PYRIDOSTIGMINE BROMIDE:

Class: Acetylcholinesterase Inhibitor
Indications: Symptomatic treatment of myasthenia gravis; antagonism of nondepolarizing neuromuscular blockers. Military use: Pretreatment for Soman nerve gas exposure

Available dosage form in the hospital: 60MG TAB

Dosage:

- **Myasthenia gravis:**
  - **Oral:** Highly individualized dosing ranges: 60-1500 mg/day, usually 600 mg/day divided into 5-6 doses, spaced to provide maximum relief
  - **Sustained release formulation:** Highly individualized dosing ranges: 180-540 mg once or twice daily (doses separated by at least 6 hours); **Note:** Most clinicians reserve sustained release dosage form for bedtime dose only.
  - **I.M. or slow I.V. push:** To supplement oral dosage pre- and postoperatively during labor and postpartum, during myasthenic crisis, or when oral therapy is impractical: ~1/30th of oral dose; observe patient closely for cholinergic reactions
  - **I.V. infusion:** To supplement oral dosage pre- and postoperatively, during labor and postpartum, during myasthenic crisis, or when oral therapy is impractical: Initial: 2 mg/hour with gradual titration in increments of 0.5-1 mg/hour, up to a maximum rate of 4 mg/hour

- **Reversal of nondepolarizing muscle relaxants:** **I.V.** 0.1-0.25 mg/kg/dose; 10-20 mg is usually sufficient (full recovery usually occurs ≤15 minutes, but ≥30 minutes may be required).

**Note:** Atropine sulfate (0.6-1.2 mg) I.V. immediately prior to pyridostigmine to minimize side effects

- **Pretreatment for Soman nerve gas exposure (military use):** **Oral:** 30 mg every 8 hours beginning several hours prior to exposure; discontinue at first sign of nerve agent exposure, then begin atropine and pralidoxime

**Renal Impairment:**

Lower dosages may be required due to prolonged elimination; no specific recommendations have been published.

**Hepatic Impairment:**

No dosage adjustment provided in manufacturer’s labeling.

**Common side effect:**

Cardiovascular: Arrhythmias (especially bradycardia), AV block, cardiac arrest, decreased carbon monoxide, flushing, hypotension, nodal rhythm, nonspecific ECG changes, syncope, tachycardia

Central nervous system: Convulsions, dizziness, drowsiness, dysphonia, headache, loss of consciousness

Dermatologic: Skin rash, thrombophlebitis (I.V.), urticaria

Gastrointestinal: Abdominal pain, diarrhea, dysphagia, flatulence, hyperperistalsis, nausea, salivation, stomach cramps, vomiting

Genitourinary: Urinary urgency

Neuromuscular & skeletal: Arthralgia, dysarthria, fasciculations, muscle cramps, myalgia, spasms, weakness

Ocular: Amblyopia, lacrimation, small pupils

Respiratory: Bronchial secretions increased, bronchiolar constriction, bronchospasm, dyspnea, laryngospasm, respiratory arrest, respiratory depression, respiratory muscle paralysis

Miscellaneous: Allergic reactions, anaphylaxis, diaphoresis increased

**Pregnancy Risk Factor:** B