



## EMS System for Metropolitan Oklahoma City and Tulsa 2020 Medical Control Board Treatment Protocols



Approved 9/11/19, Effective 1/15/20, replaces all prior versions

### 16K – DIPHENHYDRAMINE (BENADRYL®)

#### PARAMEDIC

**Class:** Antihistamine, Anticholinergic

**Actions/Pharmacodynamics:** Diphenhydramine competes for H1 – histamine receptor sites on effector cells, thus blocking histamine release. Histamine release creates some of the common signs and symptoms of an allergic response: pruritis (itching), mucus secretion, and capillary leaking, which contributes to the formation of urticaria (hives), erythematous skin, and mucosal edema. In the setting of a dystonic reaction, the balance of dopamine and choline must be changed within the brain. The most clinically feasible method of reversing a dystonic reaction, though inhibiting the enzyme acetylcholinesterase, is through the anti-cholinergic effect of a medication like diphenhydramine.

**Indications:** Dystonic Reactions (6F)  
Acute Allergic Reactions (8D)  
Bee/Wasp Stings (8F)

**Contraindications:** Known hypersensitivity to diphenhydramine. While rare, allergic reaction to diphenhydramine is possible and should be considered valid if stated or documented in a patient's medical history.

**Pharmacokinetics:** Onset within 15 – 30 minutes; duration is approximately 6 hours.

**Side Effects:** Drowsiness, dizziness, disturbed coordination.

**Dosage:** **Dystonic Reactions - Adult (6F)**  
**Acute Allergic Reactions- Adult (8D)**  
**Bee/Wasp Stings - Adult (8F)**  
50 mg IM/IVP

**Dystonic Reactions - Pediatric (6F)**  
**Acute Allergic Reactions- Pediatric (8D)**  
**Bee/Wasp Stings - Pediatric (8F)**  
1 mg/kg IM/IVP to maximum of 50 mg

**How Supplied:** 50 mg/1 mL in vial, ampule, or pre-filled syringe.  
(Always check concentration and dose per container at time of patient medication administration)