

ATROPINE SULFATE

ACTION: Anticholinergic (Vagolytic)

- Blocks acetylcholine receptors resulting in reduction of parasympathetic tone and increased conduction through the AV node.
- Increases sinus node automaticity and AV conduction when suppressed by abnormal parasympathetic or vagal discharges.
- Antagonizes action of organophosphate agents.

INDICATIONS:

- Symptomatic bradycardia.
- Organophosphate or carbamate insecticide or nerve agent exposure.

CONTRAINDICATIONS:

- Atrial fibrillation or atrial flutter
- Glaucoma

POTENTIAL SIDE EFFECTS:

- Increase heart rate causing tachycardias.
- Post-atropine tachycardias can precipitate V-Fib or V-Tach.
- Can worsen patient's ischemia or extend size of infarct.
- Dry mouth.
- Doses lower than 0.5 mg can produce slowing of the heart.
- Dilated pupils.
- Decreased salivation.
- Flushed, hot skin.

ADULT DOSE/ROUTE:

- ⇒ **Symptomatic Bradycardia:** 0.5mg IVP or IO. May repeat every 5min up to 3 mg if no resolution of bradycardia.
- ⇒ **Organophosphate Poisoning/Nerve agent Exposure:** 2 – 5mg IVP or IO. May repeat in 5 minutes. No max dose.

PEDIATRIC DOSE/ROUTE:

- ⇒ **Symptomatic Bradycardia:** 0.02 mg/kg IVP or IO (min dose 0.1mg, max dose 0.5mg)
- ⇒ **Organophosphate Poisoning:** 0.02 mg/kg IVP or IO (min dose 0.1mg, no max dose)

NOTES:

- External pacing is the treatment of choice for symptomatic bradycardia if there is suspected myocardial ischemia, or 2nd or 3rd degree AV blocks are present.
- Can be given IM in thigh for suspected organophosphate poisoning /nerve agent exposure.
- Note: the primary cause of bradycardia in pediatric patients is hypoxia.
- **Atropine is no longer recommended for adult or pediatric asystole.**