

Medication: Dimenhydrinate	PDN: 6921.05	Last Updated: December 19 2024	PMD: Andrew Travers*	PDC: Chloe Koen Butt*	Page 1 of 2
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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/ICP/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

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