

**NORTRIPTYLINE HYDROCHLORIDE- nortriptyline hydrochloride solution**  
Taro Pharmaceuticals U.S.A., Inc.

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**Nortriptyline**  
**Hydrochloride**  
**Oral Solution, USP**

**Rx only**

**Suicidality and Antidepressant Drugs**

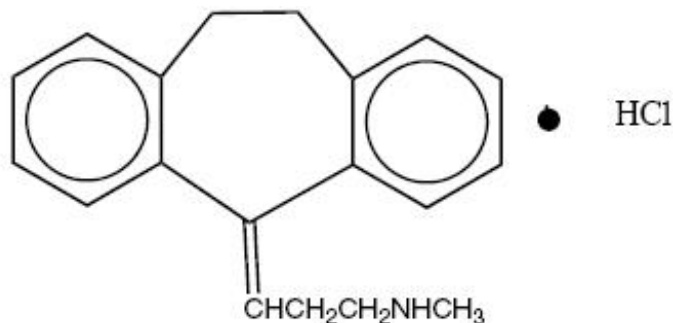
**Antidepressants increased the risk compared to placebo of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults in short-term studies of major depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of nortriptyline hydrochloride oral solution or any other antidepressant in a child, adolescent, or young adult must balance this risk with the clinical need. Short-term studies did not show an increase in the risk of suicidality with antidepressants compared to placebo in adults beyond age 24; there was a reduction in risk with antidepressants compared to placebo in adults aged 65 and older. Depression and certain other psychiatric disorders are themselves associated with increases in the risk of suicide. Patients of all ages who are started on antidepressant therapy should be monitored appropriately and observed closely for clinical worsening, suicidality, or unusual changes in behavior. Families and caregivers should be advised of the need for close observation and communication with the prescriber. Nortriptyline hydrochloride is not approved for use in pediatric patients. (See Warnings: Clinical Worsening and Suicide Risk, Precautions: Information for Patients, and Precautions: Pediatric Use.)**

**DESCRIPTION**

Nortriptyline Hydrochloride, USP is 1-propanamine, 3-(10, 11-dihydro-5H-dibenzo [a,d] cyclohepten-5-ylidene)-N-methyl, hydrochloride. Its molecular weight is 299.8, and its molecular formula is  $C_{19}H_{21}N \cdot HCl$ .

The oral solution contains nortriptyline hydrochloride equivalent to 10 mg/5 mL (38.0  $\mu$ mol) of the base and 4% alcohol (v/v). It also contains benzoic acid, cherry flavor (artificial), sorbitol solution 70%, and purified water.

The structural formula is as follows:



**ACTIONS**

The mood elevating mechanism of tricyclic antidepressants is at present unknown. Nortriptyline

hydrochloride is not a monoamine oxidase inhibitor. It inhibits the activity of such diverse agents as histamine, 5-hydroxytryptamine, and acetylcholine. It increases the pressor effect of norepinephrine but blocks the pressor response of phenethylamine. Studies suggest that nortriptyline hydrochloride interferes with the transport, release, and storage of catecholamines. Operant conditioning techniques in rats and pigeons suggest that nortriptyline hydrochloride has a combination of stimulant and depressant properties.

## **INDICATIONS**

Nortriptyline hydrochloride is indicated for the relief of symptoms of depression.

Endogenous depressions are more likely to be alleviated than are other depressive states.

## **CONTRAINDICATIONS**

The concurrent use of nortriptyline hydrochloride or other tricyclic antidepressants with a monoamine oxidase (MAO) inhibitor is contraindicated. Hyperpyretic crises, severe convulsions, and fatalities have occurred when similar tricyclic antidepressants were used in such combinations. It is advisable to discontinue the MAO inhibitor at least 2 weeks before treatment with nortriptyline hydrochloride is to be started.

Patients hypersensitive to nortriptyline hydrochloride should not be given the drug. Cross-sensitivity between nortriptyline hydrochloride and other dibenzazepines is a possibility.

Nortriptyline hydrochloride is contraindicated during the acute recovery period after myocardial infarction.

## **WARNINGS**

### **Clinical Worsening and Suicide Risk**

Patients with major depressive disorder (MDD), both adult and pediatric, may experience worsening of their depression and/or the emergence of suicidal ideation and behavior (suicidality) or unusual changes in behavior, whether or not they are taking antidepressant medications, and this risk may persist until significant remission occurs. Suicide is a known risk of depression and certain other psychiatric disorders, and these disorders themselves are the strongest predictors of suicide. There has been a long-standing concern, however, that antidepressants may have a role in inducing worsening of depression and the emergence of suicidality in certain patients during the early phases of treatment. Pooled analyses of short-term placebo-controlled trials of antidepressant drugs (SSRIs and others) showed that these drugs increase the risk of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults (ages 18-24) with major depressive disorder (MDD) and other psychiatric disorders. Short-term studies did not show an increase in the risk of suicidality with antidepressants compared to placebo in adults beyond age 24; there was a reduction with antidepressants compared to placebo in adults aged 65 and older.

The pooled analyses of placebo-controlled trials in children and adolescents with MDD, obsessive compulsive disorder (OCD), or other psychiatric disorders included a total of 24 short-term trials of 9 antidepressant drugs in over 4400 patients. The pooled analyses of placebo-controlled trials in adults with MDD or other psychiatric disorders included a total of 295 short-term trials (median duration of 2 months) of 11 antidepressant drugs in over 77,000 patients. There was considerable variation in risk of suicidality among drugs, but a tendency toward an increase in the younger patients for almost all drugs studied. There were differences in absolute risk of suicidality across the different indications, with the highest incidence in MDD. The risk differences (drug vs placebo), however, were relatively stable within age strata and across indications. These risk differences (drug-placebo difference in the number of cases of suicidality per 1000 patients treated) are provided in Table 1.

**Table 1**

| <b>Age Range</b> | <b>Drug-Placebo Difference in Number of Cases of Suicidality per 1000 Patients Treated</b> |
|------------------|--|
|                  | Increases Compared to Placebo  |
| <18              | 14 additional cases  |
| 18-24            | 5 additional cases   |
|                  | Decreases Compared to Placebo  |
| 25-64            | 1 fewer case   |
| >65              | 6 fewer cases  |

No suicides occurred in any of the pediatric trials. There were suicides in the adult trials, but the number was not sufficient to reach any conclusion about drug effect on suicide.

It is unknown whether the suicidality risk extends to longer-term use, i.e., beyond several months. However, there is substantial evidence from placebo-controlled maintenance trials in adults with depression that the use of antidepressants can delay the recurrence of depression.

**All patients being treated with antidepressants for any indication should be monitored appropriately and observed closely for clinical worsening, suicidality, and unusual changes in behavior, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases.**

The following symptoms, anxiety, agitation, panic attacks, insomnia, irritability, hostility, aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania, and mania, have been reported in adult and pediatric patients being treated with antidepressants for major depressive disorder as well as for other indications, both psychiatric and nonpsychiatric. Although a causal link between the emergence of such symptoms and either the worsening of depression and/or the emergence of suicidal impulses has not been established, there is concern that such symptoms may represent precursors to emerging suicidality.

Consideration should be given to changing the therapeutic regimen, including possibly discontinuing the medication, in patients whose depression is persistently worse, or who are experiencing emergent suicidality or symptoms that might be precursors to worsening depression or suicidality, especially if these symptoms are severe, abrupt in onset, or were not part of the patient's presenting symptoms.

**Families and caregivers of patients being treated with antidepressants for major depressive disorder or other indications, both psychiatric and nonpsychiatric, should be alerted about the need to monitor patients for the emergence of agitation, irritability, unusual changes in behavior, and the other symptoms described above, as well as the emergence of suicidality, and to report such symptoms immediately to health care providers. Such monitoring should include daily observation by families and caregivers.** Prescriptions for nortriptyline hydrochloride oral solution should be written for the smallest quantity consistent with good patient management, in order to reduce the risk of overdose.

### **Screening Patients for Bipolar Disorder**

A major depressive episode may be the initial presentation of bipolar disorder. It is generally believed (though not established in controlled trials) that treating such an episode with an antidepressant alone may increase the likelihood of precipitation of a mixed/manic episode in patients at risk for bipolar disorder. Whether any of the symptoms described above represent such a conversion is unknown. However, prior to initiating treatment with an antidepressant, patients with depressive symptoms should be adequately screened to determine if they are at risk for bipolar disorder; such screening should include a detailed psychiatric history, including a family history of suicide, bipolar disorder, and depression. It should be noted that nortriptyline hydrochloride is not approved for use in treating

bipolar depression.

Patients with cardiovascular disease should be given nortriptyline hydrochloride only under close supervision because of the tendency of the drug to produce sinus tachycardia and to prolong the conduction time. Myocardial infarction, arrhythmia, and strokes have occurred. The antihypertensive action of guanethidine and similar agents may be blocked. Because of its anticholinergic activity, nortriptyline hydrochloride should be used with great caution in patients who have glaucoma or a history of urinary retention. Patients with a history of seizures should be followed closely when nortriptyline hydrochloride is administered, because this drug is known to lower the convulsive threshold. Great care is required if nortriptyline hydrochloride is given to hyperthyroid patients or to those receiving thyroid medication, because cardiac arrhythmias may develop.

Nortriptyline hydrochloride may impair the mental and/or physical abilities required for the performance of hazardous tasks, such as operating machinery or driving a car; therefore, the patient should be warned accordingly.

Excessive consumption of alcohol in combination with nortriptyline therapy may have a potentiating effect, which may lead to the danger of increased suicidal attempts or overdosage, especially in patients with histories of emotional disturbances or suicidal ideation.

### **Use in Pregnancy**

Safe use of nortriptyline hydrochloride during pregnancy and lactation has not been established; therefore, when the drug is administered to pregnant patients, nursing mothers, or women of childbearing potential, the potential benefits must be weighed against the possible hazards. Animal reproduction studies have yielded inconclusive results.

## **PRECAUTIONS**

### **Information for Patients**

Prescribers or other health professionals should inform patients, their families, and their caregivers about the benefits and risks associated with treatment with nortriptyline hydrochloride and should counsel them in its appropriate use. A patient Medication Guide about Antidepressant Medicines, Depression and other Serious Mental Illness, and Suicidal Thoughts or Actions is available for nortriptyline hydrochloride. The prescriber or health professional should instruct patients and their caregivers to read the Medication Guide and should assist them in understanding its contents. Patients should be given the opportunity to discuss the contents of the Medication Guide and to obtain answers to any questions they may have. The complete text of the Medication Guide is reprinted at the end of this document.

Patients should be advised of the following issues and asked to alert their prescriber if these occur while taking nortriptyline hydrochloride.

### **Clinical Worsening and Suicide Risk**

Patients, their families, and their caregivers should be encouraged to be alert to the emergence of anxiety, agitation, panic attacks, insomnia, irritability, hostility, aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania, mania, other unusual changes in behavior, worsening of depression, and suicidal ideation, especially early during antidepressant treatment and when the dose is adjusted up or down. Families and caregivers of patients should be advised to look for the emergence of such symptoms on a day-to-day basis, since changes may be abrupt. Such symptoms should be reported to the patient's prescriber or health professional, especially if they are severe, abrupt in onset, or were not part of the patient's presenting symptoms. Symptoms such as these may be associated with an increased risk for suicidal thinking and behavior and indicate a need for very close monitoring and possibly changes in the medication.

## **Pediatric Use**

Safety and effectiveness in the pediatric population have not been established (see **BOX WARNING** and **WARNINGS—Clinical Worsening and Suicide Risk**).

Anyone considering the use of nortriptyline hydrochloride in a child or adolescent must balance the potential risks with the clinical need.

## **General**

The use of nortriptyline hydrochloride in schizophrenic patients may result in exacerbation of the psychosis or may activate latent schizophrenic symptoms. If the drug is given to overactive or agitated patients, increased anxiety and agitation may occur. In manic-depressive patients, nortriptyline hydrochloride may cause symptoms of the manic phase to emerge.

Troublesome patient hostility may be aroused by the use of nortriptyline hydrochloride. As may happen with other drugs of its class, epileptiform seizures may accompany its administration.

When it is essential, the drug may be administered concurrently with electroconvulsive therapy, although the hazards may be increased. Discontinue the drug for several days, if possible, prior to elective surgery.

The possibility of a suicidal attempt by a depressed patient remains after the initiation of treatment; in this regard, it is important that the least possible quantity of drug be dispensed at any given time.

Both elevation and lowering of blood sugar levels have been reported.

A case of significant hypoglycemia has been reported after the addition of nortriptyline (125 mg/day) in a type II diabetic patient maintained on chlorpropamide (250 mg/day).

## **Drug Interactions**

Steady-state serum concentrations of tricyclic antidepressants are reported to fluctuate significantly when cimetidine is either added or deleted from the drug regimen. Serious anticholinergic symptoms (severe dry mouth, urinary retention, blurred vision) have been associated with elevations in the serum levels of tricyclic antidepressants when cimetidine is added to the drug regimen. In addition, higher-than-expected steady-state serum concentrations of tricyclic antidepressants have been observed when therapy is initiated in patients already taking cimetidine.

In well-controlled patients undergoing concurrent therapy with cimetidine, a decrease in the steady-state serum concentrations of tricyclic antidepressants may occur when cimetidine therapy is discontinued. The therapeutic efficacy of tricyclic antidepressants may be compromised in these patients when cimetidine is discontinued. Several of the tricyclic antidepressants have been cited in these reports.

There have been greater than 2-fold increases in previously stable plasma levels of other antidepressants, including nortriptyline, when fluoxetine hydrochloride has been administered in combination with these agents. Fluoxetine and its active metabolite, norfluoxetine, have long half-lives (4 to 16 days for norfluoxetine), that may affect strategies during conversion from one drug to the other.

Administration of reserpine during therapy with a tricyclic antidepressant has been shown to produce a "stimulating" effect in some depressed patients.

Close supervision and careful adjustment of the dosage are required when nortriptyline hydrochloride is used with other anticholinergic drugs or sympathomimetic drugs. The patient should be informed that the response to alcohol may be exaggerated.

## **Drugs Metabolized by P450IID6**

A subset (3% to 10%) of the population has reduced activity of certain drug metabolizing enzymes such as the cytochrome P450 isoenzyme P450IID6. Such individuals are referred to as "poor metabolizers" of drugs such as debrisoquin, dextromethorphan, and the tricyclic antidepressants. These individuals

may have higher than expected plasma concentrations of tricyclic antidepressants when given usual doses. In addition, certain drugs that are metabolized by this isoenzyme, including many antidepressants (tricyclic antidepressants, selective serotonin reuptake inhibitors, and others), may inhibit the activity of this isoenzyme, and thus may make normal metabolizers resemble poor metabolizers with regard to concomitant therapy with other drugs metabolized by this enzyme system, leading to drug interactions.

Concomitant use of tricyclic antidepressants with other drugs metabolized by cytochrome P450IID6 may require lower doses than usually prescribed for either the tricyclic antidepressant or the other drug. Therefore, co-administration of tricyclic antidepressants with other drugs that are metabolized by this isoenzyme, including other antidepressants, phenothiazines, carbamazepine, and Type 1C antiarrhythmics (eg, propafenone, flecainide, and encainide), or that inhibit this enzyme (eg, quinidine), should be approached with caution.

### **Geriatric Use**

Confusional states following tricyclic antidepressant administration have been reported in the elderly (see **ADVERSE REACTIONS**). Higher plasma concentrations of the active nortriptyline metabolite, 10-hydroxynortriptyline, have also been reported in elderly patients (see **Plasma Levels under DOSAGE AND ADMINISTRATION**). Lower than usual dosages are recommended for the elderly patients (see **Elderly Patients under DOSAGE AND ADMINISTRATION**).

### **ADVERSE REACTIONS**

NOTE: Included in the following list are a few adverse reactions that have not been reported with this specific drug. However, the pharmacologic similarities among the tricyclic antidepressant drugs require that each of these reactions be considered when nortriptyline is administered.

*Cardiovascular*—Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke.

*Psychiatric*—Confusional states (especially in the elderly), with hallucinations, disorientation, delusions; anxiety, restlessness, agitation; insomnia, panic, nightmares; hypomania; exacerbation of psychosis.

*Neurologic*—Numbness, tingling, paresthesias of extremities; incoordination, ataxia, tremors; peripheral neuropathy; extrapyramidal symptoms; seizures, alteration of EEG patterns; tinnitus.

*Anticholinergic*—Dry mouth and, rarely, associated sublingual adenitis or gingivitis; blurred vision, disturbance of accommodation, mydriasis; constipation, paralytic ileus; urinary retention, delayed micturition, dilation of the urinary tract.

*Allergic*—Skin rash, petechiae, urticaria, itching, photosensitization (avoid excessive exposure to sunlight); edema (general or of face and tongue), drug fever, cross-sensitivity with other tricyclic drugs.

*Hematologic*—Bone-marrow depression, including agranulocytosis; aplastic anemia; eosinophilia; purpura; thrombocytopenia.

*Gastrointestinal*—Nausea and vomiting, anorexia, epigastric distress, diarrhea; peculiar taste, stomatitis, abdominal cramps, black tongue, constipation, paralytic ileus.

*Endocrine*—Gynecomastia in the male; breast enlargement and galactorrhea in the female; increased or decreased libido, impotence; testicular swelling; elevation or depression of blood sugar levels; syndrome of inappropriate ADH (antidiuretic hormone) secretion.

*Other*—Jaundice (simulating obstructive); altered liver function, hepatitis, and liver necrosis; weight gain or loss; perspiration; flushing; urinary frequency, nocturia; drowsiness, dizziness, weakness, fatigue; headache; parotid swelling; alopecia.

*Withdrawal Symptoms*—Though these are not indicative of addiction, abrupt cessation of treatment after

prolonged therapy may produce nausea, headache, and malaise.

## **OVERDOSAGE**

Deaths may occur from overdose with this class of drugs. Multiple drug ingestion (including alcohol) is common in deliberate tricyclic antidepressant overdose. As the management is complex and changing, it is recommended that the physician contact a poison control center for current information on treatment. Signs and symptoms of toxicity develop rapidly after tricyclic antidepressant overdose; therefore, hospital monitoring is required as soon as possible.

### **Manifestations**

Critical manifestations of overdose include: cardiac dysrhythmias, severe hypotension, convulsions, and CNS depression, including coma. Changes in the electrocardiogram, particularly in QRS axis or width, are clinically significant indicators of tricyclic antidepressant toxicity.

Other signs of overdose may include: confusion, disturbed concentration, transient visual hallucinations, dilated pupils, agitation, hyperactive reflexes, stupor, drowsiness, muscle rigidity, vomiting, hypothermia, hyperpyrexia, or many of the symptoms listed under **ADVERSE REACTIONS**.

### **Management**

#### General

Obtain an ECG and immediately initiate cardiac monitoring. Protect the patient's airway, establish an intravenous line and initiate gastric decontamination.

A minimum of six hours of observation with cardiac monitoring and observation for signs of CNS or respiratory depression, hypotension, cardiac dysrhythmias and/or conduction blocks, and seizures is necessary. If signs of toxicity occur at any time during this period, extended monitoring is required. There are case reports of patients succumbing to fatal dysrhythmias late after overdose; these patients had clinical evidence of significant poisoning prior to death and most received inadequate gastrointestinal decontamination. Monitoring of plasma drug levels should not guide management of the patient.

#### Gastrointestinal Decontamination

All patients suspected of tricyclic antidepressant overdose should receive gastrointestinal decontamination. This should include large volume gastric lavage followed by activated charcoal. If consciousness is impaired, the airway should be secured prior to lavage. Emesis is contraindicated.

#### Cardiovascular

A maximal limb-lead QRS duration of  $\geq 0.10$  seconds may be the best indication of the severity of the overdose. Intravenous sodium bicarbonate should be used to maintain the serum pH in the range of 7.45 to 7.55. If the pH response is inadequate, hyperventilation may also be used. Concomitant use of hyperventilation and sodium bicarbonate should be done with extreme caution, with frequent pH monitoring. A pH  $> 7.60$  or a  $p\text{CO}_2 < 20$  mm Hg is undesirable. Dysrhythmias unresponsive to sodium bicarbonate therapy/hyperventilation may respond to lidocaine, bretylium or phenytoin. Type 1A and 1C antiarrhythmics are generally contraindicated (eg, quinidine, disopyramide, and procainamide).

In rare instances, hemoperfusion may be beneficial in acute refractory cardiovascular instability in patients with acute toxicity. However, hemodialysis, peritoneal dialysis, exchange transfusions, and forced diuresis generally have been reported as ineffective in tricyclic antidepressant poisoning.

#### CNS

In patients with CNS depression, early intubation is advised because of the potential for abrupt

deterioration. Seizures should be controlled with benzodiazepines, or if these are ineffective, other anticonvulsants (eg, phenobarbital, phenytoin). Physostigmine is not recommended except to treat life-threatening symptoms that have been unresponsive to other therapies, and then only in consultation with a poison control center.

#### Psychiatric Follow-up

Since overdose is often deliberate, patients may attempt suicide by other means during the recovery phase. Psychiatric referral may be appropriate.

#### Pediatric Management

The principles of management of pediatric and adult overdoses are similar. It is strongly recommended that the physician contact the local poison control center for specific pediatric treatment.

### **DOSAGE AND ADMINISTRATION**

Nortriptyline hydrochloride is not recommended for pediatric patients. Nortriptyline hydrochloride is administered orally in the form of an oral solution. Lower than usual dosages are recommended for elderly patients. The use of lower dosages for outpatients is more important than for hospitalized patients who will be treated under close supervision. The physician should initiate dosage at a low level and increase it gradually, checking the clinical response carefully and noting any evidence of intolerance. Following remission, maintenance medication may be required for a longer period of time at the lowest dose that will maintain remission.

If a patient develops minor side effects, the dosage should be reduced. The drug should be discontinued promptly if adverse effects of a serious nature or allergic manifestations occur.

#### **Usual Adult Dose**

25 mg 3 or 4 times daily; dosage should begin at a low level and be increased as required. As an alternate regimen, the total daily dose may be given once a day. When doses above 100 mg daily are administered, plasma levels of nortriptyline should be monitored and maintained in the optimum range of 50 to 150 ng/mL. Doses above 150 mg per day are not recommended.

#### **Elderly Patients**

30 to 50 mg/day in divided doses.

#### **Plasma Levels**

Optimal responses to nortriptyline have been associated with plasma concentrations of 50 to 150 ng/mL. Higher concentrations may be associated with more adverse experiences. Plasma concentrations are difficult to measure, and physicians should consult with the laboratory professional staff.

Larger plasma concentrations of the active nortriptyline metabolite 10-hydroxy nortriptyline have been reported in older patients. In one case, such a condition was associated with apparent cardiotoxicity despite the fact that nortriptyline concentrations were within the "therapeutic range." Clinical findings should predominate over plasma concentrations as primary determinants of dosage changes.

### **HOW SUPPLIED**

**Nortriptyline Hydrochloride Oral Solution USP**, Equivalent to 10 mg/5 mL base is available in a 16 fl oz (473 mL) bottle.....NDC 51672-4119-9

**Store at 20°-25°C (68°-77°F) with excursions permitted between 15°-30°C (59°-86°F)** [See USP Controlled Room Temperature]. Protect from light. Keep container tightly closed.

Mfd. by: Taro Pharmaceutical Industries Ltd., Haifa Bay, Israel 26110



## **Medication Guide**

### **Antidepressant Medicines, Depression and other Serious Mental Illness, and Suicidal Thoughts or Actions**

Read the Medication Guide that comes with you or your family member's antidepressant medicine. This Medication Guide is only about the risk of suicidal thoughts and actions with antidepressant medicines.

#### **Talk to your, or your family member's, healthcare provider about:**

- all risks and benefits of treatment with antidepressant medicines
- all treatment choices for depression or other serious mental illness

#### **What is the most important information I should know about antidepressant medicines, depression and other serious mental illnesses, and suicidal thoughts or actions?**

- 1. Antidepressant medicines may increase suicidal thoughts or actions in some children, teenagers, and young adults within the first few months of treatment.**
- 2. Depression and other serious mental illnesses are the most important causes of suicidal thoughts and actions. Some people may have a particularly high risk of having suicidal thoughts or actions.** These include people who have (or have a family history of) bipolar illness (also called manic-depressive illness) or suicidal thoughts or actions.
- 3. How can I watch for and try to prevent suicidal thoughts and actions in myself or a family member?**
  - Pay close attention to any changes, especially sudden changes, in mood, behaviors, thoughts, or feelings. This is very important when an antidepressant medicine is started or when the dose is changed.
  - Call the healthcare provider right away to report new or sudden changes in mood, behavior, thoughts, or feelings.
  - Keep all follow-up visits with the healthcare provider as scheduled. Call the healthcare provider between visits as needed, especially if you have concerns about symptoms.

#### **Call a healthcare provider right away if you or your family member has any of the following symptoms, especially if they are new, worse, or worry you:**

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

#### **What else do I need to know about antidepressant medicines?**

- **Never stop an antidepressant medicine without first talking to a health care provider.** Stopping an antidepressant medicine suddenly can cause other symptoms.
- **Antidepressants are medicines used to treat depression and other illnesses.** It is important to discuss all the risks of treating depression and also the risks of not treating it. Patients and their

families or other caregivers should discuss all treatment choices with the healthcare provider, not just the use of antidepressants.

- **Antidepressant medicines have other side effects.** Talk to the healthcare provider about the side effects of the medicine prescribed for you or your family member.
- **Antidepressant medicines can interact with other medicines.** Know all of the medicines that you or your family member takes. Keep a list of all medicines to show the healthcare provider. Do not start new medicines without first checking with your healthcare provider.
- **Not all antidepressant medicines prescribed for children are FDA approved for use in children.** Talk to your child's healthcare provider for more information.

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

Mfd. by: Taro Pharmaceutical Industries Ltd., Haifa Bay, Israel 26110

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## NORTRIPTYLINE HYDROCHLORIDE

nortriptyline hydrochloride solution

### Product Information

|                                |                         |                           |                |
|--------------------------------|-------------------------|---------------------------|----------------|
| <b>Product Type</b>            | HUMAN PRESCRIPTION DRUG | <b>Item Code (Source)</b> | NDC:51672-4119 |
| <b>Route of Administration</b> | ORAL                    |                           |                |

### Active Ingredient/Active Moiety

| Ingredient Name  | Basis of Strength | Strength      |
|--|-------------------|---------------|
| Nortriptyline Hydrochloride (UNII: 00FN6IH15D) (Nortriptyline - UNII:BL03SY4LXB) |                   | 10 mg in 5 mL |

### Inactive Ingredients

| Ingredient Name                 | Strength |
|---------------------------------|----------|
| alcohol (UNII: 3K9958V90M)      |          |
| benzoic acid (UNII: 8SKN0B0MIM) |          |
| cherry flavor (artificial) ()   |          |
| sorbitol (UNII: 506T60A25R)     |          |
| water (UNII: 059QF0K00R)        |          |

### Packaging

| # | Item Code        | Package Description | Marketing Start Date | Marketing End Date |
|---|------------------|---------------------|----------------------|--------------------|
| 1 | NDC:51672-4119-9 | 1 in 1 CARTON       |                      |                    |
| 1 |                  | 473 mL in 1 BOTTLE  |                      |                    |

**Labeler** - Taro Pharmaceuticals U.S.A., Inc.

