



January 17, 2007

## Varenicline (Chantix®)

### DESCRIPTION

Chantix® (varenicline) has recently been approved by the FDA as an aid to smoking cessation treatment. It offers the first smoking cessation treatment with a novel mechanism of action since bupropion. It is a selective  $\alpha_4\beta_2$  nicotinic acetylcholine receptor (nAChR) partial agonist, providing a low-to-moderate level of dopamine stimulation to reduce craving and withdrawal symptoms, while simultaneously blocking the action of nicotine.

### WHAT YOU SHOULD KNOW

In clinical trials, varenicline was shown to be more effective in helping patients quit smoking when compared to bupropion and placebo. The published studies had some flaws. The inclusion and exclusion criteria were very strict, which may not allow the results to be easily extrapolated to the general population. In addition, drop-out rates were high in each group, ranging between 30-46%. Patients lost to follow-up were considered to be smoking. Since varenicline had the fewest patients lost to follow-up, a bias may exist in favor of varenicline for improved abstinence.

### WHAT YOU MAY NOT KNOW

At the end of the 52-week evaluation, only about 20% of patients taking varenicline were abstinent from smoking, indicating that most patients who enrolled in the study were still smoking at one year. However, the

abstinence rate for varenicline was greater than for placebo and bupropion, and is greater than historical rates in other smoking cessation trials involving nicotine replacement therapies.

### WHAT THE PATIENT NEEDS TO KNOW

Varenicline needs to be titrated at the start of therapy. Patients should start varenicline one week prior to quitting smoking. After a one-week titration, a maintenance dose is initiated and the patient should abstain from smoking at this time. The most common adverse effect reported in clinical trials was nausea. While most cases were not considered severe, and most patients did not stop therapy, about 30% of patients experienced nausea while taking varenicline. It is recommended to take varenicline with food or a full glass of water to help minimize nausea.

### COMPARISON TO OTHER TREATMENTS

Varenicline has demonstrated improved efficacy over bupropion in clinical trials. No direct comparison of varenicline to nicotine replacement products has been published. Varenicline offers an additional option for patients trying to quit smoking, and has favorable abstinence rates when compared to historical cessation data. Since smoking cessation is highly variable from individual to individual, there is not one specific cessation aid that is recommended as first-line therapy.

### RESOURCES

Prescribing information:

[http://www.chantix.com/content/prescribing\\_information.jsp](http://www.chantix.com/content/prescribing_information.jsp)

Chantix Get Quit Program Information:

[https://www.get-quit.com/content/R\\_BMOD\\_Info\\_Page.jsp](https://www.get-quit.com/content/R_BMOD_Info_Page.jsp)

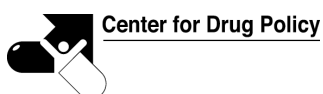
Smoking Cessation Information:

<http://www.surgeongeneral.gov/tobacco/>

<http://www.cdc.gov/tobacco/how2quit.htm>

<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=22931>

<http://www.americanheart.org/presenter.jhtml?identifier=4731>



**COST CONSIDERATIONS**

Drug	Dose	Use	Estimated AWP cost per treatment regimen
Varenicline (Chantix <sup>®</sup> )	Days 1-3: 0.5 mg daily Days 4-7: 0.5 mg twice daily Days 8-end: 1 mg twice daily	Use for 3 months, if abstinent at 3 months, may continue for additional 3 months	\$296.98-\$587.76
Bupropion SR (generic)	Days 1-3: 150 mg daily Days 4-end: 150 mg twice daily	May use for 3 months; has indication for continual use	\$182.14
Nicotine patch (generic/Rx)	If ≥ 10 cigarettes per day: 21 mg for 4 wks, then 14 mg for 2 wks, then 7 mg for 2 wks If < 10 cigarettes per day: 14 mg for 4 wks, then 7 mg for 4 wks	Use for 6-8 weeks	\$251.37-\$308.08
Nicotine inhaler (Nicotrol <sup>®</sup> Inhaler)	6-16 cartridges per day Inhale 80 times/cartridge	Use for up to 6 months, taper at end of use	\$599.95
Nicotine nasal spray (Nicotrol <sup>®</sup> NS)	1 dose = 1 squirt per nostril 1-2 doses per hour, 8-40 doses per day	Use for 3-6 months; taper at end of use	\$600.04

AWP is a cost to be used for relative comparisons only and is not reflective of actual cost. The cost does not include insurance co-payments as these vary with insurance coverage.

**DISCLAIMER**

This publication is intended to provide key practical information regarding this drug product in a brief format. It does not contain sufficient information upon which to base formulary or other medication use policy decisions.

