

Generic/TRADE (Strength & forms) g=generic avail.	Class / Pregnancy category ^{1,3}	Side Effects (SE) - common Contraindications CI ³ Monitor M	√ = Advantages / ☒ = Disadvantages; Comments { NNT : number needed to treat for one patient to be successful at 1 year based on systematic review}	Dosing Schedule	\$ ~12  weeks
NICOTINE REPLACEMENT (NRT): Patch, Gum or Inhaler OTC {USA: nasal inhaler also available} (General NRT comments; more information below)	NRT : assist in reducing craving. Lack of trials; but nicotine levels generally lower than with smoking; ↑d malformations musculoskeletal with nicotine substitutes ⁴	General NRT SE : arthralgias/back pain ^{25%} , GI – flatulence ^{4%} , diarrhea, nausea, taste change, etc.; acne ^{3%} , dysmenorrhea ^{3%} . ⇒ Individualize dose: ↑ if withdrawal, ↓ if SE CI caution in post MI or angina/CAD ⁵ (however some would suggest safer than smoking); hypersensitivity to components, eczema M if no response in 4wks, stop, reassess, reinitiate? Peak : N/H 6-12 hrs, I 15 min; T_{1/2} : N/H 4hrs, I 1-2 hrs	√ = Advantages / ☒ = Disadvantages; Comments { NNT : number needed to treat for one patient to be successful at 1 year based on systematic review} NRT : ↑ in abstinence rates by 30-80% compared to PI; NNT ~10 ⁶ [Abstinence rate vs PI @12 months: N ≤11% vs 5.5% NNT=18; I 17% vs 9%, NNT=13; G ≤27% vs 16.5%, NNT=9] ⁷ No statistical difference between formulations. Choose specific formulation based on SE's, CI's & patient preferences. {Some real-life studies have found long-term results no better than placebo. ⁸ Effectiveness may depend on co-interventions &/or highly motivated patients!} Combos : NRT+ Bupropion may be better than either alone ^{9,10} . NRT+CBT, no added benefit to adding bupropion ¹¹	N&H Smoking Hx <10cig/d, <45kg &/or CHD : 14mg od x 6wk; 7mg od x 2wk N Smoking Hx >10cig/d : 21mg od x 6wk; 14mg od x 2wk; 7mg od x 2wk H Smoking Hx >20cig/d : 21mg od x 3-4wk; 14mg od x 3-4wk; 7mg od x 3-4wk	\$300-\$360 g = ~\$300 (~\$30/7 patches) Apply new patch to clean, dry, non-hairy area every day. Tapering not always necessary
Nicotine Patch (clear or flesh color) NICODERM =N 7,14,21mg/day patch X ▼ g HABITROL =H 7,14,21mg patch X ▼	N = D PATCH	SE : skin irritations ^{32%} (May Tx with ICS), headache ^{~20%} , insomnia & nightmares (if worn at night) NOT contraindicated in pts with CV disease ¹² ♦ If insomnia/disturbing dreams, remove patch @HS; if morning craving, keep patch on 24hrs or consider adding gum or inhaler. {Unlabeled use: Ulcerative Colitis –21 mg/day}	√ Convenient once daily dosing, slow constant release rate, more tolerable SE; fewer CV events, option after MI ^{officially if >2 wks} ⁵ ☒ no spikes in concentrations to correspond with cravings ♦ Individualize dosing regimen; recommendations serve as guideline; two patches may be required in heavy smokers. ♦ Smoking with patch: may ↑ nicotine risks, but not CI	Manufacturer recommendations; no difference between N & H . Individualize tx	
Nicotine Gum NICORETTE Gum =G 2mg gum; PLUS =4mg X ▼ (g: sugar free; Flavors: original, freshmint, orange) g	G = C GUM	SE : cough, throat irritation - usually mild (absorb ~1/2 the nicotine in the gum) ³ ; CI dental problems, TMJ temporomandibular joint syndrome DI : coffee & acidic beverages e.g. juice, pop impair absorption; space by ≥15minutes	√ Quick delivery via buccal mucosa; Park & Chew Strategy – chew gum few times, then hold in side of mouth x1min; repeat ☒ Patient compliance: unpleasant taste; but high abstinence rate ☒ Not advised for ↑ risk cardiac pts ☒ Risk of dependence ¹³ 30 minute chew : peak level 5→10ng/ml (for the 2mg→4mg gum) ♦ Reduce to quit ↓ smoking 50% between 6-16wk or Stop to quit after 3mon → ↓ ≥1 gum q4-7days	~1piece/hr PRN; max 20 pieces/d; ave 10-16/d. individual taper. {Use 4mg if ≥15cigs/d} May use prn while on patch	~\$180-\$250 g = ~\$160-240 (\$35/2mg ^{105pcs} ; \$45/4mg ^{105pcs}) Use 4 mg if hx of smoking within 30min of waking!
Nicotine Oral Inhaler NICORETTE Inhaler =I 4mg {10mg cartridge gives 4mg nicotine} X ⊗	I = D INHALER	SE : throat irritation ^{66%} , cough ^{32%} , rhinitis ^{23%} , dyspepsia ^{18%} 10 puffs = 1 puff from cigarette : cartridge has 20min continuous puffing; once punctured, cartridge viable for 24 hrs: buccal absorption	√ Quick delivery of high dose convenient for severe cravings habitual hand-to-mouth motion (max absorption with ~20min short continuous frequent puffing) √ Flexible dosing schedule ☒ Not recommended for high risk cardiac patients	6-16 cartridges/d x 12 wk; indiv. taper; max 16cart/d. Use 12 wks then taper over 6-12 wks	~\$550-\$900 (start kit \$40; \$30/30 cart's)
Nicotine Lozenges X ⊗ (Not yet in Canada: 2mg, 4mg)	LOZENGE	SE : soreness in gums, teeth, throat, hiccups & heartburn/indigestion. {More potent than gum}	√ Convenient, inconspicuous √ Flexible dosing schedule ♦ Strength depends on time to first craving upon awakening (<30min⇒use 4mg; >30min⇒use 2mg)	1 loz. q1-2hr x6 wk, q2-4hr x3wk, q4-8hr x3wk	No launch date set yet
Bupropion SR =B ZYBAN X ▼ : 150mg tab {Indication: smoking cessation}; 1-800-489-8424 WELLBUTRIN (Not officially indicated for smoking cessation) 100, 150mg SR tab g ▲ z ; 150, 300mg tab XL ⊗	TABLET Antidepressant ↓ dopamine reuptake mesolimbic system www.zybanet.com B	SE : insomnia, agitation, tremor, ↓ appetite & GI upset, dry mouth, seizures ^{1/1000 at 300mg/d} CI personal/family hx of seizures, ↑ risk for seizures (eg. eating disorders); head trauma, pts on MAO inhibitors within 14 days { X Zyban not covered for smoking cessation in SK}	Abstinence Rate at 12 months: 18.5% vs 6.6% PI, NNT=8 ¹⁴ {Observational study found 21% abstinent @12mo; 29% stopped due to SE's} ¹⁵ May combine bupropion & NRT in patients with ↑ cravings/withdrawal symptoms ♦ no significant difference between 150mg/d & 300mg/d at 12 mo? ¹⁴ ☒ slower onset (1-2 weeks) √ option in concomitant depression √ may delay weight gain & cravings post-smoking cessation √ not CI in pts with hx of cardiovascular disease ¹⁶ or on SSRIs ¹⁷	150mg SR od x3 days, 150mg SR bid x7-12wks Begin 1 week before cessation of smoking. ♦ For SR: allow at least 8hrs between doses; take 2 nd dose early pm to minimize insomnia	\$190 Zyban { \$135 300mg od Wellbutrin XL}
Varenicline X ⊗ =V CHAMPIX CHANTIX ^{USA 18} {2wk Starter Pack; 2wk Continuous Pack}	C activate nicotinic receptors $\alpha 4\beta 2$	SE : nausea ^{30%} , sleep/dream ^{18%} , taste disturbance; aggression? {↑Weight @12wks; PI 3kg >V 2.6kg >B 2kg}. Less SEs requiring DC than B NNT>15 DI : NRT-↑nausea. CI : ?? only healthy adults studied; suicidal?	Abstinence Rate ^{continuous} @12 months: V: 22% vs B: 15% vs PI: 9% ^{19,20} ; 1of 2 trials NS with 12 wk tx { NNT=14 vs B; NNT=8 vs PI }; additional 12wks may ↑ success in 1/15 pts. ²¹ Start 1wk before quit; total 12wks tx ± 12wks if successful.	0.5mg od x3days, 0.5mg bid x4days; then 1mg bid ^{2wk Starter Pack available}	\$390 (with food & H2O)
Nortriptyline AVENTYL g (10, 25mg cap) (Full formulary in SK)	D CAPSULE Antidepressant	SE : dry mouth, dizziness, drowsiness, ↑ weight; ↓SE's than amitriptyline Note: an option when breastfeeding ^{22,23} CI ECG abnormalities ^{rare} , suicidal/seizure risk	Abstinence Rate 12 months: 17% vs 7% PI, NNT=10 ²⁴ CBT + (Bupropion ^{300mg/d} vs Nortriptyline ^{75mg/d} vs PI): NS 42%vs31%vs22%; 6mo; n=156. ²⁵ ♦ Consider if also: Pain, Migraine , depression, neuropathy, insomnia.	25–50–75mg po hs (25mg-75mg/d for ~2wks before quit-date; continue ≥12wks after)	\$51-81-110 /14 wks
SMOKING / Tobacco – all forms	Quit smoking advice from a clinician, even brief, can increase cessation rates by 30%. ²⁶ Some attempt 10 x before successfully quitting! (Cigarette Trivia: 1-3mg nicotine/cigarette; ~4000 chemicals/cigarette; 1pack/day = 20-40mg nicotine; 1pack= ~25 cigarettes) ³ Withdrawal Sx better after 1-3 wks.		1 pack/day cost-savings⇒	(\$900) 12wk	

↓=dose for renal dysfx **X**=Non-form SK =Exception Drug Status Sk ⊗=not covered NIHB ▼=covered NIHB ☒=Disadvantage CBT=cognitive behavioral therapy **CI**=contraindication **CV**=cardiovascular **DI**=drug interaction **g**=generics avail. **HA**=headache **Hx**=history **MI**=myocardial infarction **NS**=not statistically significant **PI**= placebo **Pt**=patient **Sx**=symptom **SE**=side effect **T_{1/2}**=half life **wk**=weeks NICE: <http://www.nice.org.uk/page.aspx?o=PHI001> Health Canada: www.gosmokefree.ca **Smokers' Helpline** 1-877-513-5333 fax referral option

New Drugs: Rimonabant **ACOMPLIA** –(not yet in Canada) cannabinoid receptor 1 blocker; 36% complete smoking cessation in final 4 wks of a 10 wk trial Dose: 20mg/d SE: nausea, depression, anxiety & ↓ weight. ^{27,28,29}
Anti-nicotine vaccines (investigational): Celtic, Nabi, Cytos: reducing nicotine distribution to brain, ↓reinforcing effect of nicotine. **Herbal: RESOLVE** lozenge: CESTEMENOL-350 150 mg *Passiflora incarnata*, *Abies balsamea* L.; lacks efficacy data & may ↑ toxicity.

Non-Drug Measures: ^{5,30,31,32} Consider exercise, counseling and support groups; avoid situations that trigger smoking urge. Behavioral therapy most effective in pts with a history of depression.

HARMS/Reasons to Stop: ^{27,33,34} **Leading cause of preventable death** (45,000 CND/yr); ~50% of long-term smokers die prematurely from cancer, heart, stroke & lung disease. Smokers die ~10yrs younger than non-smokers. Quitting gives a 36% relative reduction in total mortality & ↓ cardiac events in CHD pts by ~50%. ³⁵ **Cost:** 1 pk/d cost ~\$3600/yr. **Other:** impotence, osteoporosis & SIDS ^{sudden infant death syndrome}

Weight Gain: Average <5 kg/1st yr; ↑ exercise to lessen; health benefits persist despite weight gain (RRR 15-61% in mortality after MI). Consider strategies to avoid weight gain as part of the "Quit Plan".

5 A's to Smoking Cessation: **ASK** – about tobacco use at every visit; **ADVISE** - to quit; **ASSESS** - willingness to quit; **ASSIST** -implement plan; **ARRANGE** - follow-up ^{visits, phone,} & cessation counseling. **89**