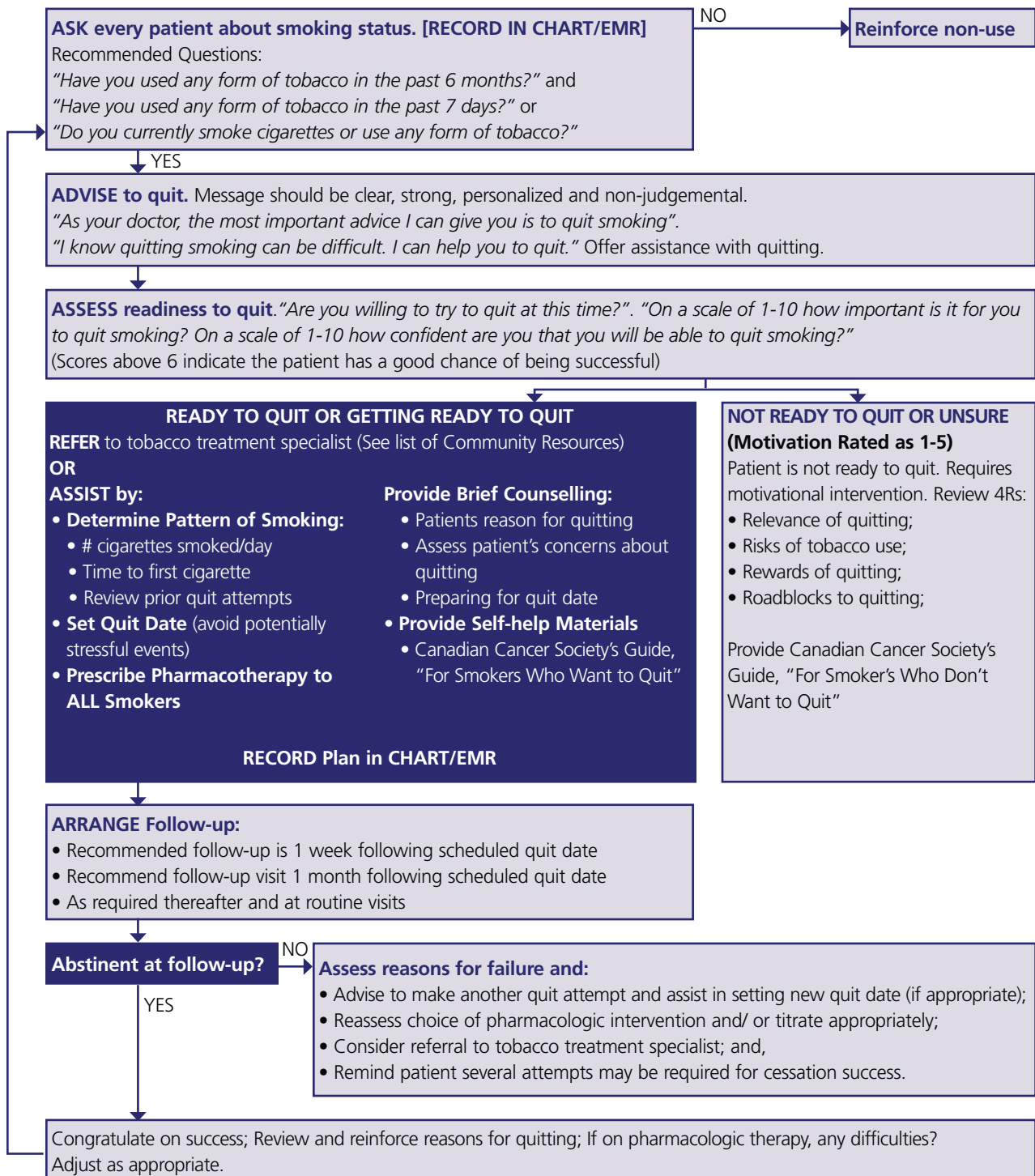




# SMOKING CESSATION

Source: Adapted from the following sources: Canadian Tobacco Intervention. Smoking Progress Notes www.omacti.org<sup>18</sup>;  
Fiore MC, Jaén CR, Baker TB, et al. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. 2008<sup>19</sup>;  
Smoking Cessation, Guideline for Clinical Care. University of Michigan Health System. 2006.<sup>20</sup>

**A HEALTH PROFESSIONAL'S ADVICE TO QUIT SMOKING CAN INCREASE QUIT RATES BY UP TO 30%.**





## SUPPLEMENTAL INFORMATION

### OVERVIEW OF SMOKING CESSATION PHARMACOTHERAPIES

All patients should receive a recommendation to use effective pharmacotherapies as an aid to cessation. The best quit plan is one that combines medications with behavioural change, such as those learned through smoking cessation programs or self-help material.

#### NICOTINE GUM

<b>Typical Dose / Treatment Period</b>	<p>Recommend:</p> <ul style="list-style-type: none"> <li>• 2 mg gum if patient smokes first cigarette at least 30 minutes after waking</li> <li>• 4 mg gum if patient smokes first cigarette within 30 minutes of waking</li> </ul> <p>One piece every 1-2 hours for weeks 1 through 6 One piece every 2-4 hours for weeks 7 through 9 One piece every 4-8 hours for weeks 10 through 12</p>
<b>Instructions for Use</b>	<ul style="list-style-type: none"> <li>• Nicotine gum should be chewed slowly until you can taste the nicotine or feel a slight tingling in your mouth, then stop chewing.</li> <li>• Place the gum between your cheek and gum. After one minute, repeat the process until cravings are resolved.</li> <li>• Chew each piece for about 30 minutes.</li> <li>• Avoid eating or drinking 15 minutes before or during use.</li> </ul>
<b>Titration</b>	NRT may be titrated to meet individual patient needs (appropriate doses are reflected in an elimination of craving/ withdrawal symptoms). The duration of use of NRT products may be extended considerably in order to achieve cessation success.
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Ease of use</li> <li>• Over-the-counter</li> <li>• Can be used at times of increased craving</li> <li>• Can supplement other NRT products</li> </ul>
<b>Potential Disadvantages</b>	<ul style="list-style-type: none"> <li>• Clings to dental work</li> <li>• Possible nausea, belching, hiccups (&lt;20%)</li> <li>• Possible jaw pain</li> </ul>
<b>Considerations</b>	<p><b>Patients with CVD:</b> Cardiac patients who cannot quit should be among those considered for NRT.</p> <p><b>Pregnant/ nursing smokers:</b> Pregnant/ nursing women who cannot quit should be considered for NRT.</p> <p><b>Smokers under the age of 18:</b> NRT should be considered for all smokers who need NRT to quit, including those under 18. See additional information on page 35 regarding myths and facts about smoking.</p>



## NICOTINE INHALER

<b>Typical Dose / Treatment Period</b>	Provides hand-to-mouth motion of smoking <ul style="list-style-type: none"> <li>• Puff continuously for 20 minutes (1 cartridge) or as needed to manage cravings.</li> <li>• Use 6-12 cartridges per day for first 6 weeks.</li> <li>• Reduce the amount of cartridges used per day in weeks 6-12.</li> <li>• Some smokers require 1-2 cartridges per day beyond 12 weeks to manage cravings.</li> </ul>
<b>Instructions for Use</b>	<ul style="list-style-type: none"> <li>• You puff as needed to manage cravings.</li> <li>• Inhale 80 puffs over 20 minutes or until cravings are gone. Often, using the inhaler for 5 minutes is enough.</li> <li>• Take slow puffs to avoid throat burn.</li> <li>• Avoid eating or drinking 15 minutes before or during use.</li> </ul>
<b>Titration</b>	NRT may be titrated to meet individual patient needs (appropriate doses are reflected in an elimination of craving/ withdrawal symptoms). The duration of use of NRT products may be extended considerably in order to achieve cessation success.
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Ease of use</li> <li>• Over-the-counter</li> <li>• Mimics hand to mouth action of cigarette smoking</li> <li>• Rapid uptake through oral mucosa and can facilitate the management of acute cravings</li> <li>• More precise control of nicotine needs</li> <li>• Can supplement other NRT products</li> </ul>
<b>Potential Disadvantages</b>	<ul style="list-style-type: none"> <li>• Possible cough, headache, nausea, mouth/ throat irritation</li> <li>• Avoid eating or drinking 15 minutes before or during use</li> </ul>
<b>Considerations</b>	<p><b>Patients with CVD:</b>          Cardiac patients who cannot quit should be among those considered for NRT.</p> <p><b>Pregnant/ nursing smokers:</b>          Pregnant/ nursing women who cannot quit should be considered for NRT.</p> <p><b>Smokers under the age of 18:</b>          NRT should be considered for all smokers who need NRT to quit, including those under 18.</p> <p>See additional information on page 35 regarding myths and facts about smoking.</p>

**NICOTINE PATCH**

<b>Typical Dose / Treatment Period</b>	See dosing instructions (below) Recommended use is 8–12 weeks but is often required for longer.
<b>Instructions for Use</b>	<ul style="list-style-type: none"> <li>• Apply the patch to a clean, dry, non-hairy area on the upper part of your body (arms, chest, back).</li> <li>• Replace the patch with a new one every 24 hours.</li> <li>• Be sure to remove the old patch before putting on a new one.</li> <li>• If you have difficulty sleeping remove your nicotine patch at bedtime.</li> </ul>
<b>Titration</b>	NRT may be titrated to meet individual patient needs (appropriate doses are reflected in an elimination of craving/ withdrawal symptoms). The duration of use of NRT products may be extended considerably in order to achieve cessation success.
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Ease of use</li> <li>• Over-the-counter</li> <li>• Discrete</li> <li>• Steady state</li> </ul>
<b>Potential Disadvantages</b>	<ul style="list-style-type: none"> <li>• Possible skin irritation</li> <li>• Possible sleep disturbance</li> </ul>
<b>Considerations</b>	<p><b>Patients with CVD:</b> Cardiac patients who cannot quit should be among those considered for NRT.</p> <p><b>Pregnant/ nursing smokers:</b> Pregnant/ nursing women who cannot quit should be considered for NRT.</p> <p><b>Smokers under the age of 18:</b> NRT should be considered for all smokers who need NRT to quit, including those under 18. See additional information on page 35 regarding myths and facts about smoking.</p>

**DOSING INSTRUCTIONS FOR NICOTINE PATCH**

The following protocol is recommended when prescribing/ recommending the NRT patch to smokers.

<b>Step 1 Protocol</b> Smoking > 20 cigarettes per day	<b>Step 2 Protocol</b> Smoking 10-20 cigarettes per day	<b>Step 3 Protocol</b> Smoking < 10 cigarettes per day
Nicotine patch 21 mg topical application daily x 6 weeks;	Nicotine patch 14 mg topical application daily x 6 weeks;	Nicotine patch 7 mg topical application daily x 6 weeks.
Then nicotine patch 14 mg topical application daily x 2 weeks;	Then nicotine patch 7 mg topical application daily x 4 weeks.	
Then Nicotine patch 7 mg topical application daily x 2 weeks.		
<ul style="list-style-type: none"> <li>• If within 48 hours of initial application, withdrawal or cravings persist, add nicotine patch 7 mg. May repeat to a maximum of 2 doses.</li> </ul>	<ul style="list-style-type: none"> <li>• If within 48 hours of initial application, withdrawal or cravings persist, increase to nicotine patch 21 mg, and follow step one protocol.</li> </ul>	<ul style="list-style-type: none"> <li>• If within 48 hours of initial application, withdrawal or cravings persist, increase to nicotine patch 14 mg, and follow step two protocol.</li> </ul>
<ul style="list-style-type: none"> <li>• Add other forms of NRT (gum or inhaler) to address cravings as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Add other forms of NRT (gum or inhaler) to address cravings as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Add other forms of NRT (gum or inhaler) to address cravings as necessary.</li> </ul>
<ul style="list-style-type: none"> <li>• It may be necessary for some patients to remain on NRT longer than above schedule.</li> </ul>	<ul style="list-style-type: none"> <li>• It may be necessary for some patients to remain on NRT longer than above schedule.</li> </ul>	<ul style="list-style-type: none"> <li>• It may be necessary for some patients to remain on NRT longer than above schedule.</li> </ul>
<ul style="list-style-type: none"> <li>• It may be necessary for some patients to remain on a particular step of NRT longer than above schedule.</li> </ul>	<ul style="list-style-type: none"> <li>• It may be necessary for some patients to remain on a particular step of NRT longer than above schedule.</li> </ul>	<ul style="list-style-type: none"> <li>• It may be necessary for some patients to remain on a particular step of NRT longer than above schedule.</li> </ul>



### BUPROPION (ZYBAN®)

<b>Typical Dose / Treatment Period</b>	<p>Begin taking Bupropion 8 days before quit date.</p> <p>Day 1-3: Take 150 mg or 1 tablet EVERY morning.</p> <p>Day 4-Week 12: 150 mg TWICE DAILY (8 hours apart).</p> <p>The usual duration of Bupropion is 12 weeks; however, some people may continue to take it up to 24 weeks.</p>
<b>Instructions for Use</b>	<p>Ensure at least 8 hours between doses.</p> <p>No alcohol use.</p>
<b>Titration</b>	<p>Yes (to initiate therapy)</p>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Non-nicotine therapy</li> <li>• Exceeded effectiveness of NRT in clinical trials</li> <li>• May be helpful in smokers with history of depression (antidepressant effect)</li> <li>• 52 weeks of possible use</li> </ul>
<b>Potential Disadvantages</b>	<ul style="list-style-type: none"> <li>• 0.1% seizure risk</li> <li>• Possible insomnia, dry mouth, headache, agitation</li> <li>• Skin rash, non specific sense of unease/ anxiety</li> <li>• Drug interactions</li> </ul> <p>A reduction in dose (e.g. 150 mg qd) may address presence of many side effects while not significantly reducing smoking cessation efficacy.</p>
<b>Considerations</b>	<p>Bupropion is contraindicated in patients if:</p> <ul style="list-style-type: none"> <li>• History of seizure disorder/ history of head trauma;</li> <li>• Taking anti-depressants, antipsychotics, corticosteroids, MAO inhibitors, theophylline, cocaine or diet pills;</li> <li>• Presently taking Bupropion/ Zyban/ Wellbutrin as an antidepressant;</li> <li>• Previous reaction to Bupropion/ Zyban/ Wellbutrin;</li> <li>• Pre-existing or current eating disorder (bulimia, anorexia nervosa);</li> <li>• Report excessive use of alcohol or sedatives presently or in past;</li> <li>• Taking a quinolone antibiotic (e.g. ciprofloxacin, levofloxacin);</li> <li>• Severe hepatic impairment;</li> <li>• Pregnant or breast feeding;</li> <li>• Central nervous system tumour;</li> <li>• Use of oral hypoglycemic products or insulin.</li> </ul>

**VARENICLINE (CHAMPIX®)**

<b>Typical Dose / Treatment Period</b>	<p>The patient should set a date to stop smoking. Varenicline dosing should be started 1-2 weeks before the quit date.</p> <p>The patient should be treated with Varenicline for 12 weeks. For patients who have successfully stopped smoking at the end of 12 weeks, an additional course of 12 weeks treatment with Varenicline may be considered.</p> <p>To optimize the success of the therapy, patients should be titrated up to the maximum recommended dose of 1 mg twice daily using the following 1-week titration schedule:</p> <ol style="list-style-type: none"> <li>1. Days 1-3: Varenicline 0.5 mg once daily</li> <li>2. Days 4-7: Varenicline 0.5 mg twice daily</li> <li>3. Day 8 through to week 12: Varenicline 1.0 mg twice daily</li> </ol> <p>Patients should return for follow-up assessment no later than 3 weeks after initiating Varenicline. Patients who cannot tolerate adverse effects of Champix may have the dose lowered temporarily or permanently.</p>
<b>Instructions for Use</b>	<p>Medication should be taken with meals and a full glass of water.</p> <p>Patients are to be asked to contact their physician if they experience nausea after initiating this drug.</p>
<b>Titration</b>	Yes (to initiate therapy)
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Twice as effective as Bupropion or NRT in clinical trials</li> <li>• Non-nicotine therapy</li> <li>• No interactions</li> </ul>
<b>Potential Disadvantages</b>	Side effects: Nausea
<b>Considerations</b>	<p>Varenicline is contraindicated in patients if:</p> <ul style="list-style-type: none"> <li>• Previous drug reaction to Varenicline;</li> <li>• Under the age of 18 years;</li> <li>• Pregnant or breast feeding;</li> <li>• History of renal failure and is taking Cimetidine;</li> <li>• Using NRT in addition to Varenicline;</li> <li>• History of nausea and vomiting in past two months;</li> <li>• History of renal failure.</li> </ul>



## MYTHS AND FACTS ABOUT SMOKING CESSATION

Source: Adapted from Rethinking Stop-Smoking Medications: Treatment Myths and Medical Realities. Ontario Medical Association, January, 2008.<sup>21</sup>

**Myth: There is little that can be done to assist a smoker who is not ready to quit.**

**Fact:** 40% of smokers say their physician's advice played an important role in their motivation to quit. A physician/ health professional's advice to quit has been shown to increase success with quitting by 30%.

**Myth: Smoking while on the patch increases the risk of heart attack.**

**Fact:** The use of NRT does not increase the smoker's cardiovascular risk.

**Myth: Patients with heart disease should not use the nicotine patch or gum.**

**Fact:** It is more dangerous for patients with heart disease to continue to smoke than to use NRT. Cardiac patients who cannot quit should be among those considered for NRT.

**Myth: Pregnant smokers should not use nicotine gum or the patch.**

**Fact:** The nicotine patch and gum are safer than smoking for the pregnant woman and her fetus; 58% of pregnant smokers continue to smoke during pregnancy. Pregnant women who cannot quit should be considered for NRT.

**Myth: Smokers under 18 should not use NRT.**

**Fact:** Most daily smokers begin smoking before age 18. The nicotine patch, gum, and inhaler are far safer than smoking. NRT should be considered for all smokers who need NRT to quit, including those under 18.

**Myth: Stop-smoking medications are not effective in helping people quit.**

**Fact:** NRT, Bupropion, and Varenicline are effective, government-approved medications available to help smokers. NRT, Bupropion, and Varenicline have each been found to approximately double quitting rates compared to placebo.

**Myth: Use of nicotine patch and gum should not exceed 3 months.**

**Fact:** The nicotine patch and gum should be used as long as needed to maintain and prolong tobacco abstinence.

**Myth: There is little incentive to quit smoking if the patient is healthy/ does not have diagnosed disease.**

**Fact:** Quitting smoking at any age offers benefits to a smoker. Smokers who quit at younger ages will on average increase their life expectancy as compared to those who quit smoking at later ages. As such, ensuring younger smokers are encouraged and supported to quit smoking is important.

Age at Quitting	Years of Life Preserved
30	10
40	9
50	6
60	3

Source: Doll R, Peto R, Boreham J, et al. Mortality in relation to smoking: 50 years' observation on male British doctors. *BMJ*. 2004; 328:15-19.<sup>22</sup>