chlorpromazine (KEE-pro-ma-zeen)

**Classification**
Therapeutic: antipsychotics, antipsychotics
Pharmacologic: phenothiazines

**Pregnancy Category C**

**Indications**

**Pharmacokinetics**
TIME/ACTION PROFILE (antipsychotic activity, antiemetic activity, sedation)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>rapid</td>
<td>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>IM</td>
<td>unknown</td>
<td>unknown</td>
<td>4–8 hr</td>
</tr>
<tr>
<td>PO</td>
<td>30–60 min</td>
<td>unknown</td>
<td>4–6 hr</td>
</tr>
</tbody>
</table>

**Half-life:** 3–5 hr. Some metabolites are active.

**Metabolism and Excretion:** Widely distributed; high CNS concentrations. Crosses the placenta; 10% enters breast milk.

**Protein Binding:** >90%.

**Distribution:** Highly metabolized by the liver and GI mucosa. Some metabolites are active.

**Half-life:** 3–5 hr.

**Pharmacodynamics**
**Action:**
Alters the effects of dopamine in the CNS. Has significant anticholinergic/alpha-adrenergic blocking activity.

**Therapeutic Effects:**
Diminished signs/symptoms of psychosis.

**Therapeutic Effects:**

**Indications**

**Contraindications/Precautions**
Contraindicated in: Hypersensitivity. Hypersensitivity to sulfites (injectable); Concurrent pimozide use.

**Use Cautionily in:**
Diabetes; Respiratory disease; Pneumonia; Hyperpyrexia; CNS tumors; Epilepsy; Intestinal obstruction; OB: Neonates at risk for extrapyramidal symptoms and withdrawal after delivery when exposed during the 3rd trimester; use only if benefit outweighs risk to fetus; Lactation: Discontinue drug or bottle-feed; Pedi: Children with acute disease, infections, gastrointestinal, or dehydration (risk of extrapyramidal reactions); Geri: Risk of mortality in elderly patients treated for dementia-related psychosis; Gastrointestinal: Dilated or obstructed bowel.

**Adverse Reactions/Side Effects**

**Interactions**
**Drug-Drug:** Potentiation of sedative and hypotensive effects of chlorpromazine with alcohol, sedative/hypnotics, general anesthetics, opioid analgesics, antiarrhythmics, MAO inhibitors, sympathomimetics, tricyclic antidepressants.

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Route/Dosage

PO (Adults): Psychoses—10–25 mg q 4–6 hr as needed. Prophylactic sedation—25–50 mg q 4–6 hr before surgery. Hiccups/tetanus—25–50 mg q 4–6 hr.

PO (Children): Psychoses—1.5 mg/kg (15 mg/m²) q 4–6 hr as needed. Preoperative sedation—0.55 mg/kg (15 mg/m²) q 4–6 hr before surgery.

IM (Adults): Severe psychoses—25–50 mg initially, may be repeated in 1 hr; 0.55 mg/kg 1–2 hr prior to surgery. Tetanus—25–50 mg q 6–8 hr until patient can take PO.

IM (Children): Severe psychoses—0.55 mg/kg (15 mg/m²) q 4–6 hr as needed. Preoperative sedation—0.55 mg/kg (15 mg/m²) q 4–6 hr before surgery.

IV (Adults): 0.55 mg/kg q 6–8 hr. Nausea/vomiting during surgery—0.275 mg/kg, may repeat in 30 min as needed. Preoperative sedation—0.55 mg/kg (15 mg/m²) q 4–6 hr (not to exceed 40 mg/day in children 6 mo–5 yr, or 75 mg/day in children 6–12 yr). Nausea/vomiting during surgery—0.275 mg/kg, may repeat in 30 min as needed. Preoperative sedation—0.55 mg/kg (15 mg/m²) q 4–6 hr prior to surgery. Hiccups/tetanus—25–50 mg q 4–6 hr until patient can take PO.

IV (Children): Severe psychoses—0.275 mg/kg, may be repeated in 30 min as needed. Preoperative sedation—0.275 mg/kg (7.5 mg/m²) q 4–6 hr (not to exceed 20 mg/kg/day in children ≤ 12 yr). Nausea/vomiting during surgery—0.275 mg/kg, may repeat in 30 min as needed. Preoperative sedation—0.275 mg/kg (7.5 mg/m²) q 4–6 hr prior to surgery. Hiccups/tetanus—0.55 mg/kg (15 mg/m²) q 4–6 hr until patient can take PO.

NURSING IMPLICATIONS

Assessment

- Assess mental status (orientation, mood, behavior) prior to and periodically during therapy.
- Assess weight and BMI initially and throughout therapy. Refer as appropriate for nutritional/weight and medical management.
- Assess positive (hallucinations, delusions, agitation) and negative (social withdrawal) symptoms of schizophrenia.
- Monitor BP (sitting, standing, lying), pulse, and respiratory rate prior to and frequently during the period of dose adjustment.
- Observe patient carefully when administering medication to ensure medication is actually taken and not hoarded.
- Assess fluid intake and bowel function. Increased bulk and fluid in the diet may help minimize constipation.
- Monitor patient for onset of akathisia (restlessness or desire to keep moving) and extrapyramidal side effects (parkinsonian—difficulty speaking or rearing, loss of balance control, pill rolling of hands, mask-like face, shuffling gait, rigidity, tremor, and dystonia—muscle spasms, twisting motions, switching, inability to move eyes, weakness of arms or legs) every 1 mo during therapy and 6–12 mo after therapy has been discontinued. Severe adverse effects of these symptoms—severe extrapyramidal symptoms may require discontinuation of therapy. Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth, face, and extremities; lip smacking or puckering, pulling of cheeks, uncontrolled chewing; rapid or worm-like movements of tongue, eye, nose, or neck twitching) and report these symptoms immediately. Monitor for development of neuroleptic malignant syndrome (fever, respiratory distress, tachycardia, tachypnea, diaphoresis, hyperpyrexia, or hypotension) and report these symptoms immediately. Monitor for symptoms related to hyperprolactinemia (nonmenstrual abnormalities, galactorrhea, sexual dysfunction).
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**Continuous Infusion.** May further dilute 25–50 mg in 500–1000 mL of D5W, D10W, 0.45% NaCl, 0.9% NaCl, Ringer's or lactated Ringer's injectables. Do not exceed 1 mg/mL. Infuse over at least 30 min for children. Rate: Inject slowly at a rate of at least 1 mg/min for adults and 0.5 mg/min for children.

**Patient/Family Teaching**
- Advise patient to take medication as directed and not to skip doses or double up on missed doses. If a dose is missed, take within 1 hr or omit dose and return to regular schedule.
- Advise patient to take medication with food, milk, or a full glass of water to minimize gastric irritation. Tablets may be crushed. May further dilute 25–50 mg in 500–1000 mL of D5W, D10W, 0.45% NaCl, 0.9% NaCl, Ringer's or lactated Ringer's injectables. Do not exceed 1 mg/mL.
- Advise patient to return to physician if hiccups persist or if hiccups recur if medication is restarted.
- Advise patient to report hiccups, paresthesias, anorexia, hypotension, edema, or jaundice.
- Advise patient to use protective measures and protective clothing to prevent sunburn.
- Advise patient to take birth control pills and to avoid breastfeeding.
- Advise patient to inform other health-care professionals of chlorpromazine therapy before any medical or surgical procedures are performed.
regular schedule. Abrupt withdrawal may lead to gastritis, nausea, vomiting, dizziness, headache, tachycardia, and insomnia.

Inform patient of possibility of extrapyramidal symptoms and tardive dyskinesia.

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 the medication is known.

Caution patient to avoid taking alcohol or other CNS depressants concurrently with this medication.

Advise patient to use sunscreen and protective clothing when exposed to the sun. Exposed surfaces may develop a temporary pigment change (ranging from yellow-brown to grayish purple). Extreme temperatures (exercise, hot weather, hot baths or showers) 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 for 2 wk.

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

Instruct patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, weakness, tremors, visual disturbances, dark-colored urine, or clay-colored stools occur.

Advise female patients to notify health care professional of medication regimen prior to treatment or surgery.

Emphasize the importance of routine follow-up exams to monitor response to medication and detect side effects. Encourage continued participation in psychotherapy as indicated.

Treatment is not a cure; symptoms may recur after discontinuation of medication.

Evaluation/Desired Outcomes

- Belief of nausea and vomiting
- Belief of dizziness
- Belief of tachycardia
- Belief of agitation
- Belief of confusion
- Belief of tremors
- Belief of weight gain

Why was this drug prescribed for your patient?