

PROMETHAZINE HCL [PHENERGAN]

DRUG CLASSIFICATION	Antihistamine; H1-Antagonist Phenothiazine Derivative Antiemetic; Anticholinergic; Central-Sedative Agent
MECHANISM OF ACTION	As a phenothiazine derivative, promethazine is structurally related to the phenothiazines; however, it is not used clinically as a neuroleptic. The predominant action of promethazine is antagonism of H1-receptors. Although promethazine is classified as a phenothiazine, its ability to antagonize dopamine is approximately one-tenth that of chlorpromazine. For this reason, promethazine is not used as a neuroleptic. Like other H1-antagonists, promethazine does not prevent the release of histamine, but competes with free histamine for binding at H1-receptor sites. Histamine receptors in the GI tract, uterus, large blood vessels, and bronchial muscle are blocked. The relief of motion sickness, nausea, and vomiting appear to be related to central anticholinergic actions and may implicate activity on the medullary chemoreceptor trigger zone. Other CNS receptor sites can also be affected, since promethazine is believed to indirectly reduce stimuli to the brain stem reticular system.
CLINICAL INDICATIONS	Severe Nausea / Vomiting
STANDARD CONTRAINDICATIONS	Hypersensitivity or idiosyncratic reaction to promethazine, other phenothiazines, or any component of the formulation Pediatric Population
POTENTIAL ADVERSE EFFECTS	Agitation / Confusion / Delirium / Diplopia / Dizziness / Drowsiness / Fatigue / Hallucinations / Seizures / Tinnitus / Tardive Dyskinesia / Extrapyramidal Symptoms / Neuroleptic Malignant Syndrome / Bradycardia / Hypertension / Hypotension / Tachycardia / Syncope / Leukopenia / Agranulocytosis / Thrombocytopenia / Thrombocytopenic Purpura / Injection Site Reaction / Muscle Paralysis / Phlebitis / Skin Irritation / Thrombosis / Tissue Necrosis / Apnea / Dyspnea / Nasal Congestion / Respiratory Depression / Angioedema
GENERAL RISKS & PRECAUTION	1) Promethazine should be avoided, if possible, in patients with known or suspected open-angle or closed-angle glaucoma and an H1-antagonist with less anticholinergic effects should be substituted. 2) Promethazine has substantial anticholinergic effects, and a worsening of symptoms may be seen in patients with bladder obstruction, GI obstruction or ileus, benign prostatic hypertrophy, or urinary retention. 3) Use promethazine with caution in patients with conditions that may increase the risk of QT prolongation including congenital long QT syndrome, bradycardia, AV block, heart failure, stress-related cardiomyopathy, myocardial infarction, stroke, hypomagnesemia, hypokalemia, hypocalcemia, or in patients receiving medications known to prolong the QT interval or cause electrolyte imbalances. 4) Neuroleptic Malignant Syndrome is a hyperthermic emergency which is not related to heat exposure which, occurs after taking neuroleptic antipsychotic medications like Promethazine, and is a rare but often lethal syndrome characterized by muscular rigidity, AMS, tachycardia, and hyperthermia.
PROTOCOL INDEX	Abdominal Pain / Vomiting / Diarrhea (UP-3)

MEDICATION ADMINISTRATION

ADULT

PEDIATRIC

Abdominal Pain / Vomiting (Unresponsive to Ondansetron)
12.5 mg [IV/IO/IM]; May repeat once, if needed.

Note: When giving promethazine IV, dilute with 10 mL of normal saline and administer slowly as it can also harm the veins.

CONTRAINDICATED