

DOPAMINE

Class: Adrenergic Agonist Agent

Indications: Adjunct in the treatment of shock (eg, MI, open heart surgery, renal failure, cardiac decompensation) which persists after adequate fluid volume replacement

Unlabeled: Symptomatic bradycardia or heart block unresponsive to atropine or pacing

Dosage:

Hemodynamic support: I.V. infusion (administration requires the use of an infusion pump): 1-5 mcg/kg/minute up to 20 mcg/kg/minute; titrate to desired response (maximum: 50 mcg/kg/minute; however, doses >20 mcg/kg/minute may not have a beneficial effect on blood pressure and increase the risk of tachyarrhythmias); infusion may be increased by 1-4 mcg/kg/minute at 10- to 30-minute intervals until optimal response is obtained

Note: If dosages >20-30 mcg/kg/minute are needed, a more direct-acting vasopressor may be more beneficial (ie, epinephrine, norepinephrine).

Hemodynamic effects of dopamine are dose dependent (however, this is relative and there is overlap of clinical effects between dosing ranges):

- Low-dose: 1-5 mcg/kg/minute, increased renal blood flow and urine output
- Intermediate-dose: 5-15 mcg/kg/minute, increased renal blood flow, heart rate, cardiac contractility, and cardiac output.
- High-dose: >15 mcg/kg/minute, alpha-adrenergic effects begin to predominate, vasoconstriction, increased blood pressure

Available dosage form in the hospital: 200MG/5ML AMP, 50MG/5ML AMP

Common side effect: Most frequent: Cardiovascular: Anginal pain, ectopic beats, hypotension, palpitation, tachycardia, vasoconstriction

Central nervous system: Headache , Gastrointestinal: Nausea and vomiting Respiratory: Dyspnea

Pregnancy Risk Factor: C