Women who discontinue antidepressants during pregnancy are more likely to experience a relapse of major depression than women who continue antidepressants. This finding is from a prospective longitudinal study of 201 pregnant women with a history of major depressive disorder ho were euthymic and taking antidepressants at the beginning of pregnancy. Consider the risk of untreated depression when discontinuing or

Maternal Adverse Reactions Use of citalopram tablet in the month before delivery may be associated with an increased risk of postpartum hemorrhage [see Warnings and Precautions (5.4)].

Fetal/Neonatal Adverse Reactions Neonates exposed to citalopram and other SSRIs late in third trimester have developed complications requiring prolonged hospitaliza respiratory support, and tube feeding. Such complications can arise immediately upon delivery. Reported clinical findings have included respiratory distress, cyanosis, apnea, seizures, temperature instability, feeding difficulty, vomiting, hypoglycemia, hypotonia, hypertonia, hyperreflexia, tremor, litteriness, irritability, and constant crying. These findings are consistent with either a direct toxic effect of SSRIs or possibly, a drug discontinuation syndrome. It should be noted that, in some cases, the clinical picture is consistent with serotonin syndrome [see

1-2 per 1,000 live births in the general population and is associated with substantial neonatal morbidity and mortality

Animal Data Citalopram was administered orally to pregnant rats during the period of organogenesis at doses of 32, 56, and 112 mg/kg/day, which are orangement was authenticated with the design of the period dose, citalopram decreased embryo/fetal growth and survival and increased fetal abnormalities (including cardiovascular and skeletal defects). The no observed adverse effect level (NOAEL) for maternal and embryofetal toxicity is $56 \, \text{mg/kg/day}$, which is approximately 14 times the MRHD. Citalopram was administered orally to pregnant rabbits during the period of organogenesis at doses up to $16 \, \text{mg/kg/day}$, which is approximately 8 times the MRHD of 40 mg, based on mg/m2 body surface area. No maternal or embryofetal toxicity was observed. The NOAEL for maternal and

Exposure during late pregnancy to SSRIs may have an increased risk for persistent pulmonary hypertension of the newborn (PPHN). PPHN occurs

embryofetal toxicity is 16 mg/kg/day, which is approximately 8 times the MRHD.

Citalopram was administered orally to pregnant rats during late gestation and lactation periods at doses of 4.8, 12.8, and 32 mg/kg/day, which are approximately 1, 3, and 8 times the MRHD of 40 mg, based on mg/m² body surface area.

Citalopram increased offspring mortality during the first 4 days of birth and decreased offspring growth at 32 mg/kg/day, which is approximately 8 times the MRHD. The NOAEL for developmental toxicity is 12.8 mg/kg/day, which is approximately 3 times the MRHD. In a separate study, similar effects on offspring mortality and growth were seen when dams were treated throughout gestation and early lactation at doses \geq 24 mg/kg/day, which is approximately 6 times the MRHD. A NOAEL was not determined in that study

Risk Summary Data from the published literature report the presence of citalogram in human milk at relative infant doses ranging between 0.7 to 9.4% of the maternal weight-adjusted dosage and a milk/plasma ratio ranging between 0.78 to 4.3. There are reports of breastfed infants exposed to citalopram experiencing irritability, restlessness, excessive somnolence, decreased feeding, and weight loss (see Clinical Considerations). There

is no information about effects of citalogram on milk production. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for citalopram and any potential adverse effects on the breastfeed child from citalopram or from the underlying maternal condition. Clinical Considerations

The safety and effectiveness of citalopram have not been established in pediatric patients. Two placebo-controlled trials in 407 pediatric patients with MDD have been conducted with citalopram, and the data were not sufficient to support use in pediatric patients.

Antidepressants increase the risk of suicidal thoughts and behaviors in pediatric patients [see Boxed Warning, Warnings and Precautions (5.1)].

ding infants for adverse reactions, such as irritability, restlessness, excessive somnolence, decreased feeding, and weight loss

Decreased appetite and weight loss have been observed in association with the use of SSRIs in pediatric patients. of 4,422 patients in clinical studies of citalopram, 1,357 were 60 and over, 1,034 were 65 and over, and 457 were 75 and over. In two pharmacokinetic studies, citalogram AUC was increased by 23% and 30%, respectively, in subjects > 60 years of age as compared to younger subjects, and its half-life was increased by 30% and 50%, respectively see Clinical Pharmacology (12.3)]. Therefore, the maximum ded dosage in patients 60 years of age and older is lower than younger patients [see Dosage and Administration (2.3), Warnings and

Precautions (5.2)]. SSRIs, including citalopram, have been associated with cases of clinically significant hyponatremia in elderly patients, who may be at greater risk for this adverse reaction [see Warnings and Precautions (5.9)].

8.6 Hepatic Impairment sed citalopram exposure occurs in patients with hepatic impairment. The maximum recommended dosage of citalopram is lower in

patients with hepatic impairment [see Dosage and Administration (2.3), Clinical Pharmacology (12.3)]. DRUG ABUSE AND DEPENDENCE

oram (citalopram HBr) is not a controlled substance.

Animal studies suggest that the abuse liability of citalopram is low. Citalopram has not been systematically studied in humans for its potential for abuse, tolerance, or physical dependence. The premarketing clinical experience with citalopram did not reveal any drug-seeking behavior However, these observations were not systematic and it is not possible to predict, on the basis of this limited experience, the extent to which a Towever, mese observations were not systematic and it is not possible to predict, or the dash of this minute experience, the extent to wind a CNS-active drug will be misused, diverted, and/or abused once marketed. Consequently, health care providers should carefully evaluate citalopram patients for history of drug abuse and follow such patients closely, observing them for signs of misuse or abuse (e.g., development of colerance, incrementations of dose, drug-seeking behavior). 10 OVERDOSAGE

Seizures, which may be delayed, and altered mental status including coma. Cardiovascular toxicity, which may be delayed, including QRS and QTc interval prolongation, wide complex tachyarrhythmias, and torsade de pointes. Hypertension most commonly seen, but rarely can see hypotension alone or with co-ingestants including alcohol.

Serotonin syndrome (patients with a multiple drug overdosage with other proserotonergic drugs may have a higher risk). longed cardiac monitoring is recommended in citalopram overdosage ingestions due to the arrhythmia risk. Gastrointestir with activated charcoal should be considered in patients who present early after a citalopram overdose. Consider contacting a Poison Center (1-800-221-2222) or a medical toxicologist for additional overdosage manage

Citalopram tablets, USP contain citalopram, a selective serotonin reuptake inhibitor (SSRI). Citalopram hydrobromide is a racemic bicyclic phthalane structure and is designated (±)-1-(3-dimethylaminopropyl)-1-(4-fluorophenyl)-1,3dihydroisobenzofuran-5-carbonitrile

Citalopram hydrobromide, USP occurs as a fine, white to off-white powder. Citalopram hydrobromide is sparingly soluble in water and soluble in

citalopram base. Citalopram hydrobromide, USP 20 mg and 40 mg tablets are film-coated, oval shaped, scored tablets containing citalopram hydrobromide, in strengths equivalent to 20 mg or 40 mg citalopram base. The tablets also contain the following inactive ingredients: copovidone orn starch, croscarmellose sodium, ferric oxide red, ferric oxide yellow, glycerin, hypromellose, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyethylene glycol and titanium dioxid 12 CLINICAL PHARMACOLOGY

The mechanism of action of citalopram is unclear, but is presumed to be related to potentiation of serotonergic activity in the central nervous

vstem (CNS) resulting from its inhibition of CNS neuronal reuptake of serotonin (5-HT) In vitro and in vivo studies in animals suggest that citalopram is a selective serotonin reuptake inhibitor (SSRI) with minimal effects on

norepinephrine (NE) and dopamine (DA) neu Citalopram has no or very low affinity for 5-HT $_{1A}$, 5-HT $_{2A}$, dopamine D $_{1}$ and D $_{2}$, α_{1} -, α_{2} -, and β -adrenergic, histamine H $_{1}$, gamma aminobutyric acid (GABA), muscarinic cholinergic, and benzodiazepine receptors. ividually corrected QTc (QTcNi) interval was evaluated in a randomized, placebo and active (moxifloxacin 400 mg) controlled cross-ove

escalating multiple-dose study in 119 healthy subjects. The maximum mean (upper bound of the 95% one-sided confidence interval) difference from placeho were 8.5 (10.8) and 18.5 (21.0) msec for 20 mg and 60 mg (1.5 times the maximum recommended dosage) citalogram The single- and multiple-dose pharmacokinetics of citalopram are linear and dose-proportional in a dose range of 10 to 40 mg/day. Biotransformation of citalopram is mainly hepatic, with a mean terminal half-life of about 35 hours. With once daily dosing, steady state plasma

concentrations are achieved within approximately one week. At steady state, the extent of accumulation of citalopram in plasma, based on the half-life, is expected to be 2.5 times the plasma concentrations observed after a single dose. Following a single oral dose (40 mg tablet) of citalopram, peak blood levels occur at about 4 hours. The absolute bioavailability of citalopram was

about 80% relative to an intravenous dose, and absorption is not affected by food. he volume of distribution of citalopram is about 12 L/kg and the binding of citalopram (CT), demethylcitalopram (DCT) and didemethylcitalopram (DDCT) to human plasma proteins is about 80%.

derivative. In humans, unchanged citalopram is the predominant compound in plasma. At steady state, the concentrations of citalopram is metabolites, DCT and DDCT, in plasma are approximately one-half and one-tenth, respectively, that of the parent drug. In vitro studies show that citalopram is at least 8 times more potent than its metabolites in the inhibition of serotonin reuptake, suggesting that the metabolites evaluated do not likely contribute significantly to the antidepressant actions of citalopram.

In vitro studies using human liver microsomes indicated that CYP3A4 and CYP2C19 are the primary isozymes involved in the N-demethylation of

Citalogram is metabolized to demethylcitalogram (DCT), didemethylcitalogram (DDCT), citalogram-N-oxide, and a deaminated propionic acid

Following intravenous administrations of citalopram, the fraction of drug recovered in the urine as citalopram and DCT was about 10% and 5%, respectively. The systemic clearance of citalopram was 330 mL/min, with approximately 20% of that due to renal clearanc Specific Populations Geriatric Patients

Citalogram pharmacokinetics in subjects > 60 years of age were compared to younger subjects in two normal volunteer studies. In a single-dose study, citalopram AUC and half-life were increased in the subjects \geq 60 years old by 30% and 50%, respectively, whereas in a multiple-dose study they were increased by 23% and 30%, respectively [see Dosage and Administration (2.3), Warnings and Precautions (5.2), Use in Specific Populations (8.5)]. Male and Female Patients In three pharmacokinetic studies (total N=32), citalopram AUC in women was one and a half to two times that in men. This difference was not

observed in five other pharmacokinetic studies (total N=114). In clinical studies, no differences in steady state serum citalopram levels were seen between men (N=237) and women (N=388). There were no gender differences in the pharmacokinetics of DCT and DDCT. Patients with Hepatic Impairment Citalopram oral clearance was reduced by 37% and half-life was doubled in patients with reduced hepatic function compared to normal subjects [see Dosage and Administration (2.3), Warnings and Precautions (5.2), Use in Specific Populations (8.6)].

Patients with Renal Impairment In patients with mild to moderate renal impairment, oral clearance of citalogram was reduced by 17% compared to normal subjects. No in patients with mind of inductive tenal impairment, of an extending the angle of standpath was reduced by 17% compared to from a supers. No adjustment of dosage for such patients is recommended. No information is available about the pharmacokinetics of citalopram in patients with severe renal impairment (creatinine clearance < 20 mL/min).

CYP2C19 poor metabolizers n CYP2C19 poor metabolizers, citalopram steady state $C_{\text{\tiny max}}$ and AUC was increased by 68% and 107%, respectively [see Dosage and Administration (2.3), Warnings and Precautions (5.2)]. CYP2D6 noor metabolizers

Citalopram steady state levels were not significantly different in poor metabolizers and extensive metabolizers of CYP2D6.

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Drug Interaction Studies tion data did not reveal an inhibitory effect of citalopram on CYP3A4. -2C9. or -2E1. but did suggest that it is a weak inhibito of CYP1A2, -2D6, and -2C19. Citalopram would be expected to have little inhibitory effect on in vivo metabolism mediated by these enzymes However, in vivo data to address this question are limited.

Since CYP3A4 and CYP2C19 are the primary enzymes involved in the metabolism of citalopram, it is expected that potent inhibitors of CYP3A4 (e.g., ketoconazole, itraconazole, and macrolide antibiotics) and inhibitors of CVP2C19 (e.g., omeprazole, cimetidine) might decrease the clearance of citalopram. However, coadministration of citalopram and the potent CVP3A4 inhibitor ketoconazole did not significantly affect the pharmacokinetics of citalopram. 20 mg/day is the maximum recommended citalopram dose in patients taking concomitant cimetidine or anothe CYP2C19 inhibitor, because of the risk of QT prolongation [see Dosage and Administration (2.2), Warnings and Precautions (5.2)].

In subjects who had received 21 days of 40 mg/day citalopram, combined administration of 400 mg twice a day cimetidine for 8 days resulted in an increase in citalopram AUC and C_{max} of 43% and 39%, respectively [see Dosage and Administration (4), Warnings and Precautions (5.2), Drug CYP2D6 Inhibitors

administration of a drug that inhibits CYP2D6 with citalopram is unlikely to have clinically significant effects on citalopram metabolism, based on the study results in CYP2D6 poor metabolizers

In subjects who had received 21 days of 40 mg/day citalopram, combined administration of citalopram and digoxin (single dose of 1 mg) did no significantly affect the pharmacokinetics of either citalopram or digoxin.

administration of citalopram (40 mg/day for 10 days) and lithium (30 mmol/day for 5 days) had no significant effect on the pharmacokinetics o citalopram or lithium.

n a controlled study, a single dose of pimozide 2 mg co-administered with citalopram 40 mg given once daily for 11 days was associated with a Citalopram did not alter the mean AUC or Cmer of pimozide. The mechanism of this pharmacodynamic interaction is not known [see

Combined administration of citalopram (40 mg/day for 21 days) and the CYP1A2 substrate theophylline (single dose of 300 mg) did not affect the

Administration of 40 mg/day citalopram for 21 days did not affect the pharmacokinetics of warfarin, a CYP3A4 substrate. Prothrombin time was

Combined administration of citalopram (40 mg/day for 14 days) and carbamazepine (titrated to 400 mg/day for 35 days) did not significantly affect the pharmacokinetics of carbamazepine, a CYP3A4 substrate. Although trough citalopram plasma levels were unaffected, given the

enzyme-inducing properties of carbamazepine, the possibility that carbamazepine might increase the clearance of citalopram should be Combined administration of citalopram (titrated to 40 mg/day for 28 days) and the CYP3A4 substrate triazolam (single dose of 0.25 mg) did not

significantly affect the pharmacokinetics of either citalopram or triazolan Combined administration of citalopram (40 mg) and ketoconazole (200 mg) decreased the C_{ms} and AUC of ketoconazole by 21% and 10%,

Administration of 40 mg/day citalogram for 22 days resulted in a two-fold increase in the plasma levels of the beta adrenergic blocker metoproloi

Imipramine and Other Tricyclic Antidepressants (TCAs)

In vitro studies suggest that citalopram is a relatively weak inhibitor of CYP2D6. Coadministration of citalopram (40 mg/day for 10 days) with the TCA imipramine (single dose of 100 mg), a substrate for CYP2D6, did not significantly affect the plasma concentrations of imipramine or citalopram. However, the concentration of the imipramine metabolite desipramine was increased by approximately 50%. The clinical

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Citalopram increased the incidence of small intestine carcinoma in rats treated for 24 months at doses of 8 and 24 mg/kg/day in the diet, which are approximately 2 and 6 times the Maximum Recommended Human Dose (MRHD) of 40 mg, respectively, based on mg/m² body surface area. A p-effect level (NOEL) for this finding was not established.

Citalopram did not increase the incidence of tumors in mice treated for 18 months at doses up 240 mg/kg/day in the diet, which is approximately

30 times the MRDH of 40 mg based on mg/m2 body surface area. lopram was mutagenic in the in vitro bacterial reverse mutation assay (Ames test) in 2 of 5 bacterial strains (Salmonella TA98 and TA1537) in the absence of metabolic activation. It was clastogenic in the in vitro Chinese hamster lung cell assay for chromosomal aberrations in the

presence and absence of metabolic activation. Citalopram was not mutagenic in the *in vitro* mammalian forward gene mutation assay (HPRT) in mouse lymphoma cells or in *in vitro/in vivo* unscheduled DNA synthesis (UDS) assay in rat liver. It was not clastogenic in the *in vitro* chromosomal aberration assay in human lymphocytes or in two in vivo mouse micronucleus assays

Citalopram was administered orally to female and male rats at doses of 32, 48, and 72 mg/kg/day prior to and throughout mating and continuing to gestation. These doses are approximately 8, 12, and 17 times the MRHD of 40 mg based on mg/m $^{\circ}$ body surface area. Mating and fertility were decreased at doses \geq 32 mg/kg/day, which is approximately 8 times the MRHD. Gestation duration was increased at 48 mg/kg/day, which is roximately 12 times the MRHD

13.2 Animal Toxicology and/or Pharmacology

Pathologic changes (degeneration/atrophy) were observed in the retinas of albino rats in the 2-year carcinogenicity study with citalopram. There was an increase in both incidence and severity of retinal pathology in both male and female rats receiving 80 mg/kg/day, which is approximately 19 times the MRHD of 40 mg based on mg/m² body surface area. Similar findings were not present in rats treated for two years at the dose of 24 mg/kg/day, in mice treated for 18 months at doses up to 240 mg/kg/day, or in dogs treated for one year at doses up to 20 mg/kg/day, which are approximately 6, 29, and 17 times the MRHD, respectively, based on mg/m² body surface area. Additional studies to investigate the mechanism for this pathology have not been performed, and the potential significance of this effect in

The efficacy of citalopram as a treatment for major depressive disorder was established in two placebo-controlled studies (of 4 to 6 weeks duration) in adult outpatients (ages 18 to 66) meeting DSM-III or DSM-III-R criteria for major depressive disorder (MDD) (Studies 1 and 2). Study 1, a 6-week trial in which patients received fixed citalopram doses of 10 mg, 20 mg, 40 mg, and 60 mg daily, showed that citalopram 40 daily and 60 mg daily (1.5 times the maximum recommended daily dosage) was effective as measured by the Hamilton Depression Rating Scal (HAMD) total score, the primary efficacy endpoint. The HAMD-17 is a 17-item, clinician-rated scale used to assess severity of depr symptoms. Scores on the HAMD-17 range from 0 to 52, with higher scores indicating more severe depression. This study showed no clear of the 10 mg and 20 mg daily doses, and the 60 mg daily dose was not more effective than the 40 mg daily dose. Due to the risk of QTc

prolongation and ventricular arrhythmias, the maximum recommended dosage of citalopram is 40 mg once daily. In study 2, a 4-week, placebo-controlled trial in patients with MDD, the initial dose was 20 mg daily, followed by titration to the maximum tolerated dose or a maximum dose of 80 mg daily (2 times the maximum recommended daily dosage). Patients treated with citalopram showed ement than placebo patients on the HAMD total score, the primary efficacy endpoint. In three additional lacebo-controlled trials in patients with MDD, the difference in response to treatment between patients receiving citalopram and patients

In two long-term studies, patients with MDD who had responded to citalogram during an initial 6 or 8 weeks of acute treatment were randomized to continuation of citalopram or placebo. In one study, patients received fixed doses of citalopram 20 mg or 40 mg daily and in the second study, patients received flexible doses of citalopram 20 mg daily to 60 mg daily (1.5 times the maximum recommended daily dosage). In both studies, patients receiving continued citalopram treatment experienced statistically significantly lower relapse rates over the subsequent 6 to those receiving placebo. In the fixed-dose study, the decreased rate of depression relapse was similar in patients receiving 20 mg or 40 mg daily o citalopram. Due to the risk of OTc prolongation and ventricular arrhythmias, the maximum recommended dosage of citalopram is 40 mg once daily. Analyses of the relationship between treatment outcome and age, gender, and race did not suggest any differential responsiveness on the basis

16 HOW SUPPLIED/STORAGE AND HANDLING

 $it all opram \ Tablets, USP \ contain \ cital opram \ hydrobromide \ USP, equivalent \ to \ 10, 20 \ or \ 40 \ mg \ cital opram \ base.$

Citalopram Tablets, USP 10 mg Bottle of 100 NDC 13668-009-01 Bottle of 500 NDC 13668-009-05

ed tablets with '10' debossed on one side and plain on the other side. Tan coloured, round shaped, biconvex film Citalopram Tablets, USP 20 mg

Tan coloured, oval shaped, biconvex film coated tablets with '2 | 0' debossed ('2' on left side and '0' on right side of the break line) on one side and

italopram Tablets, USP 40 mg

ottle of 100 NDC 136 Bottle of 500 NDC 13668-011-05

Tan coloured, oval shaped, biconvex film coated tablets with '4 | 0' debossed ('4' on left side and '0' on right side of the break line) on one side and 1011' on the other side. Storage and Handling

Store at 20° to 25°C (68° to 77°F); excursions permitted to 15° to 30°C (59° to 86°F) [see USP Controlled Room Temperature]. 17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Medication Guide)

Suicidal Thoughts and Behaviors

Advise patients and caregivers to look for the emergence of suicidality, especially early during treatment and when the dosage is adjusted up or the healthcase provider loop Boxed Warning and Precautions (5.11). down, and instruct them to report such symptoms to the healthcare provider [see Boxed Warning, Warnings and Precautions (5.1)]. QT Prolongation and Torsade de Pointes

to inform their health care provider that they are taking citalopram tablets before taking any new medications [see Warnings and Precautions <u>Serotonin Syndrome</u>

Caution patients about the risk of serotonin syndrome, particularly with the concomitant use of citalogram tablets with other serotonergic drugs including triptans, tricyclic antidepressants, opioids, lithium, tryptophan, buspirone, amphetamines, St. John's Wort, and with drugs that impair metabolism of serotonin (in particular, MAOIs, both those intended to treat psychiatric disorders and also others, such as linezolid). Instruct patients to contact their health care provider or report to the emergency room if they experience signs or symptoms of serotonin syndrome [see Warnings and Precautions (5.3), Drug Interactions (7)].

Inform patients about the concomitant use of citalopram tablets with aspirin, NSAIDs, other antiplatelet drugs, warfarin, or other anticoagulants because the combined use has been associated with an increased risk of bleeding. Advise patients to inform their health care providers if they are taking or planning to take any prescription or over-the counter medications that increase the risk of bleeding [see Warnings and Precautions (5.4)]. Activation of Mania or Hypomania Advise patients and their caregivers to observe for signs of activation of mania/hypomania and instruct them to report such symptoms to the

Advise patients not to abruptly discontinue citalopram tablets and to discuss any tapering regimen with their healthcare provider. Inform patients

Advise patients that use of citalogram tablets may cause symptoms of sexual dysfunction in both male and female patients. Inform patients that they should discuss any changes in sexual function and potential management strategies with their healthcare provider [see Warnings and

Advise patients to notify their healthcare provider if they become pregnant or intend to become pregnant during treatment with citalogram

tablets [see Use in Specific Populations (8.1)]. Advise patients that citalopram use late in pregnancy may lead to an increased risk for neonatal complications requiring prolonged. hospitalization, respiratory support, tube feeding, and/or persistent pulmonary hypertension of the newborn (PPHN) [see Use in Specific

. Advise women that there is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to citalopram during pregnancy [see Use in Specific Populations (8.1)].

Advise breastfeeding women to monitor infants for excess sedation, restlessness, agitation, poor feeding and poor weight gain and to seek medical care if they notice these signs [see Use in Specific Populations (8.2)].

MEDICATION GUIDE CITALOPRAM (si TAL o pram), USP (Citalopram) Tablets, for oral use

What is the most important information I should know about citalopram tablets? Citalopram tablets may cause serious side effects, including:

Increased risk of suicidal thoughts and actions. Citalopram tablets and other antidepressant medicines may increase suicidal thoughts and actions in some children, adolescents, and young adults **especially within the first few months of** treatment or when the dose is changed. Citalopram tablets are not for use in

Depression and other mental illnesses are the most important causes of suicidal

How can I watch for and try to prevent suicidal thoughts and actions in myself or

o Pay close attention to any changes, especially sudden changes in mood, behavior, thoughts, or feelings, or if you develop suicidal thoughts or actions. This is very important when an antidepressant medicine is started or when the dose is changed.

o Call your healthcare provider right away to report new or sudden changes in mood, behavior, thoughts, or feelings.

o Keep all follow-up visits with your healthcare provider as scheduled. Call your healthcare provider between visits as needed, especially if you have concerns

Call your healthcare provider or get emergency medical help right away if you or your family member have any of the following symptoms, especially if they are new, worse, or worry you:

- thoughts about suicide or dying
- attempts to commit suicide
- new or worse depression
- new or worse anxiety
- feeling very agitated or restless
- acting on dangerous impulses trouble sleeping (insomnia)
- panic attacks
- acting aggressive, being angry, or violent
- new or worse irritability
- an extreme increase in activity or talking (mania)
- other unusual changes in behavior or mood

What are citalogram tablets?

Citalopram tablets are a prescription medicine used to treat a certain type of depression called Major Depressive Disorder (MDD) in adults.

It is not known if citalopram tablets are safe and effective for use in children.

Who should not take citalogram tablets?

Do not take citalopram tablets if you:

- take a Monoamine Oxidase Inhibitor (MAOI)
- have stopped taking an MAOI in the last 14 days
- are being treated with the antibiotic linezolid or intravenous methylene blue

are allergic to citalogram or any of the ingredients in citalogram tablets. See the end of this Medication Guide for a complete list of ingredients in citalogram tablets. Ask your healthcare provider or pharmacist if you are not sure if you take an MAOI,

including MAOIs such as linezolid or intravenous methylene blue. Do not start taking an MAOI for at least 14 days after you stop treatment with

citalopram tablets. Before taking citalopram tablets, tell your healthcare provider about all your

medical conditions, including if you: have or have a family history of suicide, depression, bipolar disorder, mania or

- have an abnormal heart rhythm called QT prolongation
- have or had heart problems, including a heart attack, heart failure, abnormal heart rhythm, or long QT syndrome
- have low potassium, magnesium, or sodium levels in your blood have or had bleeding problems
- have or had seizures (convulsions)
- have high pressure in the eye (glaucoma)
- have or had kidney or liver problems
- are pregnant or plan to become pregnant. Citalogram tablets may harm your unborn baby. Taking citalopram tablets late in pregnancy may lead to an increased risk of certain problems in your newborn. Talk to your healthcare provider about the risks and benefits of treating depression during pregnancy.
- Tell your healthcare provider right away if you become pregnant or think you may be pregnant during treatment with citalogram tablets.
- There is a pregnancy registry for females who are exposed to citalogram during pregnancy. The purpose of the registry is to collect information about the health of females exposed to citalogram and their baby. If you become pregnant during treatment with citalogram tablets, talk to your healthcare provider about registering with the National Pregnancy Registry for Antidepressants. You can register by calling 1-844-405-6185 or visiting online at
- https://womensmentalhealth.org/research/pregnancyregistry/antidepressants. are breastfeeding or plan to breastfeed. It is not known if citalopram passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby
- during treatment with citalogram tablets. ○ If you breastfeed during treatment with citalopram tablets, call your healthcare provider right away if your baby develops sleepiness or fussiness, or is not feeding or gaining weight well.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Citalopram tablets and other medicines may affect each other causing possible serious side effects. Citalopram tablets may affect the way other medicines work and other

medicines may affect the way citalopram tablets work.

Especially tell your healthcare provider if you take:

medicines used to treat migraine headaches known as triptans

- tricyclic antidepressants
- lithium
- tramadol, fentanyl, meperidine, methadone, or other opioids
- tryptophan
- buspirone
- amphetamines
- St. John's Wort medicines that can affect blood clotting such as aspirin, nonsteroidal anti-
- inflammatory drugs (NSAIDs) and warfarin
- diuretics
- gatifloxacin or moxifloxacin
- medicines used to control your heart rate or rhythm (antiarrhythmics)
- medicines used to treat mood, anxiety, psychotic or thought disorders, including selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs)

Ask your healthcare provider if you are not sure if you are taking any of these medicines. Your healthcare provider can tell you if it is safe to take citalogram tablets with your other medicines.

Do not start or stop any other medicines during treatment with citalogram tablets without talking to your healthcare provider first. Stopping citalopram tablets suddenly may cause you to have serious side effects. See, "What are the possible side effects of citalopram tablets?"

Know the medicines you take. Keep a list of them to show to your healthcare provider and pharmacist when you get a new medicine.

How should I take citalogram tablets?

- Take citalopram tablets exactly as your healthcare provider tells you to take it. Do | not change your dose or stop taking citalopram tablets without first talking to your healthcare provider.
- Your healthcare provider may need to change the dose of citalopram tablets until it is the right dose for you.
- Take citalopram tablets 1 time each day with or without food.
- If you take too many citalogram tablets, call your healthcare provider or poison control center at 1-800-222-1222, or go to the nearest hospital emergency room

What are the possible side effects of citalogram tablets?

- Citalopram tablets may cause serious side effects, including: See, "What is the most important information I should know about citalopram
- tablets?" **Heart rhythm problems.** Citalopram tablets may cause a serious change in your heartbeat (a fast or irregular heartbeat) that may cause death. Tell your healthcare provider right away if you feel faint or pass out, or if you have a change in your heart
- Serotonin syndrome. Taking citalopram tablets can cause a potentially lifethreatening problem called serotonin syndrome. The risk of developing serotonin syndrome is increased when citalopram tablets are taken with certain other medicines. See, "Who should not take citalogram tablets?" Call your healthcare provider or go to the nearest hospital emergency room right away if you have any of the following signs and symptoms of serotonin syndrome:
- o agitation seeing or hearing things that are not real (hallucinations)
- o confusion coma
- fast heart beat
- blood pressure changes
- dizziness sweating
- flushing high body temperature (hyperthermia)
- tremors, stiff muscles, or muscle twitching
- o loss of coordination seizures
- nausea, vomiting, diarrhea
- **Increased risk of bleeding.** Taking citalopram tablets with aspirin, non-steroidal anti-inflammatory drugs (NSAIDs), warfarin or blood thinners may add to this risk.
- Tell your healthcare provider right away about any unusual bleeding or bruising. **Manic episodes.** Manic episodes may happen in people with bipolar disorder who take citalopram tablets. Symptoms may include:
- o greatly increased energy
- severe trouble sleeping
- racing thoughts reckless behavior
- unusually grand ideas
- excessive happiness or irritability talking more or faster than usual
- **Discontinuation syndrome.** Suddenly stopping citalopram tablets may cause you to have serious side effects. Your healthcare provider may want to decrease your dose slowly. Symptoms may include:
- o nausea sweating
- changes in your mood
- headache irritability and agitation
- tiredness dizziness
- problems sleeping

electric shock sensation (paresthesia)

- hypomania anxiety
- ringing in your ears (tinnitus) o confusion o **seizures**

- Seizures (convulsions)
- **Eye problems (angle-closure glaucoma).** Many antidepressant medicines, including citalopram tablets, may cause a certain type of eye problem called angleclosure glaucoma. Call your healthcare provider if you have changes in your vision or
- Low sodium levels in your blood (hyponatremia). Low sodium levels in your blood may be serious and may cause death. Elderly people may be at greater risk for this. Tell your healthcare provider right away if you develop any signs or symptoms of low sodium levels in your blood during treatment with citalopram tablets. Signs and symptoms of low sodium levels in your blood may include:
- headache difficulty concentrating
- memory changes confusion
- weakness and unsteadiness on your feet which can lead to falls
- In severe or more sudden cases, signs and symptoms include:
- o hallucinations (seeing or hearing things that are not real)
- seizures
- o coma stopping breathing
- **Sexual problems (dysfunction).** Taking selective serotonin reuptake inhibitors (SSRIs), including citalopram tablets, may cause sexual problems.

Symptoms in males may include:

 Delayed ejaculation or inability to have an ejaculation Decreased sex drive

How should I store citalogram tablets?

- Problems getting or keeping an erection
- Symptoms in females may include:
- Decreased sex drive Delayed orgasm or inability to have an orgasm

Talk to your healthcare provider if you develop any changes in your sexual function or if you have any questions or concerns about sexual problems during treatment with citalogram tablets. There may be treatments your healthcare provider can suggest.

The most common side effect of citalopram tablets is delayed ejaculation.

These are not all the possible side effects of citalopram tablets. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

Store at 20° to 25°C (68° to 77°F); excursions permitted to 15° to 30°C (59° to 86°F) [see USP Controlled Room Temperature].

Keep citalopram tablets and all medicines out of the reach of children.

General information about the safe and effective use of citalopram tablets Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use citalopram tablets for a condition for which it was not prescribed. Do not give citalopram tablets to other people, even if they have the same symptoms that you have. It may harm them. You may ask your healthcare provider or pharmacist for information about citalogram tablets that is written for healthcare

What are the ingredients in citalopram tablets?

Active ingredient: citalopram hydrobromide, USP Inactive ingredients: copovidone, corn starch, croscarmellose sodium, ferric oxide red, ferric oxide yellow, glycerin, hypromellose, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyethylene glycol and titanium dioxide. For more information about citalogram tablets call 1-800-912-9561.

Dispense with Medication Guide available at: https://torrentpharma.com/pi/usa/products/

Piramal Pharma Limited Pithampur - 454775, India.

Manufactured by:

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