
VARENICLINE (Chantix) Fact Sheet [G]

Bottom Line:

Varenicline is the most effective tobacco cessation medication. Psychiatric side effects are usually limited to insomnia or abnormal dreams, but more dramatic reactions are possible, though rare.

FDA Indications:

Smoking cessation.

Dosage Forms:

Tablets (G): 0.5 mg, 1 mg.

Dosage Guidance:

Start 0.5 mg QD for three days; ↑ to 0.5 mg BID for four days then ↑ to 1 mg BID for 11 weeks. Titrate slowly and take with food and a full glass of water to decrease GI upset. Start one week before target quit date; consider setting a quit date up to 35 days after starting varenicline (may improve likelihood of abstinence).

Monitoring: No routine monitoring recommended unless clinical picture warrants.

Cost: \$\$\$\$

Side Effects:

- Most common: Nausea, insomnia, headache, abnormal dreams, constipation, flatulence.
- Serious but rare: Warning for serious neuropsychiatric events (including depression, suicidal thoughts, suicide, psychosis, hostility), even in those without preexisting psychiatric disease, guidance was recently revised to indicate that risk is lower than previously suspected.
- Pregnancy/breastfeeding: Limited data suggest relative safety in pregnancy and breastfeeding.

Mechanism, Pharmacokinetics, and Drug Interactions:

- Nicotine receptor partial agonist.
- Excreted mostly unchanged with minimal hepatic (non-CYP450) metabolism; $t_{1/2}$: 24 hours.
- Potential lowered tolerance to alcohol, with psychiatric reactions. H2 blockers, quinolones, and trimethoprim may increase varenicline levels. Successful cessation of smoking may alter pharmacokinetic properties of other medications (eg, clozapine, olanzapine, theophylline, warfarin, insulin).

Clinical Pearls:

- Dual mechanism of action: Partial agonist at nicotinic receptors, mimicking nicotine effects on the brain and reducing withdrawal symptoms; blocks nicotine from binding to these receptors, thereby decreasing the reinforcing effect of smoking.
- If patient successfully quits smoking after 12 weeks, may continue for another 12 weeks. If not successful in first 12 weeks, then discontinue and reassess factors contributing to failure.
- Similar quit rates as bupropion at six months (25%), but higher quit rates compared to bupropion at one year if a second 12-week course of varenicline is used.
- Can be combined with bupropion; use with nicotine replacement therapies likely to lead to increased side effects, particularly nausea, headache, vomiting, and dizziness.
- Generic varenicline has been newly approved; look for a significant price drop in the months to come.
- Cytisinicline, an alkaloid found in plants, works similarly and is used as an over the counter smoking cessation aid in Europe. Studies have shown it's effective and has significantly fewer side effects.

Fun Fact:

The show *Saturday Night Live* aired a parody of a Chantix commercial suggesting that side effects of *quitting* smoking could be dangerous (it's on YouTube).