
PROPRANOLOL (Inderal) Fact Sheet [G]

Bottom Line:

Propranolol has several uses in psychiatry, including performance anxiety, drug-induced tremor, and akathisia. Some clinicians favor it as an “as needed” drug for a variety of anxiety issues, especially when benzos are contraindicated.

FDA Indications:

Hypertension; angina; post-MI cardioprotection; atrial fibrillation; migraine prophylaxis; essential tremor.

Off-Label Uses:

Performance anxiety; tremor due to medication side effects (especially lithium); akathisia.

Dosage Forms:

Tablets (G): 10 mg (scored), 20 mg (scored), 40 mg (scored), 60 mg (scored), 80 mg (scored).

Dosage Guidance:

- Performance anxiety (off-label): Give 10 mg about 60 minutes prior to performance; usual effective dose is 10–40 mg.
- Medication-induced tremor (off-label): Start 10 mg BID as needed; can go up to 30–120 mg daily in two or three divided doses. Can also use Inderal LA, long-acting version of propranolol, 60–80 mg once a day.
- Akathisia (off-label): Start 10 mg BID; can go up to 30–90 mg daily in two or three divided doses.

Monitoring: Periodic blood pressure/pulse.

Cost: \$

Side Effects:

- Most common: Dizziness, fatigue, bradycardia, and hypotension.
- Pregnancy/breastfeeding: Considered relatively safe in pregnancy; safe in breastfeeding.

Mechanism, Pharmacokinetics, and Drug Interactions:

- Non-selective beta-1 and beta-2 adrenergic receptor antagonist.
- Metabolized primarily through CYP2D6, also CYP1A2 and CYP2C19; $t_{1/2}$: 3–6 hours.
- Caution with other antihypertensives (additive effects). CYP2D6 inhibitors, as well as inhibitors or inducers of CYP1A2 and CYP2C19, may affect propranolol levels.

Clinical Pearl:

With beta blockade, propranolol reduces some of the somatic symptoms of anxiety (tremor, sweating, flushing, tachycardia).

Fun Fact:

The list of notable people who suffer or have suffered from performance anxiety or stage fright is long. It includes Barbra Streisand, Carly Simon, Van Morrison, Frédéric Chopin, Renee Fleming, Jay Mohr, Hugh Grant, Laurence Olivier, Mahatma Gandhi, and Thomas Jefferson, among others.