Approved 11/08/23, Effective 1/15/24, replaces all prior versions

16M – DUODOTE® AUTOINJECTOR

EMERGENCY MEDICAL RESPONDER

EMT

EMT-INTERMEDIATE 85

ADVANCED EMT

PARAMEDIC

Class: Parasympatholytic & Cholinesterase Reactivator

Actions/Pharmacodynamics:

Atropine Blocks parasympathetic impulses to the heart via the vagus nerve. Atropine increases the rate of cardiac sinoatrial (SA) node discharges, enhances conduction through the atrioventricular (AV) node, and by increasing heart rate, increases the cardiac output and blood pressure. Additionally, in the treatment of indicated poisonings (organophosphates, nerve agents), atropine reverses muscarinic effects of acetylcholine, including diaphoresis, diarrhea, urination, bronchorrhea (secretions from the lower respiratory tract), emesis, lacrimation (tearing), and salivation. Atropine produces dilation of pupils by blocking stimulation of the ciliary muscle surrounding the pupils.

Pralidoxime chloride reactivates cholinesterase (mainly outside the central nervous system) which has been inactivated by an organophosphate pesticide. The destruction of accumulated acetylcholine can then proceed and neuromuscular junctions will regain function. Pralidoxime chloride has its most critical effect in reversing paralysis of the muscles of respiration. Because Pralidoxime Chloride is less effective in relieving depression of the respiratory center, atropine is always required concomitantly to block the effect of accumulated acetylcholine at the site. Pralidoxime Chloride is short acting and repeated doses may be needed, especially when there is evidence of continuing toxicity.

Indications: Nerve Agents (15E)

Contraindications: None

Pharmacokinetics: With IM autoinjector use in nerve agent poisoning, effects may not be observed for 3-5+ minutes. Beneficial effects can persist in excess of 1 hour.

Side Effects: Headache, dizziness, vision changes (blurry vision and photophobia) due to papillary dilation, loss of coordination, laryngospam, tachycardia, hypertension, palpitations, dry mouth.

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PROTOCOL 16M: DuoDote® Autoinjector, cont.

Dosage:

Nerve Agents - Adult & Pediatric > 12 years of age (15E)
2.1 mg atropine/ 600 mg pralidoxime IM
May repeat every 5-15 minutes to cumulative maximum dose of 6.3 mg/1800 mg.
In the setting of serious symptoms (cardiopulmonary distress), repeat doses in rapid succession.

Nerve Agents - Pediatric ≤ 12 years of age (15E)
****OLMC Order Only**
Typical pediatric dose is 0.05 mg/kg atropine & 15 mg/kg pralidoxime IM per dose, max single dose of 2.1 mg atropine/600 mg pralidoxime

How Supplied: DuoDote® autoinjector
(Always check concentration and dose per container at time of patient medication administration)

Special Comments: Ideally, every public safety professional should have ready access to three DuoDote® autoinjectors for self/buddy use should emergent conditions warrant. In the setting of suspected/actual nerve agent exposure, administration of the DuoDote® autoinjector(s) must occur within minutes of exposure for clinically effective results.