
AUTHORIZED BY: CPC Quality of Care Committee
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CATEGORY: ACP/PCP Medications
TITLE: **EPINEPHRINE**

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- Other Names:**
- Adrenalin
- Classifications:**
- Sympathomimetic
- Pharmacodynamics:**
- Beta 1 effects: increase heart rate (HR) and force of cardiac contractility (inotropic effect)
 - Beta 2 effects causes bronchodilation
 - Alpha effects: vasoconstriction at higher dosages
 - Inhibits histamine release
- Onset:**
- IV: < 2 min
 - IM: 3 – 10 min
 - Nebulized: 3 – 5 min
- Peak:**
- IV: < 5 – 20 min
 - IM: 20 min
 - Nebulized: 20 min
- Duration:**
- IV: 5 - 10 min
 - IM: 20 – 30 min
 - Nebulized: 1 – 3 hours
- Indications:**
- Severe allergic reaction (Anaphylaxis)
 - Asthma Exacerbation
 - Croup
 - Cardiac Arrest
 - Vasopressor
- Contraindications:**
- Allergy or sensitivity
 - Croup: Heart rate > 200 bpm
- Precautions:**
- Hypertension
 - Use with caution with the elderly
 - Ischemic heart disease and/or cardiac arrhythmias
 - Hyperthyroidism
 - Diabetes
- Adverse Reactions:**
- Anxiety/Restlessness
 - Headaches
 - Fear
 - Palpitations
 - Respiratory difficulty
 - Hypertension
 - Tremor
 - Pallor
 - Dizziness

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- Drug Interactions:**
- Protect vials from light
 - Do not use solution if brown in color or if it contains precipitate
 - Do not administer in the same line as alkaline solution (i.e. Sodium Bicarbonate)

- Special Considerations:**
- Massaging of IM injection site increases absorption

- Preparations:**
- 1 mg 1:10 000 (10 cc preload)
 - 1 mg 1:1 000 (1 cc ampoule)
 - 30 mg/30 ml 1:1 000 (multi-dose vial)

- References:**
- Ontario Provincial ALS Patient Care Standards, Version 4.5
 - 2015 AHA Guidelines: ACLS
 - Compendium of Pharmaceuticals and Specialties 2013

NOTE: *The information contained herein does not supersede or negate the MoHLTC Provincial Medical Directives and should only serve as general information about the medication itself. For medication dosages, please refer to the current version of the Ontario Provincial ALS Patient Care Standards.*