**SIGNS AND SYMPTOMS OF CHOLINERGIC TOXIDROME**

1. Miosis/small pin-point pupils
2. Excessive sweating
3. Respiratory distress: poor air entry, bronchorrhea, bronchospasm/wheeze
4. Bradycardia (normal or fast heart rates are also common)
5. Hypotension

**NO**
If none of these signs present, there is no need for atropine. Continue to monitor patient for these signs.

**UNCERTAIN**
If uncertain about the type of ingestion, give 1mg (adult) (0.01 mg/kg – pediatric) atropine IV/IM/SQ/ETT test dose.
If heart rate increases more than 20-25 beats/min and skin gets flushed, significant cholinergic toxicity unlikely and no further atropine needed.

**YES**
Indications for atropine following an organophosphate or carbamate pesticide exposure include any of the above signs of a cholinergic toxidrome.

**ATROPINE DOSING**
Start with 2 mg (adult) (0.02 mg/kg – pediatric) atropine IV/IM/SQ/ETT bolus. Then double the dose of atropine every 3-5 min until improvement in all 4 target end-points of atropinization:

1. chest clear on auscultation, no wheeze
2. heart rate > 80 beats/min
3. systolic blood pressure > 80 mmHg
4. dry axillae

Patients should have 2 IVs and receive 500-1000 ml IV fluid bolus. (10-20 mL/kg - pediatric)

**COMPPLICATIONS OF ATROPINE TREATMENT**
Agitation, confusion, delirium, hallucinations
Urinary retention
Bowel ileus
Hyperthermia
Excess tachycardia, may lead to myocardial infarctions in patients with pre-existing heart disease

**Tachycardia alone is not a contraindication for atropine if other signs of cholinergic toxicity are present. Tachycardia due to hypoxia will improve with atropine once chest is clear and oxygenation improves.**

**COMPICATIONS OF PRALIKIDOXIME**
Tachycardia, laryngospasm, muscle rigidity, vomiting and hypertension have been attributed to rapid administration of pralidoxime.

**PRALIKIDOXIME DOSING**
Pralidoxime 30 mg/kg IV over 20 min. Followed by 8 mg/kg/hr continuous IV infusion until clinical recovery. Titrate according to respiratory effort and muscle strength. May need to continue infusion for days.