

The Carlat Psychiatry Report

LITHIUM Fact Sheet

Manufacturer: Various, depending on formulation; most are available as generics.

Indications:

- Acute Mania
- Prevention of Depression and Mania in Bipolar Disorder
- Off-label use for augmentation of antidepressants

Mechanism: Unclear; may work by affecting G-proteins and 2nd messengers.

Formulations:

- Lithium Carbonate: The original and cheapest; supplied as 300 mg capsules.
- Lithium Citrate: A liquid version, easier on the stomach; supplied as 8 MEq (600 mg)/5 ml.
- Lithobid: Lithium Carbonate packed tightly in wax and other components to make it dissolve more slowly; supplied in 300 tablets.
- Eskalith: The same as regular immediate release lithium carbonate, but a brand version with a fancy name; supplied in 300 mg capsules.
- Eskalith CR: A slow release version of lithium carbonate; supplied in 450 mg scored, breakable tablets.

Dosing:

- Most clinicians dose lithium at bedtime, whether using the immediate release or slow release versions.
- Start at 300-600 mg QHS, gradually increasing to a target blood lithium level of 0.8 meq/L, which will often be in the 900-1200 mg QHS range.
- With Eskalith CR, start with 450 mg QHS, and increase gradually from there.
- When converting from IR lithium to Eskalith CR or Lithobid, prescribe as close to the identical dose as possible (only a potential problem with Eskalith CR).
- No dosing adjustment required in liver disease; if you dare to use it in a patient with chronic renal impairment, decrease the dose substantially, using the patient's GFR as your guide.

Side Effects:

- Nausea/diarrhea (strategies: split dosing, take with meals, switch to Li Citrate or slow release formulations).
- Fine tremor (treat with Inderal LA 60 mg QAM or regular Inderal 20 mg BID-TID).
- Polyuria/excessive thirst (dose at night, try low dose hydrochlorothiazide).
- Memory problems (minimize dose, try cholinesterase inhibitors).
- Weight gain.
- Renal impairment (usual problem is benign, reversible decrease in concentrating ability; true kidney damage is very rare, but check yearly BUN/Cr just in case).
- Cardiac (rare sinus node dysfunction causing bradycardia; baseline EKG only required in patients with documented cardiac disease).

Drug-drug interactions:

- Mnemonic for drugs that increase Li levels: "No ACE in the Hole" (NSAIDs, Ace Inhibitors, and Hydrochlorothiazide); excess sweating can increase levels.
- Caffeine may decrease levels.

Laboratory monitoring:

- Check Li level, TSH/T4, BUN/Cr after one week of treatment, at 1-2 months, then Q 6-12 months