

VA Formulary Choices for Pharmacotherapy of Smoking Cessation					
	Bupropion	Nicotine Transdermal Patch	Nicotine polacrilex gum	Nicotine polacrilex lozenge	Varenicline
Trade Name and Dose availability	Bupropion SR (Zyban) 150mg, 300mg tab Bupropion IR 100mg tab	Nicoderm/Habitrol 21mg/14mg/7mg Nicotrol* 15mg/10mg/5mg	Nicorette Gum 2mg, 4mg	Commit Lozenge 2mg, 4mg	Chantix 0.5mg, 1mg tablet
Recommended Regimen	<i>Bupropion SR (Zyban)</i> 150mg qd x 3d then 150mg bid (8 hrs apart) patients with cirrhosis need adjusted dose: 150mg qod <i>Bupropion IR</i> 100mg qd x3d, then 100mg tid patients with cirrhosis need adjusted dose: 75mg qd	High Dependence+ 21mg x 4-6wks, then 14mg x 2wks, then 7mg x 2wks Low Dependence 14mg x 6-8wks, then 7mg x 2wks	High Dependence+ 4mg q1-2hrs x6wks, then q2-4hrs x4wks, then q4-6hrs x2wks Low Dependence 2mg q1-2hrs x6wks then q2-4hrs x3wks then q4-6hrs x3wks -No more than 24 pieces/24hrs	High Dependence+ 4mg Low Dependence 2mg -Suck 1 lozenge q1-2hrs x6wks, then 1 q2-4hrs x3wks, then 1 q4-8hrs x3wks -No more than 20 lozenges/24hrs or 5 lozenges/6hrs	Initial: 0.5 mg qd for days 1- 3, then 0.5 mg bid for days 4 -7, then 1 mg bid for total of 12 weeks duration - Dose adjust for CrCl<30: max dose is 0.5mg bid; ESRD or HD: 0.5mg qd.
Administration comments	-start 1-2 wks prior to quitting smoking (to achieve steady-state levels) -continue treatment for 7-12 wks (if no progress is made by week 7, consider discontinuing therapy) -if insomnia, take PM dose in afternoon	-Usually worn for 16 - 24hrs -Apply from neck to waist -Rotate sites -Takes 2-3d for effect after application of first patch	-Chew slowly (about 10 chews) until peppery taste then "park" between teeth and gums till taste dissipates. Repeat process on and off for 30mins/piece -Has been studied in combination with patch	-Allow lozenge to dissolve slowly over 20-30 minutes shifting in mouth occasionally. -Do not chew or swallow (increased risk of GI side effects)	-Start 1 week prior to quit date -Take drug after eating and with 8 ounces of water - Instruct patient or caregiver to report depression, suicidal ideation, unusual changes in behavior, or worsening of pre-existing psychiatric illness - An additional 12 wks of treatment in patients who have successfully stopped smoking may increase the likelihood of long-term abstinence
1-year Abstinence rates‡	10-30% (up to 35% when combined with patch)	16-30% (dose dependent); high dose patch: 30%	20-30%	15-20%	18.5% - 23% (12 wk course) vs 4-10% with placebo 43.6% (with additional 12 wk course) vs 37% with placebo
Time to Peak blood concentrations	3 hours (half-life = 21 hrs)	4-10hrs	15-30 mins	No data on <i>time</i> to peak concentration	3-4 Hours
Absorption	20%	75-90%	30%	30%	High; virtually completely absorbed
Advantages (+) and Disadvantages (-)	(+) better compliance; ease of use; can be combined with patch; consistent rate of exposure; helps with withdrawal symptoms (-) many drug interactions due to metabolism by	(+)best adherence; easy to use; consistent rate of exposure; unobtrusive (-)less effective for cravings; difficult to control	(+) helps prevent sudden urges; can titrate to adjust for cravings; oral substitute for cigarettes (-)difficult for those with poor dentition or dentures; must learn	(+)easy to use; discreet; higher immediate levels; can titrate to adjust for cravings; reduces self-reported withdrawal symptoms (-)must abstain from drinking/eating during	(+) better compliance; ease of use; consistent rate of exposure; superior rate of abstinence compared to bupropion and placebo (-) potential for

	CYP2B6; CNS side effects; must be adjusted for hepatic insufficiency; increased risk of seizures	titration; absorption increased at elevated temperatures	proper chewing technique; must abstain from drinking/eating during gum use	lozenge use	serious neurologic and psychiatric side effects particularly in those with underlying psychiatric disease; dose adjust for renal insuf (CrCl <30); high incidence of nausea; not studied in those with underlying mental illness
Adverse Effects	-anxiety -disturbed concentration -dizziness -insomnia -constipation -dry mouth -nausea -seizures (risk 1:1000)	-sleep disturbances -local skin irritation -bone pain -headache -nausea	-local mouth irritation -jaw pain -hiccups -dyspepsia -rhinitis -nausea	-local mouth irritation/tingling -heartburn, indigestion, nausea (if chewed) -headache -nausea, diarrhea -flatulence	-dream disorders - headache - insomnia -abnormal behavior -agitation -depressed mood - suicidal thoughts -constipation -flatulence -nausea and vomiting -Consider dose reduction in patients sensitive to adverse effects (eg, nausea, headache, insomnia)
VA National Formulary Restrictions	None	None	None	None	Yes – Must meet criteria for use. Available at http://vaww.national.cmp.va.gov/PBM/Clinical%20Guidance/Criteria%20For%20Use/Varenicline%20Criteria%20for%20Prescribing.doc -Second line agent within VHA. Available for patients who have had >1 relapse on NRT or bupropion, who do not have an active mental health disorder or have a clinically stable mental health disorder and followed by mental health
VA Cost and Average cost per day based on above regimens (avg)	SR: \$0.48/tab \$0.96/day IR: \$0.28/tab \$0.84/day	All strengths: \$35.07 / 14patches \$2.50/patch avg \$2.50/day	2mg gum: \$12.62/50 pieces \$20.12/110 pieces \$0.18-\$0.25/ piece avg \$2.20-\$6/day 4mg gum \$13.70/50 pieces \$25.69/110 pieces \$0.23-\$0.27/piece avg \$2-\$6.50/day	2mg or 4mg lozenge: \$29.45/72 lozenges \$0.41/lozenge avg \$5-\$8/day	0.5mg and 1mg tablets: \$1.17/tab \$2.34/day
Contraindications/Relative Contraindications	Contraindications: -history of seizures -predisposition to seizures (i.e. severe head trauma, CNS tumor, hepatic cirrhosis) -abrupt withdrawal from heavy, daily alcohol or other	Relative Contraindications: -Hypersensitivity -Pregnancy: Category D -Use within 14 days post MI, or serious or worsening angina -Patients should be advised not to smoke while on nicotine replacement therapy			Relative Contraindications: - patients with serious neuropsychiatric disorders (including suicidal and homicidal ideation) - patients with a history of suicidal, homicidal, or

	sedative -MAO inhibitor within 14 days -bulimia, anorexia nervosa Relative Contraindications: -hypersensitivity -pregnancy: category B		assaultive behavior in the past 12 weeks -patients with an untreated or unstable mental disorder such as psychotic disorder, bipolar disorder, major depressive disorder, and PTSD - severe renal impairment Pregnancy category C
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*remove Nicotrol patch at bedtime

†In general, greater than 20 cigarettes per day or use of first cigarette within 30 minutes of awakening is considered high dependence

‡all NRTs have been shown to double 6-12month abstinence rates compared to placebo

|| cost based on FSS or BIG4 pricing as listed on PBM website (<http://www.pbm.va.gov/PBM/prices.htm>)

Note: Two additional prescription products, a nicotine inhaler and nicotine nasal spray, are also FDA approved for nicotine replacement therapy however these products are not available on the VA National Formulary. For more information on these products, visit the American Lung Association Smoking Cessation Support website at:

<http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=33566>