

41. ISOPRENALINE

Class: Beta₁/Beta₂ Agonist

Indications: Mild or transient episodes of heart block that do not require electric shock or pacemaker therapy; serious episodes of heart block and Adams-Stokes attacks (except when caused by ventricular tachycardia or fibrillation); cardiac arrest until electric shock or pacemaker therapy is available; bronchospasm during anesthesia; adjunct to fluid and electrolyte replacement therapy and other drugs and procedures in the treatment of hypovolemic or septic shock and low cardiac output states (eg, decompensated heart failure, cardiogenic shock)

Unlabeled :Pharmacologic overdrive pacing for refractory torsade de pointes; pharmacologic provocation during tilt table testing for syncope; temporary control of bradycardia in denervated heart transplant patients unresponsive to atropine; ventricular arrhythmias due to AV nodal block; beta-blocker overdose; electrical storm associated with Brugada syndrome

Available dosage form in the hospital: 0.25MG /ML INJ, 0.2MG /ML INJ

Dosage: Note: Patients may exhibit dose-dependent vasodilation due to unopposed beta₂-agonism elicited by isoproterenol.

-Bradycarrhythmias, AV nodal block, or refractory torsade de pointes: Continuous I.V. infusion: Usual range: 2-10 mcg/minute; titrate to patient response.

-Brugada syndrome with electrical storm (unlabeled use): I.V. bolus: Initial: 1-2 mcg, followed by a continuous infusion of 0.15-0.3 mcg/minute for 1 day; may repeat sequence if ventricular tachycardia/fibrillation recurs.

-Tilt table testing for syncope: Continuous I.V infusion: Initial: 1 mcg/minute; increase as necessary based on response; maximum dose: 5 mcg/minute. **Note:** Timing of initiation and dose adjustment during test may be institution-specific.

Renal Impairment:

No dosage adjustment provided in manufacturer's labeling.

Hepatic Impairment:

No dosage adjustment provided in manufacturer's labeling.

Common side effect: Cardiovascular: Angina, flushing, hyper-/hypotension, pallor, palpitation, paradoxical bradycardia (with tilt table testing), premature ventricular beats, Stokes-Adams attacks, tachycarrhythmia, ventricular arrhythmia

Central nervous system: Dizziness, headache, nervousness, restlessness, Stokes-Adams seizure.

Endocrine & metabolic: Hypokalemia, serum glucose increased

Gastrointestinal: Nausea, vomiting. Neuromuscular & skeletal: Tremor, weakness

Ocular: Blurred vision. Respiratory: Dyspnea, pulmonary edema

Pregnancy Risk Factor: C