prochlorperazine (proe-klor-pair-a-zeen)

**Classification**

Therapeutic: antiemetics, antipsychotics
Pharmacologic: phenothiazines

**Pregnancy Category C**

**Indications**


**Action**

Alters the effects of dopamine in the CNS. Possesses significant anticholinergic and alpha-adrenergic blocking activity. Depresses the chemoreceptor trigger zone (CTZ) in the CNS. **Therapeutic Effects:** Diminished nausea and vomiting. Diminished signs and symptoms of psychoses or anxiety.

**Pharmacokinetics**

**Absorption:** Absorption from tablet is variable; may be better with oral liquid formulations. Well absorbed after IM administration.

**Distribution:** Widely distributed, high concentrations in the CNS. Crosses the placenta and probably enters breast milk.

**Protein Binding:** 90%

**Metabolism and Excretion:** Highly metabolized by the liver and GI mucosa. Converted to some compounds with antipsychotic activity.

**Half-life:** Unknown.

**TIME/ACTION PROFILE (antiemetic effect)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>30–40 min</td>
<td>3–4 hr</td>
<td>3–4 hr</td>
</tr>
<tr>
<td>IM</td>
<td>10–20 min</td>
<td>10–30 min</td>
<td>3–4 hr</td>
</tr>
<tr>
<td>IV</td>
<td>rapid</td>
<td>10–30 min</td>
<td>3–4 hr</td>
</tr>
</tbody>
</table>

**Contraindications/Precautions**

Contraindicated in: Hypersensitivity. Cross-sensitivity with other phenothiazines may exist. Angle-closure glaucoma; Bone marrow depression; Severe liver or cardiovascular disease; Hypersensitivity to hoodlins or hood alcohol (some parental products). PO/D: Children < 2 yr: < 10 kg.

**Use Cautiously in:** Diabetes mellitus; Respiratory disease; Porotic hyperthyroidism; CNS tumors, epilepsy, encephaloblastomas. OB, Lactation: Safety not established; Geri: Dose should be reduced. 7 ml of acetaminophen to elderly patients treated for dementia-related psychosis.

**Adverse Reactions/Side Effects**

**CNS:** Neuroleptic malignant syndrome, extrapyramidal reactions, sedation, tardive dyskinesia. **CV:** ECG changes, hypotension, hypertension, bradycardia. **EENT:** Blurred vision, dry eyes, lens opacities. **GI:** Constipation, dry mouth, anorexia, drug-induced hepatitis, ileus. **GU:** Pink or reddish-brown discoloration of urine, urinary retention. **Derm:** Photosensitivity, pruritus, rash, urticaria. **Musculoskeletal:** Rhabdomyolysis, osteoporosis. **Respiratory:** Bronchospasm, laryngospasm. **Metabolic:** Hyperthermia. **Misc:** Allergic reactions.

**Interactions**


**Drug-Natural Products:** Concomitant use of kava-kava, valerian, chamomile, or hops can ↑ CNS depression. ↑ anticholinergic effects with angel’s trumpet, jimson weed, and scopolia.

**Route/Dosage**

**Contraindicated in:** Hypersensitivity. Cross-sensitivity with other phenothiazines may exist. Angle-closure glaucoma; Bone marrow depression; Severe liver or cardiovascular disease; Hypersensitivity to hoodlins or hood alcohol (some parental products). PO/D: Children < 2 yr: < 10 kg.

**Antiemetic**

**PO (Adults and Children ≥ 12 yr):** 5–10 mg 3–4 times daily (not to exceed 40 mg/day).

**PO (Children 16–39 kg):** 2.5–5 mg 3 times daily or 5 mg once daily (not to exceed 15 mg/day).

**Antipsychotic**

**PO (Adults and Children ≥ 12 yr):** 10 mg 2–3 times daily (not to exceed 60 mg/day).

**PO (Children 16–39 kg):** 5 mg 2–3 times daily (not to exceed 20 mg/day).
PO (Children 14–17 kg): 2.5 mg 2–3 times daily (not to exceed 10 mg/day).

PO (Children 9–13 kg): 2.5 mg 1–2 times daily (not to exceed 7.5 mg/day).

IM (Adults and Children 12 yr): 5–10 mg q 3–4 hr as needed.

Nausea/vomiting associated with surgery—5–10 mg; may be repeated once.

Rect (Adults): 25 mg once daily.

Rect (Children 18–39 kg): 2.5 mg 3 times daily or 5 mg twice daily (not to exceed 15 mg/day).

Rect (Children 14–17 kg): 2.5 mg 2–3 times daily (not to exceed 10 mg/day).

Rect (Children 9–13 kg): 2.5 mg 1–2 times daily (not to exceed 7.5 mg/day).

Antipsychotic

PO (Adults and Children 12 yr): 5–10 mg, 5–6 times daily; may be q2–3 days (up to 150 mg/day).

PO (Children 2–12 yr): 2.5 mg 2–3 times daily.

IM (Adults): 10–20 mg q 2–4 hr for up to 4 doses, then 10–20 mg q 4–6 hr (up to 200 mg/day).

IM (Children 2–12 yr): 132 mcg (0.132 mg)/kg (not to exceed 10 mg/dose).

IM (Children 2–12 yr): 132 mcg (0.132 mg)/kg (not to exceed 10 mg/day).

IV (Adults and Children 12 yr): 2.5–10 mg (up to 40 mg/day).

Rect (Adults): 10 mg 3–4 times daily; may be q by 5–10 mg q 2–3 days as needed.

Antianxiety

PO (Adults and Children 12 yr): 5 mg 3–4 times daily (not to exceed 20 mg/day or longer than 12 wk).

DM (Adults): 10–20 mg q 2–4 hr (up to 120 mg/day).

IM (Adults and Children 12 yr): 5–10 mg q 4–6 hr as needed (up to 40 mg/day).

IM (Children 2–12 yr): 132 mcg (0.132 mg/kg).

IV (Adults): 2.5–10 mg (up to 40 mg/day).

NURSING IMPLICATIONS

Assessment

Monitor BP (sitting, standing, lying down), ECG, pulse, and respiratory rate before and frequently during the period of dosage adjustment. May cause Q-wave and T-wave changes in ECG.

Monitor for level of sedation after administration.

Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (tardive dyskinesia—uncontrolled rhythmic movements of the mouth, face, and extremities, lip smacking or puckering, chewing, or uncontrollable chewing; rapid or worm-like movements of tongue). Report immediately; may be irreversible.

Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, weakness, severe muscle stiffness, loss of bladder control). Notify health care provider immediately if these symptoms occur.

Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities, lip smacking or puckering, puffing of cheeks; uncontrolled chewing; rapid or worm-like movements of tongue). Report immediately; may be irreversible.

Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, seizures, diaphoresis, hypertension or hypotension, pallor, weakness, severe muscle stiffness, loss of bladder control). Notify health care provider immediately if these symptoms occur.

Antidepressant—Monitor patient for nausea and vomiting before and 30–60 min after administration.

Antipsychotic—Monitor patient’s mental status (orientation to reality and behavior) before and periodically during therapy.

Observe patient carefully when administering oral medication to ensure that medication is actually taken and not hoarded.

Assess fluid intake and bowel function. Increased bulk and fluids in the diet may help minimize constipation.

Antianxiety—Assess degree and manifestations of anxiety and mental status before and periodically during therapy.

Lab Test Considerations:

CBC and liver function tests should be evaluated periodically during therapy. May cause blood dyscrasias, especially between wk 4 and 10 of therapy. Hepatotoxicity is more likely to occur between wk 2 and 4 of therapy. May recur if medication is restarted. Liver function abnormalities may require discontinuation of therapy.

May cause false-positive or false-negative pregnancy test results and false-positive urine drug screens.

Potential Nursing Diagnoses

Deficient fluid volume (Indications)

Disturbed thought processes (Indications)

Deficient knowledge (Interventions)
**CONTINUED**

prochlorperazine

**Implementation**

- To prevent contact dermatitis, avoid getting solution on hands.
- Phenothiazines should be discontinued 48 hr before and not resumed for 24 hr after myelography; they lower seizure threshold.
- PO: Administer with food, milk, or a full glass of water to minimize gastric irritation.
- IM: Do not inject subcut. Inject slowly, deep into well-developed muscle. Keep patient recumbent for at least 30 min after injection to minimize hypotensive effects. Slight yellow color will not alter potency. Do not administer solution that is markedly discolored or that contains a precipitate.

**IV Administration**

- Direct IV: Concentration: Dilute to a concentration of 1 mg/mL. Rate: Administer at a rate of 1 mg/min; not to exceed 5 mg/min.

**Parenteral Compatibility**

- Direct IV: Concentration: Dilute to a concentration of 1 mg/mL. Rate: Administer at a rate of 1 mg/min; not to exceed 5 mg/min.
- PO: Administer with food, milk, or a full glass of water to minimize gastric irritation.
- IM: Do not inject subcut. Inject slowly, deep into well-developed muscle. Keep patient recumbent for at least 30 min after injection to minimize hypotensive effects. Slight yellow color will not alter potency. Do not administer solution that is markedly discolored or that contains a precipitate.

**Patient/Family Teaching**

- Instruct patient to take medication as directed, not to skip doses or double up on missed doses. Take missed doses as soon as remembered unless almost time for next dose. If more than 2 doses are scheduled each day, missed dose should be taken within about 1 hr while recumbent. Abrupt withdrawal may lead to gastritis, nausea, vomiting, dizziness, headache, tachycardia, and insomnia.
- Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Inform patient to report these symptoms immediately to health care professional.
- Advise patient to change positions slowly to minimize orthostatic hypotension.
- May cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
Caution patient to avoid alcohol and CNS depressants. Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications and alcohol.

Advise patient to use sunscreen and protective clothing when exposed to the sun to prevent phototoxicity reactions. Excessive temperature should also be avoided because this drug impairs body temperature regulation.

Instruct patient to use frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult health care professional if dry mouth continues >2 wk.

Advise patient not to take prochlorperazine within 2 hr of antacids or antidiarrheal medication.

Advise patient that increasing bulk and fluids in the diet and exercise may help minimize the constipating effects of this medication.

Advise patient that the medication may turn urine pink to reddish-brown.

Advise patient not to take prochlorperazine within 2 hr of antacids or antidiarrheal medication.

Inform patient that this medication may turn urine pink to reddish-brown.

Advise patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, skin rashes, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools are noted.

Advise female patients to notify health care professional if pregnancy is planned or suspected or if breast feeding.

Emphasize the importance of routine follow-up exams to monitor response to medication and detect side effects. Periodic ocular exams are indicated. Encourage continued participation in psychotherapy as ordered by health care professional.

**Evaluation/Desired Outcomes**

- Relief of nausea and vomiting.
- Decrease in excitability, paranoia, or withdrawal behavior when used as an antipsychotic.
- Decrease in feelings of anxiety.

**Why was this drug prescribed for your patient?**