
AMANTADINE (Gocovri, Symmetrel) Fact Sheet [G]

Bottom Line:

Amantadine is a dopaminergic medication used primarily in Parkinson's disease, but it is also helpful in drug-induced parkinsonism and has fewer anticholinergic side effects (eg, cognitive impairment, dry mouth, constipation) than other meds used to combat extrapyramidal symptoms (EPS), like benztropine.

FDA Indications:

Drug-induced EPS; Parkinson's disease; influenza A.

Off-Label Uses:

Tardive dyskinesia; ADHD; enuresis; treatment-resistant depression; OCD.

Dosage Forms:

- **Capsules (G):** 100 mg.
- **Tablets (G):** 100 mg.
- **Oral solution (G):** 50 mg/5 mL.
- **ER capsules (Gocovri):** 68.5 mg, 137 mg.

Dosage Guidance:

- IR: Start 100 mg HS or BID. Max 300 mg/day.
- ER: Start 137 mg QHS, increase after one week to usual and max dose of 274 mg QHS.

Monitoring: No routine monitoring recommended unless clinical picture warrants.

Cost: \$; ER: \$\$\$\$

Side Effects:

- Most common: Nausea, dizziness, orthostatic hypotension, insomnia, blurred vision, constipation, dry mouth.
- Serious but rare: Rare cases of intense urges to gamble, spend money, or have sex reported.

Mechanism, Pharmacokinetics, and Drug Interactions:

- Weak NMDA antagonist and potentiates dopaminergic neurons. Antiviral (inhibits replication of influenza A virus).
- Not metabolized; excreted primarily through kidneys; $t_{1/2}$: 17 hours.
- Minimal clinically significant drug interactions.

Clinical Pearls:

- Because of dopaminergic effects, theoretically amantadine could worsen psychosis. At doses typically used to manage EPS, though, this doesn't generally happen.
- Typically used when anticholinergic side effects of other anti-EPS medications (benztropine, trihexyphenidyl) are intolerable.
- Adjust dose in elderly patients or those with impaired renal function.
- Gocovri is an extended-release once-daily version of amantadine, approved for treatment of dyskinesia in Parkinson's patients taking levodopa. It costs patients over \$50 per capsule, ringing in at over \$40,000 per year.

Fun Fact:

Memantine (Namenda), an NMDA antagonist used in dementia, is an analogue of amantadine.