

**PYRIDOSTIGMINE BROMIDE- pyridostigmine bromide tablet**  
**American Health Packaging**

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**Pyridostigmine Bromide Tablets, USP**  
**8249401/0420**  
**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<sup>®</sup>), 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 tablets are 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 Genkins<sup>1</sup> indicate that the differential diagnosis of the two types of crisis may require the use of Tensilon<sup>®</sup> (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<sup>1</sup>, 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<sup>2</sup>, Grob<sup>3</sup> or Schwab.<sup>4,5</sup>

**PRECAUTIONS**

Pyridostigmine is mainly excreted unchanged by the kidney<sup>6,7,8</sup>. Therefore, lower doses may be required in

patients with renal disease, and treatment should be based on titration of drug dosage to effect <sup>6,7</sup>.

### **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 Amneal Pharmaceuticals at 1-877-835-5472 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://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<sup>®</sup> (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.

Unit dose packages of 100 (10 x 10) NDC 68084-494-01

**IMPORTANT:** These tablets are hygroscopic. Keep in a dry place.

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

**FOR YOUR PROTECTION:** Do not use if blister is torn or broken.

## **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.

PACKAGING INFORMATION

American Health Packaging unit dose blisters (see How Supplied section) contain drug product from Amneal Pharmaceuticals LLC as follows:  
(60 mg / 100 UD) NDC 68084-494-01 packaged from NDC 0115-3511

Distributed by:  
**American Health Packaging**  
Columbus, OH 43217

8249401/0420

Package/Label Display Panel — Carton — 60 mg



NDC 68084- ~~494~~-01

**Pyridostigmine  
Bromide**  
Tablets USP

**60 mg**

**100 Tablets (10 x 10) Rx Only**

**CAUTION: EXTREMELY MOISTURE SENSITIVE**

**Each Tablet Contains:**  
Pyridostigmine bromide.....60 mg

**Usual Dosage:** See package insert for full prescribing information.

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

**IMPORTANT:** These tablets are hygroscopic. Keep in a dry place.

**Keep this and all drugs out of reach of children.**

**FOR YOUR PROTECTION:** Do not use if blister is torn or broken.

The drug product contained in this package is from  
NDC # 0115-3511, Amneal Pharmaceuticals LLC.

Distributed by:  
American Health Packaging  
Columbus, Ohio 43217

049401  
0249401/0420

Package/Label Display Panel — Blister — 60 mg



Pyridostigmine Bromide  
Tablet USP

**60 mg**

PYRIDOSTIGMINE BROMIDE			
pyridostigmine bromide tablet			
Product Information			
Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:68084-494(NDC:0115-3511)
Route of Administration	ORAL		

Active Ingredient/Active Moiety		
Ingredient Name	Basis of Strength	Strength
PYRIDOSTIGMINE BROMIDE (UNII: KVJ301NA53) (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:68084-494-01	100 in 1 BOX, UNIT-DOSE	05/25/2023	
1	NDC:68084-494-11	1 in 1 BLISTER PACK; Type 0: Not a Combination Product		

Image of Product
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Marketing Information			
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA040502	10/04/2011	

Labeler - American Health Packaging (929561009)
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Establishment			
Name	Address	ID/FEI	Business Operations
American Health Packaging		929561009	repack(68084-494)