DOPAMINE (Intropin) EMSAC May 2023

ACTION: Sympathomimetic

- Catecholamine with dose-dependent stimulation of alpha-adrenergic, beta-adrenergic, and dopaminergic receptors.
  - Low doses (2 to 5 mcg/kg/min): Stimulates dopaminergic receptors (renal and mesenteric artery dilation).
  - Medium doses (5 to 10 mcg/kg/min): Stimulates beta-adrenergic receptors (increased heart rate and contractility resulting in increased cardiac output).
  - High doses (greater than 10 mcg/kg/min): Stimulates alpha-adrenergic receptors (peripheral vasoconstriction, increased blood pressure).

INDICATION	ADULT	PEDIATRIC
1. **Hypotension** due to **cardiogenic shock** or **distributive shock** (neurogenic, septic, or anaphylactic subtype) 2. **Symptomatic bradycardia refractory** to other treatments such as atropine and pacing	Start 5 mcg/kg/min IV/IO. May titrate up to 20 mcg/kg/min to target SBP > 90 mmHg. If taking MAOIs in the last 2 weeks, use 1/10th of the normal dose.	**MAKE BASE HOSPITAL CONTACT BEFORE** INITIATING. Start 5 mcg/kg/min IV/IO. May titrate up to 20 mcg/kg/min. If taking MAOIs in the last 2 weeks, use 1/10th of the normal dose.

CONTRAINDICATIONS:

- Tachydysrhythmias

POTENTIAL SIDE EFFECTS:

- Tachydysrhythmias including V-Tach and V-Fib
- Hypertension
- Nausea and vomiting
- Chest pain, ischemia, and acute MI exacerbation
- Extravasation causes tissue necrosis

NOTES:

- Do not infuse in same line as sodium bicarbonate
- Ensure that the patient is not hypovolemic before infusing dopamine.
- Monoamine oxidase inhibitors (MAOIs) potentiate the effects of dopamine. MAOIs include selegiline (Emsam), tranylcypromine (Parnate), and phenelzine (Nardil).