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Integrating Tobacco Interventions into Daily Practice

Third Edition



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Integrating Tobacco Interventions into Daily Practice

Third Edition

Greetings from Doris Grinspun,

Chief Executive Officer, Registered Nurses' Association of Ontario

The Registered Nurses' Association of Ontario (RNAO) is delighted to present the third edition of the clinical Best Practice Guideline *Integrating Tobacco Interventions into Daily Practice*. Evidence-based practice supports the excellence in service that health professionals are committed to delivering every day. RNAO is pleased to provide this key resource.



We offer our heartfelt thanks to the many stakeholders who are making our vision for best practice guidelines a reality, starting with the Government of Ontario, for recognizing RNAO's ability to lead the program and for providing multi-year funding. For their invaluable expertise and leadership, I wish to thank Dr. Irmajean Bajnok, former Director of the RNAO International Affairs and Best Practice Guidelines Centre, Dr. Valerie Grdisa, Director of the RNAO International Affairs and Best Practice Guidelines Centre, and Dr. Michelle Rey, RNAO Associate

Director of Research and Guideline Development. I also want to thank the co-chairs of the RNAO expert panel, Dr. Peter Selby, Dr. Shelley Walkerley, and Dr. Annette Schultz (co-chair 2013–2014) for their exquisite expertise and stewardship of this guideline. Thanks also to RNAO staff, Sheila John (Guideline Development Lead), Jennifer Callaghan (Guideline Development Project Coordinator), Natalie Hamilton-Martin (Guideline Development Project Coordinator), Tiiu Sildva (former Tobacco Intervention Specialist), Jennifer Tiberio (former Tobacco Intervention Specialist), Tanvi Sharma (Lead Nursing Research Associate), Lisa Ye (former Nursing Research Associate), and the rest of the RNAO Best Practice Guidelines program team for their intense work in the production of this updated guideline. Special thanks to the members of the RNAO expert panel for generously providing time and expertise to deliver a rigorous and robust clinical resource. We couldn't have done it without you!

Successful uptake of best practice guidelines requires a concerted effort from educators, clinicians, employers, policy makers, and researchers. The nursing and health-care community, with their unwavering commitment and passion for excellence in client care, has provided the expertise and countless hours of volunteer work essential to the development and revision of each best practice guideline. Employers have responded enthusiastically by nominating best practice champions, implementing guidelines, and evaluating their impact on clients and organizations. Governments at home and abroad have joined in this journey. Together, we are building a culture of evidence-based practice.

We invite you to share this guideline with your colleagues from other professions, because we have so much to learn from one another. Together, we must ensure that the public receives the best possible care every time they come into contact with us—making them the real winners in this important effort.

A handwritten signature in black ink that reads "Doris Grinspun". The signature is written in a cursive style and is underlined with a long, horizontal stroke.

Doris Grinspun, RN, MSN, PhD, LLD (Hon), O. ONT.
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How to Use This Document

This nursing Best Practice Guideline (BPG)^{G*} is a comprehensive document that provides resources for evidence^G-based nursing practice. It is not intended to be a manual or “how to” guide, but rather a tool to guide best practices and enhance decision-making for nurses^G working with clients^G who use tobacco. The guideline should be reviewed and applied in accordance with both the needs of the individual organizations or practice settings, and the needs and preferences of the person. In addition, the guideline provides an overview of appropriate structures and supports for providing the best possible evidence-based care.

Nurses, other health-care providers, and administrators who lead and facilitate practice changes will find this document invaluable for developing policies, procedures, protocols, educational programs, assessments, interventions, and documentation of tools. Nurses and other health-care providers in direct care will benefit from reviewing the recommendations and the evidence that supports them. We particularly recommend that practice settings adopt the recommendations in this guideline in formats that are user-friendly for daily use.

If your organization is adopting this guideline, we recommend that you follow these steps:

1. Assess your health-care practices using the recommendations in this guideline.
2. Identify which recommendations will address needs or gaps in services.
3. Develop a plan for implementing the recommendations. Implementation resources, including RNAO’s Toolkit: *Implementation of Best Practice Guidelines* (2nd ed.) (RNAO, 2012), are available at www.RNAO.ca.

We are interested in hearing how you have implemented this guideline. Please contact us to share your story.

* Throughout this document, terms marked with a superscript G (^G) can be found in **Appendix A: Glossary of Terms**.

Purpose and Scope

Best Practice Guidelines (BPG) are systematically developed statements designed to assist health-care providers working in partnership with clients and their families as they make decisions about healthcare and services (Field & Lohr, 1990). This BPG replaces the RNAO Best Practice Guideline *Integrating Smoking Cessation into Daily Nursing Practice* (2007). It is to be used by nurses and other members of the inter-professional health-care team^G to enhance the quality^G of their practice pertaining to clients who use commercial tobacco, ultimately improving clinical outcomes through the use of evidence-based practices.

In February 2015, an inter-professional expert panel convened and established the purpose and scope of this guideline. The purpose is to provide tobacco interventions best practices for nurses and other health-care providers across all care settings, with evidence-based recommendations related to assessment and interventions for adults who use tobacco. The scope includes all forms of commercial tobacco and is not limited to smoking alone—thus, the guideline’s name changed from “smoking cessation^G” to “tobacco interventions.”

The recommendations will help nurses and other health-care providers gain the knowledge required to screen all clients for tobacco use, implement an intervention plan with individuals who use tobacco, treat or refer clients, add tobacco use content to enhance health professional education programs, ensure tobacco intervention curriculum is facilitated by trained and skilled educators, and advocate for smoke- and vape-free policies in health-care delivery settings and in the community. This guideline applies to all domains of nursing practice, including clinical, administration, and education.

This guideline provides best practice recommendations in three main areas:

- **Practice recommendations^G** are directed primarily to nurses and other health-care providers on the inter-professional teams who provide direct care to people in health system settings (e.g., acute care, long-term care, and home healthcare) and in the community (e.g., primary care and public health). Practice recommendations are formulated and presented according to the nursing process^G.
- **Education recommendations^G** are directed to those responsible for staff and student education, such as educators, quality improvement teams, managers, administrators, and academic and professional institutions.
- **System, organization, and policy recommendations^G** apply to a variety of audiences, depending on the recommendation. Audiences include direct care nurses and other health-care providers, managers, administrators, policy-makers, nursing regulatory bodies, academic institutions, and government bodies.

For optimal effectiveness, recommendations in these three areas should be implemented together to improve tobacco interventions and to enhance the inter-professional team’s ability to partner for the purpose of improving health. It is acknowledged that competencies associated with tobacco intervention education may vary among nurses and other health-care providers within inter-professional teams.

Various factors will affect the application of tobacco education practices as outlined in this guideline. These include individual organizations’ policies and procedures, government legislation, and the demographic and socioeconomic characteristics of the adult accessing care and services.

Interpretation of Evidence

Levels of evidence are assigned to study designs to rank how well particular designs are able to eliminate alternative explanations of the phenomena under study. The higher the level of evidence, the greater the likelihood that the relationships presented among the variables are true. Levels of evidence do not reflect the merit or quality of individual studies.

For guideline recommendations, where available, studies with the highest level of evidence that most closely align with the recommendation statement are referenced. Where multiple studies report similar findings, only studies with the highest level of evidence are cited.

On occasion, guideline recommendations are assigned more than one level of evidence. This is a reflection of the varied study designs that support the multiple components of a recommendation. For transparency, the individual levels of evidence for each component of the recommendation statement are identified in the Discussion of Evidence. Additionally, as part of the systematic review^G (see [Appendix B: Process for Systematic Review and Search Strategy](#)), studies are appraised for quality with an assigned ranking of strong, moderate, or weak. Where available, in addition to the highest level of evidence, only strong or moderate quality studies are cited to support recommendations. Where only weak quality studies are available, all of them are included as references.

LEVEL	SOURCE OF EVIDENCE
Ia	Evidence obtained from meta-analysis ^G or systematic reviews of randomized controlled trials ^G and/or synthesis of multiple studies primarily of quantitative research.
Ib	Evidence obtained from at least one randomized controlled trial.
IIa	Evidence obtained from at least one well-designed controlled study ^G without randomization.
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study, ^G without randomization.
III	Evidence obtained from the synthesis of multiple studies primarily of qualitative research.
IV	Evidence obtained from well-designed non-experimental observational studies, such as analytical studies ^G or descriptive studies ^G , and/or qualitative studies.
V	Evidence obtained from expert opinion or committee reports, and/or clinical experiences of respected authorities.

Source: Adapted from the Scottish Intercollegiate Guidelines Network (SIGN, 2011) and Pati (2011).

Summary of Recommendations

This guideline replaces the RNAO BPG *Integrating Smoking Cessation into Daily Nursing Practice* (2007b).

We have used these symbols for the recommendations:

- ✓ No change was made to the recommendation as a result of the systematic review evidence.
 - +
- The recommendation and supporting evidence were updated following the systematic review.
- NEW** A new recommendation was developed following the systematic review.

PRACTICE RECOMMENDATIONS		LEVEL OF EVIDENCE	STATUS
1.0 Assessment	<p>Recommendation 1.1:</p> <p>Use brief interventions to screen all clients for all forms of tobacco use and initiate intervention as appropriate.</p>	1a, 1b	+
2.0 Planning	<p>Recommendation 2.1:</p> <p>Develop a person-centred tobacco intervention plan with the client.</p>	V	+
3.0 Implementation	<p>Recommendation 3.1:</p> <p>Provide clients with, or refer them to, intensive interventions and counselling on the use of pharmacotherapy, if they use tobacco and express an interest in reducing or quitting their tobacco use.</p>	1a, V	+
	<p>Recommendation 3.2:</p> <p>Treat or refer all pregnant or postpartum women at every encounter for intensive behavioural counselling for tobacco harm reduction, cessation, and relapse prevention, in conjunction with nicotine replacement therapy, on a case by case basis.</p>	1a, 1b, V	+
4.0 Evaluation	<p>Recommendation 4.1:</p> <p>Evaluate the effectiveness of the intervention plan until the client's goals are met.</p>	V	NEW

EDUCATION RECOMMENDATIONS		LEVEL OF EVIDENCE	STATUS
5.0 Education	<p>Recommendation 5.1:</p> <p>Incorporate evidence-based content on tobacco interventions in health-care professional education programs.</p>	Ib, IIb, IV, V	+
	<p>Recommendation 5.2:</p> <p>Ensure delivery of the tobacco intervention curriculum is facilitated by educators who are trained and skilled in the field of tobacco use interventions.</p>	IV	NEW

SYSTEM, ORGANIZATION, AND POLICY RECOMMENDATIONS		LEVEL OF EVIDENCE	STATUS
6.0 System, Organization, and Policy	<p>Recommendation 6.1:</p> <p>Advocate with policy-makers at all levels of government for comprehensive smoke- and vape-free legislation and enforcement in the community.</p>	Ia, IIb, IV	+
	<p>Recommendation 6.2:</p> <p>Implement and enforce comprehensive tobacco-free policies in all health-care delivery settings and with all clients, including in-patients and out-patients, as well as with permanent and contract staff.</p>	Ia, IV	+
	<p>Recommendation 6.3:</p> <p>Embed tobacco use prompts in health records/ documentation to facilitate addressing tobacco interventions during health-care visits.</p>	Ib	NEW
	<p>Recommendation 6.4:</p> <p>Evaluate tobacco intervention programs and services.</p>	V	NEW

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Declarations of interest that might be construed as constituting an actual, potential, or apparent conflict were made by all members of the Registered Nurses' Association of Ontario expert panel, and members were asked to update their disclosures regularly throughout the guideline development process. Information was requested about financial, intellectual, personal, and other interests and documented for future reference.

No limiting conflicts were identified. Further details are available from the Registered Nurses' Association of Ontario.

Stakeholder Acknowledgment

As a component of the guideline development process for best practice guidelines (see [Appendix C: Guideline Development Process](#)), RNAO is committed to obtaining feedback from nurses and other health-care providers from a wide range of practice settings and roles, knowledgeable administrators and funders of health-care services, and stakeholder^c associations. Reviewers may be nurses and other point-of-care health-care providers, nurse executives, administrators, research experts, members of inter-professional teams, educators, nursing students, or patients. RNAO aims to solicit stakeholder expertise and perspectives representing diverse health-care sectors, roles within nursing and other professions (e.g., clinical practice, research, education, and policy), and geographic locations. Stakeholders representing diverse perspectives were solicited** for their feedback, and RNAO wishes to acknowledge and express thanks to the following individuals for reviewing this guideline:

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** Stakeholder reviewers are individuals who have expertise in the subject matter of the guideline, are representatives of organizations that are involved in implementing the guideline, or are individuals who are affected by its implementation.

Stakeholder reviewers for RNAO guidelines are identified in two ways. First, stakeholders are recruited through a public call issued on the RNAO website (www.RNAO.ca/bpg/get-involved/stakeholder). Second, key individuals and organizations with expertise in the guideline topic area are identified by the RNAO guideline development team and expert panel and directly invited to participate in the review.

Reviewers are asked to read a full draft of the guideline and participate in the review prior to its publication. Stakeholders submit their feedback by completing an online questionnaire. Stakeholders are asked the following questions about each recommendation:

- Is this recommendation clear?
- Do you agree with this recommendation?
- Does the evidence support this recommendation?
- Does this recommendation apply to all roles, regions, and practice settings?

The online questionnaire also gives stakeholders an opportunity to include comments and feedback for each section of the guideline.

The RNAO guideline development team compiles the submissions and prepares a summary of the feedback. The RNAO expert panel reviews and considers all feedback and, if necessary, modifies the content and recommendations in the guideline prior to publication to address the feedback. Stakeholder reviewers consent to the publication of their names and contact details in the guideline.

Tobacco Definition and Types of Tobacco

In this guideline, “tobacco” refers to all smoking and smokeless forms of commercial tobacco products, including but not limited to cigarettes, cigars, cigarillos, chewing tobacco, dissolvables, hookah/water pipe/shisha, snuff, roll-your-own cigarettes, and pipes, as well as other products that may contain nicotine, such as electronic cigarettes (e-cigarettes) (see [Appendix D: Harms from Tobacco](#)). It does not include therapeutic uses of tobacco and nicotine, such as traditional ceremonial use and nicotine replacement therapy. Health-care providers must be aware of the different forms tobacco products come in, so they can provide effective interventions for clients. (see [Table 1: Types of Tobacco Products and Descriptions](#)).

Table 1: Types of Tobacco Products and Descriptions

TYPES OF TOBACCO PRODUCT	DESCRIPTION
Cigarettes	<p>Commercial cigarettes are thin cylinders of finely cut tobacco wrapped in special paper for smoking. Commercial cigarettes are manufactured by companies and sold in stores. The purchase of these cigarettes is often taxed.</p> <p>Contraband cigarettes are cigarettes sold illegally at lower prices than retail, without the payment of applicable taxes (Luk, Cohen, Ferrence, McDonald, Schwartz, & Bondy, 2009).</p>
Cigars	Cigars are aged tobacco wrapped in tobacco leaf and can contain as much tobacco as a whole standard pack of cigarettes. Cigars often take one to two hours to smoke (Centers for Disease Control and Prevention, 2016).
Cigarillos	Cigarillos are shorter, narrower cigars that are often 3–4 inches in length, weigh less than 1.4 grams (excluding the weight of any mouthpiece or tip), and contain approximately 3 grams of tobacco (Centers for Disease Control and Prevention, 2016; Government of Ontario, 2016).
Chewing Tobacco	Chewing tobacco is strips of loose-leaf tobacco placed between the gums and cheek, so the nicotine can be absorbed through the buccal mucosa. Chewing tobacco is usually aged and sweetened or flavoured. The accumulated saliva is spit out (Centers for Disease Control and Prevention, 2016).
Dissolvables	Dissolvables include items that resemble candy and are often flavoured. They may be in the form of wafers, lozenges, sticks, strips, and orbs (World Lung Foundation, 2015).

TYPE OF TOBACCO PRODUCT	DESCRIPTION
Hookah	<p>A hookah is a water pipe that allows users to smoke tobacco that is available in different flavours, such as mint, cherry, and watermelon. Hookah originated in the Middle East, and using it is often a social activity among a group of individuals. Hookah is also called shisha. Individuals who use hookah are exposed to the same health risks as individuals who smoke cigarettes (Centers for Disease Control and Prevention, 2016).</p>
Snuff	<p>Snuff is finely ground tobacco that may be either moist or dry and that often comes in different flavours. It is sold in cans or pouches.</p> <p>Moist snuff is spit free and is placed between the cheek and gum. Nicotine is absorbed through the buccal mucosa. Moist snuff products are also known as snus, khaini, shammaah, nass, or naswa (Eriksen et al., 2012).</p> <p>Dry snuff is finely ground into powder form and inhaled through the nose, where nicotine is quickly absorbed (American Cancer Society, 2016).</p>
Roll-Your-Own Cigarettes	<p>Roll-your-own (RYO) cigarettes are hand-rolled using loose tobacco and a cigarette paper (Asma et al., 2015).</p>
Pipes	<p>Pipes are smoking devices made of briar wood, slate, or clay. Tobacco flakes are placed in the wider opening of the pipe and burned, with the smoke passed through the stem and inhaled through the narrower opening (Asma et al., 2015).</p>
Electronic Cigarettes	<p>Electronic cigarettes (e-cigarettes) contain a liquid mixture of propylene glycol (PG), vegetable glycerin (VG), and water. They may or may not contain nicotine. When the internal battery element is heated, a vapour is produced, which is inhaled. This is referred to as “vaping” (American Cancer Society, 2016).</p>

Background

The health-care field of tobacco interventions is ever changing and prevention, reduction, and cessation efforts, along with managing withdrawal symptoms for clients, must remain responsive to this complex and evolving landscape. One aspect that continues to grow in complexity is the availability of a wide range of alternative products. For example, the use of electronic cigarettes (e-cigarettes) remains controversial, as there is insufficient evidence on their safety and efficacy as a harm-reduction tool. There has also been an increase in hookah (water pipe) use, with misconceptions around its safety. In addition, there has been a global increase in the use of cigarillos, and an increased use of roll-your-own tobacco, as it is a cheaper and less taxed form of tobacco.

Tobacco consumption is on the rise globally, with approximately 5.8 trillion (5,800,000,000,000) cigarettes smoked in 2014 (World Lung Foundation, 2015). In Canada, tobacco use prevalence has been declining over the last few decades. Approximately 4.2 million Canadians, 15 years of age and older (14.6 percent) were current smokers in 2013, which is the lowest overall rate ever recorded (Reid, Hammond, Rynard, & Burkhalter, 2015). Populations 25 to 34 years of age have the highest smoking rates and rural areas have more tobacco users than urban areas (Reid et al., 2015). Rates of smoking prevalence are highest in New Brunswick and lowest in British Columbia (Reid et al., 2015). While these rates refer to members of the general public, it is important to note that some groups experience a greater negative effect from tobacco use than the general population due to the social determinants of health. In this guideline, these individuals are referred to as populations disproportionately affected by tobacco^G. The rates of tobacco use within these populations, in Canada and around the world, are often double to those of the general population (Reid et al., 2015).

Based on current tobacco use rates, the 21st century will see one billion tobacco-related deaths globally (World Lung Foundation, 2015). The impact of tobacco use on public health remains extremely high. Furthermore, there are direct and indirect health-care costs as the use of tobacco is also a risk factor for serious acute and chronic illnesses, including cancer, stroke, and heart and lung diseases. In Canada, the health and economic costs associated with tobacco use are estimated to total \$17 billion annually, including \$4.4 billion in direct health-care costs (Government of Canada, 2016).

There is strong evidence suggesting that tobacco interventions contribute to reduced health-care costs and increased quality of life for those who quit or reduce their use (see [Appendix E: The Benefits of Quitting Smoking](#)). However, insufficient tobacco intervention services are provided to clients (Ortiz, Schacht, & Lane, 2013). It is essential that clients have access to counselling, behavioural supports^G, and pharmacological treatment, such as nicotine replacement therapy^G, and also be offered routine harm reduction services across a variety of health-care settings (Freund, 2009). For example, brief interventions^G with clients can lead to greater cessation and reduction rates and contribute to preventing illness and premature death (Linder et al., 2009). Therefore, interventions with clients who use tobacco have the potential to reduce morbidity and mortality associated with tobacco use (Freund, 2009).

Through implementation of tobacco interventions, health-care providers can contribute to reducing tobacco use, which is the single greatest preventable cause of death in the world today (World Health Organization, 2008). Nurses are positioned within the health-care system to provide ongoing support and treatment to clients who use tobacco because they are the largest group of health-care providers and often present as the first point of care to clients (American Nurses Association, 2016). Health-care providers can also support the development and implementation of policies to address all forms of tobacco use based on their potential for harm. For example, health-care providers can advocate for smoking and vaping bans and related policy changes. Tobacco-free policies and tobacco bans also recognize that

combustible and smokeless tobacco products are threats to health and quality of life (Ortiz et al., 2013).

Health-care providers themselves may use tobacco. Although health-care organizations should focus their efforts on tobacco interventions to clients, staff should have access to counselling and pharmacotherapy^G. Personal tobacco use status should not deter health-care providers from providing support to clients.

To help readers better understand the harmful properties of tobacco and the most effective ways to engage clients, a discussion of harmful substances in tobacco and motivational interviewing (MI) follows.

Harmful Substances in Tobacco

Tobacco smoke contains more than 7,000 chemicals. Hundreds of these chemicals are toxic and at least 69 are known carcinogens (Eriksen, Mackay, & Ross, 2012). Despite the known health risks associated with tobacco use and the addictive nature of nicotine, the tobacco industry dilutes this evidence in their marketing strategies. Nicotine is the addictive component in tobacco leaves and it is arguably the component most responsible for contributing to global tobacco use. Although the smoke from the combustion of tobacco leaves is the most harmful aspect of many forms of tobacco use, nicotine activates nicotinic acetylcholine receptors in the brain associated with a variety of subtle effects that perpetuate its use. Although nicotine is not overtly intoxicating, it can become addictive (World Lung Foundation, 2015). Nicotine causes a range of side effects, such as a lowered appetite; elevated mood, heart rate, and blood pressure; nausea; and diarrhea. However, individuals who regularly use nicotine can develop a tolerance to its effects. Sudden cessation, either voluntarily or involuntarily, is accompanied by withdrawal that can begin within hours of the last use. Withdrawal symptoms from nicotine may include strong cravings; mood changes, such as anxiety and depression; restlessness; insomnia; increased appetite; and lack of mental focus (World Lung Foundation, 2015). Nicotine delivery to the brain can occur from traditional methods, such as cigarettes, chewing tobacco, and snuff. More recently, there is an increase in the use of unregulated products, such as e-cigarettes. When these unregulated products contain nicotine, they pose new challenges for tobacco interventions, because short-term and long-term effects of their use are unknown.

Motivational Interviewing

Motivational Interviewing (MI)^G is a person-centred counselling style that aims to address ambivalence to change while supporting the inherent worth and potential of an individual (Miller & Rollnick, 2012). MI recognizes that individuals approach behaviour change with varying degrees of readiness (Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). The underlying elements of MI are based on partnership, acceptance, compassion, and evocation, while placing the individual's perspective at the centre of care (Miller & Rollnick, 2012). Ambivalence is a common experience for those considering change and some individuals may be stalled in this perspective for some time. Arguing for change with an individual who is ambivalent can lead to the individual resisting. People are more likely to be persuaded to change by what they hear themselves say, rather than what they are told. MI is a collaborative conversation style that strengthens a person's own motivation to change (Miller & Rollnick, 2012).

Although MI originated in the early 1980s, it was not until 1998 that the first trial of MI for smoking cessation was studied (Hettema & Hendricks, 2010). Since then, hundreds of studies have been conducted on the impact of MI and smoking cessation (Hettema & Hendricks, 2010). Because MI is a collaborative, non-judgmental, and supportive approach, these skills can be incorporated into both brief and intensive tobacco interventions. A Cochrane review found

that MI was associated with increased quit rates when compared to brief advice alone or individual practice in an environment that does not have a formal cessation intervention service (Lindson-Hawley, Thompson, & Begh, 2015).

Table 2: Four Processes of MI

PROCESS OF MI	DESCRIPTION
Engage	Establish a connection and working relationship.
Focus	Focus on the client's needs in the conversation about change.
Evoke	Prompt the client to discuss his or her own motivations to change.
Plan	Develop a commitment to change and create an action plan.

Basic skills in providing MI include asking open-ended questions, providing affirmations of comments made by clients, listening carefully and reflecting on the discussion, summarizing the conversation, and providing information and advice with the client's permission.

Open-Ended Questions:

Open-ended questions set the stage for affirmations, reflective listening, and summarizing. Ask questions that encourage the client to do most of the talking. Some examples include “what concerns you about your health?” or “what is it that you like about smoking?” or “what reasons might you have for not quitting smoking?” or “tell me about the difficulties you encounter when trying to refill your prescriptions?” (Miller & Rollnick, 2012). It is recommended to ask no more than three questions in a row.

Affirmations:

Support for what the client is saying should occur frequently throughout the conversation. Praising or complimenting and exploring past successes help to build a therapeutic relationship.

Reflective Listening:

As a foundational skill in MI, reflective listening is useful to address resistance. Reflections can be as simple as “you're feeling sad.” They can also be more complex: “it sounds like you are concerned about how smoking all these years may have affected your overall health.” For reflective statements—whether simple, amplified, or double-sided—tell the client that you have heard what he or she is saying and encourage the client to explore his or her feelings. Simple reflection acknowledges the client's thoughts, feelings, and perspectives in a neutral manner.

Summarizing:

Summary statements are used to reflect back on key components of what the client has said and to check the health-care providers' understanding of what has been shared by the client. The summary links together the main points of the interview, both past and present.

Guiding Principles/Assumptions about Tobacco Interventions

1. Tobacco use is the single most preventable cause of disease, disability, and death worldwide.
2. Regular tobacco use is an addiction that requires treatment, support, and repeated interventions for clients.
3. Nurses at all points of care have an ethical and professional responsibility to provide access to evidence-based, best practice treatment and support to clients who use tobacco.
4. Clients have the right to access tobacco intervention treatment to support withdrawal symptoms and addiction management in any health-care sector, at all points of care.
5. Tobacco users may relapse several times before achieving abstinence, and nurses need to re-engage clients in the tobacco intervention process (see [Appendix F: Strategies to Avoid Relapse](#)).
6. It is important to encourage individuals who use tobacco, as well as those who do not, to make their homes tobacco-free to protect children, families, themselves, and others from exposure to second-hand smoke^G and third-hand smoke^G.
7. Nursing education programs, nursing colleges, and nursing associations have a responsibility to educate and support nurses to provide evidence-based tobacco interventions.
8. Nurses are ideally positioned to take a leadership role in tobacco interventions at the individual, program, and/or policy level.
9. Systematic and comprehensive tobacco interventions implemented in every care setting will increase success in managing quit attempts and withdrawal symptoms, and promote harm reduction and tobacco cessation.



Practice Recommendations

1.0 ASSESSMENT

RECOMMENDATION 1.1:

Use brief interventions to screen all clients for all forms of tobacco use and initiate intervention as appropriate.

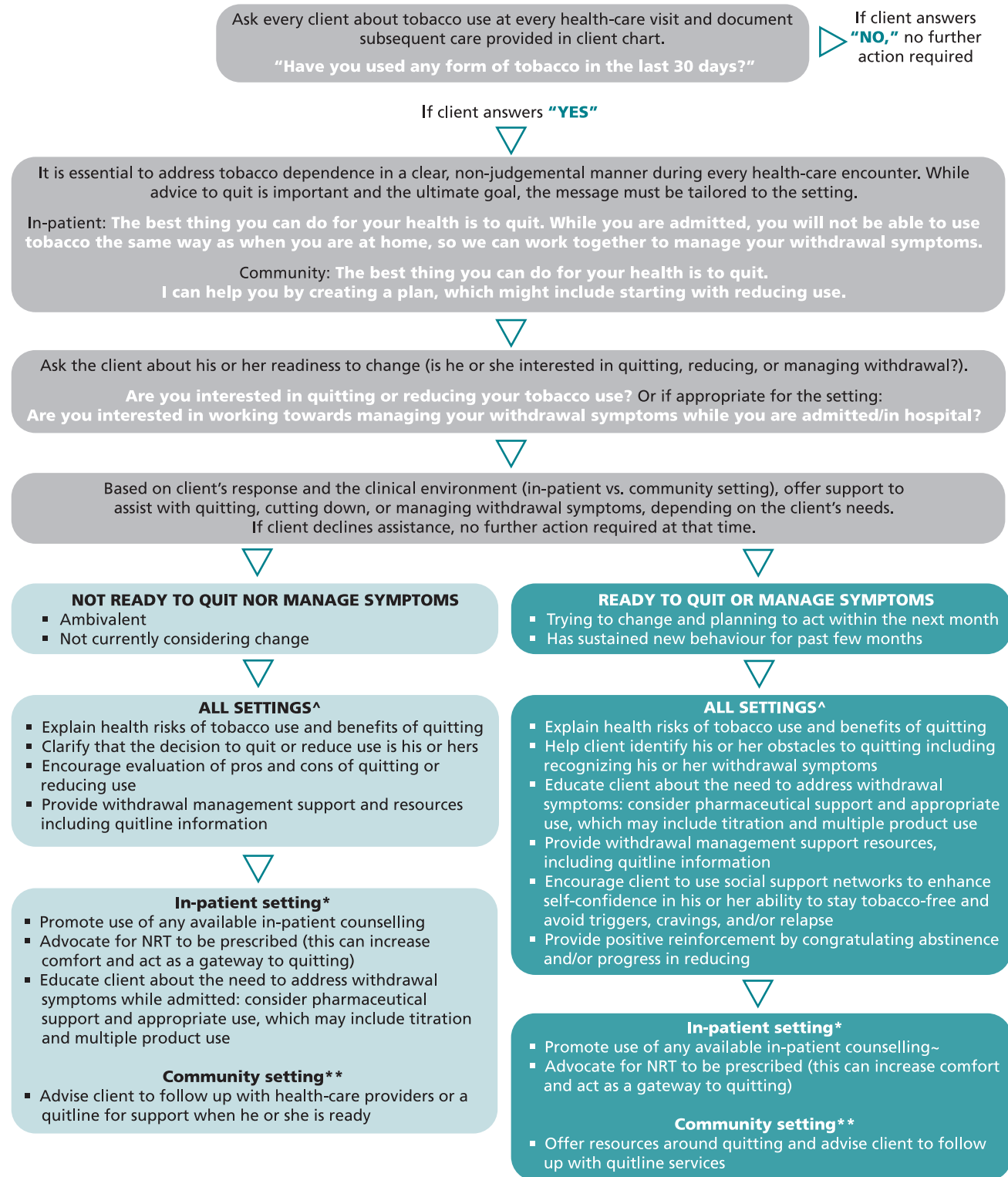
Level of Evidence = Ia, Ib

Discussion of Evidence:

Brief interventions^G are evidence-based approaches designed for use by health-care providers across settings to motivate clients to reduce or abstain from tobacco use. Some examples of brief interventions may include, but are not limited to 3 A's^G, 4 A's^G, and 5 A's^G of smoking cessation.

A 2013 Cochrane review indicates that brief interventions can increase the likelihood of a successful quit attempt and increase the amount of time a client remains tobacco-free (Stead et al., 2013). Although the impact of brief interventions for tobacco cessation varies, any brief intervention is more likely to lead to a significant reduction in tobacco consumption compared to usual care without intervention (Virtanen, Zeebari, Rohyo, & Galanti, 2015). Moreover, another Cochrane review concludes that tobacco cessation interventions provided by nurses are effective in assisting clients to quit (Rice & Stead, 2008) (see **Figure 1: Brief Intervention Flow Chart**).

Figure 1: Brief Intervention Flow Chart



RECOMMENDATIONS

[^] These interventions should be done in addition to providing support relevant to context (in-patient vs. community).
^{*} In-patient setting refers to all settings where clients are admitted (including hospital, long-term care home, psychiatric, or rehabilitation facilities).
^{**} Community setting refers to health promotion settings that are outside of hospital (clients are not admitted).
[~] In-patient behavioural interventions (such as counselling support) during hospital stay and at least one month of supportive contact after discharge promote cessation, especially when combined with NRT (Rigotti, Clair, Munafò, & Stead, 2012).

2.0 PLANNING

RECOMMENDATION 2.1:

Develop a person-centred tobacco intervention plan with the client.

Level of Evidence = V

Discussion of Evidence:

Each client encounter should be person-centred, with the goal of harm reduction. Health-care providers should recognize that each client brings unique and valuable perspectives to a health-care encounter. Person-centred care also recognizes that the social determinants of health contribute to a client's health status. Examples such as income, education, gender among others can impact behaviours, lifestyle choices, and interactions. Other factors such as age, lived experiences, and culture,⁶ are also vital to consider when developing an intervention plan.

In addition to the factors mentioned above, an intervention plan should consider the context of the client's individual needs (Cohen et al., 2011; College of Nurses of Ontario, 2009; Registered Nurses' Association of Ontario, 2007). Health-care providers may have preconceived biases in relation to different cultural values and norms, and these biases are often subconscious and involuntary. Therefore, health-care providers are encouraged to engage in reflective practice to recognize how their personal values may affect their encounters with clients. Having this self-awareness can in turn facilitate culturally sensitive, person-centred care (College of Nurses of Ontario, 2009).

The health-care provider and client should work together to identify barriers to quitting or reducing tobacco use that are client specific. This process may include consideration of a client's social and family networks, physical environment, or how withdrawal symptoms manifest themselves. For example, health-care providers should collaborate with the client to identify and address stressors that are present in the client's life that influence tobacco use and potential reduction/quit behaviours (Twyman, Bonevski, Paul, & Bryant, 2014). Populations disproportionately affected by tobacco often have competing priorities in terms of health and wellness, and while quitting is the ultimate goal, harm reduction is important if clients are unable or not ready to quit (Wesche, Robert, & Carry, 2011).

Examples of populations disproportionately affected by tobacco may include, but are not limited to ethnic minorities, LGBTQ (Lesbian, Gay, Bisexual, Trans, and Queer) communities, Indigenous populations, individuals living with mental illness and/or substance use disorders, and individuals who are incarcerated in prisons (Christiansen, Reeder, Hill, Baker, & Fiore, 2012; Twyman et al., 2014; Warner et al., 2014). Tobacco use is a complex issue for these populations and care plans should be individualized. It is important for health-care providers to use a social determinants of health and harm reduction approach with populations disproportionately affected by tobacco to tailor interventions that address the client's needs in the context of his or her life (Wesche et al., 2011).

In Canada, patterns of tobacco use vary among population groups; however, Indigenous populations have a higher rate of tobacco use compared to the general population (Cancer Care Ontario, 2016; Cohen et al., 2011). For some Indigenous peoples in Canada and around the world, tobacco is used in traditional ceremonies. In these cases, tobacco is not burned for the purpose of inhaling smoke in the same way as commercial tobacco use. Therefore, it is not appropriate for health-care providers to intervene in the cultural practice of ceremonial tobacco use (Aboriginal Nurses Association of

Canada, 2005). Traditional tobacco use is a sacred and cultural practice that is not harmful as it uses a natural tobacco plant, which does not include the thousands of chemicals present in commercial tobacco. As such, it is a practice that should be respected, and is not within the scope of the tobacco use interventions discussed in this guideline (First Nations Health Authority, 2016).

When developing a tobacco intervention plan, health-care providers may consider asking the client:

- What does tobacco use mean to you?
- What do you see as the positives and negatives of using tobacco?
- Are there any small steps you can start making today to start reducing your tobacco use and/or reducing your children's or family members' exposure to second-hand and third-hand smoke?



3.0 IMPLEMENTATION

RECOMMENDATION 3.1:

Provide clients with, or refer them to, intensive interventions and counselling on the use of pharmacotherapy, if they use tobacco and express an interest in reducing or quitting their tobacco use.

Level of Evidence: Ia, V

Discussion of Evidence:

Individuals who use tobacco and who have expressed an interest in changing their tobacco use will benefit from intensive interventions^G. Intensive interventions last more than 10 minutes and include assessment of the motivation to quit, identification of high-risk situations and triggers^G to use tobacco, and discussion of problem-solving strategies to manage high-risk situations (Stead et al., 2008). Intensive interventions include behavioural interventions and counselling on the use of pharmacotherapy, nicotine replacement therapy, and/or prescription medications (e.g. bupropion^G and varenicline^G). Currently, there is not enough evidence to support the efficacy of other interventions, such as the use of e-cigarettes, laser therapy, acupuncture, or acupressure (McRobbie, Hajek, Feder, & Eldridge, 2008; White, Rampes, Liu, Stead, & Campbell, 2014).

See **Table 3** for a description of evidence-based intensive interventions. The “Other Interventions” section should be explored with caution, because there is insufficient evidence to support the efficacy of these interventions as cessation/harm reduction aids.

When it is not feasible or possible for a health-care provider to provide intensive interventions, refer the client to resources, such as a quitline^G, that can provide intensive interventions (see **Appendix G: Tobacco Intervention Resources List**). There are also a variety of tools that may assist the health-care provider in providing an intensive intervention (see **Appendix H: Fagerström Test for Nicotine Dependence**) alongside the motivational interviewing (MI) techniques discussed in the Background section of this guideline.

Table 3: Intensive Interventions

EVIDENCE-BASED INTERVENTIONS	SUFFICIENT EVIDENCE TO SUPPORT USE AS A CESSATION/HARM REDUCTION TOOL
Behavioural Interventions	<ul style="list-style-type: none"> ■ Evidence suggests that the effectiveness of tobacco intervention treatment increases with intensity, regardless of the delivery mode or setting (Stead et al., 2008). ■ Findings from a systematic review demonstrate that, for any population group, the most effective intervention components appear to include behavioural supports, such as problem-solving skills development (e.g., identifying triggers); social support networks; or a combination of strategies that may include face-to-face counselling and Internet, telephone, text messaging, and group support (Stead et al., 2008). ■ Incorporating tobacco behaviour monitoring and treatment interventions should be part of standard practice (Rice & Stead, 2008). ■ The addition of pharmacotherapy to behavioural interventions contributes to increased success rates, and therefore pharmacotherapy as an additional intervention should be discussed with clients (Lancaster & Stead, 2005).
Pharmacological Interventions	<ul style="list-style-type: none"> ■ Pharmacotherapy can play an important role in the management of tobacco interventions. ■ While an in-depth description of all pharmacological interventions is beyond the scope of this guideline, health-care providers should have knowledge of the pharmacotherapy options available and consider consulting with a nurse practitioner, pharmacist, or physician to determine how best to use prescribed pharmacotherapy as part of a combined intervention when working with clients who use tobacco. ■ Before recommending over-the-counter (OTC) drugs, nurses must have knowledge, skills, and judgment about the client's situation, condition, and medication profile (College of Nurses of Ontario, 2015). ■ In general, with respect to pharmacological management, nurses should ensure that: <ol style="list-style-type: none"> 1. Pharmacotherapy options are considered in management planning 2. Clients have access to appropriate pharmacotherapy and 3. Pharmacotherapy is administered safely

EVIDENCE-BASED INTERVENTIONS	SUFFICIENT EVIDENCE TO SUPPORT USE AS A CESSATION/HARM REDUCTION TOOL
Nicotine Patch	<ul style="list-style-type: none"> ■ Can be purchased over the counter (no prescription needed). ■ Comes in three doses: 7 mg, 14 mg, and 21 mg ■ According to Selby (2016) the following may be used as a parameter for providing the patch <ul style="list-style-type: none"> □ <10 cigarettes per day: start with 14 mg patch x 1-4 weeks □ 10-29 cigarettes per day: start with 21 mg patch x 1-4 weeks □ 30 + cigarettes per day: start with 28 mg patch (21mg+7mg) x 1-4 weeks ■ Provides a rate-controlled delivery of nicotine that is absorbed through the skin. ■ Is applied to a hair-free, clean, dry site above the waist, with the placement site changed for each application. ■ Has a slow onset and steady delivery over the course of 24 hours, but may be removed for sleeping if necessary. ■ see Appendix I: STOP Program: Sample Nicotine Replacement Therapy (NRT) Algorithm
Nicotine Gum	<ul style="list-style-type: none"> ■ Can be purchased over the counter (no prescription needed) ■ Short acting NRT for breakthrough cravings ■ Comes in two doses: 2mg and 4mg ■ Substitutes a piece of gum for craving a cigarette, gratifying oral needs, and nicotine cravings ■ Is absorbed through the buccal mucosa ■ Is not chewed continuously—rather, is chewed two to three times and then parked between the cheek and the gum: “bite, bite and park” between cheek and gums, then wait a minute and repeat over 30 minutes or less ■ Absorbs less with concurrent use of coffee, tea, alcohol, juice, and soft drinks
Nicotine Lozenge	<ul style="list-style-type: none"> ■ Can be purchased over the counter (no prescription needed) ■ Short acting NRT for breakthrough cravings ■ Comes in two doses: 2mg and 4mg ■ Is absorbed through the buccal mucosa ■ Absorbs less with concurrent use of coffee, tea, alcohol, juice, and soft drinks

EVIDENCE-BASED INTERVENTIONS	SUFFICIENT EVIDENCE TO SUPPORT USE AS A CESSATION/HARM REDUCTION TOOL
Nicotine Inhaler	<ul style="list-style-type: none"> ■ Can be purchased over the counter (no prescription needed) ■ Short acting NRT for breakthrough cravings ■ Is a mouthpiece with a nicotine cartridge insert ■ Is absorbed through the buccal mucosa, not inhaled into lungs ■ Addresses both the physical and behavioural dependency of smoking as it mimics the hand-to-mouth ritual of smoking ■ Absorbs less with concurrent use of coffee, tea, alcohol, juice, and soft drinks
Nicotine Spray	<ul style="list-style-type: none"> ■ Can be purchased over the counter (no prescription needed) ■ Sprays directly into the mouth and is absorbed through the buccal mucosa ■ Is the most rapidly absorbed form of nicotine replacement therapy ■ Works as quickly as 60 seconds to relieve cravings
Bupropion hydrochloride (prescription medication)	<ul style="list-style-type: none"> ■ Requires a prescription ■ Is also marketed as the antidepressant medication Wellbutrin[®] and is a non-nicotine medication ■ Mimics the effect of nicotine on dopamine and noradrenaline in order to prevent nicotine withdrawal symptoms (Warner & Shoaib, 2005) ■ Can be considered as a second-line tobacco intervention when nicotine replacement therapy is ineffective (Health Canada, 2013) ■ Is an effective cessation method and increases the chances of quitting when compared to a placebo (Cahill & Lancaster, 2014)
Varenicline (prescription medication)	<ul style="list-style-type: none"> ■ Requires a prescription ■ Prevents relapse and decreases the pleasure associated with smoking (Cahill, Lindson-Hawley, Thomas, Fanshawe, & Lancaster, 2016) ■ Can be considered as a second-line tobacco intervention when nicotine replacement therapy is ineffective (Health Canada, 2013) ■ Has had its efficacy for smoking cessation demonstrated in several studies (Cahill et al., 2016; Huang, Li, Yang, Jiang, & Wu, 2012)



The following interventions should be used with caution, since there is insufficient evidence to support their efficacy as cessation/harm reduction aids.

OTHER INTERVENTIONS	INSUFFICIENT EVIDENCE TO SUPPORT USE AS A CESSATION/HARM REDUCTION TOOL
<p>Electronic Cigarette</p>	<ul style="list-style-type: none"> ■ Many electronic cigarettes (e-cigarettes) mimic the look and feel of traditional cigarettes. However, instead of tobacco being combusted and inhaled as smoke, e-cigarettes produce a vapour that is inhaled or “vaped.” The vapour is produced when liquid (which may or may not contain nicotine) contained in the electronic cigarette is heated by the internal heating element and inhaled (American Cancer Society, 2016). ■ Study results are mixed with regard to the efficacy of e-cigarettes as a cessation aid. A randomized controlled trial found that e-cigarettes may be as efficacious as nicotine replacement therapy (Bullen et al., 2013). ■ A Cochrane review also concluded that while results from two randomized control trials found that electronic cigarettes helped smokers stop smoking in the long term when compared with placebo electronic cigarettes, the small number of studies in this review lowered confidence in these results (McRobbie, Bullen, Hartmann-Boyce, & Hajek, 2014). The long-term health effects of first-hand and second-hand e-cigarette vapour exposure are unclear, with more long-term study results needed. ■ Due to the lack of consensus around the efficacy and safety of e-cigarettes, client counselling should focus on modalities that the literature has demonstrated to be efficacious, including counselling, nicotine replacement therapy, and other prescription pharmacotherapy options in consultation with a nurse practitioner, pharmacist, or physician.
<p>Hypnotherapy, Laser Therapy, Electrostimulation, Acupressure, or Acupuncture</p>	<ul style="list-style-type: none"> ■ A meta-analysis of randomized controlled trials found that acupuncture and hypnotherapy may help individuals quit smoking, but more evidence is required to demonstrate if these modalities are as efficacious as pharmacotherapy (Tahiri, Mottillo, Joseph, Pilote, & Eisenberg, 2012). ■ Similarly, a Cochrane review found that, due to methodological issues, no clear conclusions can be drawn about the efficacy of acupuncture, acupressure, laser therapy or electro stimulation (White et al., 2014). Based on the inconclusive results and the cost of implementing these methods, they are not routinely recommended. However, the evidence does not indicate that these forms of therapy cause any harm to the client when used in conjunction with other evidence-based interventions.

RECOMMENDATION 3.2:

Treat or refer all pregnant or postpartum women at every encounter for intensive behavioural counselling for tobacco harm reduction, cessation, and relapse prevention, in conjunction with nicotine replacement therapy, on a case by case basis.

Level of Evidence = Ia, Ib, V

Discussion of Evidence:

In Canada, up to 10 percent of pregnant women use tobacco (Chamberlain et al., 2013). This may be an underestimation, as there may be non-disclosure related to the stigma associated with smoking during pregnancy. For all women, tobacco use is associated with a high risk of developing cancer, heart disease, stroke, and chronic obstructive pulmonary disease (Shah & Cole, 2010). The health impact of tobacco use on the pregnancy and fetus includes a higher risk for abruptio placentae, miscarriage, low birth weight, preterm birth (before 37 weeks), stillbirth, and neonatal death (Chamberlain et al., 2013). Infants and children exposed to second-hand and third-hand smoke are at higher risk of developing bronchitis, pneumonia, and otitis media (Levitt, Shaw, Wong, & Kaczorowski, 2007).

More women stop using tobacco during pregnancy than at any other time in their lives. Although approximately 15 to 60 percent of pregnant women stop using tobacco during pregnancy, the relapse rate can be up to 60 percent in the first few months postpartum and up to 80 percent one year postpartum (Jiménez-Muro et al., 2012). Factors associated with relapse in the postpartum period include the stress of newborn care, depression, and lower socioeconomic status (Chamberlain et al., 2013; Jiménez-Muro et al., 2012). Pregnancy and postpartum are opportune times to treat or refer women at every health-care encounter for intensive behavioural counselling and relapse prevention, in conjunction with nicotine replacement therapy as appropriate, on a case by case basis (Chamberlain et al., 2013; Jiménez-Muro et al., 2012).

The expert panel recommends using a tailored, woman-centred approach^G to tobacco treatment to encourage a quit attempt and decrease the likelihood of relapse. This approach emphasizes the benefits of harm reduction or cessation for the woman and her fetus. Additionally, the expert panel recommends that, when safe for the woman, health-care providers should collaborate with the woman's partner and household members to develop awareness about the impacts of tobacco use and encourage the reduction or cessation of use.

Pharmacotherapy Interventions

While a thorough description of specific pharmacological interventions during pregnancy is beyond the scope of this guideline, health-care providers should consider the use of pharmacotherapy as part of a combined intervention when working with clients who use tobacco. In general, with respect to pharmacological management, nurses should ensure that:

1. Pharmacotherapy options are considered in management planning.
2. Clients have access to appropriate pharmacotherapy.
3. Pharmacotherapy is administered safely.

Nicotine Replacement Therapy

Nicotine Replacement Therapy (NRT) may be considered as an adjunct to behavioural interventions during pregnancy and should be considered on a case by case basis. While evidence from the literature up to 2014 states that NRT should be provided as a second-line treatment after behavioural interventions have been unsuccessful, the expert panel recommends that NRT be provided during pregnancy simultaneously with intensive counselling to assist with cessation, harm reduction, and managing withdrawal symptoms. NRT is a beneficial harm reduction option to smoking during pregnancy, because it provides nicotine without exposure to the other carcinogenic compounds of cigarettes.

The expert panel recommends that intermittent forms of NRT can be offered during the first, second, and third trimesters, after discussing the risks and benefits with the client. Intermittent forms of NRT include nicotine gums, lozenges, inhalers, or sprays/mists. Should additional NRT support be required, the expert panel recommends using the nicotine patch, with the provision that it be removed at bedtime.

During breastfeeding, NRT can be safely recommended and used because only a small amount of nicotine enters the breast milk supply, which makes it preferable to using tobacco products (Dempsey & Benowitz, 2001). While research is beginning to evaluate the impact of NRT on infants, there is insufficient evidence to support the negative or positive impact of NRT use for smoking cessation in pregnancy or on birth outcomes (Coleman, Chamberlain, Cooper, & Leonardi-Bee, 2010). However, compared to continued tobacco use, NRT is the safer option for the woman and her infant.

Bupropion and Varenicline

In consultation with a nurse practitioner or physician, bupropion is a third-line option to consider during pregnancy if psychosocial interventions^G and nicotine replacement therapy fail. Bupropion is also an antidepressant medication and it may be appropriate for women to use it as a tobacco cessation intervention if they also suffer from depression. Bupropion does not appear to be associated with increased rates of fetal malformation or spontaneous abortion (Cressman, Pupco, Kim, Koren, & Bozza, 2012).



At this time, the use of varenicline should be avoided during pregnancy and breastfeeding due to insufficient evidence regarding its safety and efficacy as a tobacco cessation intervention in pregnant women (Coleman et al., 2010).

4.0 EVALUATION

RECOMMENDATION 4.1:

Evaluate the effectiveness of the intervention plan until the client's goals are met.

Level of Evidence = V

Discussion of Evidence:

According to the expert panel, establishing client goals and creating an intervention plan are essential when working with clients who use tobacco. Client goals for tobacco interventions may include cessation, reduction, or management of withdrawal symptoms. Treatment goals should be established during the first encounter with the client and re-evaluated at each subsequent encounter. Ongoing evaluation of the intervention plan allows the health-care provider to assess client engagement and motivation regarding treatment, as well as the client's progress towards achieving treatment goals (Substance Abuse and Mental Health Services Administration, 2005). The evaluation should be used to review and revise the existing treatment plan and the strategies used with the client in order to improve outcomes over the course of treatment.

Evaluation of the client's progress may involve a health-care provider asking about the number of cigarettes smoked daily, triggers and cravings, withdrawal symptoms, relapses or slips⁶, motivation levels, challenges, and successes. Evaluation at this stage may also address relapse prevention, so clients are well equipped when triggers present themselves. The expert panel acknowledges that achieving client goals regarding tobacco use may be a lifelong journey with multiple relapses. It is important to emphasize to the client that relapses are not indicative of failure. Relapses provide an opportunity to further evaluate a client's intervention plan and goals, triggers, and challenges. Once this re-evaluation occurs, the client's plan and goals are adjusted, as needed.



Education Recommendations

5.0 EDUCATION

RECOMMENDATION 5.1:

Incorporate evidence-based content on tobacco interventions in health-care professional education programs.

Level of Evidence = Ib, IIb, IV, V

Discussion of Evidence:

Health professional students and health-care providers should be appropriately trained within their health professional programs, as well as in their place of employment, regarding the delivery of evidence-based tobacco interventions (Sheffer, Barone, & Anders, 2011). Health professional education programs include post-secondary education courses, as well as orientation programs, post-graduate programs, continuing education programs, and training provided within clinical settings.

There is a need to train health professional students in tobacco interventions because the level of tobacco education is often inadequate within health professional student programs (i.e., it is a minor component of the curriculum). Furthermore, students often demonstrate knowledge gaps with regard to the health hazards of tobacco (Chan, So, Wong, & Lam, 2008; Jordan, Khubchandani, Wiblehauser, Glassman, & Thompson, 2011; Price, Jordan, Jeffrey, Stanley, & Price, 2008; ; Price, Mohamed, & Jeffrey, 2008; Richmond, Zwar, Taylor, Hunnisett, & Hyslop, 2009). A cross-sectional study that examined the extent of tobacco education in the nursing curriculum concluded that nursing faculty educators should increase the breadth and depth of tobacco topics in the nursing curriculum, with a particular focus on theories and strategies that address behavioural changes (Chan, Sarna, & Danao, 2008).

Enhanced tobacco education and training better prepares health professional students to address tobacco interventions with clients in practice (Houston, Warner, Corelli, Fenlon, & Hudmon, 2009). Moreover, evidence suggests that education about tobacco should be introduced early in the health professional curriculum so that the appropriate knowledge, attitudes, and skills related to tobacco interventions can be strengthened over time. The early introduction of tobacco education prepares students to become leaders and play an effective role in advocating for tobacco control interventions (Chan et al., 2008). While the literature focuses primarily on integrating tobacco intervention content into classroom and continuing education settings, the expert panel strongly suggests that all orientation programs within clinical settings should also include tobacco intervention content.

Curriculum Development, Implementation, and Evaluation

The current literature investigating the implementation of tobacco intervention curriculum includes the following evaluation metrics: the number of hours spent on tobacco intervention, content areas covered, teaching methods, and evaluation of the learner. While there is literature that explores various methods of curriculum delivery, researchers have not specified which of these methods, if any, are the most effective format when delivering tobacco intervention curriculum. There is also lack of evidence exploring the integration of social determinants of health in the tobacco

intervention curriculum. Educators must draw on current social determinants of health literature for evidence on how to integrate these aspects into the curriculum. Basic clinical science topics are also often included in tobacco intervention curriculum.

The literature demonstrates that there are a variety of ways to evaluate learner competency, including written exams, the use of standardized patients, case studies, role-play, and care planning. A number of implementation teaching methods are effective for delivering tobacco intervention curriculum. While the scope of this guideline does not include a comparative analysis of which implementation methods are most effective, eight methods have demonstrated positive outcomes in terms of increased learner knowledge. See **Table 4: Teaching Methods for Delivering Tobacco Intervention Curriculum**.

Table 4: Teaching Methods for Delivering Tobacco Intervention Curriculum

EDUCATION METHOD	EVIDENCE
In-Person	<p>Individuals who have attended in-person cessation education are more likely to educate and treat clients, and report increased preparedness to do so (Arnett, Baba, & Cheek, 2012; Chan et al., 2008; Sheffer et al., 2011; Verbiest et al., 2014).</p> <p>In-person education also results in significant improvements in the motivation, knowledge, and confidence of the health-care provider to intervene (Roman, Borges, & Morrison, 2011).</p>
Online	<p>Multiple studies concluded that online education, which may include self-directed training (O'Donnell, Hamilton, Markovic, & Close, 2010), develops the knowledge and skill base required to deliver effective cessation interventions (Brose, West, Michie, Kenyon, & McEwen, 2012; Carpenter, Carlini, Painter, Mikko, & Stoner, 2012; Schmelz, Nixon, McDaniel, Hudmon, & Zillich, 2010).</p>
Simulation/ Standardized Client Training	<p>Active learning through experiential sessions involving simulation or role-play of cessation counselling techniques by actors is a feasible way to introduce tobacco cessation counselling into programs (Hawk, Kaeser, & Beavers, 2013).</p> <p>Studies have reported increased confidence among training participants with regard to advising their clients about cessation and assisting individuals who use tobacco products to quit (Hawk et al., 2013; Shishani, Stevens, Dotson, & Riebe, 2013).</p>
Self-Directed	<p>A self-directed continuing education program was found to have a universally positive impact on knowledge, attitudes, and intended clinical practices regarding tobacco interventions and treatment (Studs, Burris, Kearns, Worth, & Sorrell, 2009).</p>

EDUCATION METHOD	EVIDENCE
Combination	<p>Mixed modalities (e.g. online or in-person) have the benefit of increasing cessation delivery and practice changes and increasing overall confidence, which can result in increased abstinence rates (Carson et al., 2012; Herie, Connolly, Voci, Dragonetti, & Selby, 2012; Prochaska et al., 2008).</p>
Training Session	<p>General practitioners who undertake a 40-minute training session to understand treatment options and enhance referral skills can significantly increase the number of referrals to cessation services and help clients quit (McRobbie et al., 2008). Significant differences were found between trained and untrained general practitioners after one hour of training in the consistency with which they asked clients about smoking and advised clients to quit (Verbiest et al., 2014).</p> <p>One day of didactic training^G and role-play sessions can facilitate short- and long-term changes in health-care professional attitudes and behaviours regarding tobacco intervention counselling (Borrelli, Lee, & Novak, 2008). In another study, which compared time spent on counselling smokers pre-training and six month post-training, nurses spent more time counselling smokers at six months (Borrelli et al., 2008).</p>
Courses	<p>Intensive cessation counselling programs (defined as sessions of four hours or longer) can positively impact clinical practice and may serve as a model for knowledge exchange initiatives beyond behaviour domains (Herie et al., 2012).</p>
Train-the-Trainer Programs	<p>In train-the-trainer programs^G, well-informed educators train less experienced educators on content delivery. This can enhance the amount of tobacco education provided in a health-care students' curriculum, as seen in a study of acute care nurse practitioner programs (Heath et al., 2007). When more faculty members devoted time to cessation education, there was an increased perceived effectiveness of cessation education and increased value was placed on using evidence-based guidelines. The total number of hours devoted to providing tobacco intervention education increased, and the number of faculty members who devoted at least three hours to tobacco education increased.</p> <p>A two-day train-the-trainer program can enhance the level of tobacco education provided in acute care nurse practitioner programs (Heath et al., 2007).</p>

RECOMMENDATION 5.2:

Ensure delivery of tobacco intervention curriculum is facilitated by educators who are trained and skilled in the field of tobacco use interventions.

Level of Evidence = IV

Discussion of Evidence:

Educators should engage in continuous learning to ensure that they are knowledgeable about current evidence-based best practices in tobacco intervention and treatment (Sears, Cohen, & Drope, 2008). The term “educators” refers to those responsible for teaching students or other health-care providers in the classroom or in a clinical setting. There are a number of positive outcomes when educators are equipped with evidence-based knowledge on tobacco intervention and treatment. When educators complete a recognized program on tobacco intervention and treatment, their education ensures that the quality of education provided to students and/or other health-care providers is of a high standard.

Exposure to training also makes educators more likely to develop and integrate tobacco-related content and competencies into their teaching (Heath et al., 2007). For example, one pre–post study indicated that educators who received training in tobacco interventions were better able to learn, understand practice, discuss, and include tobacco-related curriculum in their courses when training health-care providers (Davis, Stockdale, & Cropper, 2010). The study examined the impact of a six-hour, on-site tobacco intervention training program with teaching resources on educator motivation. After the training program, the educators were more likely to include tobacco intervention education in their dental hygiene programs (Davis et al., 2010). In another study, when faculty members of acute care nurse practitioner programs completed a training course, the percentage of trainees who devoted at least three hours of teaching time to tobacco education increased from 22.2 to 74.1 percent (Heath et al., 2007).

Educators can obtain evidence-based training by completing a recognized program of study or curriculum in the management and treatment of tobacco use disorders in clients. (see [Appendix J: Training Programs for Health-Care Providers](#)).

System, Organization, and Policy Recommendations

6.0 SYSTEM, ORGANIZATION, AND POLICY

RECOMMENDATION 6.1:

Advocate with policy-makers at all levels of government for comprehensive smoke- and vape-free legislation and enforcement in the community.

Level of Evidence= Ia, IIb, IV

Discussion of Evidence:

Health-care providers should advocate for smoke-free laws to enhance public health across people's life spans by improving air quality and thereby reducing avoidable hospital admissions related to respiratory and cardiovascular events—in particular, heart attacks and acute coronary syndrome (Callinan, Clarke, Doherty, & Kelleher, 2010). The World Health Organization Framework Convention on Tobacco Control (WHO FCTC) recommends comprehensive smoke-free legislation^G to protect the public from exposure to tobacco smoke pollution (Callinan et al., 2010). There has been an increase in the number of countries around the world implementing policies that ban or restrict tobacco use in public places and workplaces (Callinan et al., 2010). Providing a supportive environment that mitigates tobacco use may reduce the social acceptability and social influence of smoking and vaping. Evidence from a systematic review and other studies from Europe suggest that smoke-free legislation benefits entire populations by promoting the downward trend in tobacco use prevalence and by influencing positive behaviour change outcomes with regard to an increase in the number of quit attempts (Callinan et al., 2010; Fong et al., 2006). In addition, smoke-free laws that increase cigarette taxes discourage the purchase of cigarettes (Callinan et al., 2010; Cantrell, Hung, Fahs, & Shelley, 2008; Fong et al., 2006; Nagelhout et al., 2012).

The expert panel, with supporting evidence from the literature, suggests that health-care providers are well positioned to influence and support the effectiveness of tobacco control legislation in various ways. This may include: advocating for national bans on smoking and vaping, advocating for increased cigarette taxation, and engaging and supporting individuals who smoke while national smoke and vape-free laws are being implemented.

1. National bans on smoking and vaping (i.e., banning tobacco products in public spaces to decrease exposure to second-hand smoke) (Naghelout et al., 2012).

- In countries with strong tobacco policies, tobacco users are more likely to quit (Allen et al., 2014).
- Smoke-free legislation improves air quality and decreases the public's exposure to second-hand smoke (Naghelout et al., 2012).
- Nurses and other health-care professionals should advocate for 100 percent smoke-free legislation that bans smoking and vaping in all public places, including workplaces, without exemptions or designated smoking rooms.

2. Increased cigarette taxation (i.e., government-imposed taxes on the cost of cigarettes)

- There is a correlation between cigarette price increases and positive changes in smoking behaviour (i.e., reduced purchasing of cigarettes due to tax avoidance) (Cantrell et al., 2008).
- Enforcement efforts should be expanded and directed towards minimizing the availability of legal and illegal low-or no-tax cigarettes (Cantrell et al., 2008).

3. Engaging and supporting individuals who smoke while national smoke and vape-free laws are being implemented (Kennedy et al., 2012).

- Smoke-free legislation is correlated with increased quit attempts; therefore, providing individual support during times when new smoke-free legislation is being introduced may assist in further increasing cessation rates (Kennedy et al., 2012).
- Health-care providers should educate clients about tobacco control legislation and provide customized assistance especially during times when new smoke-free legislation is being introduced (Cantrell et al., 2008).

Through a combination of upstream approaches that focus on advocacy for smoke- and vape-free legislation, health-care providers can participate in tobacco protection and prevention initiatives that serve to decrease the burden of tobacco-related illness at an individual and community level.

RECOMMENDATION 6.2:

Implement and enforce comprehensive tobacco-free policies in all health-care delivery settings and with all clients, including in-patients and out-patients, as well as with permanent and contract staff.

Level of Evidence = Ia, IV

Discussion of Evidence:

Health-care organizations have a professional and legal responsibility to address tobacco use and promote harm reduction through the implementation of comprehensive tobacco-free policies. Tobacco-free policies have already been established in general hospital settings in Canada and in several other countries (Stockings et al., 2014). Implementation of policies in these countries has illustrated numerous benefits for clients, health-care provider staff, and the health-care organizations.

Poder, Carroll, Wallace, and Hua (2012) highlighted that tobacco-free workplaces are associated with decreased exposure to second-hand smoke. Furthermore, tobacco-free work environments also contributed to more quit attempts and quit success in a cross-sectional study (Lawn et al., 2014). Tobacco-free policies may also help to:

- Reduce the incidence and prevalence of tobacco use on hospital property,
- Set an important precedent for best practices and positive behaviour change among clients and staff, and
- Encourage other establishments to become smoke- and vape-free in the interest of public health.

Findings from a systematic review indicated that tobacco-free policies implemented in two psychiatric facilities contributed to a significant decline in tobacco consumption among clients during admission and up to three months post-discharge (Stockings et al., 2014). Similarly, a cross-sectional study conducted in mental health settings concluded

that tobacco-free hospitalization policies led to more quit attempts and perceived health improvements (Lawn et al., 2014). An important finding revealed that health-care staff required ongoing support to effectively implement these policies (Lawn et al., 2014). Although the current evidence suggests that policies can influence change in tobacco use behaviours, motivations, and beliefs (Stockings et al., 2014), further research is required on the effects of tobacco-free policies on clients and staff in health-care settings other than mental health environments.

To support the implementation and enforcement of comprehensive tobacco-free policies within organizational practice and culture, the expert panel recommends that health-care providers, leaders, and decision-makers:

- campaign to eliminate tobacco use in designated areas and rooms, and at designated times (Stockings et al., 2014),
- provide additional resources and staff training to address tobacco treatment with clients and families during and after hospitalization—the evidence indicates that there is a strong link between quit rates and in-patient counselling, education, discussion of behavioural techniques and nicotine replacement therapy, and follow-up after discharge (Ortiz et al., 2013),
- advocate for improved access to harm reduction and cessation therapy and for the provision of tobacco intervention treatment through a combination of pharmacological and behavioural supports (Stockings et al., 2014),
- facilitate adequate planning, resourcing, and administrative support for policy transition and enforcement (Lawn et al., 2014),
- support health-care providers so they can effectively implement and enforce smoke-free policies (Lawn et al., 2014), and
- advocate for appropriate tobacco treatment training for staff, so they can confidently provide clients with treatment interventions and relapse symptom management (Lawn et al., 2014).

Providing nicotine replacement therapy is particularly important to ensure that staff and clients who use tobacco are supported while tobacco-free policies are in place. A comprehensive, multi-strategy program that includes unrestricted access to nicotine replacement therapy for staff and clients enhanced the delivery of tobacco care in hospitals (Freund, 2009; Sherman et al., 2006). In addition, evidence from a cross-sectional study of 58 hospitals (Ballbe et al., 2015) demonstrated that maintaining cessation programs and enforcing smoke-free hospital policies while providing no-cost cessation medication for staff and clients encouraged other organizations to do the same. Furthermore, several years after implementation, 74 percent of hospitals still had cessation programs for in-patients and 93 percent of hospitals still had cessation programs for staff. In contrast, a lack of nicotine replacement therapy and cessation resources may jeopardize the sustainability of well-established smoking cessation programs (Ballbe et al., 2015).

Implementing comprehensive tobacco-free policies in all health-care settings provides a supportive environment for both clients and health-care staff to reduce or quit their tobacco use. All health-care settings should, therefore, be encouraged to implement and/or build on and enforce existing tobacco-free policies and interventions.

RECOMMENDATION 6.3:

Embed tobacco use prompts in health records/documentation to facilitate addressing tobacco interventions during health-care visits.

Level of Evidence = Ib

Discussion of Evidence:

The expert panel recommends that organizations embed tobacco intervention prompts in health records to facilitate clinical decision-making around the provision of tobacco treatment for clients. A client's tobacco use status should be documented on paper charts or on electronic health records (EHR)^G, with the potential to increase health-care providers' adherence to delivering tobacco interventions and guidelines for clients (Linder et al., 2009). One randomized controlled trial conducted with 26 primary care practices and two community health centres found that documentation and the treatment of tobacco use improved with the use of a three-part electronic health record enhancement system (Linder et al., 2009). In this study, the electronic health record had a tobacco status icon, tobacco treatment reminders, and one-click form for ordering medication and making counselling referrals (Linder et al., 2009).

EHRs have the capability to remind clinicians to document tobacco use status and deliver brief advice, prompt cessation medication prescriptions, and facilitate referrals to counselling (Linder et al., 2009). Interventions supported by EHRs that increase documentation, boost referrals, and connect individuals who use tobacco products with cessation counselling contribute to an almost two-fold increase in quit attempts (Linder et al., 2009). Although absolute cessation rates may vary, even small differences in counselling and quit rates can have a positive impact on health through reduced morbidity and mortality (Linder et al., 2009). While the majority of the studies were conducted in primary care settings, the expert panel supports the implementation of tobacco intervention prompts in EHRs, or on paper charts when EHRs are not available, in other health-care settings.

Examples of how to embed prompts in EHRs to support clinical decision-makers and improve the treatment of tobacco use by clients include the following:

- Embed prompts to document tobacco status with all clients at every visit. Documentation is an important step in tobacco intervention treatment (Linder et al., 2009). In the UK, research demonstrates that proactively identifying individuals who use tobacco through documentation can increase the use of cessation and harm reduction services (Linder et al., 2009).
- Document clients' tobacco status (Linder et al., 2009). Clients who have had their tobacco status recorded were more likely to make contact with a cessation counsellor and were more likely to be prescribed cessation medications (Linder et al., 2009).
- Develop cessation templates and algorithms that can be integrated into the client's e-chart and used as prompts.
- Develop simple, one-click counselling referral functionalities, which could include referrals to the local quitline (Linder et al., 2009).
- Ensure access to updated tobacco cessation resources (Linder et al., 2009).

RECOMMENDATION 6.4:

Evaluate tobacco intervention programs and services.

Level of Evidence = V

Discussion of Evidence:

Program evaluation is an important component of the implementation process that should not be overlooked. An evaluation plan needs to be developed prior to program implementation to provide the roadmap for the program objectives, implementation strategies, action steps, expected milestones, and desired impacts (National Center for Chronic Disease Prevention and Health Promotion, 2011).

Program evaluation should include evaluation metrics for the implementation plan that capture structural, process, and outcome data. Facilitators and barriers should be identified within the evaluation plan and monitored throughout all phases of the project, with the aim of improving future approaches. The structural evaluation should capture whether or not the organization possesses the resources required to support a cessation program prior to implementation. Examples can include adequate staffing, orientation programs for staff on smoking cessation and, budget to provide free nicotine replacement therapy. Process evaluation looks at the process of providing care, intervention and/or education. Examples include assessing whether all clients were offered brief interventions, or if all clients were provided information on nicotine replacement therapy. Outcome evaluation may focus on assessing client quit attempts, reduction rates, or a decline in the client's nicotine withdrawal symptoms. In addition, it is important to determine how the evaluation data will be collected. Evaluation tools to facilitate data collection may include surveys, scales, audit and feedback, or observational assessments (RNAO, 2012). Evaluation data can be used to demonstrate the impact of the intervention, its cost-effectiveness, and whether changes are required to improve the effectiveness of the intervention.

RECOMMENDATIONS



Research Gaps and Future Implications

In reviewing the evidence for this guideline, the RNAO expert panel identified three priority areas for research where there is insufficient or low methodological quality evidence. They are broadly categorized as practice, outcome, and health system research. See **Table 5** below.

Table 5: Priority Research Areas

CATEGORY	PRIORITY RESEARCH AREA
Practice	<ul style="list-style-type: none"> ■ Prevalence of and interventions for hookah use ■ Impact of contraband tobacco on tobacco use rates ■ Short and long-term effects of e-cigarettes ■ Impact of symptom management measures ■ Effectiveness of nicotine replacement therapy on pregnant and postpartum women ■ Impact of harm reduction on consumption and cessation rates ■ Impact of nicotine replacement therapy on infants
Outcome	<ul style="list-style-type: none"> ■ Effectiveness of exercise programs on cessation rates ■ Benefits of incentivized training ■ Effectiveness of mindfulness on cessation rates ■ Impact of resources on implementation ■ Impact and challenges of tobacco-free environments ■ Effectiveness of a withdrawal management approach on cessation rates ■ Effectiveness of in-hospital minimal intervention and referral for intensive intervention to local quitline
Health System	<ul style="list-style-type: none"> ■ Effect of inter-professional care teams on cessation rates ■ Impact of vaporizers ■ Effectiveness of interventions for light or non-daily “social” smokers ■ Effectiveness of newer technology platforms in smoking cessation interventions—for example, Internet-based programs, mobile applications, and text messaging programs (Patnode et al., 2015)

Implementation Strategies

Guideline implementation at the point of care is multi-faceted and challenging; it takes more than awareness and distribution of guidelines to get people to change how they practice. Guidelines must be adapted for each practice setting in a systematic and participatory way, to ensure recommendations fit the local context (Harrison, Graham, Fervers, & van den Hoek, 2013). RNAO's *Toolkit: Implementation of Best Practice Guidelines* (RNAO, 2012) provides an evidence-informed process based on implementation science for successful uptake of the guidelines (see [Appendix K: Description of the Toolkit](#)).

The critical success factors identified in the *Toolkit* include:

- Leaders at all levels are committed to supporting guideline implementation.
- Guidelines are selected for implementation through a systematic, participatory process.
- Stakeholders for whom the guidelines are relevant are identified and engaged in the implementation.
- A comprehensive readiness assessment is required prior to guideline implementation.
- Guidelines are customized to the local context.
- Barriers and facilitators to guideline implementation are identified, monitored and where possible, mitigation strategies are implemented.
- Interventions to promote uptake of the guidelines are selected.
- Guideline implementation is systematically monitored and sustained.
- Evaluation of the guidelines' impact is embedded in the process.
- There are adequate resources to complete all aspects of the implementation.

The *Toolkit* uses the “Knowledge-to-Action” framework (Straus, Tetroe, Graham, Zwarenstein, & Bhattacharyya, 2009) to demonstrate the process steps required for knowledge inquiry and synthesis. It also guides the adaptation of the new knowledge, such as guidelines, to the local context. This framework suggests identifying and using knowledge tools to identify gaps and to begin the process of tailoring the new knowledge to local settings.

RNAO is committed to widespread dissemination and implementation of our BPGs. RNAO uses a coordinated approach for dissemination, incorporating a variety of strategies, including:

- a) The Nursing Best Practice Champions Network[®], which develops the capacity of individual nurses to foster awareness, engagement, and adoption of BPGs;
- b) Nursing Order Sets[®], which provide clear, concise, actionable intervention statements derived from the BPGs' practice recommendations that can be readily embedded within electronic health records, but may also be used in paper-based or hybrid environments; and
- c) The Best Practice Spotlight Organization[®] (BPSO[®]) designation, which supports implementation at the organization and system levels. BPSOs focus on developing evidence-based cultures with the specific mandate to implement, evaluate, and sustain multiple RNAO BPGs.

In addition, we offer capacity-building learning institutes on specific guidelines and their implementation annually (RNAO, 2012).

Information about the full range of RNAO implementation strategies can be found at:

- RNAO Best Practice Champions Network—www.RNAO.ca/bpg/get-involved/champions
- RNAO's Nursing Order Sets—www.RNAO.ca/ehealth/nursingordersets
- RNAO Best Practice Spotlight Organizations—www.RNAO.ca/bpg/bpso
- RNAO capacity-building learning institutes and other professional development opportunities—www.RNAO.ca/events



Evaluating and Monitoring this Guideline

As you implement the recommendations in this guideline, we ask you to consider how you will monitor and evaluate their implementation and impact.

Table 6 is based on a framework outlined in RNAO's *Toolkit: Implementation of Best Practice Guidelines* (RNAO, 2012) and illustrates some specific indicators that can support the monitoring and evaluation of the implementation of this guideline.

Table 6: Organizational/System Structure, Process, and Outcome Indicators for Monitoring and Evaluating this Guideline

TYPE OF INDICATOR		
Structure	Process	Outcome
<i>These indicators refer to the supports and resources a health system, health service organization, or academic institution requires to enable the successful implementation of the guideline into practice.</i>	<i>These indicators evaluate whether best practices directed at the education, training, and practice of health-care providers to improve engagement with individuals have been implemented.</i>	<i>These indicators evaluate the impact of implementing the guideline recommendations on health-care organizations, health-care providers, and client outcomes.</i>
Organization-specific structure indicators	Client-specific process indicators	Client-specific outcome indicators
<p>Organizational commitment to advocate for comprehensive smoke- and vape-free legislation and enforcement in the community (Recommendation 6.1).</p> <p>Organization-wide implementation and enforcement of comprehensive tobacco-free policies with all clients and staff (Recommendation 6.2).</p> <p>Organizations embed tobacco use prompts in health records/documentation to facilitate addressing tobacco interventions during health-care visits (Recommendation 6.3).</p>	<p>Percentage of clients who are screened for all forms of tobacco using brief interventions (Recommendation 1.1).</p> <p>Percentage of clients who screen positive for tobacco use who have a person-centred tobacco intervention plan (Recommendation 2.1).</p> <p>Percentage of clients who screen positive for tobacco use and express an interest to reduce or quit who subsequently,</p> <p>(i) receive intensive interventions and counselling on pharmacotherapy;</p> <p>-or-</p>	<p>Prevalence or percentage of clients who screen positive for tobacco use (Recommendation 1.1).</p> <p>Percentage of clients who screen positive for tobacco use who are interested in quitting (Recommendation 1.1).</p> <p>Percentage of clients who have reduced tobacco use following intensive interventions and counselling on the use of pharmacotherapy (Recommendation 3.1).</p> <p>Percentage of clients who are on nicotine replacement therapy following intensive interventions and counselling on the use of</p>

TYPE OF INDICATOR		
Structure	Process	Outcome
<p>Organization-wide development and implementation of electronic documentation systems that encourage documenting tobacco status, screening, and tobacco interventions, and referrals for counselling, along with resources (Recommendation 6.3).</p> <p>Organizations have implemented a structured evaluation plan to routinely evaluate the effectiveness of tobacco programs and services using appropriate measures (Recommendation 6.4).</p> <p>Academic organizations' capacity to incorporate evidence-based content on tobacco interventions in health-care professional education programs (Recommendation 5.1).</p> <p>Organizational availability of education and training for health-care providers related to tobacco interventions (Recommendation 5.2).</p>	<p>(ii) are provided with a referral to receive intensive interventions and counselling on pharmacotherapy (Recommendation 3.1).</p> <p>For pregnant or postpartum clients (Recommendation 3.2):</p> <p>Percentage of pregnant or postpartum clients who screened positive for tobacco use and subsequently were referred to intensive behavioural counselling at every encounter.</p> <p>Percentage of pregnant or postpartum clients at risk for tobacco use relapse who received intensive behavioural counselling at every encounter.</p> <p>Percentage of pregnant or postpartum clients who screened positive for tobacco use and received intensive behavioural counselling that was ineffective alone, who were provided with the risks and benefits of pharmacotherapy at every encounter.</p> <p>Percentage of students or new graduates who received evidence-based content on tobacco interventions in their health professional program (Recommendation 5.1).</p> <p>Percentage of health-care providers who received tobacco intervention curriculum facilitated by trained and skilled educators in the field of tobacco use interventions (Recommendation 5.2).</p>	<p>pharmacotherapy (Recommendation 3.1).</p> <p>Percentage of clients who are on nicotine replacement therapy following intensive interventions and counselling on the use of pharmacotherapy who subsequently have quit tobacco use (Recommendation 3.1).</p> <p>Percentage of clients who quit tobacco use in the last 30 days following intensive interventions and counselling on the use of pharmacotherapy (Recommendation 3.1).</p> <p>Percentage of clients who used tobacco during the past 12 months who tried to quit during the past 12 months following intensive interventions and counselling on the use of pharmacotherapy (Recommendation 3.1).</p> <p>Percentage of clients who effectively manage their withdrawal symptoms since quitting tobacco use following intensive interventions and counselling on the use of pharmacotherapy (Recommendation 3.1).</p> <p>For pregnant or postpartum clients (Recommendation 3.2):</p> <p>Percentage of pregnant or postpartum clients who use tobacco.</p>

TYPE OF INDICATOR		
Structure	Process	Outcome
		<p>Percentage of pregnant or postpartum clients who are interested in quitting following intensive behavioural counselling in conjunction with nicotine replacement therapy on a case by case basis.</p> <p>Percentage of pregnant or postpartum clients who reduce their tobacco use following intensive behavioural counselling in conjunction with nicotine replacement therapy on a case by case basis.</p> <p>Percentage of pregnant or postpartum clients who use nicotine replacement therapy following intensive behavioural counselling.</p> <p>Percentage of pregnant or postpartum clients who quit tobacco use in the last 30 days following intensive behavioural counselling in conjunction with nicotine replacement therapy on a case by case basis.</p> <p>Percentage of clients who quit tobacco use during pregnancy who subsequently relapsed postpartum (within 3 months, within 1 year) following intensive behavioural counselling in conjunction with nicotine replacement therapy on a case by case basis.</p>

TYPE OF INDICATOR		
Structure	Process	Outcome
		<p>Percentage of students or new graduate health-care providers whose knowledge of evidence-based content on tobacco interventions is satisfactory (Recommendation 5.1).</p> <p>Percentage of health-care providers who are competent to provide tobacco interventions following the delivery of tobacco intervention curriculum by trained and skilled educators in the field of tobacco use interventions (Recommendation 5.2).</p>

Other RNAO resources for the evaluation and monitoring of best practice guidelines include the following:

- Nursing Quality Indicators for Reporting and Evaluation® (NQuIRE®) were designed for RNAO’s Best Practice Spotlight Organization® (BPSO®) program to systematically monitor the progress and evaluate the impact of implementing RNAO best practice guidelines in these organizations. NQuIRE is the first international quality improvement initiative of its kind, consisting of a database of quality indicators derived from recommendations within selected RNAO clinical best practice guidelines. Please visit www.RNAO.ca/bpg/initiatives/nquire for more information.
- Nursing Order Sets embedded within EHRs provide a mechanism for electronic data capture of process indicators. The ability to link structure and process indicators with specific outcome indicators aids in determining the impact of BPG implementation on specific client health outcomes.

Process for Update and Review of Best Practice Guidelines

The Registered Nurses' Association of Ontario (RNAO) commits to updating its Best Practice Guidelines as follows:

1. A team of specialists in the topic area will review each nursing best practice guideline every five years following publication of the previous edition.
2. International Affairs and Best Practice Guidelines (IaBPG) Centre staff regularly monitor for new systematic reviews, randomized controlled trials, and other relevant literature in the field.
3. Based on that monitoring, staff may recommend an earlier revision period. Appropriate consultation with members of the original expert panel and other specialists and experts in the field will help inform the decision to review and revise guidelines earlier than planned.
4. Three months prior to the review milestone, the guideline development team begins to plan the review by:
 - a) Inviting specialists in the field to participate on the expert panel, which will comprise members from the original expert panel and other recommended specialists and experts;
 - b) Compiling feedback received and questions encountered during guideline implementation, including comments and experiences from each Best Practice Spotlight Organization and other implementation sites;
 - c) Compiling new clinical best practice guidelines in the field and conducting a systematic review of the evidence; and
 - d) Developing a detailed work plan, with target dates and deliverables, for developing a new edition of a guideline.
5. New editions of guidelines will be disseminated based on established structures and processes.



Reference List

- Aboriginal Nurses Association of Canada. (2005). *Tobacco cessation—Canadian environmental scan*. Ottawa, ON: Aboriginal Nurses Association of Canada.
- Allen, J. A., Gritz, E. R., Xiao, H., Rubenstein, R., Kralikova, E., Haglund, M., ...Vallone, D. M. (2014). Impact of tobacco control policy on quitting and nicotine dependence among women in five European countries. *Tobacco Control, 23*(2), 173–177.
- American Cancer Society. (2016). *Health risks of smokeless tobacco*. Retrieved from <http://www.cancer.org/cancer/cancercauses/tobaccocancer/smokeless-tobacco>
- American Nurses Association. (2016). *Tobacco free nurses*. Retrieved from <http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Healthy-Nurse/TobaccoFree.html>
- Arnett, M. R., Baba, N. Z., & Cheek, D.(2012). Improving tobacco dependence education for dental and dental hygiene students at Loma Linda University School of Dentistry. *Journal of Dental Education, 76*(4), 472–478.
- Asma, S., Mackay, J., Song, S. Y., Zhao, L., Morton, J., Palipudi, K. M., ... Tursan d’Espaignet, E.(2015). *The GATS Atlas: Global Adult Tobacco Survey*. Atlanta, GA: Centers for Disease Control and Prevention Foundation. 1–128. Retrieved from <http://gatsatlas.org/downloads/GATS-whole-book-12.pdf>
- Baker, R., Bankart, M. J., & Murtagh, G. M. (2009). Do the quality and outcomes framework patient experience indicators reward practices that offer improved access? *British Journal of General Practice, 59*(565), e267–272.
- Ballbè, M., Martinez, C., Salto, E., Cabezas, C., Riccobene, A., Valverde, A., ...Fernández, E. (2015). Maintenance of tobacco cessation programmes in public hospitals in Catalonia, Spain. *Addictive Behaviors, 42*, 136–139.
- Borrelli, B., Lee, C., & Novak, S. (2008). Is provider training effective? Changes in attitudes towards smoking cessation counseling and counseling behaviors of home health care nurses. *Preventive Medicine, 46*(4), 358–363.
- Brose, L.S., West, R., Michie, S., Kenyon, J. A. M., & McEwen, A. (2012). Effectiveness of an online knowledge training and assessment program for stop smoking practitioners. *Nicotine & Tobacco Research, 14*(7), 794–800.
- Brouwers, M., Kho, M. E., Browman, G. P., Burgers, J. S., Cluzeau, F., Feder, G., ... Zitzelsberger, L. (2010). AGREE II: Advancing guideline development, reporting and evaluation in health care. *Canadian Medical Association Journal, 182*(108), E839–842.
- Bullen, C., Howe, C., Laugesen, M., McRobbie, H., Parag, V., Williman, J., & Walker, N. (2013). Electronic cigarettes for smoking cessation: A randomised controlled trial. *The Lancet, 9905* (382), 1629–1637.doi: 10.1016/S0140-6736(13)61842-5
- Cahill, K., & Lancaster, T. (2014). Workplace interventions for smoking cessation (Review). The Cochrane Collaboration. *The Cochrane Library, (2)*, 1–126.
- Cahill, K., Lindson-Hawley, N., Thomas, K. H., Fanshawe, T. R., & Lancaster, T. (2016). Nicotine receptor partial agonists for smoking cessation. *Cochrane Database of Systematic Reviews, (5)*, CD006103. doi:10.1002/14651858.CD006103. pub7

Callinan, J. E., Clarke, A., Doherty, K., & Kelleher, C. (2010). Legislative smoking bans for reducing second hand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database of Systematic Reviews*, (4), CD005992.

CAN-ADAPTT. (2011). *Canadian smoking cessation clinical practice guideline*. Toronto, ON: Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment, Centre for Addiction and Mental Health. Retrieved from <http://www.can-adaptt.net>

Canadian Health Services Research Foundation. (2005). *Final report: Conceptualizing and combining evidence for health system guidance*. Retrieved from http://www.cfhi-fcass.ca/migrated/pdf/insightAction/evidence_e.pdf

Cancer Care Ontario. (2016). *Path to prevention: Recommendations for reducing chronic disease in First Nations, Inuit and Métis*. Toronto, ON: Queen's Printer for Ontario.

Cantrell, J., Hung, D., Fahs, M. C., & Shelley, D. (2008). Purchasing patterns and smoking behaviors after a large tobacco tax increase: A study of Chinese Americans living in New York City. *Public Health Reports*, 123(2), 135–146.

Carpenter, K. M., Carlini, B. H., Painter, I., Mikko, A. T., & Stoner, S. A. (2012). Refer2Quit: Impact of web-based skills training on tobacco interventions and quitline referrals. *Journal of Continuing Education in the Health Professions*, 32(3), 187–195.

Carson, K. V., Verbiest, M. E., Crone, M. R., Brinn, M. P., Esterman, A. J., Assendelft, W. J. J., & Smith, B. J. (2012). Training health professionals in smoking cessation (Review). *Cochrane Database of Systematic Reviews*, (5), CD000214.

Centers for Disease Control and Prevention. (2013). *Descriptive and analytic studies*. Retrieved from https://www.cdc.gov/globalhealth/healthprotection/fetp/training_modules/19/desc-and-analytic-studies_ppt_final_09252013.pdf

Centers for Disease Control and Prevention. (2016). *Smoking & tobacco use*. Retrieved from http://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/cigars/index.htm

Chamberlain, C., O'Mara Eves, A., Oliver, S., Caird, J. R., Perlen, S. M., Eades, S. J., & Thomas, J. (2013). Psychosocial interventions for supporting women to stop smoking in pregnancy. *Cochrane Database of Systematic Reviews*, (10).

Chan, S. S., Sarna, L., & Danao, L. L. (2008). Are nurses prepared to curb the tobacco epidemic in China? A questionnaire survey of schools of nursing. *International Journal of Nursing Studies*, 45(5), 706–713.

Christiansen, B., Reeder, K., Hill, M., Baker, T. B., & Fiore, M. C. (2012). Barriers to effective tobacco-dependence treatment for the very poor. *Journal of Studies on Alcohol and Drugs*, 73(6), 874–884.

Cohen, B., Schultz, A., Walsh, R., Fuga, L. A., Bartmanovich, C., Eves, S. J., & Turcotte, F. (2011). *Exploring issues of equity within Canadian tobacco control initiatives: An environmental scan*. Retrieved from https://umanitoba.ca/faculties/nursing/media/issues_of_equity.pdf

Coleman, T., Chamberlain, C., Cooper, S., & Leonardi-Bee, J. (2010). Efficacy and safety of nicotine replacement therapy for smoking cessation in pregnancy: Systematic review and meta-analysis. *Addiction*, 106, 52–61. doi:10.1111/j.1360-0443.2010.03179.x

College of Nurses of Ontario. (2009). *Culturally sensitive care*. Retrieved from http://www.cno.org/globalassets/docs/prac/41040_culturallysens.pdf

College of Nurses of Ontario. (2013). *Working with unregulated care providers*. Retrieved from http://www.cno.org/Global/docs/prac/41014_workingucp.pdf

- College of Nurses of Ontario. (2015). *Medication*. Retrieved from http://www.cno.org/globalassets/docs/prac/41007_medication.pdf
- Cressman, A. M., Pupco, A., Kim, E., Koren, G., & Bozza, P. (2012). Smoking cessation therapy during pregnancy. *Canadian Family Physician, 58*(5), 525–527.
- Davis, J. M., Stockdale, M. S., & Cropper, M. (2010). Evaluation of a comprehensive tobacco cessation curriculum for dental hygiene programs. *Journal of Dental Education, 74*(5), 472–479.
- Dempsey, D. A., & Benowitz, N. L. (2001). Risks and Benefits of Nicotine to Aid Smoking Cessation in Pregnancy. *Drug Safety, 24*(4), 277–322.
- Eriksen, M., Mackay, J., & Ross, H. (2012). *The tobacco atlas* (4th ed.). Atlanta, GA: American Cancer Society; New York, NY: World Lung Foundation.
- Eriksen, M., Mackay, J., Schluger, N., Gomeshtapeh, F. I., & Drope, J. (2015). *The tobacco atlas* (5th ed.). Brighton, UK: American Cancer Society.
- Field, M., & Lohr, K. N. (1990). *Guidelines for clinical practice: Directions for a new program*. Washington, DC: Institute of Medicine, National Academy Press.
- First Nations Health Authority. (2016). *Respecting tobacco: Keep tobacco sacred—traditional tobacco use*. Retrieved from <http://www.fnha.ca/wellness/wellness-and-the-first-nations-health-authority/wellness-streams/respecting-tobacco>
- Fleiss, J., Levin, B., & Paik, M. C. (2003). *Statistical methods for rates and proportions* (3rd ed.). New York, NY: John Wiley and Sons.
- Fong, G. T., Hyland, A., Borland, R., Hammond, D., Hastings, G., McNeill, A., ... Driezen, P. (2006). Reductions in tobacco smoke pollution and increases in support for smoke-free public places following the implementation of comprehensive smoke-free workplace legislation in the Republic of Ireland: Findings from the ITC Ireland/UK survey. *Tobacco Control, 15*(Suppl 3), iii51–iii58.
- Freund, M. (2009). Increasing hospital-wide delivery of smoking cessation care for nicotine-dependent in-patients: A multi-strategic intervention trial. *Addiction, 104*(5), 839.
- Government of Ontario. (2016). *Smoke-Free Ontario Act*. Retrieved from <https://www.ontario.ca/laws/statute/94t10#BK4>
- Government of Canada. (2016). *Smoking and tobacco use data*. Retrieved from <http://www.healthycanadians.gc.ca/healthy-living-vie-saine/tobacco-tabac/smoking-facts-faits-tabagisme/index-eng.php>
- Harrison, M. B., Graham, I. D., Fervers, B., & van den Hoek, J. (2013). Adapting knowledge to local context. In S. E. Straus, J. Tetroe, & I. D. Graham (Eds.), *Knowledge translation in health care: Moving from evidence to practice* (2nd ed.) 110–120. Chichester, UK: John Wiley & Sons, Ltd.
- Hawk, C., Kaeser, M. A., & Beavers, D. V. (2013). Feasibility of using a standardized patient encounter for training chiropractic students in tobacco cessation counseling. *Journal of Chiropractic Education, 27*(2), 135–140.
- Health Canada. (2011). *Health concerns—smoking and your body: Quit smoking aids*. Retrieved from <http://hc-sc.gc.ca/hc-ps/tobac-tabac/body-corps/aid-eng.php>

- Health Canada. (2013). *Safety information on Champix and Zyban*. Retrieved from <http://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2013/33621a-eng.php>
- Health Canada. (2016). *Benefits of quitting*. Retrieved from <http://healthycanadians.gc.ca/healthy-living-vie-saine/tobacco-tabac/quit-cesser/quit-now-cesser-maintenant/benefits-avantages-eng.php>
- Health Care Innovation Working Group. (2012). *From innovation to action: The first report of the Health Care Innovation Working Group*. Retrieved from <http://www.pmprovinceterritoires.ca/en/featured-publications/75-council-of-the-federation-to-meet-in-victoria>
- Heath, J., Kelley, F. J., Andrews, J., Crowell, N., Corelli, R. L., & Hudmon, K. S. (2007). Evaluation of a tobacco cessation curricular intervention among acute care nurse practitioner faculty members. *American Journal of Critical Care, 16*(3), 284–289.
- Herie, M., Connolly, H., Voci, S., Dragonetti, R., & Selby, P. (2012). Changing practitioner behavior and building capacity in tobacco cessation treatment: The TEACH project. *Patient Education and Counseling, 86*(1), 49–56.
- Hettema, J. E., & Hendricks, P. S. (2010). Motivational interviewing for smoking cessation: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 78*, 868–884.
- Houston, L. N., Warner, M., Corelli, R. L., Fenlon, C. M., & Hudmon, K. S. (2009). Tobacco education in US physician assistant programs. *Journal of Cancer Education, 24*(2), 107–113.
- Huang, Y., Li, W., Yang, L., Jiang, Y., & Wu, Y. (2012). *Long-term efficacy and safety of varenicline for smoking cessation: A systematic review and meta-analysis of randomized controlled trials*. doi: 10.1007/s10389-011-0476-5
- Jiloha, R. C. (2014). Pharmacotherapy of smoking cessation. *Indian Journal of Psychiatry, 56*(1), 87.
- Jiménez-Muro, A., Nerín, I., Samper, P., Marqueta, A., Beamonte, A., Gargallo, P.,... Rodríguez, G. (2012). A proactive smoking cessation intervention in postpartum women. *Midwifery, 29*(3), 240–245. doi:10.1016/j.midw.2012.01.003
- Jordan, T. R., Khubchandani, J., Wiblehauser, M., Glassman, T., & Thompson, A. (2011). Do respiratory therapists receive training and education in smoking cessation? A national study of post-secondary training programs. *Patient Education and Counseling, 85*(1), 99–105.
- Kaufman, P., Ferrence, R., Pope, M., Smith, M., Tyndall, L., & Zhang, B. (2012). Putting Third hand Smoke on the Policy and Research Agenda: Knowledge User Survey Results. *The Ontario Tobacco Research Unit*. Retrieved from http://otru.org/wp-content/uploads/2012/11/update_nov2012.pdf
- Kennedy, R. D., Behm, I., Craig, L., Thompson, M. E., Fong, G. T., Guignard, R., & Beck, F. (2012). Smoking cessation interventions from health care providers before and after the national smoke-free law in France. *The European Journal of Public Health, 22*(Suppl 1), 23–28. Retrieved from <http://doi.org/10.1093/eurpub/ckr209>
- Lam, T. H. (2008). Building an integrated model of tobacco control education in the nursing curriculum: Findings of a students' survey. *Journal of Nursing Education, 47*(5), 223–226.
- Lancaster, T., & Stead, L. F. (2005). Individual behavioural counselling for smoking cessation. *The Cochrane Library*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001292.pub2/full>
- Lawn, S., Hehir, A., Indig, D., Prosser, S., Macleod, S., & Keller, A. (2014). Evaluation of a totally smoke-free forensic psychiatry in-patient facility: Practice and policy implications. *Australian Health Review, 38*(4), 476–482.

- Levitt, C., Shaw, E., Wong, S., & Kaczorowski, J. (2007). Systematic review of the literature on postpartum care: Effectiveness of interventions for smoking relapse prevention, cessation, and reduction in postpartum women. *Birth*, *34*, 341–347.
- Linder, J. A., Rigotti, N. A., Schneider, L. I., Kelley, J. H. K., Brawarsky, P., & Haas, J. S. (2009). An electronic health record-based intervention to improve tobacco treatment in primary care: A cluster-randomized controlled trial. *Archives of Internal Medicine*, *169*(8), 781–787.
- Lindson-Hawley, N., Thompson, T. P., & Begh, R. (2015). Motivational interviewing for smoking cessation (Review). The Cochrane Collaboration. *The Cochrane Library*, (3), 1–76. Retrieved from <http://www.cochranelibrary.com>
- Luk, R., Cohen, J. E., Ferrence, R., McDonald, P. W., Schwartz, R., & Bondy, S. J. (2009). Prevalence and correlates of purchasing contraband cigarettes on First Nations reserves in Ontario, Canada. *Addiction*, *104*, 488–495. doi:10.1111/j.1360-0443.2008.02453.x
- Lundahl, B. W., Kunz, C., Brownell, C., Tollefson, D., & Burke, B. L. (2010). A meta-analysis of motivational interviewing: Twenty-five years of empirical studies. *Research on Social Work Practice*, *20*(2), 137–160. doi:10.1177/1049731509347850
- McRobbie, H., Bullen, C., Hartmann-Boyce, J., & Hajek, P. (2014). Electronic cigarettes for smoking cessation and reduction. *The Cochrane Library*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010216.pub2/abstract>
- McRobbie, H., Hajek, P., Feder, G., & Eldridge, S. (2008). A cluster-randomised controlled trial of a brief training session to facilitate general practitioner referral to smoking cessation treatment. *Tobacco Control*, *17*(3), 173–176. doi:10.1136/tc.2008.024802
- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. New York, NY: Guilford Press.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *British Medical Journal*, *339*, b2535. doi:10.1136/bmj.b2535
- Nagelhout, G. E., de Vries, H., Boudreau, C., Allwright, S., McNeill, A., van den Putte, B., ... Willemsen, M.C. (2012). Comparative impact of smoke-free legislation on smoking cessation in three European countries. *European Journal of Public Health*, *22*(Suppl 1), 4–9.
- National Center for Chronic Disease Prevention and Health Promotion. (2011). *Developing an effective evaluation plan: Setting the course for effective program evaluation*. Atlanta, GA: Centers for Disease Control and Prevention, Office on Smoking and Health, Division of Nutrition, Physical Activity and Obesity. Retrieved from http://www.cdc.gov/tobacco/stateandcommunity/tobacco_control_programs/surveillance_evaluation/evaluation_plan/pdfs/developing_eval_plan.pdf
- National Institute for Health and Care Excellence (NICE). (2013). *Smoking—harm reduction public health guideline: Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities*. Retrieved from <https://www.nice.org.uk/guidance/ph10/documents/smoking-cessation-services-in-primary-care-pharmacies-local-authorities-and-workplaces-particularly-for-manual-working-groups-pregnant-women-and-hard-to-reach-communities-review-proposal-consultation2>

New Zealand Ministry of Health. (2007). *New Zealand smoking cessation guidelines*. Wellington, NZ: New Zealand Ministry of Health. Retrieved from <http://www.moh.govt.nz>

Northern Territory Government Department of Health and Families. (2010). *Clinical guidelines for the management of nicotine dependent inpatients*. Darwin, AU: Department of Health, Western Australia. Retrieved from <https://health.nt.gov.au>

O'Donnell, J. A., Hamilton, M. K., Markovic, N., & Close, J. (2010). Overcoming barriers to tobacco cessation counselling in dental students. *Oral Health & Preventive Dentistry*, 8(2), 117–124.

Ortiz, G., Schacht, L., & Lane, G. M. J. (2013). Smoking cessation care in state-operated or state-supported psychiatric hospitals: From policy to practice. *Psychiatric Services*, 64(7), 666–671.

Pati, D. (2011). A framework for evaluating evidence in evidence-based design. *HERD: Health Environments Research & Design Journal*, 4(3), 50–71. Retrieved from <https://www.questia.com/library/journal/1P3-2472663721/a-framework-for-evaluating-evidence-in-evidence-based>

Patnode, C. P., Henderson, J. T., Thompson, J. H., Senger, C. A., Fortmann, S. P., & Whitlock, E. P. (2015). Behavioral counseling and pharmacotherapy interventions for tobacco cessation in adults, including pregnant women: A review of reviews for the U.S. Preventive Services Task Force. *Annals of Internal Medicine*, 163(8), 608–321.

Poder, N., Carroll, T., Wallace, C., & Hua, M. (2012). Do smoke-free environment policies reduce smoking on hospital grounds? Evaluation of a smoke-free health service policy at two Sydney hospitals. *Australian Health Review*, 36(2), 158–162.

Polit, D. F., Beck, C. T., & Hungler, B. P. (2001). *Essentials of nursing research: Methods, appraisal, and utilization* (5th ed.). Philadelphia, PA: Lippincott.

Potter, P. A., Perry, A.G., Stockert, P.A., & Hall, A.M. (Eds.). (2014). *Canadian fundamentals of nursing* (5th Cdn. ed.) (J. C. Ross-Kerr, M. J. Wood, B. J. Astle, & W. Duggleby, Cdn. adapts.). Toronto, ON: Elsevier Canada.

Price, J., Jordan, T., Jeffrey, J., Stanley, M., & Price, J. (2008). Tobacco intervention training in graduate psychiatric nursing education programs. *Journal of the American Psychiatric Nurses Association*, 14(2), 117–124.

Price, J. H., Mohamed, I., & Jeffrey, J. D. (2008). Tobacco intervention training in American College of Nurse-Midwives accredited education programs. *Journal of Midwifery & Women's Health*, 53(1), 68–74.

Prochaska, J. J., Fromont, S. C., Leek, D., Hudmon, K. S., Louie, A. K., Jacobs, M. H., & Hall, S. M. (2008). Evaluation of an evidence-based tobacco treatment curriculum for psychiatry residency training programs. *Academic Psychiatry*, 32(6), 484–492.

Registered Nurses' Association of Ontario (RNAO). (2007a). *Embracing cultural diversity in health care: Developing cultural competence*. Toronto, ON: Registered Nurses' Association of Ontario.

Registered Nurses' Association of Ontario (RNAO). (2007b). *Integrating smoking cessation into daily nursing practice* (revised). Toronto, ON: Registered Nurses' Association of Ontario.

Registered Nurses' Association of Ontario (RNAO). (2012). *Toolkit: Implementation of best practice guidelines* (2nd ed.). Toronto, ON: Registered Nurses' Association of Ontario.

Registered Nurses' Association of Ontario (RNAO). (2013). *Developing and sustaining interprofessional health care: Optimizing patient, organizational, and systems outcomes*. Toronto, ON: Registered Nurses' Association of Ontario.

- Reid, J. L., Hammond, D., Rynard, V. L., & Burkhalter, R. (2015). *Tobacco use in Canada: Patterns and trends*. Waterloo, ON: Propel Centre for Population Health Impact, University of Waterloo.
- Rice, V. H., & Stead, L. F. (2008). Nursing interventions for smoking cessation. *Cochrane Database of Systematic Reviews*. Retrieved from <http://www.ncsct.co.uk/usr/pub/nursing-interventions.pdf>
- Richmond, R., Zwar, N., Taylor, R., Hunnisett, J., & Hyslop, F. (2009). Teaching about tobacco in medical schools: A worldwide study. *Drug and Alcohol Review*, 28(5), 484–497.
- Rigotti, N. A., Clair, C., Munafò, M. R., & Stead, L. F. (2012). Interventions for smoking cessation in hospitalised patients. *Cochrane Database of Systematic Reviews*, (5), CD001837. doi:10.1002/14651858.CD001837.pub3.
- Roman, B., Borges, N., & Morrison, A. K. (2011). Teaching motivational interviewing skills to third-year psychiatry clerkship students. *Academic Psychiatry*, 35(1), 51–53.
- Royal Australian College of General Practitioners. (2011). *Supporting smoking cessation: A guide for health professionals*. Melbourne, AU: Royal Australian College of General Practitioners.
- Schmelz, A. N., Nixon, B., McDaniel, A., Hudmon, K. S., & Zillich, A. J. (2010). Evaluation of an online tobacco cessation course for health professions students. *American Journal of Pharmaceutical Education*, 74(2), 36.
- Scottish Intercollegiate Guidelines Network (SIGN). (2011). *SIGN 50: A guideline developer's handbook*. Retrieved from <http://www.sign.ac.uk/guidelines/fulltext/50/index.html>
- Sears, K. E., Cohen, J. E., & Drope, J. (2008). Comprehensive evaluation of an online tobacco control continuing education course in Canada. *Journal of Continuing Education in the Health Professions*, 28(4), 235–240.
- Selby, P. (2012). Algorithm for Tailoring Pharmacotherapy in Primary Care Settings. *CAN-ADAPTT Guide to Smoking Cessation*. Retrieved from <https://www.nicotinedependenceclinic.com/English/teach/SiteAssets/Pages/Resources/Tobacco%20Algorithm%20updated%20May%202016.pdf>
- Selby, P. (2016). *STOP Program: Sample Nicotine Replacement Therapy (NRT) Algorithm*. Centre for Addiction and Mental Health: Nicotine Dependence Service. Retrieved from https://www.nicotinedependenceclinic.com/English/stop/Documents/Appendix%20G%20-%20STOP%20NRT%20Dispensing%20Guideline_v1.0_Oct_2014.pdf
- Shah, R. S., & Cole, J. W. (2010). Smoking and stroke: The more you smoke the more you stroke. *Expert Review of Cardiovascular Therapy*, 8(7). doi:10.1586/erc.10.56
- Sheffer, C. E., Barone, C., & Anders, M. E. (2011). Training nurses in the treatment of tobacco use and dependence: Pre- and post-training results. *Journal of Advanced Nursing*, 67(1), 176–183.
- Sherman, S. E., Joseph, A. M., Yano, E. M., Simon, B. F., Arikian, N., Rubenstein, L.V.,... Mittman, B.S. (2006). Assessing the institutional approach to implementing smoking cessation practice guidelines in veterans health administration facilities. *Military Medicine*, 171(1), 80–87.
- Shishani, K., Stevens, K., Dotson, J., & Riebe, C. (2013). Improving nursing students' knowledge using online education and simulation to help smokers quit. *Nurse Education Today*, 33(3), 210–213.
- Speziale, H. J. S., & Carpenter, D. R. (2007). *Qualitative research in nursing: Advancing the humanistic imperative* (4th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

- Stead, L. F., Bergson, G., & Lancaster, T. (2008). Physician advice for smoking cessation. *Cochrane Database of Systematic Reviews*. doi:10.1002/14651858.CD000165.pub3
- Stead, L.F., Buitrago, D., Preciado, N., Sanchez, G., Hartmann-Boyce, J., & Lancaster, T. (2013). Physician advice for smoking cessation. *Cochrane Database of Systematic Reviews*. doi: 10.1002/14651858.CD000165.pub4
- Stead, L. F., Lancaster, T., & Perera, R. (2003). Telephone counselling for smoking cessation. *The Cochrane Library*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD002850/abstract;jsessionid=CDD7E80B45B9F934AED49931C13F24ED.f02t02>
- Stockings, E., Bowman, J., Prochaska, J., Baker, A., Clancy, R., Knight, J., ...Wiggers, J. (2014). The impact of a smoke-free psychiatric hospitalization on patient smoking outcomes: A systematic review. *Australian & New Zealand Journal of Psychiatry, 48*(7), 617–633.
- Straus, S., Tetroe, J., Graham, I.D., Zwarenstein, M., & Bhattacharyya, O. (2009). Monitoring and evaluating knowledge. In S. Straus, J. Tetroe, & I. D. Graham (Eds.), *Knowledge translation in health care*, 151–159. Oxford, UK: Wiley-Blackwell.
- Studts, J. L., Burris, J. L., Kearns, D. K., Worth, C. T., & Sorrell, C. L. (2009). “Providers practice prevention”: Promoting dental hygienists’ use of evidence-based treatment of tobacco use and dependence. *Journal of Dental Education, 73*(9), 1069–1082.
- Substance Abuse and Mental Health Services Administration. (2005). *Results from the 2004 National Survey on Drug Use and Health: National Findings* (Office of Applied Studies, NSDUH Series H-28, DHHS Publication No. SMA 05-4062). Rockville, MD. Retrieved from <http://medicalmarijuana.procon.org/sourcefiles/2k4results.pdf>
- Tahiri, M., Mottillo, S., Joseph, L., Pilote, L., & Eisenberg, M. J. (2012). Alternative smoking cessation aids: A meta-analysis of randomized controlled trials. *American Journal of Medicine, 125*, 576–584.
- The Cochrane Collaboration. (2005). *Glossary of terms in The Cochrane Collaboration* (4.2.5). Retrieved from <http://community.cochrane.org/sites/default/files/uploads/glossary.pdf>
- The Cochrane Collaboration. (2011). *Cochrane handbook for systematic reviews of interventions* (5.1.0). Retrieved from <http://handbook.cochrane.org>
- Twyman, L., Bonevski, B., Paul, C., & Bryant, J. (2014). Perceived barriers to smoking cessation in selected vulnerable groups: A systematic review of the qualitative and quantitative literature. *BMJ Open, 4*(12), e006414. doi:10.1136/bmjopen-2014-006414
- The World Alliance for Patient Safety Drafting Group. (2009). *Conceptual framework for the international classification for patient safety*. World Health Organization (WHO). Retrieved from http://www.who.int/patientsafety/taxonomy/icps_full_report.pdf
- University of Toronto Department of Family & Community Medicine. (2000). *Smoking cessation guidelines: How to treat your patient’s tobacco addiction*. Toronto, ON: A Pegasus Health-care International Publication.
- U.S. Department of Health and Human Services Public Health Service. (2008). *Treating tobacco use and dependence: Clinical practice guideline, 2008 update*. Retrieved from <https://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/tobacco/clinicians/update/index.html>

- Verbiest, M. E. A., Crone, M. R., Scharloo, M., Chavannes, N. H., van der Meer, V., Kaptein, A. A., & Assendelft, W. J. J. (2014). One-hour training for general practitioners in reducing the implementation gap of smoking cessation care: A cluster randomized controlled trial. *Nicotine & Tobacco Research, 16*(1), 1–10.
- Virtanen, S. E., Zeebari, Z., Rohyo, I., & Galanti, M. R. (2015). Evaluation of a brief counseling for tobacco cessation in dental clinics among Swedish smokers and snus users: A cluster randomized controlled trial (the FRITT Study). *Preventive Medicine, 70*, 26–32.
- Warner, C., Sewali, B., Olayinka, A., Eischen, S., Wang, Q., Guo, H., ... Okuyemi, K. S. (2014). Smoking cessation in homeless populations: Who participates and who does not. *Nicotine & Tobacco Research, 16*(3), 369–372.
- Warner, C., & Shoab, M. (2005). How does bupropion work as a smoking cessation aid? *Addiction Biology, 10*(3), 219–231. doi:10.1080/13556210500222670
- Wesche, S., Robert, R., & Carry, C. (2011). *First Nations, Inuit and Métis: Respiratory health initiatives environmental scan*. Ottawa, ON: National Aboriginal Health Organization.
- White, A. R., Rampes, H., Liu, J. P., Stead, L. F., & Campbell, J. (2014). Acupuncture and related interventions for smoking cessation (Review). The Cochrane Collaboration. *The Cochrane Library, (1)*, 1–86. doi:10.1002/14651858.CD000009.pub4
- World Health Organization (WHO). (2006). *Electronic health records: Manual for developing countries*. Retrieved from <http://www.wpro.who.int/publications/docs/EHRmanual.pdf>
- World Health Organization (WHO). (2008). *Report on the global tobacco epidemic, 2008: The MPOWER package*. Retrieved from http://www.who.int/tobacco/mpower/gtcr_download/en
- World Health Organization (WHO). (2012). *What are the Social Determinants of Health: Key concepts*. Retrieved from http://www.who.int/social_determinants/final_report/key_concepts_en.pdf?ua=1
- World Lung Foundation. (2015). *The tobacco atlas*. Retrieved from <http://www.tobaccoatlas.org>
- Zwar, N., Mendelsohn, C. P., Richmond, R. L. (2014). Tobacco smoking: Options for helping smokers to quit. *Australian Family Physician, 43*(6), 348–354.

Appendix A: Glossary of Terms

3A's of smoking cessation: Refers to asking about tobacco use with each client, advising each client of the importance of quitting, and acting by providing the client with information or a referral for cessation services. Used by the Ottawa Model for Smoking Cessation (<http://ottawamodel.ottawaheart.ca>).

4A's of smoking cessation: Refers to asking about tobacco use with each client, advising each client about the importance of quitting, assisting clients to quit by providing them with tailored cessation information and support, and arranging ongoing follow-up for the client. Used by RNAO in its 2007 Best Practice Guideline Integrating Smoking Cessation into Daily Nursing Practice.

5A's of smoking cessation: Refers to asking about tobacco use with each client, advising each client about the importance of quitting, assessing the client's readiness to quit, assisting clients to quit by providing them with tailored cessation information and support, and arranging ongoing follow-up for the client. The precursor to the 3A's and 4A's used by many health-care organizations around the world.

Analytical study: A study that tests hypotheses about exposure–outcome relationships. The investigators do not assign an intervention, exposure, or treatment, but do measure the association between exposure and outcome over time, using a comparison group (Centers for Disease Control and Prevention, 2013).

Analytical study designs include case-control studies and cohort studies. A case-control study compares people with a specific disease or outcome of interest (cases) to people from the same population without that disease or outcome (controls) (The Cochrane Collaboration, 2005). A cohort study is an observational study in which a defined group of people (the cohort) is followed over time either prospectively or retrospectively (The Cochrane Collaboration, 2005).

Behavioural supports: Non-pharmacological interventions to support cessation, including counselling, social supports (such as quit smoking groups or online chat rooms), trigger identification and management, and strategies to manage slips and relapses.

Best Practice Guideline (BPG): A systematically developed statement to assist practitioner and client decisions about appropriate healthcare for specific clinical (practice) circumstances (Field & Lohr, 1990); also called a clinical practice guideline.

Brief advice/intervention: An intervention in which there is brief contact (less than five minutes) between the health-care provider and the client.

Bupropion (Zyban): An effective non-nicotine medication that requires a prescription. Bupropion works on the brain to mimic the effects of nicotine on dopamine and noradrenaline in order to prevent nicotine withdrawal symptoms (Warner & Shoaib, 2005).

Client: Refers, in this guideline, to any individual(s) with whom health-care providers establish a therapeutic relationship for the purposes of collaborating for health. The term client may include all of the following: individual, person, patient, resident, consumer, and his or her family (parents, significant others, caregivers, friends, substitute decision-makers, groups, communities, and populations).

Controlled study: A clinical trial in which the investigator assigns an intervention, exposure, or treatment to participants who are not randomly allocated to the experimental and comparison or control group (The Cochrane Collaboration, 2005).

Culture: The shared and learned values, beliefs, norms, and ways of life of an individual or group. Culture influences thinking, decisions, and actions (College of Nurses of Ontario, 2013; RNAO, 2012).

Descriptive study: Generates hypotheses and describes characteristics of a sample of individuals at one point in time. The investigators do not assign an intervention, exposure, or treatment to test a hypothesis, but merely describe the who, where, or when in relation to an outcome (Centers for Disease Control and Prevention, 2013; The Cochrane Collaboration, 2005). Descriptive study designs include cross-sectional studies, which measure the distribution of some characteristic(s) in a population at a particular point in time (also called surveys) (The Cochrane Collaboration, 2005).

Didactic training: A non-interactive presentation of factual information, often given in lecture style, from the health-care provider to the client.

Education recommendation: A statement of educational requirements and educational approaches or strategies for the introduction, implementation, and sustainability of a Best Practice Guideline.

Electronic Health Record (EHR): A term widely used in many countries, with varied definitions and extent of coverage, today it generally refers to a longitudinal health record with entries by health-care practitioners in multiple sites where care is provided. The electronic health record

- contains all personal health information belonging to an individual;
- is entered and accessed electronically by health-care providers over the person's lifetime; and
- extends beyond acute in-patient situations to include all ambulatory care settings at which the patient receives care (World Health Organization, 2006).

Evidence: Information that comes closest to the facts of a matter. The form it takes depends on context. The findings of high quality, methodologically appropriate research provide the most accurate evidence. Because research is often incomplete and sometimes contradictory or unavailable, other kinds of information are necessary supplements to, or stand-ins for, research. The evidence base for a decision is the multiple forms of evidence combined to balance rigour with expedience while privileging the former over the latter (Canadian Health Services Research Foundation, 2005).

Intensive intervention: An intervention in which there is extended contact (more than 10 minutes) between the health-care provider and the client.

Inter-professional health-care team: A team composed of multiple health-care providers (regulated and unregulated) who work collaboratively to deliver comprehensive and quality healthcare and services to people within, between, and across health-care settings (Health Care Innovation Working Group, 2012; RNAO, 2013).

Meta-analysis: A systematic review of randomized controlled trials that uses statistical methods to analyze and summarize the results of the included studies (The Cochrane Collaboration, 2005).

Motivational Interviewing (MI): A collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion (Miller & Rollnick, 2012).

Nicotine Replacement Therapy (NRT): A medication containing nicotine that is intended to promote smoking cessation while preventing exposure to the harms associated with tobacco (Health Canada, 2011). The nicotine patch, gum, lozenge, inhaler, and spray are currently approved for use in Canada.

Nurse: Includes registered nurses, licensed practical nurses (referred to as registered practical nurses in Ontario), registered psychiatric nurses, and nurses in advanced practice roles, such as nurse practitioners and clinical nurse specialists (RNAO, 2013).

Nursing order set: A group of evidence-based interventions specific to the domain of nursing. Nursing order sets are ordered independently by nurses (i.e., without a physician’s signature) to standardize the care provided for a specific clinical condition or situation (in this case, tobacco interventions).

Nursing process: A problem-solving approach to identifying and treating the health issues of clients that includes assessment, planning, implementation, and evaluation (Potter, Perry, Stockert, & Hall, 2014).

Pharmacotherapy: Prescription or over-the-counter cessation aids that assist clients to quit smoking. Over the counter cessation aids include nicotine replacement therapy options, such as the patch, gum, lozenge, inhaler, or spray. Prescription options include bupropion or varenicline (Jiloha, 2014).

Populations disproportionately affected by tobacco: Includes individuals who experience a greater negative effect from tobacco use than the general population, due to the social determinants of health—for example, clients living with a mental health disorder.

Practice recommendation: A statement of best practice directed at health-care providers that enables the successful implementation of a best practice guideline; ideally, practice recommendations are based on evidence.

Psychosocial intervention: A non-pharmacological intervention designed to increase tobacco abstinence rates through strategies such as cognitive-behavioural, motivational, and supportive therapies (Chamberlain et al., 2013).

Qualitative research: Research that uses an interactive and subjective approach to investigate and describe phenomena (e.g., lived experience) and to give them meaning. The nature of this type of research is exploratory and open-ended. Analysis involves the organization and interpretation of non-numerical data (e.g., phenomenology, ethnography, grounded theory, and case study) (Speziale & Carpenter, 2007).

Quality: The degree to which health-care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (The World Alliance for Patient Safety Drafting Group, 2009).

Quasi-experimental study: A study that lacks randomization and a control group and therefore is not considered a “true” experimental design (e.g., a randomized controlled trial). The investigator controls the assignment to the intervention, exposure, or treatment by using a method other than random assignment (e.g., pre–post design) (Polit, Beck, & Hungler, 2001).

Quitline: Telephone-based tobacco cessation services that help tobacco users quit. Services offered by quitlines include coaching and counselling, referrals, mailed materials, training for health-care providers, web-based services, and (in some instances) free medications, such as nicotine replacement therapy. Much research shows that quitlines are highly effective in helping tobacco users quit. Due to their ability to reach and serve tobacco users, regardless of location, quitlines have quickly spread across North America.

Randomized Controlled trial (RCT): An experiment in which the investigator assigns an intervention, exposure, or treatment to participants who are randomly allocated to an experimental group (receives intervention), a comparison group (receives conventional treatment), or a control group (receives no intervention or a placebo) (The Cochrane Collaboration, 2005). The participants are followed and assessed to determine the efficacy of the intervention. Randomized controlled trials include double blind, single blind, and non-blind trials.

Relapse or slip: A relapse refers to a client who has returned to his or her baseline levels of smoking after a period of abstinence. A slip refers to a client who has smoked a cigarette or two after a period of abstinence, but quickly returns to a state of abstinence.

Second-hand smoke: The smoke exhaled by an individual burning a tobacco product, such as a cigarette, cigar, or pipe. There are more than 7,000 chemicals in second-hand smoke, at least 69 of which are known carcinogens (Eriksen et al., 2012).

Smoke-free legislation: Legislation that prohibits or limits the use of tobacco in certain spaces.

Smoking cessation: A process whereby a person who uses tobacco products quits smoking and stops using tobacco products for a minimum of 24 hours.

Social determinants of health: The circumstances, in which people are born, grow up, live, work, and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics (World Health Organization, 2012).

Stakeholder: An individual, group, or organization that has a vested interest in the decisions and actions of organizations and may attempt to influence decisions and actions (Baker, Bankart, & Murtagh, 2009). Stakeholders include all individuals and groups who will be directly or indirectly affected by the change or solution to the problem.

System, organization, and policy recommendation: A statement of conditions required for a practice setting that enable the successful implementation of a best practice guideline. The conditions for success are largely the responsibility of the organization, although they may have implications for policy at a broader governmental or societal level.

Systematic review: A review that “attempts to collate all empirical evidence that fits pre-specified eligibility criteria in order to answer a specific research question” (The Cochrane Collaboration, 2011). A systematic review uses systematic, explicit, and reproducible methods to identify, select, and critically appraise relevant research, and to collect and analyze data from the studies that are included in the review (The Cochrane Collaboration, 2005, 2011).

Third-Hand Smoke (THS): Tobacco smoke contamination that remains after a cigarette is extinguished. Its role in the broader context of tobacco control efforts is still unknown. An international, multidisciplinary expert panel has met and is reviewing and disseminating evidence on THS to knowledge users in science, medicine, public health, and policy (Kaufman et al., 2012).

Train-the-trainer program: A program in which well-informed educators train less experienced educators about content delivery.

Trigger: An activity or emotion that evokes the desire to use tobacco; also called a craving to use tobacco (Zwar, Mendelsohn, & Richmond, 2014).

Varenicline: A prescription non-nicotine smoking cessation aid that is taken orally on a daily basis. The typical duration of treatment is 12 weeks. Varenicline works on the nicotine receptors in the brain to decrease cravings to smoke, while at the same time decreasing the pleasurable effects of nicotine (RNAO, 2007a).

Woman-centred approach: A holistic approach to care that addresses a woman’s physical, spiritual, emotional, cultural, and psychological needs. It places value on the woman’s right to self-determination in terms of choice and control.

Appendix B: Process for Systematic Review and Search Strategy

Guideline Review

The Registered Nurses' Association of Ontario (RNAO) guideline development team's project coordinator searched an established list of websites for guidelines and other relevant content published between 2006 and 2015. This list was compiled based on knowledge of evidence-based practice websites and recommendations from the literature, and included key websites related to tobacco addiction and treatment interventions. Detailed information about the search strategy for existing guidelines, including the list of websites searched and inclusion criteria, is available at www.RNAO.ca. Guidelines were also identified by members of the RNAO expert panel.

Members of the RNAO guideline development team critically appraised six international guidelines using the Appraisal of Guidelines for Research and Evaluation Instrument II (Brouwers et al., 2010). From this review, the following six guidelines were selected to inform the recommendations and discussions of evidence:

1. CAN-ADAPTT. (2011). *Canadian smoking cessation clinical practice guideline*. Toronto, ON: Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment, Centre for Addiction and Mental Health. Retrieved from <http://www.can-adaptt.net>
2. National Institute for Health and Care Excellence (NICE). (2013). *Smoking—harm reduction public health guideline: Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities*. Retrieved from <https://www.nice.org.uk/guidance/ph10/documents/smoking-cessation-services-in-primary-care-pharmacies-local-authorities-and-workplaces-particularly-for-manual-working-groups-pregnant-women-and-hard-to-reach-communities-review-proposal-consultation2>
3. New Zealand Ministry of Health. (2007). *New Zealand smoking cessation guidelines*. Wellington, NZ: New Zealand Ministry of Health. Retrieved from <http://www.moh.govt.nz>
4. Northern Territory Government Department of Health and Families. (2010). *Clinical guidelines for the management of nicotine dependent inpatients*. Darwin, AU: Department of Health, Western Australia. Retrieved from <https://health.nt.gov.au>
5. Royal Australian College of General Practitioners. (2011). *Supporting smoking cessation: A guide for health professionals*. Melbourne, AU: Royal Australian College of General Practitioners. Retrieved from <http://aascp.org.au/health-professionals/resources/guidelines/>
6. U.S. Department of Health and Human Services Public Health Service. (2008). *Treating tobacco use and dependence: Clinical practice guideline, 2008 update*. Retrieved from <http://www.ahrq.gov/path/tobacco.htm#Clinic>

Systematic Review

The RNAO research team and a health sciences librarian developed a comprehensive search strategy based on inclusion and exclusion criteria created with the RNAO expert panel. The team searched the following databases for relevant articles published in English between 2006 and 2015: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Central Register of Controlled Trials (CENTRAL), Cochrane Database of Systematic Reviews (CDSR), Embase, MEDLINE, and PsycINFO. In addition to this systematic search, expert panel members were asked to review their personal libraries for key articles not found in these databases.

Detailed information about the search strategy for the systematic review, including the inclusion and exclusion criteria, as well as search terms, is available online.

Retrieved articles were divided equally between two nursing research associates (NRA), who are nurses holding master's degrees. Each NRA independently assessed the eligibility of the studies according to established inclusion/exclusion criteria. The RNAO's Best Practice Guideline program manager, involved in supporting the RNAO expert panel, resolved disagreements between NRAs.

Quality appraisal scores for 26 articles (a random sample of 10 percent of articles eligible for data extraction and quality appraisal) were independently assessed by each NRA. Acceptable inter-rater agreement (kappa statistic $K=0.88$) justified proceeding with quality appraisal and data extraction, and the remaining studies were again divided equally between the NRAs (Fleiss, Levin, & Paik, 2003). The NRAs also completed a final summary of literature findings. The comprehensive data tables and summary were provided to all RNAO expert panel members for review and discussion.

A complete bibliography of all full-text articles screened for inclusion is available online.



Tobacco Intervention Panel of Experts

Top Row: (L-R) Tiiu Sildva, Tanvi Sharma, Lisa Ye, Jan Johnston, Dr. Patricia Smith, Jennifer Bouwmeester, Tanya Magee, Debbie Aitken, and Dr. Annette Schultz; Bottom Row: (L-R) Jennifer Callaghan, Sheila John, Dr. Shelley Walkerley, Gail Luciano, Dr. Peter Selby, and Claire Gignac; Missing: Jennifer Tiberio, Natalie Hamilton-Martin, and Dr. Catherine Goldie

Appendix C: Guideline Development Process

The Registered Nurses' Association of Ontario (RNAO) has made a commitment to ensure that every BPG is based on the best available evidence. To meet this commitment, a monitoring and revision process has been established for each Guideline every five years.

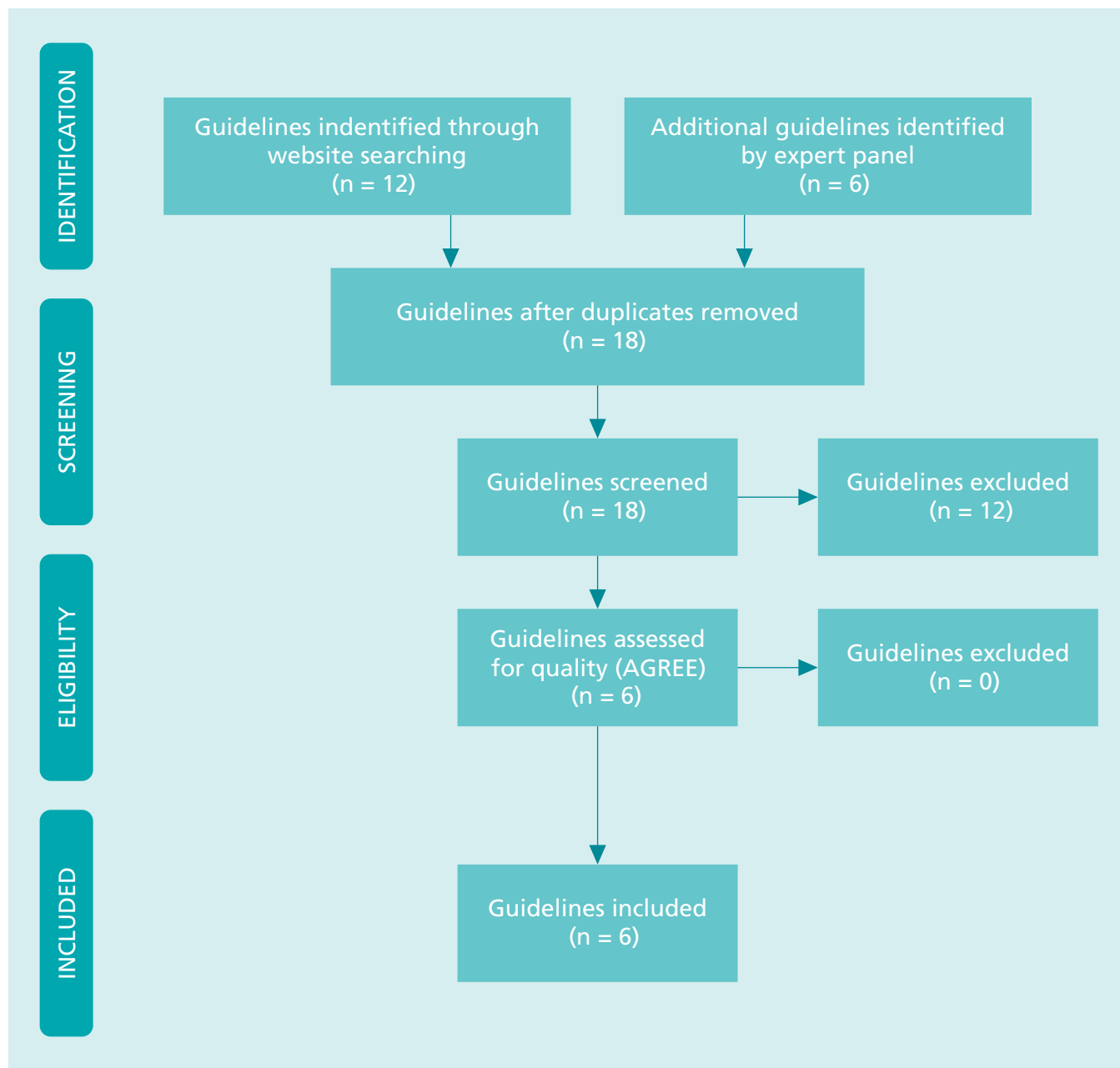
For this Guideline, RNAO assembled a panel of experts who represent a range of sectors and practice areas (see the RNAO Expert Panel section at the beginning of this Guideline). A systematic review of the evidence was based on the purpose and scope, and was supported by the four research questions listed below. The systematic review captured relevant peer-reviewed literature and guidelines published between 2006 and 2015. The following research questions were established to guide the systematic review:

1. In patients who use tobacco, which screening and assessment methods used by health-care professionals are most effective in promoting harm reduction, quit attempts, smoking cessation and preventing relapse?
2. In patients who use tobacco, which treatment and management interventions/strategies used by health-care professionals are most effective in treating tobacco dependence, nicotine withdrawal and promoting harm reduction, smoking cessation and preventing relapse?
3. For health-care professionals, what education is required to deliver effective care for patients regarding tobacco dependency treatment?
4. In healthcare organizations, what systematic approaches and mechanisms support effective uptake of tobacco use and nicotine dependence interventions by health-care professionals?

The RNAO expert panel's mandate was to develop an evidence-based best practice guideline that will provide nurses and other health-care providers with current best practices for engaging clients who use tobacco. The recommendations in this guideline aim to bridge the identified gap between current practice and evidence-based practice.

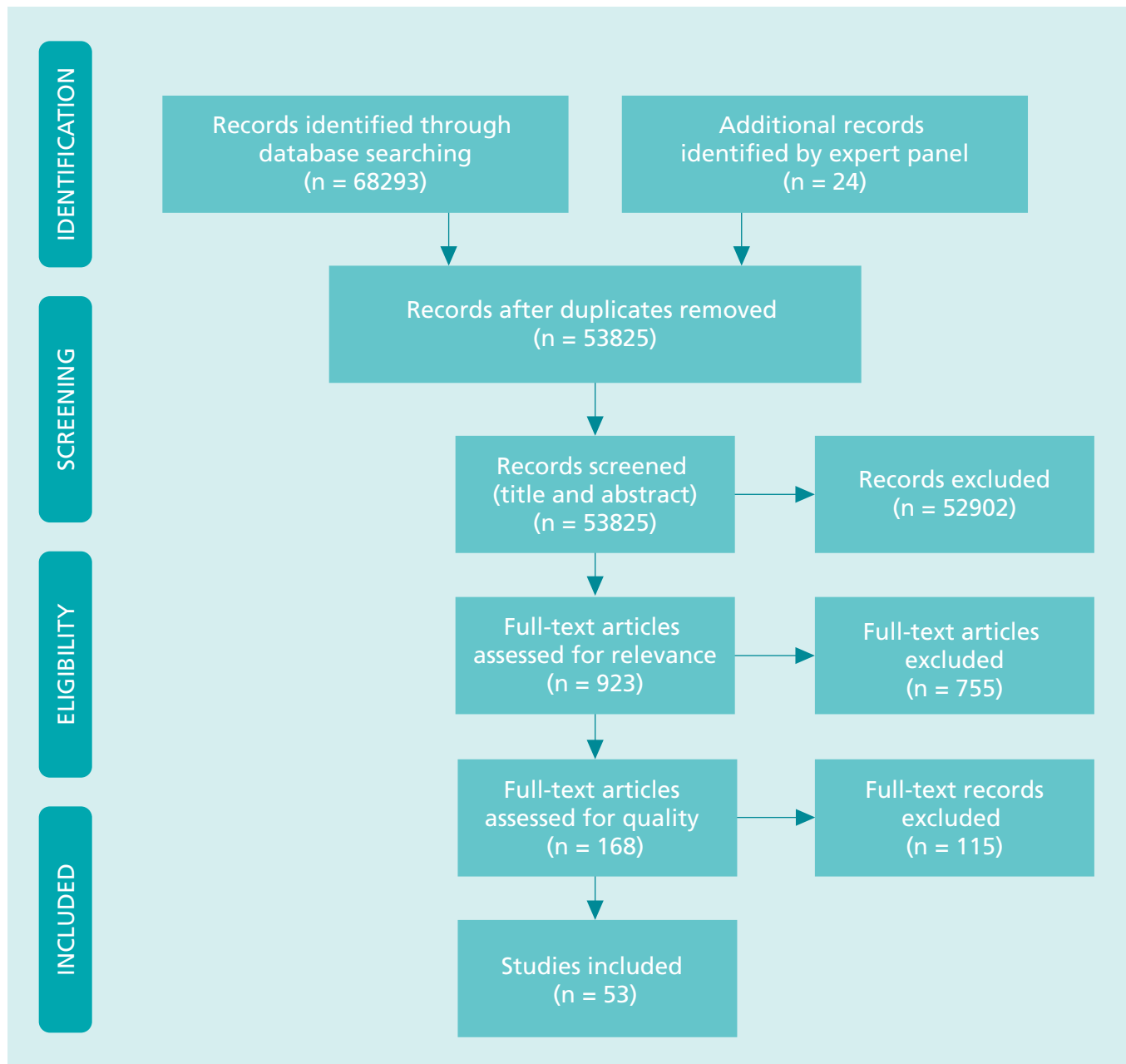
This edition (2017) is the result of the expert panel's work to integrate the most current and best evidence into the recommendations and provide supporting evidence.

Guidelines Review Process Flow Diagram



Flow diagram adapted from Moher, Liberati, Tetzlaff, Altman, and The PRISMA Group (2009).

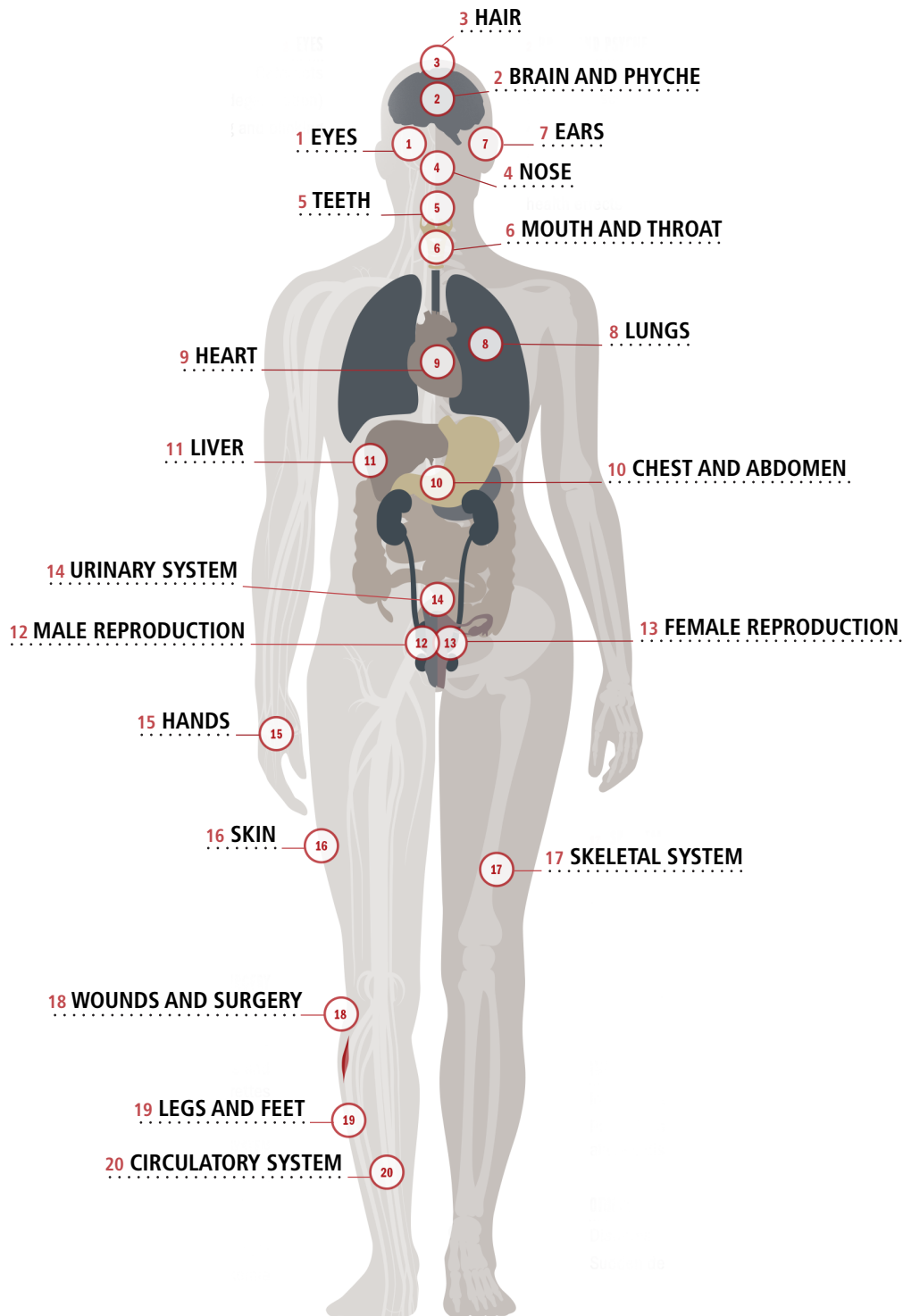
Article Review Process Flow Diagram



Flow diagram adapted from Moher, Liberati, Tetzlaff, Altman, and The PRISMA Group (2009).

Appendix D: Harms from Tobacco

Tobacco causes disease and disability to almost every organ.



Source: Eriksen, Mackay, Schluger, Gomeshtapeh & Drope (2015, p. 18).

1. **Eyes**
Cataracts Blindness (macular degeneration)
Stinging, excessive tearing and blinking
 2. **Brain and Psyche**
Stroke (cerebrovascular accident)
Addiction/withdrawal
Altered brain chemistry
Anxiety about tobacco's health effects
 3. **Hair**
Odor and discoloration
 4. **Nose**
Cancer of nasal cavities and paranasal sinuses
Chronic rhinosinusitis Impaired sense of smell
 5. **Teeth**
Periodontal disease (gum disease, gingivitis, periodontitis)
Loose teeth, tooth loss
Root-surface caries, plaque
Discoloration and staining
 6. **Mouth and Throat**
Cancers of lips, mouth, throat, larynx and pharynx
Sore throat Impaired sense of taste
Bad breath
 7. **Ears**
Hearing loss Ear infection
 8. **Lungs**
Lung, bronchus and tracheal cancer
Chronic obstructive pulmonary disease (COPD) and emphysema
Chronic bronchitis, respiratory infection (influenza, pneumonia, tuberculosis)
Shortness of breath, asthma chronic cough, excessive sputum production
 9. **Heart**
Coronary thrombosis (heart attack)
Atherosclerosis (damage and occlusion of coronary vasculature)
 10. **Chest & Abdomen**
Esophageal cancer
Gastric, colon and pancreatic cancer
Abdominal aortic aneurysm
Peptic ulcer (esophagus, stomach, upper portion of small intestine)
Possible increased risk of breast cancer
 11. **Liver**
Liver cancer
 12. **Male Reproduction**
Infertility (sperm deformity, loss of motility, reduced number)
Impotence
Prostate cancer death
 13. **Female Reproduction**
Cervical and ovarian cancer premature ovarian failure, early menopause
Reduced fertility
Painful menstruation
 14. **Urinary System**
Bladder, kidney, and ureter cancer
 15. **Hands**
Peripheral vascular disease, poor circulation (cold fingers)
 16. **Skin**
Psoriasis
Loss of skin tone, wrinkling, premature aging
 17. **Skeletal System**
Osteoporosis
Hip fracture
Susceptibility to back problems
Bone marrow cancer
Rheumatoid arthritis
 18. **Wounds and Surgery**
Impaired wound healing
Poor post surgical recovery
Burns from cigarettes and from fires caused by cigarettes
 19. **Legs and Feet**
Peripheral vascular disease, cold feet, leg pain and gangrene
Deep vein thrombosis
 20. **Circulatory System**
Buerger's disease (inflammation of arteries, veins and nerves in the legs)
Acute myeloid leukemia
- Immune System**
Impaired resistance to infection
Possible increased risk of allergic diseases
- Others**
Diabetes Sudden death

Appendix E: The Benefits of Quitting Smoking

Within 20 minutes of last cigarette:

- Blood pressure may drop to normal level
- Pulse rate drops to normal rate
- Body temperature of hands and feet increases to normal

Within 8 hours:

- Carbon monoxide level in blood drops
- Oxygen level in blood increases

Within 24 hours:

- May reduce chance of heart attack

Within 48 hours:

- Nerve endings may regrow
- Ability to smell and taste is enhanced

Within 72 hours:

- Bronchial tubes relax; if undamaged, making breathing easier
- Lung capacity increases

2 weeks to 3 months:

- Circulation improves
- Walking becomes easier
- Lung function may increase up to 20 percent

1 month to 9 months:

- Coughing, sinus congestion, fatigue, and shortness of breath may decrease markedly over a number of weeks
- Potential for cilia to regrow in lungs, increasing ability to handle mucous, clean the lungs, and reduce infection

1 year:

- The risk of heart disease is reduced by half. After 15 years, the risk is similar to that of persons who have never smoked

2 years:

- Cervical cancer risk is reduced compared to continuing smokers
- Bladder cancer risk is halved compared to continuing smokers

5 years:

- Lung cancer death rate for average smoker (one pack a day) decreases from 137 per 100,000 to 72 per 100,000
- 5 to 15 years after quitting, stroke risk is reduced to that of someone who has never smoked

10 years and longer:

- Precancerous cells are replaced
- Risk of other cancers—such as those of the mouth, larynx, esophagus, bladder, kidney, and pancreas—decreases
- After long-term quitting, the risk of death from Chronic Obstructive Pulmonary Disease is reduced compared to someone who continues to smoke

Time periods mentioned are to be taken as a general measure only, will naturally vary from individual to individual, and are dependent on length of habit and number of cigarettes smoked.

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Appendix F: Strategies to Avoid Relapse

- Encourage client to identify tempting situations and develop a specific plan to handle them (e.g., write down three strategies and carry this list at all times).
- Reframe a lapse (slip) as a learning opportunity, not a failure.
- Recommend that the client:
 - learn stress management and relaxation techniques; and
 - learn to balance lifestyle so pressures and triggers are not overwhelming.

Common factors associated with relapse include:

- alcohol use
- negative mood or depression
- negative self-talk
- other smokers in household
- prolonged withdrawal symptoms
- exposure to high-risk situations, such as social situations, arguments, and other sources of stress
- dietary restriction
- lack of cessation support
- problems with pharmacotherapy, such as under-dosing, side effects, compliance challenges, or premature discontinuation and
- recreational drug abuse.

Source: Reprinted with permission from University of Toronto Department of Family & Community Medicine. (2000). *Smoking cessation guidelines: How to treat your patient's tobacco addiction*. Toronto, ON: A Pegasus Health-care International Publication.

Appendix G: Tobacco Intervention Resources List

A) Resources for People Who Smoke

Canadian Cancer Society

National Office

55 St Clair Avenue West, Suite 300

Toronto, Ontario, M4V 2Y7

Email: ccs@cancer.ca

Tel: 1-416-961-7223

Website: www.cancer.ca

Offers booklets and self-help resources for individuals who smoke, such as “For smokers who want to quit” and “For smokers who don’t want to quit,” available in English and French.

Smokers’ Helpline

Tel: 1-877-513-5333

Website: www.smokershelpline.ca

Offers evidence-based cessation services free of charge. Highly trained quit coaches offer non-judgmental and personalized support by phone. Service is available in French and English and, through a translator, in more than 100 other languages. SmokersHelpline.ca offers a self-guided quit program and a moderated community of quitters. Ontario clients can text iQUIT to 123456 to receive support by text message. Health-care providers can learn more about how to refer clients at SmokersHelpline.ca/refer

Centre for Addiction and Mental Health—Nicotine Dependence Clinic

175 College Street

Toronto, Ontario, M5T 1P7

Tel: 1-416-535-8501, ext. 34455

Website: www.nicotinedependenceclinic.com

Operates a Smoking Cessation Clinic and offers training for health practitioners through the Training Enhancement in Applied Cessation Counselling and Health program (TEACH).

Health Canada

Tobacco Control Programme Postal Locator: 0301A

Ottawa, Ontario, K1A 0K9

Tel: 1-866-318-1116

Fax: 1-613-952-5188

Email: TCP-PLT-questions@hc-sc.gc.ca

Website: www.gosmokefree.ca

The website contains a variety of new tools to help Canadians quit smoking. People who smoke can sign up with the e-Quit program for a 30-day series of free email messages to help them through the cessation process.

Heart and Stroke Foundation of Canada

110-1525 Carling Ave.

Ottawa, Ontario, K1Z 8R9

Tel: 1-613-727-5060

Fax: 613-727-1895

Email: info@hsf.ca

Website: <http://www.heartandstroke.ca/>

Heart & Stroke is a leading funder of life-saving research, which has led to breakthroughs such as heart transplant surgery and a revolutionary stroke treatment that cuts the death rate by 50 percent.

Leave The Pack Behind

Brock University, Niagara Region

1812 Sir Isaac Brock Way, Plaza 514

St. Catharines, Ontario, L2S 3A1

Tel: 1-905-688-5550, ext. 4992

Email: ltpboffice@brocku.ca

Website: www.LeaveThePackBehind.org

This tobacco control program offers young adults smoking and quitting information, personalized support, and quitting resources funded by the Government of Ontario.

Prevention of Gestational and Neonatal Exposure to Tobacco Smoke (PREGNETS)

Website: www.pregnets.org

Improves the health of mothers and their babies by offering information, resources, and support to pregnant and postpartum women and their health-care providers.

Canadian Lung Association

National Office

1750 Courtwood Crescent, Suite 300

Ottawa, Ontario, K2C 2B5

Tel: 1-888-566-LUNG (5864)

Email: info@lung.ca

Website: www.lung.ca

Ontario Lung Association Branch

18 Wynford Drive, Suite 401

Toronto, Ontario, M3C 0K8

Tel: 1-888-566-LUNG (5864)

Email: info@on.lung.ca

Website: www.on.lung.ca

Promotes lung health, and helps people prevent and manage lung disease by funding vital research, pushing for improved treatments and smarter policies, and supporting patients in managing their health.

B) Resources for Health-Care Professionals

Best Start—Tobacco Misuse Resources

180 Dundas Street West, Suite 301
Toronto, Ontario, M5G 1Z8
Tel: 1-416-408-2249 or 1-800-397-9567
Fax: 1-416-408-2122
Email: beststart@healthnexus.ca
Website: www.beststart.org

A component of the Best Start Resource Centre, a key program of Health Nexus, which is a bilingual health promotion organization that works with diverse partners to build healthy, equitable, and thriving communities. The Best Start Resource Centre supports service providers who work in preconception health, prenatal health, and early child development.

Physicians for a Smoke-Free Canada (PSC)

134 Caroline Avenue
Ottawa, Ontario, K1Y 0S9
Tel: 1-613 297 3590
Fax: 1-613-728-9049
E-mail: psc@smoke-free.ca
Website: www.smoke-free.ca

A national organization of Canadian physicians who share one goal: the reduction of tobacco-caused illness through reduced smoking and reduced exposure to second-hand smoke. PSC also provides information on a variety of tobacco issues.

Centre for Addiction and Mental Health—Ontario Tobacco Research Unit (OTRU)

33 Russell Street
Toronto, Ontario, M5S 2S1
Tel: 1-416-595-6888
Fax: 1-416-595-6068
Email: info@otru.org
Website: www.otru.org

An Ontario-based research network that is recognized as a Canadian leader in tobacco control research, monitoring and evaluation, teaching and training, and as a respected source of science-based information on tobacco control.

Program Training and Consultation Centre (PTCC)

c/o Cancer Care Ontario
505 University Avenue, 16th Floor
Toronto, Ontario, M5G 2L7
Tel: 1-800-363-7822
Email: admin@ptcc-cfc.on.ca
Website: www.ptcc-cfc.on.ca

Provides training and consultation services in Ontario to implement effective community-based tobacco use reduction strategies.

Registered Nurses' Association of Ontario (RNAO)

158 Pearl Street
Toronto, Ontario, M5H1L3
Tel: 416-599-1925 or 1-800-268-7199
Fax: 416-599-1926
Website: www.tobaccofreernao.ca

Offers workshops, webinars, and e-learning courses to help educate health professionals about smoking cessation interventions.

Centre for Addiction and Mental Health— Training Enhancement in Applied Cessation Counselling and Health (TEACH)

175 College Street, 3rd Floor
Toronto, Ontario, M5T 1P7
Tel: 1-416-535-8501, ext.31600
Email: teach@camh.ca

Website: www.nicotinedependenceclinic.com/English/teach/Pages/Home.aspx
Trains practitioners in tobacco cessation interventions.

Centre for Addiction and Mental Health—The Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment (CAN-ADAPTT)

175 College Street
Toronto, Ontario, M5T 1P7
Email: can_adaptt@camh.net
Website: www.nicotinedependenceclinic.com/English/CANADAPTT/Pages/Home.aspx

A Practice-Based Research Network (PBRN) facilitating research and knowledge exchange among practitioners, researchers, and policy-makers in the area of smoking cessation.

You Can Make It Happen

Website: youcanmakeithappen.ca

A comprehensive source of information, tools, and resources about tobacco cessation for health-care providers, provided by public health units and Smokers' Helpline.

C) International Resources

Association for the Treatment of Tobacco Use and Dependence (ATTUD)

Website: www.attud.org

An organization of providers dedicated to the promotion of and increased access to evidence-based tobacco treatment for the tobacco user.

Centers for Disease Control and Prevention (CDC)

1600 Clifton Road

Atlanta, Georgia, 30329-4027

USA

Tel: 1-800-CDC-INFO (1-800-232-4636); TTY: 1-888-232-6348

Website: www.cdc.gov/tobacco/index.htm

World Health Organization (WHO)—Tobacco Free Initiative (TFI)

WHO Prevention of Noncommunicable Diseases (PND)

20 Avenue Appia

1211 Geneva 27

Switzerland

Tel: +41 22 791 4426

Fax: + 41 22 791 4832

Email: tfi@who.int

Website: www.who.int/tobacco/research/cessation/en

Appendix H: Fagerström Test for Nicotine Dependence (Revised)

The following test is designed to help you determine the strength of your nicotine addiction. Circle the appropriate score for each question. Total the number of points to arrive at your score.

The highest possible score is 10.

How soon after you wake up do you smoke your first cigarette?

- Within 5 min 3 points
- 5–30 min 2 points
- 31–60 min 1 point
- After 60 min 0 points

Do you find it hard not to smoke in places that you shouldn't smoke, such as at church, in school, in a movie, on the bus, in court, or in a hospital?

- Yes 1 point
- No 0 points

Which cigarette would you hate most to have to give up?

- The first one in the morning 1 point
- Any other one. 0 points

How many cigarettes do you smoke each day?

- 10 or fewer 0 points
- 11–20 1 point
- 21–30 2 points
- 31 or more 3 points

Do you smoke more in the first few hours after waking than you do during the rest of the day?

- Yes 1 point
- No 0 points

Do you still smoke, even if you are so sick that you are in bed most of the day, or if you have the flu or a severe cough?

- Yes 1 point
- No 0 points

TOTAL _____ points

Interpretation of Scoring

7 to 10: You have a high dependence on nicotine and may benefit from a smoking cessation program based on treatment for nicotine addiction. Start with 21 mg patch or 4 mg gum.

4 to 6: You have a moderate dependence on nicotine; however, this does not rule out a smoking cessation program based on treatment for nicotine addiction. Start with 14 mg patch or 2 mg gum.

< 4: You have a low dependence on nicotine, but are not likely to need nicotine replacement therapy (NRT).

Source: Reprinted with permission from Dr. Karl Fagerström.

Appendix I: STOP Program: Sample Nicotine Replacement Therapy (NRT) Algorithm

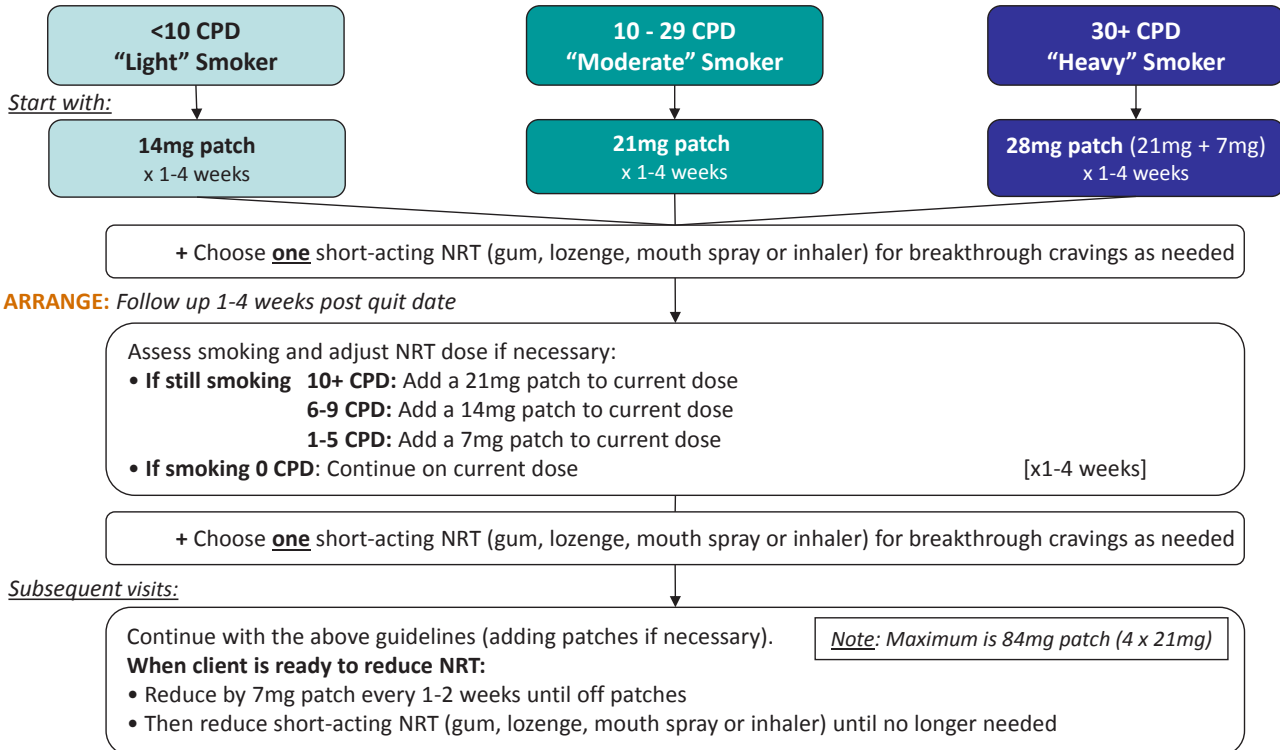
STOP Program: Sample Nicotine Replacement Therapy (NRT) Algorithm



ASK: How many Cigarettes do you smoke Per Day (CPD)?

ADVISE/ASSESS: Instruct the client to quit smoking on their target quit date, or reduce CPD by 50% by the next visit (if no quit date).

ASSIST:



These are only guidelines. Practitioners should use their clinical judgment on a case-by-case basis. Maximum length of treatment is 26 weeks through the STOP Program.

Source: Selby, P. (2016). *STOP Program: Sample Nicotine Replacement Therapy (NRT) Algorithm*. Centre for Addiction and Mental Health: Nicotine Dependence Service.

Appendix J: Training Programs for Health-Care Providers

- The **Registered Nurses' Association of Ontario (RNAO)** offers workshops, webinars, and e-learning courses to help educate health-care providers about smoking cessation best practices and interventions

www.RNAO.ca/bpg/initiatives/nursing-best-practice-smoking-cessation-initiative

www.tobaccofreernaο.ca
- The **Program Training and Consultation Centre (PTCC)** is a resource centre of the Smoke-Free Ontario Strategy. PTCC provides training and technical assistance to health-care providers working in tobacco control in Ontario through workshops, webinars, and resources. PTCC works closely with Tobacco Control Area Networks (TCAN) and public health units across Ontario.

www.ptcc-cfc.on.ca
- The **Canadian Mental Health Association (CMHA)** offers interactive workshops on principles, skills, and methods of motivational interviewing (MI).

www.ottawa.cmha.ca/programs-services/motivational-and-advanced-interviewing-training/#.WBtgmforLcs
- The **Centre for Addiction and Mental Health (CAMH)** provides courses and training, such as a comprehensive Training Enhancement in Applied Cessation Counselling and Health (TEACH) program. TEACH aims to enhance the knowledge and skills of health-care providers in public, private, and non-profit sectors who provide counselling to clients and intensive tobacco cessation interventions.

www.teachproject.ca
- The **Ontario Tobacco Research Unit (OTRU)** is a tobacco control research, monitoring, and evaluation centre that provides teaching, training, and evidence-based information on tobacco control.

www.otru.org
- **You Can Make It Happen** is a comprehensive source of information, tools, and resources about tobacco cessation for health-care providers, provided by public health units and Smokers' Helpline. They provide links to training opportunities, such as brief contact interventions, intensive interventions, and motivational interviewing.

www.youcanmakeithappen.ca

Appendix K: Description of the *Toolkit*

Toolkit: Implementation of Best Practice Guidelines

Best practice guidelines can only be successfully implemented if there are adequate planning, resources, organizational support, and administrative support, as well as appropriate facilitation. RNAO, through a panel of nurses, researchers, and administrators, has developed the *Toolkit: Implementation of Best Practice Guidelines*, based on available evidence, theoretical perspectives, and consensus. The *Toolkit* is recommended for guiding the implementation of any clinical practice guideline in a health-care organization.

The *Toolkit* provides step-by-step directions to individuals and groups involved in planning, coordinating, and facilitating guideline implementation. Specifically, the *Toolkit* addresses the following key steps:

1. Identify a well-developed, evidence-based clinical practice guideline.
2. Identify, assess, and engage stakeholders.
3. Assess environmental readiness for guideline implementation.
4. Identify and plan evidence-based implementation strategies.
5. Plan and implement evaluation.
6. Identify and secure required resources for implementation.

Implementing guidelines in practice that result in successful practice changes and a positive clinical impact is a complex undertaking. The *Toolkit* is one key resource for managing this process.

The *Toolkit* is available through the Registered Nurses Association of Ontario (RNAO). The document is available in a bound format for a nominal fee, and is available free of charge from the RNAO website. For more information, an order form, or to download the *Toolkit*, please visit the RNAO website at www.RNAO.ca.

Endorsements



Centre for Addiction and Mental Health
100 Stokes Street
Toronto, ON M6J 1H4
www.camh.ca

Centre de toxicomanie et de santé mentale
100, rue Stoke
Toronto, ON M6J 1H4
www.camh.ca/fr

February 1, 2017

Dr. Doris Grinspun RN, MSN, PhD, LLD (hon), O.ONT.
Chief Executive Officer
Registered Nurses' Association of Ontario (RNAO)
158 Pearl Street
Toronto, Ontario
M5H 1L3

Dear Dr. Grinspun,

The Centre for Addiction and Mental Health (CAMH) is pleased to announce that CAMH will be endorsing RNAO's evidence-based clinical Best Practice Guideline entitled: *Integrating Tobacco Interventions into Daily Practice*.

CAMH, Canada's largest mental health and addiction teaching hospital and internationally renowned research centre, strongly advocates for those impacted by addiction and mental health issues. We share RNAO's dedication to helping nurses and other health professionals assist clients who use tobacco and provide the necessary resources to help them on their quit journey. Our acclaimed Training Enhancement in Applied Cessation Counselling and Health (TEACH) Project has successfully provided direct tobacco intervention training to thousands of health-care professionals. Additionally, our Nicotine Dependence Clinic and STOP Program have provided critical resources and support to clients who use tobacco, including nicotine replacement therapy. This directly aligns with the recommendations outlined in this guideline.

It is critical that health professionals are armed with the knowledge and skills to intervene and support clients who use tobacco. This guideline will prove invaluable to health professionals, clients who use tobacco, and even further, those many individuals affected globally by tobacco use.

We commend the hard work that was put into this guideline from all of the contributors and understand the importance of this document to further enhance the role of health professionals in tackling one of the most substantial *health challenges* of our time.

Sincerely,

A handwritten signature in black ink, appearing to read 'Catherine Zahn', with a long horizontal line extending to the right.

Catherine Zahn, MD, FRCPC(C)
President and CEO



Canadian Cancer Society
Société canadienne du cancer

February 8, 2017

Dr. Doris Grinspun RN, MSN, PhD, LLD (hon), O.ONT.
Chief Executive Officer
Registered Nurses' Association of Ontario (RNAO)
158 Pearl Street
Toronto, ON
M5H 1L3

Dear Dr. Grinspun,

On behalf of the Canadian Cancer Society, I am delighted to offer our endorsement of the Registered Nurses' Association of Ontario's (RNAO) evidence-based clinical best practice guideline entitled: *Integrating Tobacco Interventions into Daily Practice*.

The Canadian Cancer Society is the national leader in fighting cancer. Our mission is the eradication of cancer and the enhancement of the quality of life of people living with cancer. As tobacco use is a major and direct cause of cancer, we are therefore united in our fight against tobacco use. The collaboration between Canadian Cancer Society and RNAO is strengthened by our joint participation in the Smoke Free Ontario strategy, through programs such as Smokers' Helpline, which provides supports and resources to clients and their families around tobacco use.

The third edition of the RNAO guideline will support organizations and health-care providers to identify the importance of assessing and intervening with clients who use tobacco. Our collective efforts across Canada are making a difference. RNAO's work on tobacco intervention will greatly contribute to assisting health-care providers in supporting clients to quit and reduce tobacco use.

Congratulations on your superb work!

With warm regards,

A handwritten signature in black ink, appearing to read 'Mark Heffly'.

Mark Heffly
Executive Director
Canadian Cancer Society, Ontario

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UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA

January 31, 2017

Dr. Doris Grinspun RN, MSN, PhD, LLD (hon), O. ONT.
Chief Executive Officer
Registered Nurses' Association of Ontario (RNAO)
158 Pearl Street, Toronto, Ontario, M5H 1L3

Dear Dr. Grinspun,

We are delighted to endorse the Registered Nurses' Association of Ontario's (RNAO) guideline: *Integrating Tobacco Interventions into Daily Practice*. The University of Ottawa Heart Institute consistently establishes and maintains new standards of clinical care, in order to develop further knowledge of heart disease, and contribute to the world's evidence base of cardiovascular knowledge. The Ottawa Model for Smoking Cessation (OMSC) was created to address the need to develop practices to ensure smoking cessation support is systematically, seamlessly, and consistently provided to all suitable patients and incorporated as part of routine care.

RNAO's vision for the Tobacco Intervention Initiative strongly aligns with the OMSC, a model which has been identified as a Leading Practice by Accreditation Canada. Both programs endeavour and succeed to increase the rates at which health-care providers advise and assist smokers to quit, improve long-term smoking abstinence rates, and premature risk of death. The development of this guideline, with the strategic involvement of many health-care experts and stakeholders from varying fields and key partner organizations, has resulted in unified recommendations and practical steps for health-care providers to follow when addressing tobacco use.

Clinical best practice guidelines emphasize the importance of interdisciplinary collaboration, transparency, partnerships, and patient-centeredness, and in the case of smoking cessation: providing personalized care that inspires positive behavioural changes related to clients who smoke. This RNAO guideline will greatly influence nurses, educators, health-care organizations and most importantly: patients themselves.

Yours sincerely,

Andrew Pipe, CM, MD, LLD(Hon), DSc(Hon), Dip Sport Med, CCFP (SEM)
Professor, Faculty of Medicine, University of Ottawa
Chief, Division of Prevention of Rehabilitation, University of Ottawa Heart Institute
For:

Dr. Thierry Mesana, MD, PhD, FRCSC
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INTERNATIONAL
AFFAIRS & BEST PRACTICE
GUIDELINES

TRANSFORMING
NURSING THROUGH
KNOWLEDGE

Clinical Best
Practice Guidelines

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Registered Nurses' Association of Ontario
L'Association des infirmières et infirmiers
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