

# PAROXETINE HYDROCHLORIDE- paroxetine hydrochloride tablet, film coated, extended release

**Mylan Pharmaceuticals Inc.**

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## HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use PAROXETINE EXTENDED-RELEASE TABLETS safely and effectively. See full prescribing information for PAROXETINE EXTENDED-RELEASE TABLETS.

### PAROXETINE extended-release tablets, for oral use

Initial U.S. Approval: 1992

#### WARNING: SUICIDAL THOUGHTS AND BEHAVIORS

*See full prescribing information for complete boxed warning.*

**Increased risk of suicidal thoughts and behavior in pediatric and young adult patients taking antidepressants. Closely monitor all antidepressant-treated patients for clinical worsening and emergence of suicidal thoughts and behaviors. Paroxetine extended-release tablets are not approved for use in pediatric patients. (5.1, 8.4)**

#### INDICATIONS AND USAGE

Paroxetine extended-release tablets are a selective serotonin reuptake inhibitor (SSRI) indicated in adults for the treatment of (1):

- Major Depressive Disorder (MDD)
- Panic Disorder (PD)
- Social Anxiety Disorder (SAD)
- Premenstrual Dysphoric Disorder (PMDD)

#### DOSAGE AND ADMINISTRATION

- Swallow tablet whole; do not chew or crush. (2.1)
- Recommended starting and maximum daily dosage: (2.2, 2.3)

Indication	Starting Dose	Maximum Dose
MDD	25 mg/day	62.5 mg/day
PD	12.5 mg/day	75 mg/day
SAD	12.5 mg/day	37.5 mg/day
PMDD	12.5 mg/day	25 mg/day

- For PMDD, dose continuously or intermittently (luteal phase only). (2.3)
- If inadequate response to starting dosage, titrate in 12.5 mg per day increments once weekly. (2.2, 2.3)
- Elderly patients, patients with severe renal impairment or severe hepatic impairment: Starting dose is 12.5 mg per day. Do not exceed 50 mg per day for treatment of MDD and PD and 37.5 mg per day for treatment of SAD. (2.5)
- When discontinuing paroxetine extended-release tablets, reduce dose gradually. (2.7)

#### DOSAGE FORMS AND STRENGTHS

Extended-release tablets: 12.5 mg, 25 mg, and 37.5 mg tablets. (3)

#### CONTRAINDICATIONS

- Concomitant use of monoamine oxidase inhibitors (MAOIs) or use within 14 days of discontinuing a MAOIs. (4, 5.2, 7)
- Concomitant use of pimozide or thioridazine. (4, 5.3, 7)
- Known hypersensitivity to paroxetine or to any of the inactive ingredients in paroxetine extended-release tablets. (4)

#### WARNINGS AND PRECAUTIONS

- *Serotonin Syndrome*: Increased risk when co-administered with other serotonergic agents (e.g., SSRI, SNRI, triptans), but also when taken alone. If occurs, discontinue paroxetine extended-release tablets and initiate supportive measures. (5.2)
- *Embryofetal and Neonatal Toxicity*: Can cause fetal and neonatal harm. Increased risk of cardiovascular malformations for exposure during the first trimester. Exposure in late pregnancy may lead to an increased risk for

persistent pulmonary hypertension (PPNH) of the newborn. (5.4, 8.1)

- *Increased Risk of Bleeding:* Concomitant use of aspirin, nonsteroidal anti-inflammatory drugs, other antiplatelet drugs, warfarin, and other anticoagulant drugs may increase risk. (5.5)
- *Activation of Mania/Hypomania:* Screen patients for bipolar disorder. (5.6)
- *Seizures:* Use with caution in patients with seizure disorders. (5.8)
- *Angle-Closure Glaucoma:* Angle-closure glaucoma has occurred in patients with untreated anatomically narrow angles treated with antidepressants. (5.9)

----- **ADVERSE REACTIONS** -----

Most common adverse reactions ( $\geq 5\%$  and at least twice placebo) in placebo- controlled MDD, PD, SAD, and PMDD clinical trials:

abnormal ejaculation, abnormal vision, asthenia, constipation, decreased appetite, diarrhea, dizziness, dry mouth, female genital disorder, impotence, insomnia, libido decreased, nausea, somnolence, sweating, tremor. (6.1)

**To report SUSPECTED ADVERSE REACTIONS, contact Mylan at 1-877-446-3679 (1-877-4-INFO-RX) or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).**

----- **DRUG INTERACTIONS** -----

- *Drugs Highly Bound to Plasma Protein:* Monitor for adverse reactions and reduce dosage of paroxetine extended-release tablets or other protein-bound drugs (e.g., warfarin) as warranted. (7)
- *Drugs Metabolized by CYP2D6:* Reduce dosage of drugs metabolized by CYP2D6 as warranted. (7)
- *Concomitant use with Tamoxifen:* Consider use of an alternative antidepressant with little or no CYP2D6 inhibition. (5.11, 7)

----- **USE IN SPECIFIC POPULATIONS** -----

- *Pregnancy:* Can cause fetal and neonatal harm. Advise women of potential risk to the fetus. (5.4, 8.1)
- *Nursing Mothers:* Discontinue drug or nursing taking into consideration importance of drug to mother. (8.3)

See 17 for **PATIENT COUNSELING INFORMATION** and **Medication Guide**.

**Revised: 10/2019**

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## **FULL PRESCRIBING INFORMATION**

### **WARNING: SUICIDAL THOUGHTS AND BEHAVIORS**

**Antidepressants increased the risk of suicidal thoughts and behaviors in pediatric and young adult patients in short-term studies. Closely monitor all antidepressant-treated patients for clinical worsening, and for emergence of suicidal thoughts and behaviors [see Warnings and Precautions (5.1)]. Paroxetine extended-release tablets are not approved for use in pediatric patients [see Use in Specific Populations (8.4)].**

## **1 INDICATIONS AND USAGE**

Paroxetine extended-release tablets are indicated in adults for the treatment of:

- Major depressive disorder (MDD)
- Panic disorder (PD)
- Social anxiety disorder (SAD)
- Premenstrual dysphoric disorder (PMDD)

## **2 DOSAGE AND ADMINISTRATION**

### **2.1 Important Administration Instructions**

Administer paroxetine extended-release tablets as a single daily dose in the morning, with or without food. Swallow tablets whole and do not chew or crush.

## 2.2 Dosage in Patients with Major Depressive Disorder, Panic Disorder, and Social Anxiety Disorder

The recommended initial dosage and maximum dosage of paroxetine extended-release tablets in patients with MDD, PD, and SAD are presented in Table 1.

In patients with an inadequate response, dosage may be increased in increments of 12.5 mg per day at intervals of at least 1 week, depending on tolerability.

**Table 1. Recommended Daily Dosage of Paroxetine Extended-Release Tablets in Patients with MDD, PD, and SAD**

Indication	Starting Dose	Maximum Dose
MDD	25 mg	62.5 mg
PD	12.5 mg	75 mg
SAD	12.5 mg	37.5 mg

## 2.3 Dosage in Patients with Premenstrual Dysphoric Disorder

The recommended starting dosage in women with PMDD is 12.5 mg per day. Paroxetine extended-release tablets may be administered either continuously (every day throughout the menstrual cycle) or intermittently (only during the luteal phase of the menstrual cycle, i.e., starting the daily dosage 14 days prior to the anticipated onset of menstruation and continuing through the onset of menses). Intermittent dosing is repeated with each new cycle.

In patients with an inadequate response, the dosage may be increased to the maximum recommended dosage of 25 mg per day, depending on tolerability. Institute dosage adjustments at intervals of at least 1 week.

## 2.4 Screen for Bipolar Disorder Prior to Starting Paroxetine Extended-Release Tablets

Prior to initiating treatment with paroxetine extended-release tablets or another antidepressant, screen patients for a personal or family history of bipolar disorder, mania, or hypomania [see *Warnings and Precautions* (5.6)].

## 2.5 Dosage Modifications for Elderly Patients, Patients with Severe Renal Impairment and Patients with Severe Hepatic Impairment

The recommended initial dose of paroxetine extended-release tablets is 12.5 mg per day for elderly patients, patients with severe renal impairment, and patients with severe hepatic impairment. Reduce initial dose and increase up-titration intervals if necessary. Dosage should not exceed 50 mg per day for MDD or PD and should not exceed 37.5 mg per day for SAD [see *Use in Specific Populations* (8.5, 8.6)].

## 2.6 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 paroxetine extended-release tablets. In addition, at least 14 days must elapse after stopping paroxetine extended-release tablets before starting an MAOI antidepressant [see *Contraindications* (4), *Warnings and Precautions* (5.2)].

## 2.7 Discontinuation of Treatment with Paroxetine Extended-Release Tablets

Adverse reactions may occur upon discontinuation of paroxetine extended-release tablets [see *Warnings and Precautions* (5.7)]. Gradually reduce the dosage rather than stopping paroxetine extended-release tablets abruptly whenever possible.

## 3 DOSAGE FORMS AND STRENGTHS

Paroxetine Extended-Release Tablets, USP are available containing paroxetine hydrochloride

(hemihydrate) USP, equivalent to 12.5 mg, 25 mg or 37.5 mg paroxetine.

- The 12.5 mg tablets are white, enteric film-coated, round, unscored tablets with **M** over **P3** imprinted in black ink on one side of the tablet and blank on the other side.
- The 25 mg tablets are lavender, enteric film-coated, round, unscored tablets with **M** over **P4** imprinted in black ink on one side of the tablet and blank on the other side.
- The 37.5 mg tablets are orange, enteric film-coated, round, unscored tablets with **M** over **P5** imprinted in black ink on one side of the tablet and blank on the other side.

#### 4 CONTRAINDICATIONS

Paroxetine extended-release tablets are contraindicated in patients:

- Taking, or within 14 days of stopping, MAOIs (including the MAOIs linezolid and intravenous methylene blue) because of an increased risk of serotonin syndrome [see *Warnings and Precautions (5.2), Drug Interactions (7)*].
- Taking thioridazine because of risk of QT prolongation [see *Warnings and Precautions (5.3), Drug Interactions (7)*].
- Taking pimozide because of risk of QT prolongation [see *Warnings and Precautions (5.3), Drug Interactions (7)*].
- With known hypersensitivity (e.g., anaphylaxis, angioedema, Stevens-Johnson syndrome) to paroxetine or to any of the inactive ingredients in paroxetine extended-release tablets [see *Adverse Reactions (6.1, 6.2)*].

#### 5 WARNINGS AND PRECAUTIONS

##### 5.1 Suicidal Thoughts and Behaviors in Adolescents and Young Adults

In pooled analyses of placebo-controlled trials of antidepressant drugs (SSRIs 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 1000 patients treated are provided in Table 2.

**Table 2. Risk Differences of the Number of Patients of Suicidal Thoughts and Behaviors in the Pooled Placebo-Controlled Trials of Antidepressants in Pediatric and Adult Patients**

Age Range	Drug-Placebo Difference in Number of Patients of Suicidal Thoughts and Behaviors per 1,000 Patients Treated
	<b>Increases Compared to Placebo</b>
< 18 years old	14 additional patients
18-24 years old	5 additional patients
	<b>Decreases Compared to Placebo</b>
25-64 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 antidepressants delay the recurrence of depression and that depression itself is a risk factor for suicidal thoughts and behaviors.

Monitor all antidepressant-treated patients for any indication 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 paroxetine extended-release tablets, in patients whose depression is persistently worse, or who are experiencing emergent suicidal thoughts or behaviors.

## 5.2 Serotonin Syndrome

Serotonin-norepinephrine reuptake inhibitors (SNRIs) and SSRIs, including paroxetine extended-release tablets, can precipitate serotonin syndrome, a potentially life-threatening condition. The risk is increased with concomitant use of other serotonergic drugs (including triptans, tricyclic antidepressants, fentanyl, lithium, tramadol, tryptophan, buspirone, amphetamines, and St. John's Wort) and with drugs that impair metabolism of serotonin, i.e., MAOIs [*see Contraindications (4), Drug Interactions (7.1)*]. Serotonin syndrome can also occur when these drugs are used alone.

Serotonin syndrome signs and symptoms may include mental status changes (e.g., agitation, hallucinations, delirium, and coma), autonomic 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 paroxetine extended-release tablets with MAOIs is contraindicated. In addition, do not initiate paroxetine extended-release tablets in a patient being treated with MAOIs such as linezolid or intravenous methylene blue. No reports involved the administration of methylene blue by other routes (such as oral 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 taking paroxetine extended-release tablets, discontinue paroxetine extended-release tablets before initiating treatment with the MAOI [*see Contraindications (4), Drug Interactions (7.1)*].

Monitor all patients taking paroxetine extended-release tablets for the emergence of serotonin syndrome. Discontinue treatment with paroxetine extended-release tablets and any concomitant serotonergic agents immediately if the above symptoms occur, and initiate supportive symptomatic treatment. If concomitant use of paroxetine extended-release tablets with other serotonergic drugs is clinically warranted, inform patients of the increased risk for serotonin syndrome and monitor for symptoms.

## 5.3 Drug Interactions Leading to QT Prolongation

The CYP2D6 inhibitory properties of paroxetine can elevate plasma levels of thioridazine and pimozide. Since thioridazine and pimozide given alone produce prolongation of the QTc interval and increase the risk of serious ventricular arrhythmias, the use of paroxetine extended-release tablets is contraindicated in combination with thioridazine and pimozide [*see Contraindications (4), Drug Interactions (7), Clinical Pharmacology (12.3)*].

## 5.4 Embryofetal and Neonatal Toxicity

Paroxetine extended-release tablets can cause fetal harm when administered to a pregnant woman. Epidemiological studies have shown that infants exposed to paroxetine in the first trimester of pregnancy have an increased risk of cardiovascular malformations. Exposure to paroxetine in late pregnancy may lead to an increased risk for persistent pulmonary hypertension of the newborn (PPNH) and/or neonatal complications requiring prolonged hospitalization, respiratory support, and tube feeding.

If paroxetine extended-release tablets are used during pregnancy, or if the patient becomes pregnant while taking paroxetine extended-release tablets, the patient should be apprised of the potential hazard to the fetus [*see Use in Specific Populations (8.1)*].

## 5.5 Increased Risk of Bleeding

Drugs that interfere with serotonin reuptake inhibition, including paroxetine extended-release tablets, increase the risk of bleeding events. Concomitant use of aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs), other antiplatelet drugs, warfarin, and other anticoagulants may add to this risk. Case reports and epidemiological studies (case-control and cohort design) have demonstrated an association between

use of drugs that interfere with serotonin reuptake and the occurrence of gastrointestinal bleeding. Bleeding events related to drugs that interfere with serotonin reuptake have ranged from ecchymoses, hematomas, epistaxis, and petechiae to life-threatening hemorrhages.

Inform patients about the increased risk of bleeding associated with the concomitant use of paroxetine extended-release tablets and antiplatelet agents or anticoagulants. For patients taking warfarin, carefully monitor the international normalized ratio.

### **5.6 Activation of Mania or Hypomania**

In patients with bipolar disorder, treating a depressive episode with paroxetine extended-release tablets or another antidepressant may precipitate a mixed/manic episode. During controlled clinical trials of immediate-release paroxetine hydrochloride, hypomania or mania occurred in approximately 1% of paroxetine-treated unipolar patients compared to 1.1% of active-control and 0.3% of placebo-treated unipolar patients. Prior to initiating treatment with paroxetine extended-release tablets, screen patients for any personal or family history of bipolar disorder, mania, or hypomania.

### **5.7 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 (2.7)*].

Adverse reactions have been reported upon discontinuation of treatment with paroxetine in pediatric patients. The safety and effectiveness of paroxetine extended-release tablets in pediatric patients have not been established [*see Boxed Warning, Warnings and Precautions (5.1), Use in Specific Populations (8.4)*].

### **5.8 Seizures**

Paroxetine extended-release tablets have not been systematically evaluated in patients with seizure disorders. Patients with history of seizures were excluded from clinical studies. Paroxetine extended-release tablets should be prescribed with caution in patients with a seizure disorder and should be discontinued in any patient who develops seizures.

### **5.9 Angle-Closure Glaucoma**

The pupillary dilation that occurs following use of many antidepressant drugs, including paroxetine extended-release tablets, may trigger an angle closure attack in a patient with anatomically narrow angles who does not have a patent iridectomy. Cases of angle-closure glaucoma associated with use of paroxetine hydrochloride tablets have been reported. Avoid use of antidepressants, including paroxetine extended-release tablets, in patients with untreated anatomically narrow angles.

### **5.10 Hyponatremia**

Hyponatremia may occur as a result of treatment with SNRIs and SSRIs, including paroxetine extended-release tablets. Cases with serum sodium lower than 110 mmol/L have been 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 paroxetine extended-release 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 SNRIs and SSRIs [*see Use in Specific Populations (8.5)*].

### **5.11 Reduction of Efficacy of Tamoxifen**

Some studies have shown that the efficacy of tamoxifen, as measured by the risk of breast cancer

relapse/mortality, may be reduced with concomitant use of paroxetine as a result of paroxetine's irreversible inhibition of CYP2D6 and lower blood levels of tamoxifen [see *Drug Interactions (7)*]. One study suggests that the risk may increase with longer duration of coadministration. However, other studies have failed to demonstrate such a risk. When tamoxifen is used for the treatment or prevention of breast cancer, prescribers should consider using an alternative antidepressant with little or no CYP2D6 inhibition.

## 5.12 Bone Fracture

Epidemiological studies on bone fracture risk during exposure to some antidepressants, including SSRIs, have reported an association between antidepressant treatment and fractures. There are multiple possible causes for this observation and it is unknown to what extent fracture risk is directly attributable to SSRI treatment.

## 6 ADVERSE REACTIONS

The following adverse reactions are included in more detail in other sections of the prescribing information:

- Hypersensitivity reactions to paroxetine [see *Contraindications (4)*]
- Suicidal Thoughts and Behaviors [see *Warnings and Precautions (5.1)*]
- Serotonin Syndrome [see *Warnings and Precautions (5.2)*]
- Embryofetal and Neonatal Toxicity [see *Warnings and Precautions (5.4)*]
- Increased Risk of Bleeding [see *Warnings and Precautions (5.5)*]
- Activation of Mania/Hypomania [see *Warnings and Precautions (5.6)*]
- Discontinuation Syndrome [see *Warnings and Precautions (5.7)*]
- Seizures [see *Warnings and Precautions (5.8)*]
- Angle-closure Glaucoma [see *Warnings and Precautions (5.9)*]
- Hyponatremia [see *Warnings and Precautions (5.10)*]
- Bone Fracture [see *Warnings and Precautions (5.12)*]

### 6.1 Clinical Trials Experience

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 trials of another drug and may not reflect the rates observed in practice.

Safety data for paroxetine extended-release tablets is from 11 short-term, placebo-controlled clinical trials including 3 studies in patients with major depressive disorder (MDD) (Studies 1, 2, and 3), 3 studies in patients with panic disorder (PD) (Studies 4, 5, and 6), 1 study in patients with social anxiety disorder (SAD) (Study 7), and 4 studies in female patients with premenstrual dysphoric disorder (PMDD) (Studies 8, 9, 10, and 11) [see *Clinical Studies (14)*]. These 11 trials included 1627 patients treated with paroxetine extended-release tablets.

- Studies 1 and 2 were 12-week studies that enrolled patients 18 to 65 years old who received paroxetine extended-release tablets at doses ranging from 25 mg to 62.5 mg once daily. Study 3 was a 12-week study in patients 60 to 88 years old who received paroxetine extended-release tablets at doses ranging from 12.5 mg to 50 mg once daily.
- Studies 4, 5, and 6 were 10-week studies in patients 19 to 72 years old who received paroxetine extended-release tablets at doses ranging from 12.5 mg to 75 mg once daily.
- Study 7 was a 12-week study that enrolled adult patients who received paroxetine extended-release tablets at doses ranging from 12.5 mg to 37.5 mg once daily.
- Studies 8, 9, and 10 were 12-week, placebo-controlled trials in female patients 18 to 46 years old who received paroxetine extended-release tablets at doses of 12.5 mg or 25 mg once daily. Study 11 was a 12-week placebo-controlled trial in patients 18 to 46 years old who received paroxetine extended-release tablets 2 weeks prior to the onset of menses (luteal phase dosing) at doses of 12.5 mg or 25 mg once daily.



### Adverse Reactions Leading to Discontinuation in Patients with MDD, PD, SAD, and PMDD

In pooled studies in patients with MDD, PD and SAD, the most common adverse reactions leading to study withdrawal were: nausea (up to 4% of patients), asthenia, headache, depression, insomnia, and abnormal liver function tests (each occurring in up to 2% of patients), and dizziness, somnolence, and diarrhea (each occurring in up to 1% of patients).

In pooled studies for PMDD, the most common adverse reactions leading to study withdrawal were: nausea (occurring in up to 6% of patients), asthenia (occurring in up to 5% of patients), somnolence (occurring in up to 4% of patients), insomnia (occurring in approximately 2% of patients); and impaired concentration, dry mouth, dizziness, decreased appetite, sweating, tremor, yawn and diarrhea (occurring in less than or equal to 2% of patients).

### Adverse Reactions in MDD, PD, and SAD

Table 3 presents the most common adverse reactions in paroxetine extended-release tablets-treated patients (incidence  $\geq 5\%$  and greater than placebo within at least 1 of the indications) in controlled trials in patients with MDD, PD, and SAD.

**Table 3. Adverse Reactions ( $\geq 5\%$  of Patients Treated with Paroxetine Extended-Release Tablets and Greater than Placebo) in 10 to 12 Week Studies of MDD, PD, and SAD**

Body System/ Adverse Reaction	MDD 18 to 65 year olds		MDD $\geq 60$ years old		Panic Disorder		Social Anxiety Disorder	
	Paroxetine Extended- Release Tablets (N = 212) %	Placebo (N = 211) %	Paroxetine Extended- Release Tablets (N = 104) %	Placebo (N = 109) %	Paroxetine Extended- Release Tablets (N = 444) %	Placebo (N = 445) %	Paroxetine Extended- Release Tablets (N = 186) %	Placebo (N = 184) %
<b>Body as a Whole</b>								
Headache	27	20	17	13	NA	NA	23	17
Asthenia	14	9	15	14	15	10	18	7
Abdominal Pain	7	4	-	-	6	4	5	4
Back Pain	5	3	-	-	NA	NA	4	1
<b>Digestive System</b>								
Nausea	22	10	-	-	23	17	22	6
Diarrhea	18	7	15	9	12	9	9	8
Dry Mouth	15	8	18	7	13	9	3	2
Constipation	10	4	13	5	9	6	5	2
Flatulence	6	4	-	-	NA	NA	NA	NA
Decreased Appetite		2	12	5	8	6	1	< 1
Dyspepsia	NA	NA	13	10	NA	NA	2	< 1
<b>Musculoskeletal System</b>								
Myalgia	NA	NA	-	-	5	3	NA	NA
<b>Nervous System</b>								
Somnolence	22	8	21	12	20	9	9	4
Insomnia	17	9	10	8	20	11	9	4
Dizziness	14	4	9	5	NA	NA	7	4
Libido Decreased	7	3	8	< 1	9	4		1

Nervousness	NA	NA	-	-	8	7	NA	NA
Tremor	7	1	7	0	8	2	4	2
Anxiety	NA	NA	-	-	5	4	2	1
<b>Respiratory System</b>								
Sinusitis	NA	NA	-	-	8	5	NA	NA
Yawn		0	-	-	3	0	2	0
<b>Skin and Appendages</b>								
Sweating	6	2	10	< 1	7	2	14	3
<b>Special Senses</b>								
Abnormal Vision*	5	1	-	-	3	< 1	2	0
<b>Urogenital System</b>								
Abnormal Ejaculation <sup>†‡</sup>	26	1	17	3	27	3	15	1
Female Genital Disorder <sup>†§</sup>	10	< 1	-	-	7	1	3	0
Impotence <sup>†</sup>	5	3	9	3	10	1	9	0

Hyphen = the reaction listed occurred in < 5% of patients treated with paroxetine extended-release tablets

NA = the adverse reaction listed did not occur in this group of patients

\* Mostly blurred vision

† Based on the number of males or females

‡ Mostly anorgasmia or delayed ejaculation

§ Mostly anorgasmia or delayed orgasm

### **Other Adverse Reactions Observed During the Premarketing Evaluation of Paroxetine Extended-Release Tablets**

Adverse reactions from studies in MDD (not including Study 3 in elderly patients), PD, and SAD that occurred between 1% and 5% of patients treated with paroxetine extended-release tablets and at a rate greater than in placebo-treated patients include: allergic reaction, tachycardia, vasodilatation, hypertension, migraine, vomiting, weight loss, weight gain, hypertonia, paresthesia, agitation, confusion, myoclonus, concentration impaired, depression, rhinitis, cough increased, bronchitis, photosensitivity, eczema, taste perversion, UTI, menstrual disorder, urinary frequency, urination impaired, and vaginitis.

### **Adverse Reactions in Patients with PMDD**

Table 4 displays adverse reactions that occurred (incidence of 5% or more and greater than placebo within at least 1 of the studies) in patients treated with paroxetine extended-release tablets in Studies 8, 9, 10, and 11.

**Table 4. Adverse Reactions (≥ 5% of Patients Treated with Paroxetine Extended-Release Tablets and Greater than Placebo) in Pooled Studies PMDD (Studies 8, 9, 11), and in Study 10<sup>\*†‡</sup>**

Body System/Adverse Reaction	% Reporting Adverse Reaction			
	Continuous Dosing Studies 8, 9, and 10		Luteal Phase Dosing Study 11	
	Paroxetine Extended-Release Tablets (n = 681)	Placebo (n = 349) %	Paroxetine Extended-Release Tablets (n = 246)	Placebo (n = 120) %

	%		%	
<b>Body as a Whole</b>				
Asthenia	17	6	15	4
Headache	15	12	NA	NA
Infection	6	4	NA	NA
<b>Digestive System</b>				
Nausea	17	7	18	2
Diarrhea	6	2	6	0
Constipation	5	1	2	< 1
<b>Nervous System</b>				
Libido Decreased	12	5	9	6
Somnolence	9	2	3	< 1
Insomnia	8	2	7	3
Dizziness	7	3	6	3
Tremor	4	< 1	5	0
<b>Skin and Appendages</b>				
Sweating	7	< 1	6	< 1
<b>Urogenital System</b>				
Female Genital Disorders <sup>‡</sup>	8	1	2	0

NA = the adverse reaction information is not available in this population.

\* < 1% means greater than zero and less than 1%.

† The luteal phase and continuous dosing PMDD trials were not designed for making direct comparisons between the 2 dosing regimens.

‡ Mostly anorgasmia or difficulty achieving orgasm.

### ***Dose Dependent Adverse Reactions***

Comparison of the incidence of adverse reactions (placebo vs. 12.5 mg paroxetine extended-release tablets vs. 25 mg paroxetine extended-release tablets) from studies 8, 9, 10 showed the following adverse reactions to be dose-related: Nausea, somnolence, sweating, dry mouth, dizziness, decreased appetite, tremor, impaired concentration, yawn, paresthesia, hyperkinesia, and vaginitis.

### ***Male and Female Sexual Dysfunction***

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 incidence.

The percentage of patients reporting symptoms of sexual dysfunction in the Studies 1 and 2 (nonelderly patients with MDD), 4, 5, 6, 7, 8, 9, 10, and 11 are presented in Table 5:

**Table 5. Adverse Reactions Related to Sexual Dysfunction in Patients Treated with Paroxetine Extended-Release Tablets in Pooled 10-12 Week Studies of MDD, PD, SAD, and PMDD**

	Studies 1 and 2 %		Studies 4, 5, and 6 %		Study 7 %		Studies 8, 9, and 11 (Continuous Dosing) %		Study 10 (Luteal Phase Dosing) %	
	Paroxetine Extended- Release Tablets	Placebo	Paroxetine Extended- Release Tablets	Placebo	Paroxetine Extended- Release Tablets	Placebo	Paroxetine Extended- Release Tablets	Placebo	Paroxetine Extended- Release Tablets	Placebo
<b>n (males)</b>	<b>78</b>	<b>78</b>	<b>162</b>	<b>194</b>	<b>88</b>	<b>97</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

Decreased Libido	10	5	9	6	13	1	NA	NA	NA	NA
Abnormal Ejaculation	26	1	27	3	15	1	NA	NA	NA	NA
Impotence	5	3	10	1	9	0	NA	NA	NA	NA
<b>n (females)</b>	<b>134</b>	<b>133</b>	<b>282</b>	<b>251</b>	<b>98</b>	<b>87</b>	<b>681</b>	<b>349</b>	<b>246</b>	<b>120</b>
Decreased Libido	4	2	8	2	4	1	12	5	9	6
Orgasmic Disturbance	10	< 1	7	1	3	0	8	1	2	0

NA = the adverse reaction listed did not occur in this group of patients.

Paroxetine treatment has been associated with several cases of priapism. In those cases with a known outcome, patients recovered without sequelae.

### ***Less Common Adverse Reactions***

The following adverse reactions occurred during the clinical studies of paroxetine extended-release tablets and are not included elsewhere in the labeling.

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 1 or more occasions in at least 1/100 patients; infrequent adverse reactions are those occurring in 1/100 to 1/1,000 patients; rare reactions are those occurring in fewer than 1/1,000 patients.

*Cardiovascular System:* Infrequent was postural hypotension.

*Hemic and Lymphatic System:* Rare was thrombocytopenia.

*Metabolic and Nutritional Disorders:* Infrequent were generalized edema and hypercholesteremia.

*Nervous System:* Infrequent were convulsion, akathisia, and manic reaction.

*Psychiatric:* Infrequent were hallucinations.

*Skin and Appendages:* Frequent was rash; infrequent was urticaria; rare was angioedema and erythema multiforme.

*Urogenital System:* Infrequent was urinary retention; rare was urinary incontinence.

## **6.2 Postmarketing Experience**

The following reactions have been identified during post approval use of paroxetine. Because these reactions are reported voluntarily from a population of unknown size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Acute pancreatitis, elevated liver function tests (the most severe cases were deaths due to liver necrosis, and grossly elevated transaminases associated with severe liver dysfunction), Guillain-Barré syndrome, Stevens-Johnson syndrome, toxic epidermal necrolysis, priapism, syndrome of inappropriate ADH secretion (SIADH), prolactinemia and galactorrhea; extrapyramidal symptoms which have included akathisia, bradykinesia, cogwheel rigidity, dystonia, hypertonia, trismus; status epilepticus, acute renal failure, pulmonary hypertension, allergic alveolitis, anaphylaxis, eclampsia, laryngismus, optic neuritis, porphyria, restless legs syndrome (RLS), ventricular fibrillation, ventricular tachycardia (including torsade de pointes), hemolytic anemia, events related to impaired hematopoiesis (including aplastic anemia, pancytopenia, bone marrow aplasia, and agranulocytosis), and vasculitic syndromes (such as Henoch-Schönlein purpura).

## **7 DRUG INTERACTIONS**

### **7.1 Clinically Significant Drug Interactions with Paroxetine Extended-Release Tablets**

**Table 6. Clinically Significant Drug Interactions with Paroxetine Extended-Release Tablets**

<b>Monoamine Oxidase Inhibitors (MAOIs)</b>	
<i>Clinical Impact</i>	The concomitant use of SSRIs, including paroxetine extended-release tablets, and MAOIs increases the risk of serotonin syndrome.
<i>Intervention</i>	Paroxetine extended-release tablets are contraindicated in patients taking MAOIs, including MAOIs such as linezolid or intravenous methylene blue [see <i>Dosage and Administration (2.6)</i> , <i>Contraindications (4)</i> , <i>Warnings and Precautions (5.2)</i> ].
<i>Examples</i>	selegiline, tranylcypromine, isocarboxazid, phenelzine, linezolid, methylene blue
<b>Pimozide and Thioridazine</b>	
<i>Clinical Impact</i>	Increased plasma concentrations of pimozide and thioridazine, drugs with a narrow therapeutic index, may increase the risk of QTc prolongation and ventricular arrhythmias.
<i>Intervention</i>	Paroxetine extended-release tablets are contraindicated in patients taking pimozide or thioridazine [see <i>Contraindications (4)</i> ].
<b>Other Serotonergic Drugs</b>	
<i>Clinical Impact</i>	The concomitant use of serotonergic drugs with paroxetine extended-release tablets increases the risk of serotonin syndrome.
<i>Intervention</i>	Monitor patients for signs and symptoms of serotonin syndrome, particularly during treatment initiation and dosage increases. If serotonin syndrome occurs, consider discontinuation of paroxetine extended-release tablets and/or concomitant serotonergic drugs [see <i>Warnings and Precautions (5.2)</i> ].
<i>Examples</i>	other SSRIs, SNRIs, triptans, tricyclic antidepressants, fentanyl, lithium, tramadol, tryptophan, buspirone, St. John's Wort
<b>Drugs that Interfere with Hemostasis (antiplatelet agents and anticoagulants)</b>	
<i>Clinical Impact</i>	The concurrent use of an antiplatelet agent or anticoagulant with paroxetine extended-release tablets may potentiate the risk of bleeding.
<i>Intervention</i>	Inform patients of the increased risk of bleeding associated with the concomitant use of paroxetine extended-release tablets and antiplatelet agents and anticoagulants. For patients taking warfarin, carefully monitor the international normalized ratio [see <i>Warnings and Precautions (5.5)</i> ].
<i>Examples</i>	aspirin, clopidogrel, heparin, warfarin
<b>Drugs Highly Bound to Plasma Protein</b>	
<i>Clinical Impact</i>	Paroxetine extended-release tablets are highly bound to plasma protein. The concomitant use of paroxetine extended-release tablets with another drug that is highly bound to plasma protein may increase free concentrations of paroxetine or other tightly-bound drugs in plasma.
<i>Intervention</i>	Monitor for adverse reactions and reduce dosage of paroxetine extended-release tablets or other protein-bound drugs as warranted.
<i>Examples</i>	warfarin
<b>Drugs Metabolized by CYP2D6</b>	
<i>Clinical Impact</i>	Paroxetine extended-release tablets are a CYP2D6 inhibitor [see <i>Clinical Pharmacology (12.3)</i> ]. The concomitant use of paroxetine extended-release tablets with a CYP2D6 substrate may increase the exposure of the CYP2D6 substrate.
<i>Intervention</i>	Decrease the dosage of a CYP2D6 substrate if needed with concomitant paroxetine extended-release tablets use. Conversely, an increase in dosage of a CYP2D6 substrate may be needed if paroxetine extended-release tablets are discontinued.
<i>Examples</i>	propafenone, flecainide, atomoxetine, desipramine, dextromethorphan, metoprolol, nebivolol, perphenazine, tolterodine, venlafaxine, risperidone.

<b>Tamoxifen</b>	
<i>Clinical Impact</i>	Concomitant use of tamoxifen with paroxetine extended-release tablets may lead to reduced plasma concentrations of the active metabolite (endoxifen) and reduced efficacy of tamoxifen
<i>Intervention</i>	Consider use of an alternative antidepressant with little or no CYP2D6 inhibition [see Warnings and Precautions (5.11)].
<b>Fosamprenavir/Ritonavir</b>	
<i>Clinical Impact</i>	Co-administration of fosamprenavir/ritonavir with paroxetine significantly decreased plasma levels of paroxetine.
<i>Intervention</i>	Any dose adjustment should be guided by clinical effect (tolerability and efficacy).

## 8 USE IN SPECIFIC POPULATIONS

### 8.1 Pregnancy

Pregnancy Category D [see Warnings and Precautions (5.4)]

Epidemiological studies have shown that infants exposed to paroxetine in the first trimester of pregnancy have an increased risk of congenital malformations, particularly cardiovascular malformations. If paroxetine is used during pregnancy, or if the patient becomes pregnant while taking paroxetine, advise the patient of the potential hazard to the fetus.

- A study based on Swedish national registry data demonstrated that infants exposed to paroxetine during pregnancy (n = 815) had an increased risk of cardiovascular malformations (2% risk in paroxetine-exposed infants) compared to the entire registry population (1% risk), for an odds ratio (OR) of 1.8 (95% confidence interval 1.1 to 2.8). No increase in the risk of overall congenital malformations was seen in the paroxetine-exposed infants. The cardiac malformations in the paroxetine-exposed infants were primarily ventricular septal defects (VSDs) and atrial septal defects (ASDs). Septal defects range in severity from those that resolve spontaneously to those which require surgery.
- A separate retrospective cohort study from the United States (United Healthcare data) evaluated 5,956 infants of mothers dispensed antidepressants during the first trimester (n = 815 for paroxetine). This study showed a trend towards an increased risk for cardiovascular malformations for paroxetine (risk of 1.5%) compared to other antidepressants (risk of 1%), for an OR of 1.5 (95% confidence interval 0.8 to 2.9). Of the 12 paroxetine-exposed infants with cardiovascular malformations, 9 had VSDs. This study also suggested an increased risk of overall major congenital malformations including cardiovascular defects for paroxetine (4% risk) compared to other (2% risk) antidepressants (OR 1.8; 95% confidence interval 1.2 to 2.8).
- Two large case-control studies using separate databases, each with > 9,000 birth defect cases and > 4,000 controls, found that maternal use of paroxetine during the first trimester of pregnancy was associated with a 2- to 3-fold increased risk of right ventricular outflow tract obstructions. In one study the OR was 2.5 (95% confidence interval, 1.0 to 6.0, 7 exposed infants) and in the other study the OR was 3.3 (95% confidence interval, 1.3 to 8.8, 6 exposed infants).

Other studies have found varying results as to whether there was an increased risk of overall, cardiovascular, or specific congenital malformations. A meta-analysis of epidemiological data over a 16-year period (1992 to 2008) on first trimester paroxetine use in pregnancy and congenital malformations included the above-noted studies in addition to others (n = 17 studies that included overall malformations and n = 14 studies that included cardiovascular malformations; n = 20 distinct studies). While subject to limitations, this meta-analysis suggested an increased occurrence of cardiovascular malformations (prevalence odds ratio [POR] 1.5; 95% confidence interval 1.2 to 1.9) and overall malformations (POR 1.2; 95% confidence interval 1.1 to 1.4) with paroxetine use during the first trimester. It was not possible in this meta-analysis to determine the extent to which the observed prevalence of cardiovascular malformations might have contributed to that of overall malformations, nor was it possible to determine whether any specific types of cardiovascular malformations might have contributed to the observed prevalence of all cardiovascular malformations.

Unless the benefits of paroxetine to the mother justify continuing treatment, consideration should be given to either discontinuing paroxetine therapy or switching to another antidepressant [see *Warnings and Precautions (5.7)*]. For women who intend to become pregnant or are in their first trimester of pregnancy, paroxetine should only be initiated after consideration of the other available treatment options [see *Warnings and Precautions (5.4)*].

### ***Treatment of Pregnant Women During Their Third Trimester***

Neonates exposed to SSRIs or serotonin and norepinephrine reuptake inhibitors (SNRIs), including paroxetine extended-release tablets, late in the third trimester have developed complications requiring prolonged hospitalization, 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, jitteriness, irritability, and constant crying. These features are consistent with either a direct toxic effect of SSRIs and SNRIs or, possibly, a drug discontinuation syndrome. It should be noted that, in some cases, the clinical picture is consistent with serotonin syndrome [see *Warnings and Precautions (5.2)*].

Exposure to SSRIs in late pregnancy may have an increased risk for persistent pulmonary hypertension of the newborn (PPHN). PPHN occurs in 1 – 2 per 1,000 live births in the general population and is associated with substantial neonatal morbidity and mortality. In a retrospective case-control study of 377 women whose infants were born with PPHN and 836 women whose infants were born healthy, the risk for developing PPHN was approximately six-fold higher for infants exposed to SSRIs after the 20<sup>th</sup> week of gestation compared to infants who had not been exposed to antidepressants during pregnancy.

There have also been postmarketing reports of premature births in pregnant women exposed to paroxetine or other SSRIs.

When treating a pregnant woman with paroxetine during the third trimester, the physician should carefully consider both the potential risks and benefits of treatment [see *Dosage and Administration (2.5)*]. A prospective longitudinal study of 201 women with a history of major depression who were euthymic at the beginning of pregnancy. The women who discontinued antidepressant medication during pregnancy were more likely to experience a relapse of major depression than women who continued antidepressant medication.

### ***Animal Findings***

Reproduction studies were performed at doses up to 50 mg/kg/day in rats and 6 mg/kg/day in rabbits administered during organogenesis. These doses are approximately 6 (rat) and less than 2 (rabbit) times the maximum recommended human dose (MRHD – 75 mg) on an mg/m<sup>2</sup> basis. These studies have revealed no evidence of malformations. However, in rats, there was an increase in pup deaths during the first 4 days of lactation when dosing occurred during the last trimester of gestation and continued throughout lactation. This effect occurred at a dose of 1 mg/kg/day or approximately one-thirteens of the MRHD on an mg/m<sup>2</sup> basis. The no-effect dose for rat pup mortality was not determined. The cause of these deaths is not known.

### **8.3 Nursing Mothers**

Like many other drugs, paroxetine is secreted in human milk. Because of the potential for serious adverse reactions in nursing infants from paroxetine extended-release tablets, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

### **8.4 Pediatric Use**

The safety and effectiveness of paroxetine extended-release tablets in pediatric patients have not been established [see *Boxed Warning, Warnings and Precautions (5.1)*].

Three placebo-controlled trials in 752 pediatric patients with MDD have been conducted with immediate-release paroxetine, and effectiveness was not established in pediatric patients.

Decreased appetite and weight loss have been observed in association with the use of SSRIs.

In placebo-controlled clinical trials conducted with pediatric patients, the following adverse reactions were reported in at least 2% of pediatric patients treated with immediate-release paroxetine hydrochloride and at a rate at least twice that for pediatric patients receiving placebo: emotional lability (including self-harm, suicidal thoughts, attempted suicide, crying, and mood fluctuations), hostility, decreased appetite, tremor, sweating, hyperkinesia, and agitation.

Adverse reactions upon discontinuation of treatment with immediate-release paroxetine hydrochloride in the pediatric clinical trials that included a taper phase regimen, which occurred in at least 2% of patients and at a rate at least twice that of placebo, were: emotional lability (including suicidal ideation, suicide attempt, mood changes, and tearfulness), nervousness, dizziness, nausea, and abdominal pain.

### 8.5 Geriatric Use

SSRIs and SNRIs, including paroxetine extended-release tablets, 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)*].

In premarketing clinical trials with immediate-release paroxetine hydrochloride, 17% of paroxetine treated patients (approximately 700) were 65 years or older. Pharmacokinetic studies revealed a decreased clearance in the elderly, and a lower starting dose is recommended; however, no overall differences in safety or effectiveness were observed between these subjects and younger subjects [see *Dosage and Administration (2.5)*, *Clinical Pharmacology (12.3)*].

### 8.6 Renal and/or Hepatic Impairment

Increased plasma concentrations of paroxetine occur in patients with renal and hepatic impairment. The initial dosage should be reduced in patients with severe renal impairment and patients with severe hepatic impairment [see *Dosage and Administration (2.5)* and *Clinical Pharmacology (12.3)*].

## 10 OVERDOSAGE

**Human Experience:** Since the introduction of immediate-release paroxetine hydrochloride in the United States, spontaneous cases of deliberate or accidental overdose during paroxetine treatment have been reported worldwide. These include overdoses with paroxetine alone and in combination with other substances. There are reports of fatalities that appear to involve paroxetine alone.

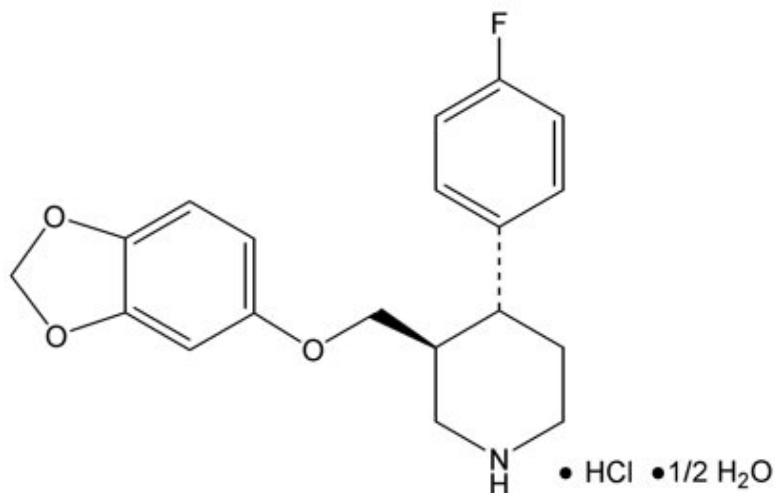
Commonly reported adverse reactions associated with paroxetine overdose include somnolence, coma, nausea, tremor, tachycardia, confusion, vomiting, and dizziness. Other notable signs and symptoms observed with overdoses involving paroxetine (alone or with other substances) include mydriasis, convulsions (including status epilepticus), ventricular dysrhythmias (including torsade de pointes), hypertension, aggressive reactions, syncope, hypotension, stupor, bradycardia, dystonia, rhabdomyolysis, symptoms of hepatic dysfunction (including hepatic failure, hepatic necrosis, jaundice, hepatitis, and hepatic steatosis), serotonin syndrome, manic reactions, myoclonus, acute renal failure, and urinary retention.

**Overdose Management:** No specific antidotes for paroxetine are known. If over-exposure occurs, all your poison control center at 1-800-222-1222 for latest recommendations.

## 11 DESCRIPTION

Paroxetine extended-release tablets, USP contain paroxetine hydrochloride, an SSRI. It is the hydrochloride salt of a phenylpiperidine compound identified chemically as (3S-*trans*)-3-[(1,3-benzodioxol-5-yloxy)methyl]-4-(4-fluorophenyl)-piperidine hydrochloride hemihydrate and has the molecular formula of  $C_{19}H_{20}FNO_3 \cdot HCl \cdot \frac{1}{2}H_2O$ . The molecular weight is 374.8 g/mol (329.4 g/mol as free base). The structural formula of paroxetine hydrochloride is:





Paroxetine hydrochloride (hemihydrate), USP is an odorless, white or almost white crystalline powder, having a melting point range of 120°C to 138°C and a solubility of 5.4 mg/mL in water.

Paroxetine extended-release tablets are intended for oral administration. Each extended-release tablet contains 12.5 mg, 25 mg, or 37.5 mg paroxetine equivalent to 14.22 mg, 28.45 mg, or 42.67 mg of paroxetine hydrochloride hemihydrate, respectively and the following inactive ingredients common to all strengths: colloidal silicon dioxide, hydroxypropyl cellulose, hypromellose, lactose monohydrate, magnesium stearate, methacrylic acid copolymer type C, microcrystalline cellulose, polydextrose, polyethylene glycol, polysorbate 80, sodium hydroxide, talc, titanium dioxide, triacetin and triethyl citrate.

The 25 mg tablets also contain D&C Red No. 30 Aluminum Lake, FD&C Blue No. 2 Aluminum Lake, FD&C Yellow No. 6 Aluminum Lake and the 37.5 mg tablets also contain D&C Red No. 30 Aluminum Lake, FD&C Yellow No. 6 Aluminum Lake, lecithin and sodium alginate.

In addition, paroxetine extended-release tablets also contain imprinting ink consisting of either black pigment and natural resin or black iron oxide and propylene glycol.

*Paroxetine hydrochloride complies with USP Chromatographic Purity Test 1.*

## 12 CLINICAL PHARMACOLOGY

### 12.1 Mechanism of Action

The mechanism of action of paroxetine in the treatment of major depressive disorder (MDD), panic disorder (PD), social anxiety disorder (SAD), and premenstrual dysphoric disorder (PMDD) is unknown, but is presumed to be linked to potentiation of serotonergic activity in the central nervous system resulting from inhibition of neuronal reuptake of serotonin (5-HT).

### 12.2 Pharmacodynamics

Studies at clinically relevant doses in humans have demonstrated that paroxetine blocks the uptake of serotonin into human platelets. *In vitro* studies in animals also suggest that paroxetine is a potent and highly selective inhibitor of neuronal serotonin reuptake (SSRI) and has only very weak effects on norepinephrine and dopamine neuronal reuptake.

### 12.3 Pharmacokinetics

#### *Absorption*

Paroxetine extended-release tablets are completely absorbed after oral dosing of a solution of the hydrochloride salt. In a study in which normal male and female subjects (n = 23) received single oral doses of paroxetine extended-release tablets at 4 dosage strengths (12.5 mg, 25 mg, 37.5 mg, and 50 mg), paroxetine C<sub>max</sub> and AUC<sub>0-inf</sub> increased disproportionately with dose (as seen also with

immediate-release formulations). Mean  $C_{max}$  and  $AUC_{0-inf}$  values at these doses were 2.0, 5.5, 9.0, and 12.5 ng/mL, and 121, 261, 338, and 540 ng·hr./mL, respectively.  $T_{max}$  was observed typically between 6 and 10 hours post-dose, reflecting a reduction in absorption rate compared with immediate-release formulations. The bioavailability of 25 mg paroxetine extended-release tablets is not affected by food.

### **Distribution**

Paroxetine distributes throughout the body, including the CNS, with only 1% remaining in the plasma. Approximately 95% and 93% of paroxetine is bound to plasma protein at 100 ng/mL and 400 ng/mL, respectively. Under clinical conditions, paroxetine concentrations would normally be less than 400 ng/mL. Paroxetine does not alter the *in vitro* protein binding of phenytoin or warfarin.

### **Elimination**

#### *Metabolism*

The mean elimination half-life of paroxetine was 15 to 20 hours throughout a range of single doses of paroxetine extended-release tablets (12.5 mg, 25 mg, 37.5 mg, and 50 mg). During repeated administration of paroxetine extended-release tablets (25 mg once daily), steady state was reached within 2 weeks (i.e., comparable to immediate-release formulations). In a repeat-dose study in which normal male and female subjects (n = 23) received paroxetine extended-release tablets (25 mg daily), mean steady state  $C_{max}$ ,  $C_{min}$ , and  $AUC_{0-24}$  values were 30 ng/mL, 20 ng/mL, and 550 ng·hr./mL, respectively.

Based on studies using immediate-release formulations, steady-state drug exposure based on  $AUC_{0-24}$  was several-fold greater than would have been predicted from single-dose data. The excess accumulation is a consequence of the fact that 1 of the enzymes that metabolizes paroxetine is readily saturable.

In steady-state dose proportionality studies involving elderly and nonelderly patients, at doses of the immediate-release formulation of 20 mg to 40 mg daily for the elderly and 20 mg to 50 mg daily for the nonelderly, some nonlinearity was observed in both populations, again reflecting a saturable metabolic pathway (Figure 3).

Paroxetine is extensively metabolized after oral administration. The principal metabolites are polar and conjugated products of oxidation and methylation, which are readily cleared. Conjugates with glucuronic acid and sulfate predominate, and major metabolites have been isolated and identified. Data indicate that the metabolites have no more than 1/50 the potency of the parent compound at inhibiting serotonin uptake. The metabolism of paroxetine is accomplished in part by CYP2D6. Saturation of this enzyme at clinical doses appears to account for the nonlinearity of paroxetine kinetics with increasing dose and increasing duration of treatment. The role of this enzyme in paroxetine metabolism also suggests potential drug-drug interactions [see *Drug Interactions (7)*].

#### *Excretion*

Approximately 64% of a 30-mg oral solution dose of paroxetine was excreted in the urine with 2% as the parent compound and 62% as metabolites over a 10-day post-dosing period. About 36% was excreted in the feces (probably via the bile), mostly as metabolites and less than 1% as the parent compound over the 10-day post-dosing period.

The elimination half-life is approximately 15 to 20 hours after a single dose of paroxetine extended-release tablets. Paroxetine metabolism is mediated in part by CYP2D6, and the metabolites are primarily excreted in the urine and to some extent in the feces. Pharmacokinetic behavior of paroxetine has not been evaluated in subjects who are deficient in CYP2D6 (poor metabolizers).

### **Drug Interaction Studies**

There are clinically significant, known drug interactions between paroxetine and other drugs [see *Drug Interactions (7)*].

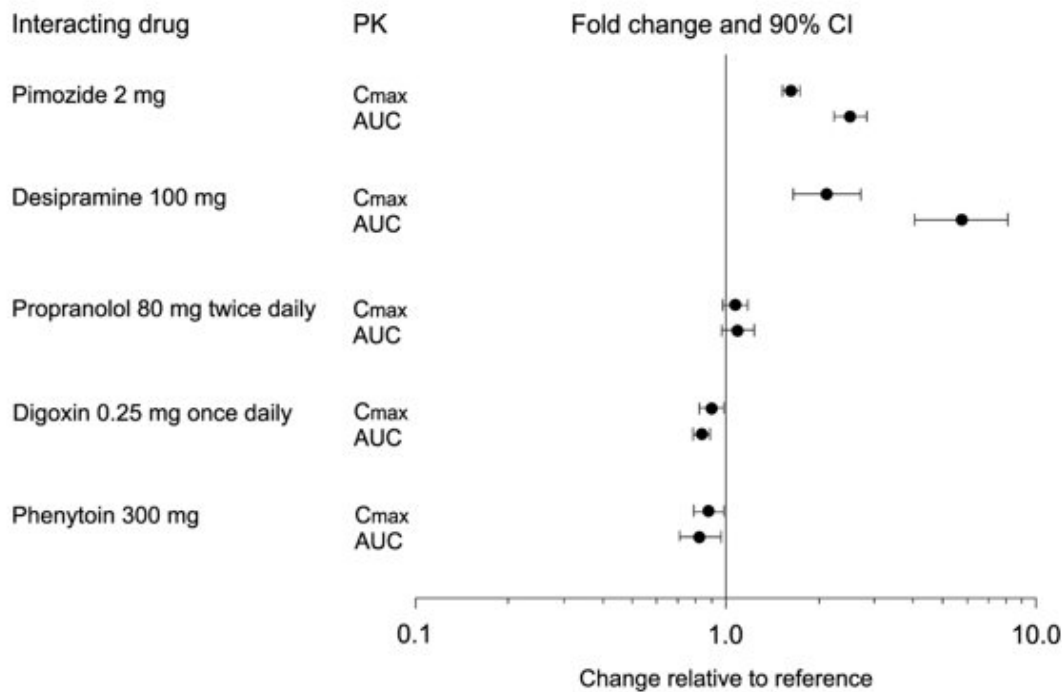


Figure 1. Impact of Paroxetine on the Pharmacokinetics of Co-Administered Drugs (log scale)

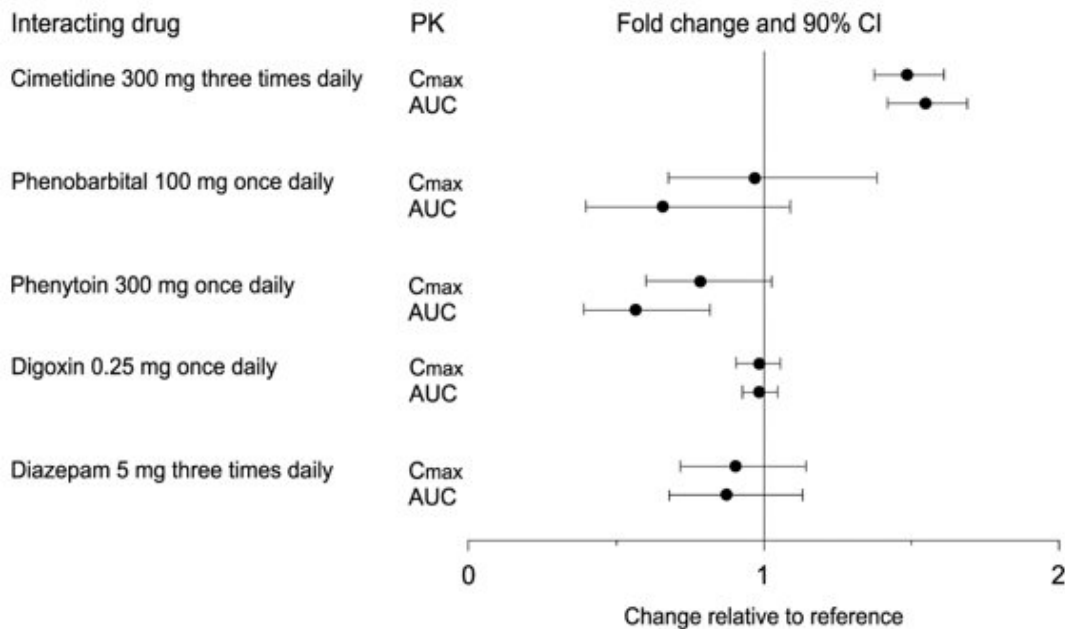


Figure 2. Impact of Co-Administered Drugs on the Pharmacokinetics of Paroxetine

### Theophylline

Reports of elevated theophylline levels associated with immediate-release paroxetine treatment have been reported. While this interaction has not been formally studied, it is recommended that theophylline levels be monitored when these drugs are concurrently administered.

### Drugs Metabolized by Cytochrome CYP3A4

An *in vivo* interaction study involving the coadministration under steady-state conditions of paroxetine and terfenadine, a substrate for CYP3A4, revealed no effect of paroxetine on terfenadine pharmacokinetics. In addition, *in vitro* studies have shown ketoconazole, a potent inhibitor of CYP3A4

activity, to be at least 100 times more potent than paroxetine as an inhibitor of the metabolism of several substrates for this enzyme, including terfenadine, astemizole, cisapride, triazolam, and cyclosporine. Paroxetine's extent of inhibition of CYP3A4 activity is not expected to be of clinical significance.

### Specific Populations

The impact of specific populations on the pharmacokinetics of paroxetine are shown in Figure 3.

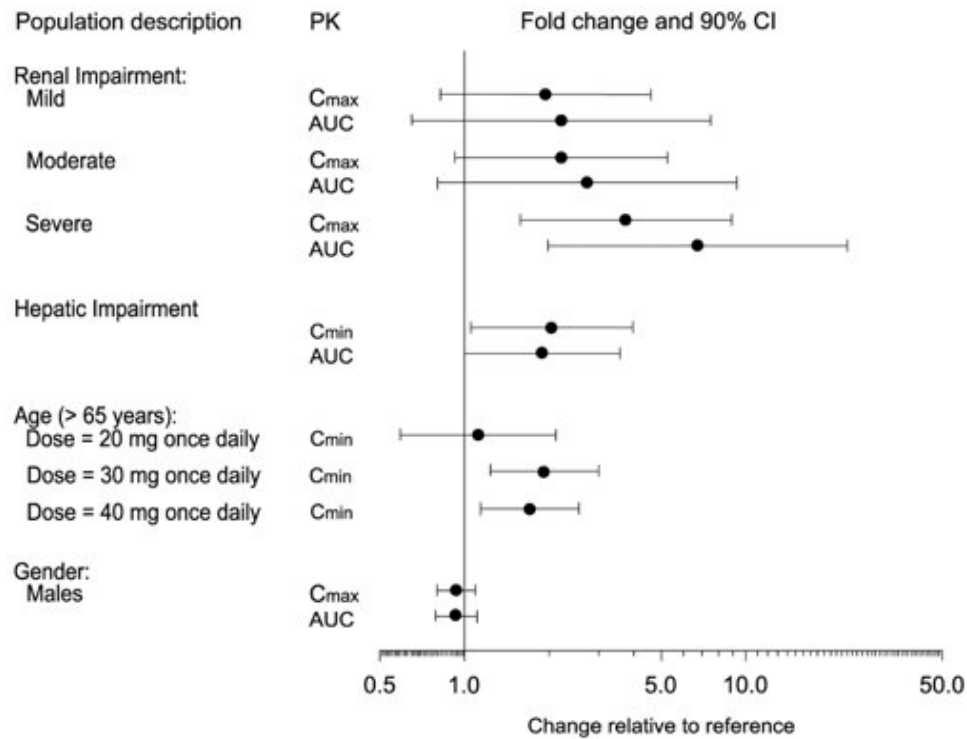


Figure 3. Impact of Specific Population on the Pharmacokinetics of Paroxetine (log scale)

## 13 NONCLINICAL TOXICOLOGY

### 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

#### Carcinogenesis

Two-year carcinogenicity studies were conducted in rodents given paroxetine in the diet at 1, 5, and 25 mg/kg/day (mice) and 1, 5, and 20 mg/kg/day (rats). These doses are up to approximately 1.6 (mouse) and 2.5 (rat) times the MRHD on an mg/m<sup>2</sup> basis. There was a significantly greater number of male rats in the high-dose group with reticulum cell sarcomas (1/100, 0/50, 0/50, and 4/50 for control, low-, middle-, and high-dose groups, respectively) and a significantly increased linear trend across dose groups for the occurrence of lymphoreticular tumors in male rats. Female rats were not affected. Although there was a dose-related increase in the number of tumors in mice, there was no drug-related increase in the number of mice with tumors. The relevance of these findings to humans is unknown.

#### Mutagenesis

Paroxetine produced no genotoxic effects in a battery of 5 *in vitro* and 2 *in vivo* assays that included the following: Bacterial mutation assay, mouse lymphoma mutation assay, unscheduled DNA synthesis assay, and tests for cytogenetic aberrations *in vivo* in mouse bone marrow and *in vitro* in human lymphocytes and in a dominant lethal test in rats.

#### Impairment of Fertility

Some clinical studies have shown that SSRIs (including paroxetine) may affect sperm quality during SSRI treatment, which may affect fertility in some men.

A reduced pregnancy rate was found in reproduction studies in rats at a dose of paroxetine of 15

mg/kg/day, which is approximately twice the MRHD on an mg/m<sup>2</sup> basis. Irreversible lesions occurred in the reproductive tract of male rats after dosing in toxicity studies for 2 to 52 weeks. These lesions consisted of vacuolation of epididymal tubular epithelium at 50 mg/kg/day and atrophic changes in the seminiferous tubules of the testes with arrested spermatogenesis at 25 mg/kg/day (approximately 6 and 3 times the MRHD on an mg/m<sup>2</sup> basis).

## **14 CLINICAL STUDIES**

### **14.1 Major Depressive Disorder**

The efficacy of paroxetine extended-release tablets as a treatment for major depressive disorder (MDD) was established in two 12-week, multicenter, randomized, double-blind, placebo-controlled, flexible dose studies with paroxetine extended-release tablets (Study 1 and Study 2) in adult patients who met Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV criteria for MDD. Study 1 and 2 included patients 18 to 65 years old who received paroxetine extended-release tablets doses of 25 to 62.5 mg/day (N = 212) or placebo (N = 211) once daily compared to immediate-release paroxetine 20 to 50 mg (N = 217). A third 12-week, multicenter, randomized, double-blind, placebo-controlled, flexible dose study with paroxetine extended-release tablets (Study 3) included elderly patients, ranging in age from 60 to 88 years old and used paroxetine extended-release tablets doses of 12.5 to 50 mg/day (N = 104) or placebo (N = 109) once daily compared to immediate-release paroxetine 10 to 40 mg (N = 106). In all three studies, paroxetine extended-release tablets were statistically superior to placebo in improving depressive symptoms as measured by the following: the mean change from baseline in the Hamilton Depression Rating Scale (HDRS) total score at Week 12, the mean change from baseline in the Hamilton Depressed Mood item score at Week 12, and the mean change from baseline in the Clinical Global Impression (CGI)–Severity of Illness score.

Long-term efficacy of paroxetine for treatment of MDD in outpatients was established with one randomized withdrawal study with immediate-release paroxetine. Patients who responded to immediate-release paroxetine (HDRS total score < 8) during an initial 8-week open-label treatment phase were then randomized to continue immediate-release paroxetine or placebo, for up to 1 year. Patients treated with immediate-release paroxetine demonstrated a statistically significant lower relapse rate during the withdrawal phase (15%) compared to those on placebo (39%). Effectiveness was similar for male and female patients.

### **14.2 Panic Disorder**

The effectiveness of paroxetine extended-release tablets in the treatment of panic disorder (PD) was evaluated in three 10-week, multicenter, flexible-dose studies (Studies 4, 5, and 6) comparing paroxetine extended-release tablets (12.5 to 75 mg daily) to placebo in adult outpatients 19 to 72 years of age who met panic disorder (with or without agoraphobia) criteria according to DSM-IV. These trials were assessed on the basis of their outcomes on 3 variables: (1) the proportions of patients free of full panic attacks at Week 10; (2) change from baseline to Week 10 in the median number of full panic attacks; and (3) change from baseline to Week 10 in the median Clinical Global Impression Severity score. For Studies 4 and 5, paroxetine extended-release tablets were superior to placebo on 2 of these 3 variables. Study 6 failed to consistently demonstrate a statistically significant difference between paroxetine extended-release tablets and placebo on any of these variables.

For all 3 studies, the mean dose of paroxetine extended-release tablets for completers at Week 10 was approximately 50 mg/day. Subgroup analyses did not indicate that there were any differences in treatment outcomes as a function of age or gender.

Long-term maintenance effects of paroxetine in patients with PD were demonstrated in a randomized-withdrawal study using immediate-release paroxetine. Patients who were responders during a 10-week, double-blind trial (followed by a 3-month double-blind maintenance phase) of immediate-release paroxetine were re-randomized to continue immediate-release paroxetine or placebo in a 3-month, double-blind withdrawal phase. Patients randomized to immediate-release paroxetine were statistically significantly less likely to relapse than placebo-treated patients.

### **14.3 Social Anxiety Disorder**

The efficacy of paroxetine extended-release tablets as a treatment for social anxiety disorder (SAD) was established, in part, on the basis of extrapolation from the established effectiveness of immediate-release paroxetine in the treatment of SAD. In addition, the effectiveness of paroxetine extended-release tablets in the treatment of SAD was demonstrated in one 12-week, multicenter, double-blind, flexible-dose, placebo-controlled study of adult outpatients with a primary diagnosis of SAD by DSM-IV criteria (Study 7). In Study 7, the effectiveness of paroxetine extended-release tablets (12.5 to 37.5 mg daily) compared to placebo was evaluated on the basis of (1) change from baseline in the Liebowitz Social Anxiety Scale (LSAS) total score at Week 12 and (2) the proportion of responders who scored 1 or 2 (very much improved or much improved) on the CGI Global Improvement score at Week 12.

In Study 7, paroxetine extended-release tablets demonstrated statistically significant superiority over placebo on both the change on LSAS total score at Week 12 and the CGI Improvement responder criterion at Week 12. For patients who completed the trial, 64% of patients treated with paroxetine extended-release tablets compared to 35% of patients treated with placebo were CGI Improvement responders at Week 12.

Subgroup analyses did not indicate that there were any differences in treatment outcomes as a function of gender. Subgroup analyses of studies utilizing the immediate-release formulation of paroxetine generally did not indicate differences in treatment outcomes as a function of age, race, or gender.

#### **14.4 Premenstrual Dysphoric Disorder**

The effectiveness of paroxetine extended-release tablets for the treatment of Premenstrual Dysphoric Disorder (PMDD) utilizing a continuous dosing regimen has been established in 2 placebo-controlled trials in female patients ages 18 to 46 (Studies 8 and 9 [N = 672]). Patients in these trials met DSM-IV criteria for PMDD. Of 1,030 patients including Study 10, who were treated with daily doses of paroxetine extended-release tablets 12.5 or 25 mg/day, or placebo continuously throughout the menstrual cycle for a period of 3 menstrual cycles, the mean duration of the PMDD symptoms was approximately 11 ± 7 years. Patients on systemic hormonal contraceptives were excluded from these trials. Therefore, the efficacy of paroxetine extended-release tablets in combination with systemic (including oral) hormonal contraceptives for the continuous daily treatment of PMDD is unknown.

The VAS score is a patient-rated instrument that mirrors the diagnostic criteria of PMDD as identified in the DSM-IV, and includes assessments for mood, physical symptoms, and other symptoms associated with PMDD. In Studies 8 and 9, 12.5 mg/day and 25 mg/day of paroxetine extended-release tablets were statistically significantly more effective than placebo as measured by change from baseline to Month 3 on the luteal phase VAS score.

In an additional study employing luteal phase dosing (Study 11), patients (N = 366) were treated for the 2 weeks prior to the onset of menses with 12.5 or 25 mg/day of paroxetine extended-release tablets or placebo for a period of 3 months. In this trial, 12.5 mg/day and 25 mg/day of paroxetine extended-release tablets, as luteal phase dosing, was statistically significantly more effective than placebo as measured by change from baseline to luteal phase VAS score at Month 3.

There is insufficient information to determine the effect of race or age on outcome in Studies 8, 9, 10, and 11.

#### **16 HOW SUPPLIED/STORAGE AND HANDLING**

Paroxetine Extended-Release Tablets, USP are available containing paroxetine hydrochloride (hemihydrate) USP, equivalent to 12.5 mg, 25 mg or 37.5 mg paroxetine.

The 12.5 mg tablets are white, enteric film-coated, round, unscored tablets with **M** over **P3** imprinted in black ink on one side of the tablet and blank on the other side. They are available as follows:

NDC 0378-2003-93  
bottles of 30 tablets

The 25 mg tablets are lavender, enteric film-coated, round, unscored tablets with **M** over **P4** imprinted in black ink on one side of the tablet and blank on the other side. They are available as follows:

NDC 0378-2004-93  
bottles of 30 tablets

The 37.5 mg tablets are orange, enteric film-coated, round, unscored tablets with **M** over **P5** imprinted in black ink on one side of the tablet and blank on the other side. They are available as follows:

NDC 0378-2005-93  
bottles of 30 tablets

**Store at 20° to 25°C (68° to 77°F). [See USP Controlled Room Temperature.]**

Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.

**PHARMACIST:** Dispense a Medication Guide with each prescription.

## 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 down, and instruct them to report such symptoms to the healthcare provider [see *Boxed Warning and Warnings and Precautions (5.1)*].

**Important Administration Instructions:** Instruct patients to swallow paroxetine extended-release tablets whole and to not chew or crush the tablets [see *Dosage and Administration (2.1)*].

**Serotonin Syndrome:** Caution patients about the risk of serotonin syndrome, particularly with the concomitant use of paroxetine extended-release tablets with other serotonergic drugs including triptans, tricyclic antidepressants, fentanyl, lithium, tramadol, 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 (5.2), Drug Interactions (7.1)*].

**Concomitant Medications:** Advise patients to inform their physician if they are taking, or plan to take, any prescription or over-the-counter drugs, since there is a potential for drug-drug interactions [see *Warning and Precautions (5.3), Drug Interactions (7)*].

**Increased Risk of Bleeding:** Inform patients about the concomitant use of paroxetine extended-release 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 (5.5)*].

**Activation of Mania/Hypomania:** Advise patients and their caregivers to observe for signs of activation of mania/hypomania and instruct them to report such symptoms to the healthcare provider [see *Warnings and Precautions (5.6)*].

**Discontinuation Syndrome:** Advise patients not to abruptly discontinue paroxetine extended-release tablets and to discuss any tapering regimen with their healthcare provider. Inform patients that adverse reactions can occur when paroxetine extended-release tablets are discontinued [see *Warnings and Precautions (5.7)*].

**Allergic Reactions:** Advise patients to notify their healthcare provider if they develop an allergic reaction such as rash, hives, swelling, or difficulty breathing [see *Adverse Reactions (6.1, 6.2)*].

**Embryo-Fetal Toxicity:** Advise women of the potential risk to the fetus [see *Warnings and Precautions (5.4), Use in Specific Populations (8.1)*]. Advise patients to notify their healthcare provider if they become pregnant or intend to become pregnant during therapy because of the risk to the fetus.

**Nursing:** Advise women to notify their healthcare provider if they are breastfeeding an infant [see *Use in Specific Populations (8.3)*].

## Medication Guide

**Paroxetine Extended-Release Tablets, USP**  
**(pa rox e teen)**

**What is the most important information I should know about paroxetine extended-release tablets?**

**Paroxetine extended-release tablets can cause serious side effects, including:**

- **Increased risk of suicidal thoughts or actions.** Antidepressant medicines may increase suicidal thoughts and actions in some children and young adults within the first few months of treatment or when the dose is changed. Paroxetine extended-release tablets are not for use in people younger than 18 years of age.

**How can I watch for and try to prevent suicidal thoughts and actions?**

- Depression or other serious mental illnesses are the most important causes of suicidal thoughts and actions.
- 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.
- Call your healthcare provider right away to report new or sudden changes in mood, behavior, thoughts or feelings or if you develop suicidal thoughts or actions.
- Keep all follow-up visits with your healthcare provider as scheduled. Call your healthcare provider between visits as needed, especially if you have concerns about symptoms.

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

- |  |   |
|--|---|
| ○ attempts to commit suicide   | ○ acting on dangerous impulses              |
| ○ acting aggressive or violent   | ○ thoughts about suicide or dying           |
| ○ new or worse depression  | ○ new or worse anxiety or panic attacks     |
| ○ feeling agitated, restless, angry, or irritable                      | ○ trouble sleeping                          |
| ○ an increase in activity and talking more than what is normal for you | ○ other unusual changes in behavior or mood |

**What are paroxetine extended-release tablets?**

Paroxetine extended-release tablets are a prescription medicine used in adults to treat:

- A certain type of depression called Major Depressive Disorder (MDD)
- Panic Disorder
- Social Anxiety Disorder (SAD)
- Premenstrual Dysphoric Disorder (PMDD)

**Do not take paroxetine extended-release 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 taking thioridazine
- are taking pimozide
- are allergic to paroxetine or any of the ingredients in paroxetine extended-release tablets. See the end of this Medication Guide for a complete list of ingredients in paroxetine extended-release tablets.

Ask your healthcare provider or pharmacist if you are not sure if you take an MAOI or one of these medicines, including intravenous methylene blue.



**Do not start taking an MAOI for at least 14 days after you stop treatment with paroxetine extended-release tablets.**

**Before taking paroxetine extended-release tablets, tell your healthcare provider about all your medical conditions, including if you:**

- have heart problems
- have or had bleeding problems
- have, or have a family history of bipolar disorder, mania or hypomania
- have or had seizures or convulsions
- have glaucoma (high pressure in the eye)
- have low sodium levels in your blood
- have bone problems
- have kidney or liver problems
- are pregnant or plan to become pregnant. Paroxetine may harm your unborn baby. Talk to your healthcare provider about the risks to your unborn baby if you take paroxetine extended-release tablets during pregnancy. Tell your healthcare provider right away if you become pregnant or think you are pregnant during treatment with paroxetine extended-release tablets.
- are breastfeeding or plan to breastfeed. Paroxetine passes into your breast milk. Talk to your healthcare provider about the best way to feed your baby during treatment with paroxetine extended-release tablets.

**Tell your healthcare provider about all the medicines you take**, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Paroxetine extended-release tablets and some other medicines may affect each other causing possible serious side effects. Paroxetine extended-release tablets may affect the way other medicines work and other medicines may affect the way paroxetine extended-release tablets work.

**Especially tell your healthcare provider if you take:**

- medicines used to treat migraine headaches called triptans
- tricyclic antidepressants
- fentanyl
- lithium
- tramadol
- tryptophan
- buspirone
- amphetamines
- St. John's Wort
- medicines that can affect blood clotting such as aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs), or warfarin
- diuretics
- tamoxifen

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 paroxetine extended-release tablets with your other medicines.

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

- Take paroxetine extended-release tablets exactly as your healthcare provider tells you to. Your healthcare provider may need to change the dose of paroxetine extended-release tablets until it is the right dose for you.
- Take paroxetine extended-release tablets 1 time each day in the morning.
- Paroxetine extended-release tablets may be taken with or without food.
- Swallow paroxetine extended-release tablets whole. **Do not** chew or crush paroxetine extended-release tablets.
- If you take too many paroxetine extended-release tablets, call your poison control center at 1-800-222-1222 or go to the nearest hospital emergency room right away.

### What are possible side effects of paroxetine extended-release tablets?

#### Paroxetine extended-release tablets can cause serious side effects, including:

- See, **“What is the most important information I should know about paroxetine extended-release tablets?”**
- **Serotonin syndrome.** A potentially life-threatening problem called serotonin syndrome can happen when you take paroxetine extended-release tablets with certain other medicines. See, **“Who should not take paroxetine extended-release 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:
  - agitation
  - seeing or hearing things that are not real (hallucinations)
  - confusion
  - coma
  - fast heart beat
  - changes in blood pressure
  - dizziness
  - sweating
  - flushing
  - high body temperature (hyperthermia)
  - shaking (tremors), stiff muscles, or muscle twitching
  - loss of coordination
  - seizures
  - nausea, vomiting, diarrhea
- **Medicine interactions.** Taking paroxetine extended-release tablets with certain other medicines including thioridazine and pimozide may increase the risk of developing a serious heart problem called QT prolongation.
- **Abnormal bleeding.** Taking paroxetine extended-release tablets with aspirin, NSAIDs, or blood thinners may add to this risk. Tell your healthcare provider about any unusual bleeding or bruising.
- **Manic episodes.** Manic episodes may happen in people with bipolar disorder who take paroxetine extended-release tablets. Symptoms may include:
  - greatly increased energy
  - racing thoughts
  - unusually grand ideas
  - talking more or faster than usual
  - severe problems sleeping
  - reckless behavior
  - excessive happiness or irritability
- **Discontinuation syndrome.** Suddenly stopping paroxetine extended-release tablets may cause you to have serious side effects. Your healthcare provider may want to decrease your dose slowly. Symptoms may include:
  - nausea
  - electric shock feeling
  - tiredness

- o sweating (paresthesia)
- o changes in your mood
- o irritability and agitation
- o dizziness
- o tremor
- o anxiety
- o confusion
- o headache
- o problems sleeping
- o ringing in your ears (tinnitus)
- o seizures

- **Seizures (convulsions).**
- **Eye problems (angle-closure glaucoma).** Paroxetine extended-release tablets may cause a type of eye problem called angle-closure glaucoma in people with certain other eye conditions. You may want to undergo an eye examination to see if you are at risk and receive preventative treatment if you are.
- **Low sodium levels in your blood (hyponatremia).** Low sodium levels in your blood that may be serious and may cause death, can happen during treatment with paroxetine extended-release tablets. Elderly people and people who take certain medicines may be at a greater risk for developing low sodium levels in your blood. Signs and symptoms may include:
  - o headache
  - o difficulty concentrating
  - o memory changes
  - o confusion
  - o weakness and unsteadiness on your feet which can lead to falls

**In more severe or more sudden cases, signs and symptoms include:**

- o seeing or hearing things that are not real (hallucinations)
- o fainting
- o seizures
- o coma
- o stopping breathing (respiratory arrest)
- **Bone fractures.**

**The most common side effects of paroxetine extended-release tablets include:**

- male and female sexual function problems
- blurred vision
- weakness (asthenia)
- constipation
- decreased appetite
- diarrhea
- dizziness
- dry mouth
- problems sleeping
- nausea
- sleepiness
- sweating
- tremor

These are not all the possible side effects of paroxetine extended-release tablets.

**Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.**

**How should I store paroxetine extended-release tablets?**

Store paroxetine extended-release tablets at room temperature between 20° to 25°C (68° to 77°F).

**Keep paroxetine extended-release tablets and all medicines out of the reach of children.**

**General information about the safe and effective use of paroxetine extended-release tablets.**

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not take paroxetine extended-release tablets for a condition for which they were not prescribed. Do not give paroxetine extended-release tablets to other people, even if they have the same symptoms that you have. They may harm them. You may ask your healthcare provider or pharmacist for information about paroxetine extended-release tablets that is written for healthcare professionals.

**What are the ingredients in paroxetine extended-release tablets?**

**Active ingredient:** paroxetine hydrochloride

**Inactive ingredients:** colloidal silicon dioxide, hydroxypropyl cellulose, hypromellose, lactose monohydrate, magnesium stearate, methacrylic acid copolymer type C, microcrystalline cellulose, polydextrose, polyethylene glycol, polysorbate 80, sodium hydroxide, talc, titanium dioxide, triacetin and triethyl citrate. The 25 mg tablets also contain D&C Red No. 30 Aluminum Lake, FD&C Blue No. 2 Aluminum Lake, FD&C Yellow No. 6 Aluminum Lake and the 37.5 mg tablets also contain D&C Red No. 30 Aluminum Lake, FD&C Yellow No. 6 Aluminum Lake, lecithin and sodium alginate. In addition, paroxetine extended-release tablets may also contain imprinting ink consisting of either black pigment and natural resin or black iron oxide and propylene glycol.

**Manufactured by:** Mylan Pharmaceuticals Inc., Morgantown, WV 26505  
For more information, call Mylan at 1-877-446-3679 (1-877-4-INFO-RX).

This Medication Guide has been approved by the U.S. Food and Drug Administration.

**Mylan Pharmaceuticals Inc.**  
Morgantown, WV 26505 U.S.A.

Revised: 10/2019  
PRXT:R20

**PRINCIPAL DISPLAY PANEL – 12.5 mg**

**NDC 0378-2003-93**

**Paroxetine  
Extended-Release  
Tablets, USP  
12.5 mg**

**PHARMACIST: Dispense the accompanying  
Medication Guide to each patient.**

**Rx only 30 Tablets**

Each enteric film-coated tablet contains paroxetine hydrochloride, USP equivalent to 12.5 mg of paroxetine.

Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.

Keep container tightly closed.

**Keep this and all medication  
out of the reach of children.**




**Store at 20° to 25°C (68° to 77°F).  
[See USP Controlled Room  
Temperature.]**

**Usual Dosage:** See accompanying prescribing information.

**Mylan Pharmaceuticals Inc.**  
Morgantown, WV 26505 U.S.A.

**Mylan.com**

**RM2003H10**

<p>3 N</p>  <p>0378-2003-93</p> <p>2</p>	<p>Each enteric film-coated tablet contains paroxetine hydrochloride, USP equivalent to 12.5 mg of paroxetine.</p>  <p>GTIN XXXXXXXXXXXXX S/N XXXXXXXXXXXXX EXP MM/YYYY LOT XXXXXX</p>	<p><b>NDC 0378-2003-93</b></p> <p><b>Paroxetine Extended-Release</b> Tablets, USP</p> <p><b>12.5 mg</b></p>  <p>PHARMACIST: Dispense the accompanying Medication Guide to each patient.</p> <p><b>Mylan®</b></p> <p><b>Rx only      30 Tablets</b></p>	<p>Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.</p> <p>Keep container tightly closed.</p> <p><b>Keep this and all medication out of the reach of children.</b></p> <p>Store at 20° to 25°C (68° to 77°F). [See USP Controlled Room Temperature.]</p> <p>Usual Dosage: See accompanying prescribing information.</p> <p><b>Mylan Pharmaceuticals Inc.</b> Morgantown, WV 26505 U.S.A.</p> <p><b>Mylan®</b> Mylan.com</p> <p>RM2003H10</p>
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**PRINCIPAL DISPLAY PANEL – 25 mg**

**NDC 0378-2004-93**

**Paroxetine  
Extended-Release  
Tablets, USP  
25 mg**

**PHARMACIST: Dispense the accompanying Medication Guide to each patient.**

**Rx only    30 Tablets**

Each enteric film-coated tablet contains paroxetine hydrochloride, USP equivalent to 25 mg of paroxetine.

Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.

Keep container tightly closed.

**Keep this and all medication out of the reach of children.**

**Store at 20° to 25°C (68° to 77°F).  
[See USP Controlled Room Temperature.]**

Usual Dosage: See accompanying prescribing information.

**Mylan Pharmaceuticals Inc.**  
Morgantown, WV 26505 U.S.A.

**Mylan.com**

**RM2004H10**

**PRINCIPAL DISPLAY PANEL – 37.5 mg**

**NDC 0378-2005-93**

**Paroxetine  
Extended-Release  
Tablets, USP  
37.5 mg**

**PHARMACIST: Dispense the accompanying  
Medication Guide to each patient.**

**Rx only 30 Tablets**

Each enteric film-coated tablet  
contains paroxetine  
hydrochloride, USP equivalent  
to 37.5 mg of paroxetine.

Dispense in a tight, light-resistant  
container as defined in the USP  
using a child-resistant closure.

Keep container tightly closed.

**Keep this and all medication  
out of the reach of children.**

**Store at 20° to 25°C (68° to 77°F).  
[See USP Controlled Room  
Temperature.]**

**Usual Dosage:** See accompanying  
prescribing information.

**Mylan Pharmaceuticals Inc.**  
Morgantown, WV 26505 U.S.A.

**Mylan.com**

**RM2005H7**

3 N  
0378-2005-93  
6

Each enteric film-coated tablet contains paroxetine hydrochloride, USP equivalent to 37.5 mg of paroxetine.

GTIN XXXXXXXXXXXX  
S/N XXXXXXXX  
EXP MM/YYYY  
LOT XXXXXX

NDC 0378-2005-93

**Paroxetine  
Extended-Release  
Tablets, USP**

**37.5 mg**

M  
P5

PHARMACIST: Dispense the accompanying Medication Guide to each patient.

**Mylan®**

**Rx only 30 Tablets**

Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.  
Keep container tightly closed.  
Keep this and all medication out of the reach of children.  
Store at 20° to 25°C (68° to 77°F). [See USP Controlled Room Temperature.]  
Usual Dosage: See accompanying prescribing information.  
Mylan Pharmaceuticals Inc.  
Morgantown, WV 26505 U.S.A.

RM2006H7

**Mylan®**  
Mylan.com

## PAROXETINE HYDROCHLORIDE

paroxetine hydrochloride tablet, film coated, extended release

### Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0378-2003
Route of Administration	ORAL		

### Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
PAROXETINE HYDROCHLORIDE HEMIHYDRATE (UNII: X2ELS050D8) (PAROXETINE - UNII:41VRH5220H)	PAROXETINE	12.5 mg

### Inactive Ingredients

Ingredient Name	Strength
FERROSO FERRIC OXIDE (UNII: XM0M87F357)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
HYDROXYPROPYL CELLULOSE, UNSPECIFIED (UNII: 9XZ8H6N6OH)	
HYPROMELLOSE, UNSPECIFIED (UNII: 3NXW29V3WO)	
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
METHACRYLIC ACID - ETHYL ACRYLATE COPOLYMER (1:1) TYPE A (UNII: NX76LV5T8J)	
MICROCRYSTALLINE CELLULOSE (UNII: OP1R32D61U)	
POLYDEXTROSE (UNII: VH2XOU12IE)	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WJQ0SDW1A)	
POLYSORBATE 80 (UNII: 6OZP39ZG8H)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SODIUM HYDROXIDE (UNII: 55X04QC32I)	
TALC (UNII: 7SEV7J4R1U)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	
TRIACETIN (UNII: XHX3C3X673)	
TRIETHYL CITRATE (UNII: 8Z96QXD6UM)	

**Product Characteristics**

<b>Color</b>	WHITE	<b>Score</b>	no score
<b>Shape</b>	ROUND	<b>Size</b>	8mm
<b>Flavor</b>		<b>Imprint Code</b>	M;P3
<b>Contains</b>			

**Packaging**

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0378-2003-93	30 in 1 BOTTLE; Type 0: Not a Combination Product	05/14/2008	
2	NDC:0378-2003-05	500 in 1 BOTTLE; Type 0: Not a Combination Product	05/14/2008	11/30/2019

**Marketing Information**

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA077873	05/14/2008	

**PAROXETINE HYDROCHLORIDE**

paroxetine hydrochloride tablet, film coated, extended release

**Product Information**

<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:0378-2004
<b>Route of Administration</b>	ORAL		

**Active Ingredient/Active Moiety**

Ingredient Name	Basis of Strength	Strength
PAROXETINE HYDROCHLORIDE HEMIHYDRATE (UNII: X2ELS050D8) (PAROXETINE - UNII:41VRH5220H)	PAROXETINE	25 mg

**Inactive Ingredients**

Ingredient Name	Strength
FERROUS FERRIC OXIDE (UNII: XM0M87F357)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
D&C RED NO. 30 (UNII: 2S42T2808B)	
FD&C BLUE NO. 2 (UNII: L06K8R7DQK)	
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)	
HYDROXYPROPYL CELLULOSE, UNSPECIFIED (UNII: 9XZ8H6N6OH)	
HYPROMELLOSE, UNSPECIFIED (UNII: 3NXW29V3WO)	
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
METHACRYLIC ACID - ETHYL ACRYLATE COPOLYMER (1:1) TYPE A (UNII: NX76LV5T8J)	
MICROCRYSTALLINE CELLULOSE (UNII: OP1R32D61U)	
POLYDEXTROSE (UNII: VH2XOU12IE)	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WJQ0SDW1A)	
POLYSORBATE 80 (UNII: 6OZP39ZG8H)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SODIUM HYDROXIDE (UNII: 55X04QC32I)	



TALC (UNII: 7SEV7J4R1U)				
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)				
TRIACETIN (UNII: XHX3C3X673)				
TRIETHYL CITRATE (UNII: 8Z96QXD6UM)				
<b>Product Characteristics</b>				
Color	PURPLE (lavender)	Score	no score	
Shape	ROUND	Size	8mm	
Flavor		Imprint Code	M;P4	
Contains				
<b>Packaging</b>				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0378-2004-93	30 in 1 BOTTLE; Type 0: Not a Combination Product	05/14/2008	
2	NDC:0378-2004-05	500 in 1 BOTTLE; Type 0: Not a Combination Product	05/14/2008	11/30/2019
<b>Marketing Information</b>				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
ANDA	ANDA077873	05/14/2008		

<b>PAROXETINE HYDROCHLORIDE</b>			
paroxetine hydrochloride tablet, film coated, extended release			
<b>Product Information</b>			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0378-2005
Route of Administration	ORAL		
<b>Active Ingredient/Active Moiety</b>			
Ingredient Name	Basis of Strength	Strength	
PAROXETINE HYDROCHLORIDE HEMIHYDRATE (UNII: X2ELS050D8) (PAROXETINE - UNII:41VRH5220H)	PAROXETINE	37.5 mg	
<b>Inactive Ingredients</b>			
Ingredient Name	Strength		
FERROSO FERRIC OXIDE (UNII: XM0M87F357)			
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)			
D&C RED NO. 30 (UNII: 2S42T2808B)			
FD&C YELLOW NO. 6 (UNII: H77VEI93A8)			
HYDROXYPROPYL CELLULOSE, UNSPECIFIED (UNII: 9XZ8H6N6OH)			
HYPROMELLOSE, UNSPECIFIED (UNII: 3NXW29V3WO)			
LACTOSE MONOHYDRATE (UNII: EWQ57Q8I5X)			
LECITHIN, SOYBEAN (UNII: 1DI56QDM62)			
MAGNESIUM STEARATE (UNII: 70097M6I30)			
METHACRYLIC ACID - ETHYL ACRYLATE COPOLYMER (1:1) TYPE A (UNII: NX76LV5T8J)			

MICROCRYSTALLINE CELLULOSE (UNII: OP1R32D61U)	
POLYDEXTROSE (UNII: VH2XOU12IE)	
POLYETHYLENE GLYCOL, UNSPECIFIED (UNII: 3WJQ0SDW1A)	
POLYSORBATE 80 (UNII: 6OZP39ZG8H)	
PROPYLENE GLYCOL (UNII: 6DC9Q167V3)	
SODIUM ALGINATE (UNII: C269C4G2ZQ)	
SODIUM HYDROXIDE (UNII: 55X04QC32I)	
TALC (UNII: 7SEV7J4R1U)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	
TRIACETIN (UNII: XHX3C3X673)	
TRIETHYL CITRATE (UNII: 8Z96QXD6UM)	

### Product Characteristics

<b>Color</b>	ORANGE	<b>Score</b>	no score
<b>Shape</b>	ROUND	<b>Size</b>	8 mm
<b>Flavor</b>		<b>Imprint Code</b>	M;P5
<b>Contains</b>			

### Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0378-2005-93	30 in 1 BOTTLE; Type 0: Not a Combination Product	05/05/2011	

### Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA091427	05/05/2011	

**Labeler** - Mylan Pharmaceuticals Inc. (059295980)

Revised: 10/2019

Mylan Pharmaceuticals Inc.