

<b>Medication:</b> Dimenhydrinate	<b>PDN:</b> 6921.06	<b>Last Updated:</b> August 21 2025	<b>PMD:</b> Andrew Travers*	<b>PDC:</b> Chloe Koen Butt*	Page 1 of 2
-----------------------------------	---------------------	--	--------------------------------	------------------------------------	-------------

## **DIMENHYDRINATE (Gravol)**

### **1.0 Classification**

- Antihistamine
- Anti-emetic
- Anticholinergic

### **2.0 Mechanism of Action**

- Dimenhydrinate is a histamine antagonist with anticholinergic properties which results in the reduction of nausea and vomiting as well as vestibular symptoms such as vertigo.

### **3.0 Indications**

- Nausea or vomiting due to any cause including but not limited to:
  - Motion sickness
  - Radiation sickness
  - Postoperative recovery
  - Drug induced nausea/vomiting
  - Meniere's disease
  - Other labyrinthine disturbances
- Vertigo ("room spinning")

### **4.0 Contraindications**

- Altered or depressed LOC
- Known hypersensitivity
- Age less than 6 years

### **5.0 Precautions**

- Use cautiously in pediatric and geriatric populations as they are more prone to adverse effects, such as sedation.
- Glaucoma
- Asthma/COPD
- Cardiovascular disease

### **6.0 Route**

- May be given IV, IM or Subcut
- Subcut is preferred in the palliative setting.

### **7.0 Dosage**

#### **Adult**

- 25 mg diluted in normal saline and administered over 2 minutes IV OR 25-50 mg IM (according to age and size), repeat x 1 in 20 minutes if symptoms persist.

#### **Pediatric (≥ 6 years old)**

- 1 mg/kg (maximum 25 mg) diluted in normal saline and administered over 2-4 minutes IV or 1

mg/kg (maximum 25 mg) IM, repeat x 1 in 20 minutes if symptoms persist.

## 8.0 Supplied

- 50 mg in a 1 mL ampule

## 9.0 May Be Given By

- PCP/ACP/CCP

## 10.0 Adverse Effects

- Hypotension
- Sedation & decreased LOC
- Pain/burning at IV site
- Anticholinergic effects (delirium, tachycardia, urinary retention, dry mouth, etc.)

## 11.0 Special Notes

- Dimenhydrinate Injection 50 mg/mL must be diluted **for IV administration** to prevent propylene glycol-associated cardiogenic shock.
  - To administer IV dimenhydrinate using the 50 mg/mL ampoule: dilute 1 mL ampoule of dimenhydrinate with 9 mL of normal saline to produce a 5 mg/mL solution.
  - Do not dilute to administer IM.
- Dimenhydrinate is the antiemetic of choice for nausea and vomiting associated with vertigo or motion sickness; it is more effective than metoclopramide given its mechanism of action.
- For pregnancy related nausea and vomiting, dilute in a 100 mL bag of normal saline and administer over 20 minutes.
- Pregnancy category B [if there is a clinical need for it, Category B drugs are considered safe to use].

## 12.0 References

- Abdominal Emergencies Clinical Practice Guideline
- EENT + Dental Emergencies Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)
- Sandoz.ca

\*Electronically Signed

Copyright © Emergency Health Services