

Subject: Scope of Practice/Procedure - ALS
Atropine Sulfate

Associated Policies:

- I. Class
 - A. Parasympathetic blocker (anticholinergic). Blocks vagal effects.
- II. Indications
 - A. Symptomatic bradycardia
 - B. Second or third degree atrioventricular (AV) block when Transcutaneous Pacing is not available or delayed.
 - C. Symptomatic organophosphate poisoning.
- III. Therapeutic Effects
 - A. Blocks parasympathetic action on the heart.
 - B. Enhances conduction through the AV junction.
 - C. Accelerates heart rate thereby improving cardiac output.
 - D. Suppresses hypercholinergic effects of organophosphate poisoning.
- IV. Contraindications
 - A. Absolute:
 - 1. Tachycardia.
 - 2. Hypersensitivity.
 - B. Relative:
 - 1. Narrow-angle glaucoma.
- V. Adverse Effects
 - A. Blurred vision.
 - B. Dryness of the mouth.
 - C. Flushing of the skin.
 - D. Urinary retention.
 - E. Headache.
 - F. Tachycardia.
 - G. Palpitations.
- VI. Administration and Dosage
 - A. Bradycardia with pulses:
 - 1. Adult: 1.0 mg IV every 3-5 minutes to a maximum of 0.04 mg/kg.
 - 2. Pediatric: 0.02 mg/kg (minimum single dose 0.1 mg and a maximum single dose 0.5 mg), which may be repeated every 5 minutes as needed to a maximum total dose of 1 mg in a child and 2.0 mg in an adolescent.
 - D. Organophosphate:
 - 1. Adult: 2 mg IV or IM every 5 to 15 minutes as needed.

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2. Pediatric: 0.05 mg/kg, IV, IO or IM every 15 minutes as needed.

VII. Special Information

- A. Doses smaller than 0.5 mg in an adult can cause paradoxical bradycardia.
- B. Doses smaller than 0.1 mg in a child or infant can cause paradoxical bradycardia.
- C. Need for atropine should be weighed against exacerbation of possible ischemic heart disease or AMI. Use with caution in the presence of chest pain.
- D. Can cause ventricular fibrillation in the presence of hypoxia or acidosis.