

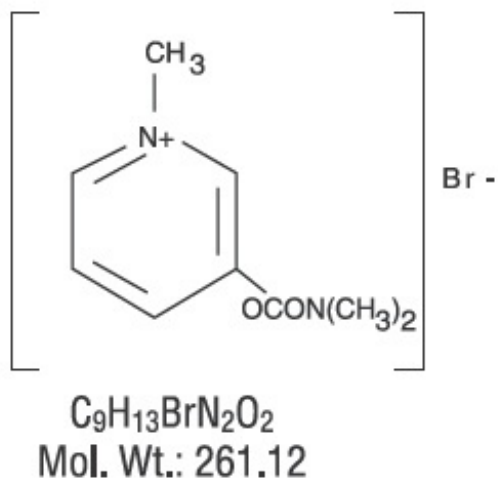
PYRIDOSTIGMINE BROMIDE- pyridostigmine bromide tablet
Impax Generics

PYRIDOSTIGMINE BROMIDE
TABLETS USP
60 mg

Rx only

DESCRIPTION

Pyridostigmine bromide is an orally active cholinesterase inhibitor. Chemically, pyridostigmine bromide is 3-hydroxy-1-methylpyridinium bromide dimethylcarbamate. Its structural formula is:



Pyridostigmine bromide tablets USP is available as a 60 mg tablet for oral administration. The tablet contains the following inactive ingredients: colloidal silicon dioxide, lactose anhydrous, magnesium stearate and stearic acid.

CLINICAL PHARMACOLOGY

Pyridostigmine bromide inhibits the destruction of acetylcholine by cholinesterase and thereby permits freer transmission of nerve impulses across the neuromuscular junction. Pyridostigmine is an analog of neostigmine (Prostigmin[®]), but differs from it in certain clinically significant respects; for example, pyridostigmine is characterized by a longer duration of action and fewer gastrointestinal side effects.

INDICATIONS AND USAGE

Pyridostigmine bromide is useful in the treatment of myasthenia gravis.

CONTRAINDICATIONS

Pyridostigmine bromide is contraindicated in mechanical intestinal or urinary obstruction, and particular caution should be used in its administration to patients with bronchial asthma. Care should be observed in the use of atropine for counteracting side effects, as discussed below.

WARNINGS

Although failure of patients to show clinical improvement may reflect underdosage, it can also be indicative of overdosage. As is true of all cholinergic drugs, overdosage of pyridostigmine bromide may result in cholinergic crisis, a state characterized by increasing muscle weakness which, through involvement of the muscles of respiration, may lead to death. Myasthenic crisis due to an increase in the severity of the disease is also accompanied by extreme muscle weakness, and thus may be difficult to distinguish from cholinergic crisis on a symptomatic basis. Such differentiation is extremely important, since increases in doses of pyridostigmine bromide or other drugs of this class in the presence of cholinergic crisis or of a refractory or "insensitive" state could have grave consequences. Osserman and Genkins¹ indicate that the differential diagnosis of the two types of crisis may require the use of Tensilon® (edrophonium chloride) as well as clinical judgment. The treatment of the two conditions obviously differs radically. Whereas the presence of myasthenic crisis suggests the need for more intensive anticholinesterase therapy, the diagnosis of cholinergic crisis, according to Osserman and Genkins,¹ calls for the prompt *withdrawal* of all drugs of this type. The immediate use of atropine in cholinergic crisis is also recommended.

Atropine may also be used to abolish or obtund gastrointestinal side effects or other muscarinic reactions; but such use, by masking signs of overdosage, can lead to inadvertent induction of cholinergic crisis.

For detailed information on the management of patients with myasthenia gravis, the physician is referred to one of the excellent reviews such as those by Osserman and Genkins,² Grob³ or Schwab.^{4,5}

PRECAUTIONS

Pyridostigmine is mainly excreted unchanged by the kidney.^{6,7,8} Therefore, lower doses may be required in patients with renal disease, and treatment should be based on titration of drug dosage to effect.^{6,7}

Pregnancy

The safety of pyridostigmine bromide during pregnancy or lactation in humans has not been established. Therefore, use of pyridostigmine bromide in women who may become pregnant requires weighing the drug's potential benefits against its possible hazards to mother and child.

Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

ADVERSE REACTIONS

The side effects of pyridostigmine bromide are most commonly related to overdosage and generally are of two varieties, muscarinic and nicotinic. Among those in the former group are nausea, vomiting, diarrhea, abdominal cramps, increased peristalsis, increased salivation, increased bronchial secretions, miosis and diaphoresis. Nicotinic side effects are comprised chiefly of muscle cramps, fasciculation and weakness. Muscarinic side effects can usually be counteracted by atropine, but for reasons shown in the preceding section the expedient is not without danger. As with any compound containing the bromide radical, a skin rash may be seen in an occasional patient. Such reactions usually subside promptly upon discontinuance of the medication.

To report SUSPECTED ADVERSE REACTIONS, contact IMPAX Laboratories, Inc. at 1-800-934-6729 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DOSAGE AND ADMINISTRATION

Pyridostigmine bromide is available in tablets, each containing 60 mg pyridostigmine bromide.

Dosage

The size and frequency of the dosage must be adjusted to the needs of the individual patient. The average dose is ten 60-mg tablets daily, spaced to provide maximum relief when maximum strength is needed. In severe cases as many as 25 tablets a day may be required, while in mild cases one to six tablets a day may suffice.

Note: For information on a diagnostic test for myasthenia gravis, and for the evaluation and stabilization of therapy, please see product literature on Tensilon® (edrophonium chloride).

HOW SUPPLIED

Pyridostigmine Bromide Tablets USP, 60 mg - Each white to off white, round, flat-faced tablet is debossed with "G3511" on one side and quadrisect on the other side.

Bottles of 100	NDC 0115-3511-01
Bottles of 500	NDC 0115-3511-02

IMPORTANT: These tablets are hygroscopic. Keep in a dry place with the silica gel enclosed.

Dispense in a tightly-closed, light-resistant container as defined in the USP, with a child-resistant closure, as required. Store at 20°C to 25°C (68°F to 77°F) [see USP Controlled Room Temperature].

REFERENCES

1. Osserman KE, Genkins G. Studies in myasthenia gravis: Reduction in mortality rate after crisis. *JAMA*. Jan 1963; 183:97-101.
2. Osserman KE, Genkins G. Studies in myasthenia gravis. *NY State J. Med.* June 1961; 61:2076-2085.
3. Grob D. Myasthenia gravis. A review of pathogenesis and treatment. *Arch Intern Med.* Oct 1961; 108:615-638.
4. Schwab RS. Management of myasthenia gravis. *New Eng J Med.* Mar 1963; 268:596-597.
5. Schwab RS. Management of myasthenia gravis. *New Eng J Med.* Mar 1963; 268:717-719.
6. Cronnelly R, Stanski DR, Miller RD, Sheiner LB. Pyridostigmine kinetics with and without renal function. *Clin Pharmacol Ther.* 1980; 28:No. 1, 78-81.
7. Miller RD. Pharmacodynamics and pharmacokinetics of anticholinesterase. In: Ruegheimer E, Zindler M, ed. *Anesthesiology*. (Hamburg, Germany: Congress; Sep 14-21, 1980; 222-223.) (Int Congr. No. 538), Amsterdam, Netherlands: Excerpta Medica; 1981.
8. Breyer-Pfaff U, Maier U, Brinkmann AM, Schumm F. Pyridostigmine kinetics in healthy subjects and patients with myasthenia gravis. *Clin Pharmacol Ther.* 1985; 5:495-501.

Dist. by:
Impax Generics
Hayward, CA 94544

277-06
Rev. 10/2015

PRINCIPAL DISPLAY PANEL - 60 mg Tablet Bottle Label

Impax Generics

NDC 0115-3511-01

**Pyridostigmine
Bromide Tablets
USP**

60 mg

**CAUTION: EXTREMELY MOISTURE SENSITIVE.
DO NOT REMOVE DESICCANT. CLOSE TIGHTLY.**

Rx only
100 TABLETS

NDC 0115-3511-01

**Pyridostigmine
Bromide Tablets
USP
60 mg**

**CAUTION: EXTREMELY MOISTURE SENSITIVE.
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100 Tablets



USUAL DOSAGE: See accompanying
outsert for complete prescribing
information.
Each tablet contains 60 mg
pyridostigmine bromide.

IMPORTANT: These tablets are
hygroscopic. Keep in a dry place with
the silica gel enclosed.
Dispense in tightly-closed,
light-resistant container as defined in
the USP, with child-resistant closure, as
required.

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

Dist. by: Impax Generics
Hayward, CA 94544

Product of Italy

1330-04
Rev. 10/2015



UNVARNISHED
AREA

PYRIDOSTIGMINE BROMIDE

pyridostigmine bromide tablet

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:0115-3511
Route of Administration	ORAL		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
PYRIDOSTIGMINE BROMIDE (UNII: KVI301NA53) (PYRIDOSTIGMINE - UNII:19QM69HH21)	PYRIDOSTIGMINE BROMIDE	60 mg

Inactive Ingredients

Ingredient Name	Strength
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
ANHYDROUS LACTOSE (UNII: 3SY5LH9PMK)	
MAGNESIUM STEARATE (UNII: 70097M6I30)	
STEARIC ACID (UNII: 4ELV7Z65AP)	

Product Characteristics

Color	WHITE (white to off white)	Score	4 pieces
Shape	ROUND (flat-faced)	Size	10mm

Flavor		Imprint Code	G3511	
Contains				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:0115-3511-01	100 in 1 BOTTLE; Type 0: Not a Combination Product	04/24/2003	
2	NDC:0115-3511-02	500 in 1 BOTTLE; Type 0: Not a Combination Product	04/24/2003	
Marketing Information				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
ANDA	ANDA040502	04/24/2003		

Labeler - Impax Generics (079832487)

Revised: 4/2016

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