CHLORPROMAZINE (Thorazine) Fact Sheet [G]

Bottom Line:
Chlorpromazine was the first antipsychotic to be developed. Its long track record and good sedative properties make it popular for certain populations, especially patients with chronic psychosis, agitation, and mania, particularly when they are hospitalized. Its availability as an IM injection is an advantage for treating acute agitation. As a low-potency agent, it is less likely to cause EPS than many other antipsychotics.

FDA Indications:
Psychosis; mania; severe behavioral disorders (6 months–17 years); nausea and vomiting; intractable hiccups.

Off-Label Uses:
Bipolar disorder; behavioral disturbances; impulse control disorders.

Dosage Forms:
- **Tablets (G):** 10 mg, 25 mg, 50 mg, 100 mg, 200 mg.
- **Oral concentrate (G):** 30 mg/mL, 100 mg/mL.
- **Injectable (G):** 25 mg/mL.

Dosage Guidance:
- Schizophrenia: Start 10–25 mg TID, ↑ by 20–50 mg/day increments every three to four days to lowest effective dose. Dose range 200–600 mg/day in divided doses; max FDA-approved dose 1000 mg/day.
- IM for agitation: Usual dose is 25–50 mg; may repeat after one hour, with maximum dose of 200 mg/day.

Monitoring: ECG if cardiac disease.

Cost: $–$$ (depending on dose); oral concentrate: $$$

Side Effects:
- Most common: Sedation, orthostasis, tachycardia, drowsiness, dry mouth, constipation, blurred vision, prolactin elevation (sexual side effects, amenorrhea, galactorrhea).
- Serious but rare: Skin pigmentation and ocular changes (both dose related); jaundice; QT prolongation; seizure.
- Pregnancy/breastfeeding: Some risk in pregnancy; relatively safe in breastfeeding.

Mechanism, Pharmacokinetics, and Drug Interactions:
- Dopamine D2 receptor antagonist.
- Metabolized primarily by CYP2D6, also CYP1A2 and CYP3A4. Patients who are poor metabolizers of CYP2D6 metabolize the drug more slowly, potentially increasing its effects; t ½: 23–37 hours.
- CYP2D6 inhibitors (eg, fluoxetine, paroxetine, quinidine) may increase chlorpromazine levels.

Clinical Pearls:
- Chlorpromazine is a low-potency first-generation antipsychotic; this leads to less EPS compared to high-potency agents (eg, fluphenazine, haloperidol) and to more anticholinergic side effects compared to mid- and high-potency agents (eg, perphenazine and haloperidol, respectively).
- Extremely sedating agent and often used for this effect. Dosing limited by orthostasis and sedation.

Fun Fact:
Thorazine was developed by a French surgeon in 1948 to induce relaxation and indifference in surgical patients.