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Guidelines & Protocols Advisory Committee

Tobacco Use Disorder (TUD)

Effective Date: October 24, 2024

Scope

This guideline provides evidence-based recommendations for primary care practitioners on managing tobacco use disorder (TUD). The term 'tobacco' refers to commercial, smoked and smokeless tobacco (e.g., chew and snuff). This guideline also addresses vaping. While the guideline focuses on TUD in adults (ages ≥ 19), there are some recommendations addressing the youth population (ages 12-18).

Indigenous populations: Cultural safety and humility are important when offering care. The First Nations Health Authority has stated, "For thousands of years, natural tobacco has been an integral part of Indigenous culture in many parts of British Columbia and Canada. Used in ritual, ceremony and prayer, tobacco was considered a sacred plant with immense healing and spiritual benefits. For these reasons, the tobacco plant should be treated with great respect. [Be] careful not to confuse traditional tobacco and its sacred uses with commercial tobacco."[1,2]

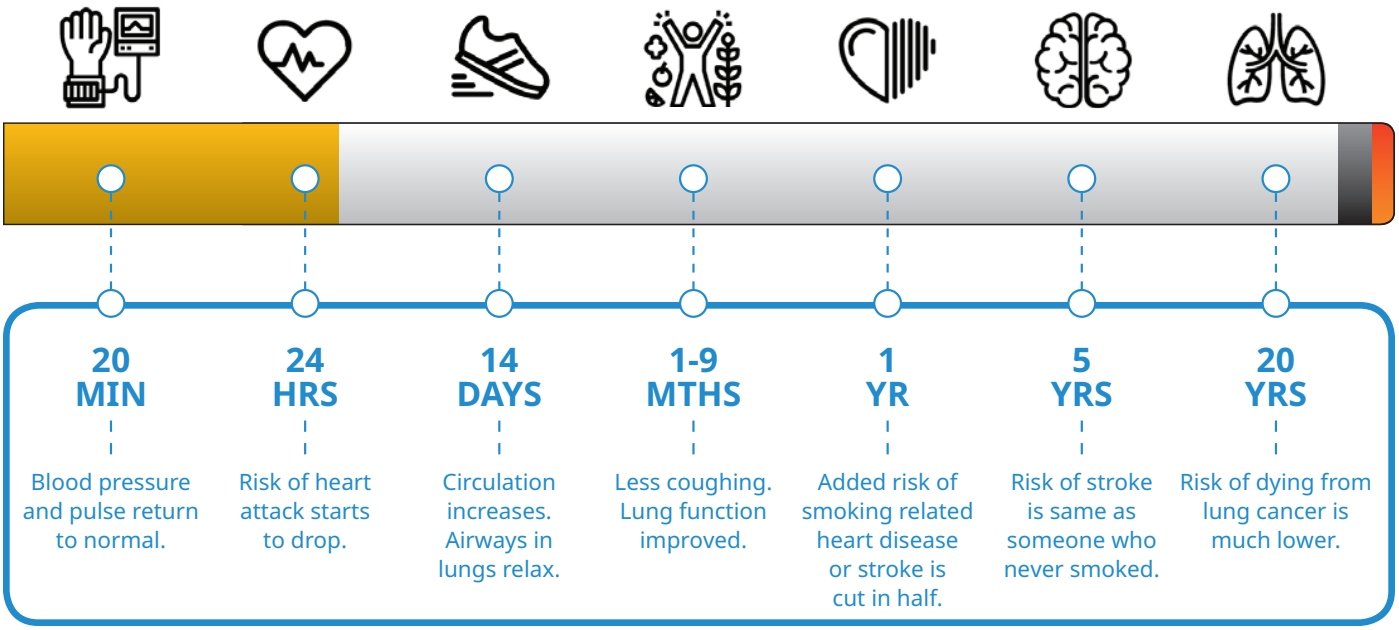
Key Recommendations

- Tobacco use disorder (TUD) (defined in the DSM-5-TR), like other substance use disorders, is a chronic and often relapsing condition. Document smoking history by number of years spent smoking (now considered a better risk indicator than "pack years"). Ask regularly about smoking status and document tobacco use in the patient medical record, including number of cessation attempts. Use the Tobacco Cessation Algorithm (5 A's Approach) see Figure 2.[3–9]
- Acknowledge that relapse is common and can be expected. If a patient has resumed tobacco use, offer education and review and adjust their smoking cessation plan.[3,4,7,9,10]
- Continue to provide brief interventions (BI), which are effective when routinely repeated.[3,4,7,10,11] Consider a motivational interviewing (MI) approach with all patients, including those not yet ready to stop smoking. See Practitioner Resources section for detailed MI information.[3,8,9]
- The most effective way to stop smoking is a combination of both pharmacotherapy and counselling.[4–6,9–14] Treatment plans should be individually and collaboratively tailored.
  - Medications: Encourage first-line pharmacotherapy, including nicotine replacement therapy (NRT), varenicline, and bupropion. See Appendix A: Tobacco Use Disorder Medication Table.
  - Counselling: Smoking cessation programs provide support to those who plan to quit smoking. Encourage patients to connect with QuitNow or to the FNHA's Talk Tobacco Program.
- Ask regularly about and document vaping use (including youth). Advise and support efforts to quit vaping.

Background

Tobacco use disorder (TUD), like other substance use disorders, is a chronic and often relapsing condition. Smoking cessation is associated with a significant reduction in morbidity and mortality rates. Timelines for specific benefits are outlined in the diagram below, Figure 1: Benefits of Stopping Smoking. Compared to patients who continue to smoke, people who have stopped smoking experience reductions in anxiety, depression, and stress symptoms as well as improvements in positive feelings and mental wellness.[15,16]

Figure 1: Benefits of Stopping Smoking[17,18]



Previously, pack years were used to help stratify health risks. Rather than pack years, the number of years spent smoking is now considered to be a better risk indicator.

Different forms of tobacco use present different harms. Table 1: Tobacco and Nicotine Use Overview (below) details these differences.

Table 1: Tobacco and Nicotine Use Overview

	Cigarettes	Waterpipe	Smokeless tobacco	Heat-not-burn (HBN)	E-cigarettes/ vaping	Nicotine Replacement Therapy
How it enters the body:	Smoke	Smoke	Chew or snuff	Aerosol	Aerosol	Mouth or skin
What's in it:						
Tobacco	Ⓨ	Ⓨ	Ⓨ	Ⓨ	Ⓝ	Ⓝ
Nicotine	Ⓨ	Ⓨ	Ⓨ	Ⓨ	Ⓨ	Ⓨ
Does it increase risk or risk factors for...?						
Addiction	Ⓨ	Ⓨ	Ⓨ	Ⓨ	Ⓨ	Ⓝ*
Respiratory illness	Ⓨ	Ⓨ	Ⓝ	?	Ⓨ	Ⓝ
Cancer	Ⓨ	Ⓨ	Ⓨ	?	?	Ⓝ
Cardiovascular disease	Ⓨ	Ⓨ	?	?	Ⓨ	Ⓝ
Reproductive health	Ⓨ	Ⓨ	?	?	?	?**

**NRT patches are not addictive. However, some patients might experience symptoms of addiction to short acting NRT.*
***Safer than smoking and use under the guidance of a healthcare professional.*

Radon exposure acts synergistically with smoking to increase lung cancer risk. Concerning levels of radon are present in many BC communities (refer to the BCCDC webpage).

Epidemiology

The 2022 Canadian Nicotine and Tobacco Survey (CNTS) found that 5.3% of BC youth and 8.5% of BC adults smoked.[19]

Tobacco smoking is the leading cause of preventable death in British Columbia, accounting for approximately 6,000 deaths annually. In BC, more deaths are due to smoking than to the combination of deaths due to all other drugs, motor vehicle collisions, murder, suicide, and HIV/AIDS.[20, 21, 22] Individuals who smoke die on average 10 years prematurely, and those who start smoking younger, are at increased risk of premature death.[23-25]

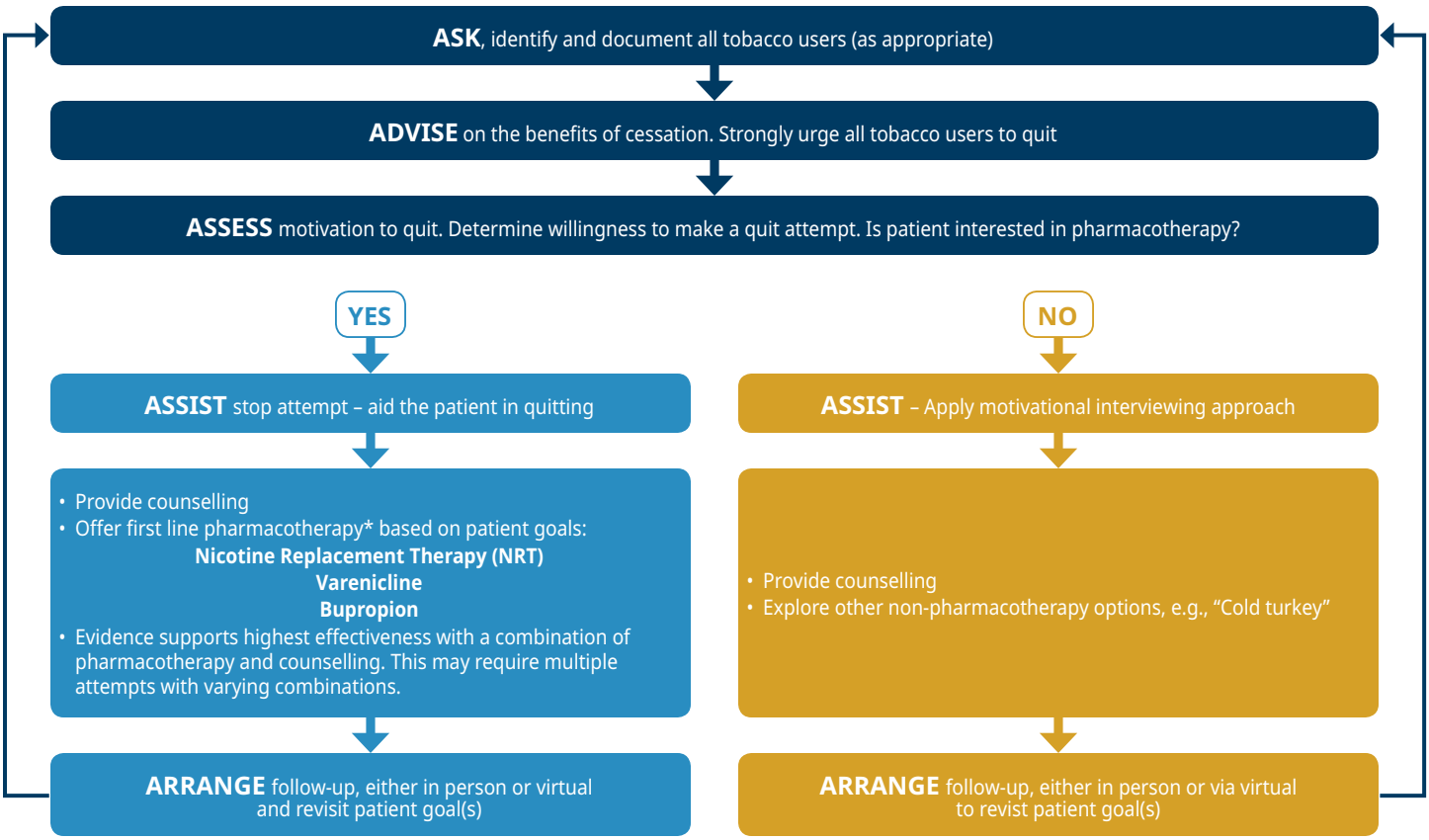
The main causes of smoking-related deaths are cancers (e.g., lung, oral, esophageal, laryngeal), cardiovascular disease, and respiratory diseases. Other cancers, such as liver, pancreatic, and cervical, can be caused by smoking.[26]

Screening and Brief Intervention

TUD can be quickly and easily identified. Ask regularly about smoking status and document tobacco use in the patient medical record, including number of cessation attempts. Use the 5 A's approach to discuss readiness to stop.[3–9] Further details can be found in the World Health Organization's Toolkit for delivering the 5A's and 5R's brief tobacco interventions in primary care. Smoking cessation programs provide support to those who plan to quit smoking. Encourage patients to connect with QuitNow or to the FNHA's Talk Tobacco Program.

Acknowledge that relapse is common. If a patient has resumed tobacco use, offer education and review and adjust their smoking cessation plan.[3,4,7,9,10] Continue to provide brief interventions (BI), which are effective when routinely repeated.[3,4,7,9–11] Treatment plans should be individually and collaboratively tailored.

Figure 2: Tobacco Cessation Algorithm[3] (5 A's Approach)



**Refer to Appendix A: Medication Table.*

Other healthcare professionals, e.g., nurses, and respiratory therapists, can also support smoking cessation efforts.

Pharmacological Management of TUD

The approved smoking cessation medications available in Canada are nicotine replacement therapy (NRT), varenicline and bupropion. These medications reduce nicotine withdrawal symptoms and cravings. Pharmacological approaches are most effective when used in combination with supportive counselling.[27] The most effective interventions are varenicline and combination NRT followed by monotherapy NRT and bupropion.[28]

The choice of therapy should take into account the efficacy of treatment, the convenience of the dosing regimen and the side effect profile that match the patient's values and preferences.[11] Relapse following tobacco reduction or cessation is common. If a patient relapses, validate their experience and review their smoking cessation plan to see if there are adjustments that may improve success. This may require multiple attempts with varying combinations of pharmacotherapy and counselling.

Nicotine replacement therapy (NRT)

NRT (i.e., patch, gum or lozenge) is used to reduce cravings, as it delivers nicotine that would otherwise have been obtained through tobacco use.[10]

Initial NRT dosing is typically based on the number of cigarettes smoked daily. For those who smoke heavily, more than one patch can be used simultaneously. NRT is recommended for a minimum of eight weeks. Some patients may find benefit in using NRT ≥ 12 weeks.[10] Durations >12 weeks are not covered by PharmaCare. To prevent relapse, patients should be instructed to taper off NRT by no more than 7mg per week. This helps them adjust to lowering nicotine levels. In the case a patch dose decrease is linked with a burdensome increase in tobacco craving, that dose can be maintained for three to four weeks before an additional decrease is attempted.[27]

Types of NRT can be combined. A nicotine patch in conjunction with a faster-acting NRT (e.g., gum, lozenge) improved six- to 12-month abstinence rates by 5%.[11] PharmaCare coverage for this approach is limited.

Success rates are higher in patients who cease tobacco use abruptly.[10,11,29] For patients who do not wish to completely quit smoking, NRT may help reduce the amount smoked. Patients who continue smoking while using NRT will not experience significant side-effects, as they generally cut down their cigarette consumption to maintain similar daily nicotine intake.[30] For patients not intending to stop smoking, NRT can relieve tobacco withdrawal symptoms in settings where smoking is prohibited e.g., hospitals, airplanes, smoke-free workplaces.

It is safe for patients with stable cardiovascular disease to use NRT. Exercise caution in patients with unstable cardiovascular disease (e.g. angina, arrhythmias or recent myocardial infarction within 2 weeks).[11, 31, 32]

Varenicline

Varenicline should be started at least one week prior to the patient's quit date and continued for 12 consecutive weeks.[33] Based upon patient and practitioner discussion, it is safe to consider a further 12 week course to reduce relapse.[11,34] PharmaCare only covers one course of 12 consecutive weeks per year.

Bupropion

Bupropion is less effective than varenicline or combined NRT.[28] Combining bupropion and NRT does not appear to increase a patient's likelihood of quitting.[35] If used, bupropion should be started at least one week prior to the patient's quit date and continued for at least seven weeks.[10,11]

Other Pharmacological Considerations

Encourage patients not to abandon pharmacotherapy for manageable side effects e.g., nausea and insomnia.

Pharmacotherapy options may be used for longer periods of time than recommended in product monographs. However, pharmacotherapy is not as effective if used for shorter durations than product monograph recommendations.[36, 37]

Stopping smoking can affect the metabolism of other drugs, potentially requiring dosage adjustments. Refer to the Drug InterACTIONs with Tobacco Smoke.

Special Populations

Mental Health and Substance Use Disorders

Patients with mental health disorders and/or with substance use disorders may begin and continue to use tobacco for a variety of reasons, including self-medication and social circumstances.[38] There are higher smoking rates among these populations, and higher levels of encouragement and support may be beneficial.

The NRT patch, varenicline, and bupropion are effective and well tolerated in adults with psychotic, anxiety, and mood disorders.[13,27]

Marginalized Groups

Certain populations have a higher incidence of smoking and more barriers to quitting. Consider socioeconomic status, race/ethnicity, social marginalization, stress, and lack of community empowerment.[37]

Pregnancy and Breastfeeding

For detailed information on supporting these patients, see QuitNow BC's Pregnancy and Smoking page, Perinatal Services BC's Tobacco and Nicotine Use During the Perinatal Period A Practice Resource for Health Care Providers, or Better Health's Pregnancy and Smoking page. While behavioral interventions are the first line treatment option in this population, a risk benefit assessment may indicate a need for pharmacotherapy, in which NRT appears to be the safest choice.[11]

Youth (ages 12-18)

While behavioral interventions are the first line treatment option in this population, a risk benefit assessment may indicate a need for pharmacotherapy, of which NRT is the recommended option.[39, 40] For youth smoking cessation strategies, refer to the CPS Practice Point: Strategies to promote smoking cessation among adolescents or the American Academy of Pediatrics: Nicotine Replacement Therapy and Adolescent Patients.

Children (ages <12)

Identify tobacco and vape usage. Refer to appropriate specialist care.

Vaping Use

Background and Epidemiology

Vaping entails inhaling an aerosol or vapour that is created by an electronic cigarette, vape pen, or personal vaporizer (i.e., "mods"). In BC, all legally sold vapes contain nicotine or cannabis (i.e., vapes cannot solely contain flavoured chemicals). Nicotine for vaping can be derived from tobacco leaves or produced synthetically.[41]

Aerosols from vapes contain harmful chemicals (e.g., acrolein and formaldehyde), particulate matter, and metals (e.g., aluminium, lead, tin and nickel).

While the incidence of initiation of tobacco smoking has decreased, there has been an increase in vaping use. The 2022 Canadian Nicotine and Tobacco Survey (CNTS) showed that 16.1% of BC youth ages 15-19 and 7% of adults ages 20+ had vaped in a preceding 30 day period.[19] In 2023, of the BC youth who vaped, 15% vaped daily and 75% vaped within 30 minutes of waking up, suggesting physical dependence.[41]

Vaping does not reduce the risk of nicotine dependence. One vape pod can contain as much nicotine as one to two pack(s) of cigarettes.[42, 43]

People who have never smoked should not start vaping. Many people erroneously believe vaping is harmless. Many teens mistakenly believe there is no or slight risk in the occasional use of vapes.[44]

Youth who vape are more likely to transition to smoking.[45] Children and youth become nicotine dependent at lower levels of nicotine exposure than adults.[46] The developing brains of youth may also be more sensitive to the harmful effects of nicotine.[34, 44]

Due to an overall reduction in smoking, the tobacco industry has continued to expand its product portfolio to non-combustible products e.g., vaping and nicotine pouches (held in the mouth). Marketed as public health solutions, such products are aggressively promoted to youth and young adults.[44, 47, 48] The fruity, menthol or mint flavoured vape cartridges may attract non-smoking youth, ultimately resulting in nicotine dependency.[49]

Screening and Brief Intervention

All patients, including children and youth, should be asked if they vape, and advised to quit. Practitioner assessments may include questions about dual use (i.e., vaping and smoking), physical and mental health, and social factors (e.g., stressors, partner vaping). There are currently no validated tools to assess vaping dependence.[50]

Treatment Approaches

The evidence on vaping and vaping cessation practices continue to emerge; practitioners should re-evaluate treatment plans over time.[50]

To support vaping cessation in adult patients, behavioural therapy strategies (e.g., counselling, motivational interviewing, cognitive-behavioural therapy) are first line treatment. In terms of pharmacotherapy, expert opinion from this working group suggests using short-term NRT for vaping cessation. The role of varenicline and bupropion is still emerging. Refer to the Pharmacological Management of TUD section above for additional information.

To support vaping cessation in youth, review CAMH's Vaping Cessation Guidance Resource.[50]

Dual Use (individuals who both smoke and vape)

For patients who are both vaping and smoking, it is recommended to quit both concurrently. If unable, it is suggested that they switch to vaping only. Proceed with cessation management.[51-53]

Controversies in Care

Alternative Therapies for Smoking Cessation

While there is emerging evidence supporting cytisine use, dosing regimens are complex.[28, 54, 55] There is insufficient evidence to support heated tobacco products (HTPs),[56-58] acupuncture, acupressure, laser therapy,[59] and hypnotherapy.[60] There is no evidence to support electrical stimulation,[28] mindfulness,[61] smoking cessation competitions,[62] St. John's wort (SJW),[63] and S-Adenosyl-L-Methionine (SAMe).[64]

Resources

Abbreviations:

BI	Brief intervention
HTP	Heated tobacco products
MI	Motivational interviewing
NRT	Nicotine replacement therapy
TUD	Tobacco use disorder

Practitioner Resources

Tobacco Use Disorder Resources

- **Quit Smoking:** Offers health care providers training, education and resources to make it easier for you to support your clients on their quit journey. See: Health Care Providers | QuitNow. Phone: **1-877-455-2233** (toll-free) Email: quitnow@bc.lung.ca
- **Pathways:** Allows FPs and NPs and their office staff to quickly access current and accurate referral information. This includes wait times and areas of expertise for specialists and specialty clinics. Information on the BC Smoking Cessation Program can be found here: https://pathwaysbc.ca/programs/1026
- **RACE Line:** Rapid Access to Consultative Expertise Program: raceconnect.ca/. A phone consultation line for all physicians and NPs. **If the relevant specialty area is available through your local RACE line, please contact them first.** Please contact the Vancouver/Providence RACE line if your local RACE line does not cover the relevant specialty service or there is no local RACE line in your area.
- **Family Practice Services Committee:** Home page | GPSC (gpscbc.ca)
  - Practice Support Program: offers focused, accredited and compensated support for FPs to help them improve practice efficiency and enhance patient care.
  - Chronic Disease Management and Complex Care Incentives: compensates FPs working with patients with complex conditions or specific chronic diseases.
- **Centre for Addiction and Mental Health (CAMH):** A hub healthcare providers looking for more information and tools to support their clients who are seeking to stop smoking Resources for Providers.
  - My Change Plan: The Workbook for Making Health Changes was developed by the Training Enhancement in Applied Counselling and Health (TEACH) Project as an interactive managed self-care tool that provides basic information on smoking cessation medications, the process of behaviour change and relapse prevention.
  - Nicotine Dependence Clinic: Lower-Risk Nicotine Use Guidelines
  - Vaping Cessation Guidance Resource: See screening tools and treatment approaches for vaping
- **Physicians for a Smoke-Free Canada:** https://smoke-free.ca/
- **Ottawa Model for Smoking Cessation:** https://ottawamodel.ottawaheart.ca/

Continued Learning

- **Motivational Interviewing:**
  - UBC Continuing Professional Development (CPD)
  - The Centre for Collaboration, Motivation and Innovation
  - Change Talk Associates
- **Nicotine Dependence Clinic - Mood Management:**
  - Motivational Interviewing for Smokers with Mood Disorders
  - Relapse Prevention Strategies for Smokers with Mood Disorders
  - Busting Myths about Smoking Cessation and Mental Illness

- **TEACH Certificate in Intensive Tobacco Cessation Counselling:** The TEACH Project offers a University of Toronto accredited certificate program in intensive cessation counselling. This 46.5-hour certificate program provides the context, background and knowledge and skills needed to offer intensive tobacco cessation counselling.
- **The Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment (CAN-ADAPTT):** A practice-based research network facilitating research and knowledge exchange among providers, researchers and policy makers in the area of tobacco cessation. CAN-ADAPTT aim was to bridge the gap between research and practice.

Quality Improvement (QI)

- Smoking cessation intervention is well suited to QI efforts within a practice. Talk to a Physician Support Program (PSP) coaches can provide information on Continuing Medical Education (CME) credits and funding for QI projects: psp@doctorsofbc.ca

Possible Quality Indicators

- Tobacco use prevalence (includes smoking, vaping nicotine, and chew) - all active patients ages ≥ 12
- Tobacco use prevalence - all active patients ages 12-19 inclusive
- Tobacco use documented in past 2 years – all active patients

Denominator for following: All active patients currently using tobacco

- % patients with tobacco cessation discussion documented
- % patients with dedicated tobacco use cessation consult and/or follow-up (behavioural, pharmacological, both)

Patient, Family and Caregiver Resources

BC Specific Resources

- **HealthLinkBC:** You may call **8-1-1** toll-free in B.C. For the deaf and the hard of hearing, call **7-1-1**. You will be connected with an English-speaking health-service navigator, who can provide health and health-service information and connect you with a registered dietitian, exercise physiologist, nurse, or pharmacist. See: healthlinkbc.ca/
  - Get help quitting tobacco
  - Health Risks of Alternative Tobacco Products
- **BC Smoking Cessation Program – Patient Information Sheets** (available in 10 languages)
- **BC PharmaCare:** Get help with tobacco cessation and learn what medications are available.
- **QuitNowBC:** BC's free quit smoking service available to all BC Residents to reduce or quit. They offer synchronous online, phone and asynchronous coaching support.
  - Medications That Can Help
  - Local Help Directory
- **First Nations Virtual Doctor of the Day:** The First Nations Virtual Doctor of the Day program enables First Nations people in BC with limited or no access to their own doctors to make virtual appointments. Call **1-855-344-3800** to book an appointment.
- **First Nations Health Authority (FNHA): Talk Tobacco** offers culturally appropriate support about stopping smoking, vaping and commercial tobacco use to First Nations communities.
  - **Phone** 1-833-998-8255, **Text** CHANGE to 123456, **Live Chat** on talktoblifetacco.ca

  Other resources developed by the FNHA:
  - Respecting Tobacco
  - Tobacco: The Sacred Medicine
  - Coverage for Products to Quit the Use of Commercial Tobacco
  - Frequently Asked Questions: Quitting Commercial Tobacco

National Resources

- **Health Canada:**
  - Cost calculator: How much do you spend on cigarettes?
  - On the road to quitting
  - Tools for a smoke-free life
  - Quitting smoking: Self-help guides and infographics
- **Canadian Lung Association:** Provides helpful suggestions for patients, see Cigarettes: the hard truth.
- **Legacy for Airway Health:** Addresses the health and economic burden of asthma and COPD through strategic research, proven prevention and delivery of optimal care.
- **Expand Project:** An initiative to start a dialog within queer and trans communities about smoking.

Youth-Specific Resources

- **BC Ministry of Health:** Health info for youth
- **BC Ministry of Health:** The A-Z of vaping
- **BC Ministry of Health:** Vaping brochure
- **BC Lung Foundation:** Vaping Frequently Asked Questions
- **Canadian Lung Association:** Vaping – what you need to know
- **Centre for Addiction and Mental Health:** Vaping – what you and your friends need to know
- **First Nations Health Authority:** Youth Respecting Tobacco
- **Health Canada:** Risks of Vaping
- **Health Canada:** Talking with your teen about vaping
- **McCreary Centre Society:** What Parents Need to Know About Vaping - Parent Infographic
- **Youth Research Academy:** Clearing the Air - A youth-led research project about vaping
- **Truth Initiative:** Youth Vaping, Smoking and Nicotine Use
- **Foundry:** Myths and Facts on Vaping and Tobacco

Billing Codes

PG14066: Personal Health Risk Assessment (Prevention)

Appendices

- Appendix A: Tobacco Use Disorder Medication Table

Associated Documents

The following documents accompany this guideline:

- Patient handout
- List of Contributors

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BC Guidelines are developed for the Medical Services Commission by the Guidelines and Protocols Advisory Committee, a joint committee of Government and the Doctors of BC. BC Guidelines are adopted under the *Medicare Protection Act* and, where relevant, the *Laboratory Services Act*.

Disclaimer: This guideline is based on best available scientific evidence and clinical expertise as of October 24, 2024. It is not intended as a substitute for the clinical or professional judgment of a health care practitioner.

Appendix A: Tobacco Use Disorder Medication Table

Dosage Form *Trade names* Dosage strengths and pack sizes	**Usual Adult Dose**[A]	**Approx. Cost per Month**[B]	**PharmaCare Coverage**[C]	**Adverse Effects**[D]	**Therapeutic Considerations**
NICOTINE REPLACEMENT THERAPIES					
Short acting					
Gum *Nicorette, Thrive, G* 2mg, 4mg 24, 30, 36, 96, 105, 210 pieces Nicorette flavours: mint*, cinnamon, fruit Thrive flavours: mint, fruit	~ 1piece/hr PRN Max: 20 pieces/d Individual taper	$90- $180 based on average of 10-16 pieces/d	Over the counter Non benefit **Smoking Cessation Program:** full coverage for 12 consecutive wks per year of select products*	Cough, throat irritation (usually mild), hiccups, nausea/ dyspepsia (from swallowed nicotine), jaw pain (if incorrect technique).	Bite and Park Strategy: bite gum 1-2 times, then park it between the cheek and the gum x1min; then repeat alternating sides. Use until peppery taste is gone. Use 4mg if history of smoking within 30 mins of waking. Coffee & acidic beverages (e.g., juice, soda) impair absorption; space by ≥15 mins.
Lozenge *Nicorette, Thrive, G* 1mg, 2mg, 4mg 20, 36, 80, 108, 160 lozenges Nicorette flavours: mint*, fruit Thrive flavours: mint	1 loz. q1-2 hr x6 wks, q2-4hr x3wk, q4-8hr x3wk Max:15 lozenges/d Individual taper	$80-$180 based on average of 8-15 lozenges/d	Over the counter Non benefit **Smoking Cessation Program:** full coverage for 12 consecutive wks per year of select products*	Mouth irritation, soreness in gums, teeth, & throat, nausea/ dyspepsia (from swallowed nicotine).	Move lozenge occasionally from one side of mouth to the other until dissolved (about 20-30 mins). Do not bite, swallow or chew. Can be used in those with temporomandibular disorders, poor dentition, or dentures. Avoid if phenylketonuria; lozenge contains phenylalanine. Coffee & acidic beverages (e.g., juice, soda) impair absorption; space by ≥15 mins.
Inhaler *Nicorette* 4mg 42 cartridges	6-16 cartridges/d x12wk Max: 16cartridges/d Individual taper.	$175-$350 based on average of 6-12 cartridges/d	Over the counter. Non benefit	Throat irritation, cough, rhinitis, dyspepsia.	Inhale deeply into back of the throat or puff in short breaths. Max absorption with short, continuous, frequent puffing. 1 cartridge delivers 4mg of nicotine (2mg is absorbed), replaces 1-2 cigarettes and lasts up to 20 minutes of continuous frequent puffing. Once punctured, inhaler cartridge viable for 24 hs. Helpful for hand to mouth habit associated with smoking.

Dosage Form *Trade names* Dosage strengths and pack sizes	Usual Adult Dose[A]	Approx. Cost per Month[B]	PharmaCare Coverage[C]	Adverse Effects[D]	Therapeutic Considerations
Quick Mist *Nicorette* 1mg 150 sprays Flavours: Fresh mint, cool berry	1-2 sprays q 30 mins x 6 wks; reduce # of sprays per day by half x3wks; 2-4 sprays/d x3wks. Max doses: 2 sprays at a time; 4 sprays/hr 64 sprays/d	$150-$220 based on average of 20- 26 sprays/d	Over the counter. Non benefit	Hiccups, throat irritation, nausea.	Spray into mouth, avoiding lips. Wait a few seconds before swallowing. Do not inhale spray. Contains small amounts of ethanol, less than 10 mg per spray. Quick delivery convenient for severe cravings (note: still slower absorption than cigarette due to buccal mucosa absorption).
Long acting					
Patches *Nicoderm*, Habitrol, G* 7, 14, 21mg/d 7, 14 patches	If ≥10 cigarettes/ day: 21mg/d x 6 wks, then 14mg/d x 2 wks, then 7mg/d x 2 wks If < 10 cigarettes/ day: 14mg/d x 6 wks, then 7mg/d x 2 wks Individual taper.	$100- $160	Over the counter. Non benefit. **Smoking Cessation Program:** full coverage for 12 consecutive wks per year of select products*	Local irritation to adhesive may occur. Alternate patch site, apply topical corticosteroid cream, or switch to another agent. Insomnia. If this occurs, can take off at bedtime and apply another patch in the morning.	Apply new patch to clean, dry, non-hairy area every day in the morning. Rotate sites. Do not cut patch. Consider for people who smoke upon waking. Consider alternative for severe eczema, psoriasis, or other generalized skin disorders. Taper off patches by no more than 7 mg per wk. If a patch dose decrease causes a significant increase in tobacco craving, that dose can be maintained for three to four weeks before an additional decrease is attempted.30 Use until feeling stabilized as a non-smoker. May be continued >12 wks; NRT safer than smoking. Consider NRT for longer period for comorbid psychiatric illness and/or substance use disorders. Off-label: If considering doses higher than 21 mg/d in patients who heavily smoke, shared decision making and a discussion about the risk of nicotine toxicity from all sources of nicotine is recommended.
Note: some NRT products available in Canada are not listed here (e.g., Sesh+, Zonnic).					

Dosage Form *Trade names* Dosage strengths and pack sizes	**Usual Adult Dose**[A]	**Approx. Cost per Month**[B]	**PharmaCare Coverage**[C]	**Adverse Effects**[D]	**Therapeutic Considerations**
PRESCRIPTION PHARMACOTHERAPIES					
Bupropion *Zyban*, G* 150mg SR tablets	150mg SR daily X 3d, then 150mg SR BID X 12 wks	$60-$80	**Smoking Cessation Program*:** Regular benefit for 12 consecutive wks per year (Zyban only)	Insomnia, agitation, tremor, decreased appetite, nausea, dry mouth.	Begin ≥ 1 wk before cessation of smoking. Longer duration of treatment can be considered, based on previous quit attempts and patient preference. Contraindications: seizure disorder, predisposition to seizure, pre-existing/current eating disorder, past/present excessive use of alcohol or benzodiazepines, on MAO inhibitors within 14d.
Varenicline *G* 0.5mg, 1mg tablets	0.5mg daily X 3 d, then 0.5mg BID X 4 days, then 1mg BID X 12 wks	$60	**Smoking Cessation Program*:** Regular benefit for 12 consecutive wks per year	Nausea (dose dependent, initial titration may reduce), disordered sleep, including insomnia and abnormal (vivid or strange) dreams. Early concerns about neuropsychiatric and cardiovascular side effects are not supported by subsequent studies, and varenicline is generally considered safe.	Fixed quit approach: start 1-2 wks before set quit date. Flexible quit approach: quit smoking between days 8 and 35 of treatment. Gradual quit approach: Reduce smoking gradually (e.g., ≥ 50% reduction by 4 wks, ≥ 75% by 8 wks, 100% by 12 wks). Recommend 24-wk course. Precautions: using NRT concomitantly for operators of heavy machinery (until reaction to medication is known). If successfully quit at 12 wks but concern for relapse, may benefit from additional 12 wks. Dose tapering may minimize discontinuation symptoms (e.g., irritability, urge to smoke, depression). Symptoms observed in up to 3% of patients.

Abbreviations: bid: twice daily; **d:** day; **hr:** hours; **kg:** kilogram; **mg:** milligrams; **mins:** minutes; **prn:** as needed; **SR:** sustained release; **q:** every; **wks:** weeks; **y:** years of age.

[A] For normal renal and hepatic function. Consult product monograph for detailed dosing instructions and dose adjustments for unique patient populations.

[B] Drug costs are the average retail cost of generic products, when available. Current as of May 2024 and does not include retail markups or pharmacy fees.

[C] PharmaCare coverage as of May 2024 (subject to revision). Regular Benefit: Eligible for full reimbursement. Limited Coverage: Requires Special Authority to be eligible for reimbursement. Non-benefit: Not eligible for reimbursement. Reimbursement is subject to the rules of a patient's PharmaCare plan, including any deductibles. In all cases, coverage is subject to drug price limits set by PharmaCare. See: https://www.gov.bc.ca/pharmacareplans and https://www.gov.bc.ca/pharmacarepolicy for further information. Special Authority drug list

[D] Not an exhaustive list. Check the product monograph (https://health-products.canada.ca/dpd-bdpp/index-eng.jsp) or an interaction checker (e.g., Lexicomp(C)) before prescribing.

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Note: Information on which products PharmaCare covers can be obtained using the B.C. PharmaCare Formulary Search (https://pharmacareformularysearch.gov.bc.ca/).

***BC Smoking Cessation Program**

Each calendar year, PharmaCare will cover one continuous 12 week treatment course for BC residents of all ages for either:

- nicotine replacement therapy (NRT) at 100% of the cost (no prescription required, specific products only), or
- prescription medications (subject to patient's PharmaCare plan and deductible):
  - bupropion (Zyban only), or
  - varenicline (generic only).

The 12-week course starts the day of the first dispense. The remaining fills must be dispensed within the 12-week period. Any refills after 12 weeks will not be covered by PharmaCare.

For more details, please see: **Smoking Cessation Program – for prescribers - Province of British Columbia (gov.bc.ca)**