

Effective Smoking Cessation Strategies in Primary Care: A Rapid Review of the Evidence

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Key Take Home Messages

High quality evidence shows that:

- The most effective strategy to achieve tobacco abstinence is a combination of counselling and pharmacotherapy; this approach includes treatment administration shared by health care practitioners from various disciplines.
- Tobacco addiction should be viewed as a chronic disease and primary care practitioners need to be vigilant in following smokers and former smokers.
- Peel Public Health can expand its reach of smoking cessation services by developing a physician outreach strategy for smoking cessation.

Executive Summary

Research Question

What are effective smoking cessation strategies used by primary care physicians that lead to successful quit periods of at least six months?

Context

Smoking remains the single largest preventable cause of disease and premature death. Currently in Peel Region, approximately 15% of the population or 170,500 individuals, aged 15 years and older, are smokers (1). Peel Public Health's Strategic Plan includes *Living Tobacco-Free* as one of the four program priorities. Peel Public Health has an excellent relationship with the approximately 831 primary care providers in the region and is interested in partnering with them to expand the reach of cessation services.

Methods

- A systematic search strategy was used to identify twelve guidelines relevant to the PICOT question.
- Relevance of the guidelines was determined by considering inclusion and exclusion criteria.
- The remaining three guidelines were independently appraised using the AGREE II tool to determine strength of evidence; two were rated as high and one as moderate.

Key Findings

- Tobacco addiction should be treated as a chronic disease with a lifelong risk of relapse.
- Providing both counselling and pharmacotherapy together is the most effective strategy to achieve tobacco abstinence and is supported by all three guidelines.

- Practical and supportive counselling offered in a variety of formats is effective. There is a solid association between the time spent counselling a person and their chance of quitting smoking.
- More than one type of pharmacotherapy should be offered in combination, if appropriate, and over an extended period.
- Choose the most appropriate treatment course based on clinical circumstances rather than on relative treatment effectiveness.

Recommendations

- Build a physician outreach strategy that includes:
 - the most effective smoking cessation intervention for primary care: counselling plus pharmacotherapy.
 - promotion of specific guideline recommendations regarding pharmacotherapy and counselling.
 - recommendations from previous rapid reviews: *Communicating with Physicians to Influence Practice: A Rapid Review of the Evidence (2)* and *Learning Concepts in Workforce Development of Public Health Professionals: A Literature Review (3)*.
 - the involvement of local and provincial physicians to develop an implementation plan.
 - an increase in physician utilization of tobacco-related billing codes.
 - optimal use of electronic medical records to assist physician cessation practice.

1 Issue

Smoking remains the single largest preventable cause of disease and premature death. It is responsible for 30% of all cancer deaths. Smokers have a 70% greater chance of dying from coronary heart disease than non-smokers.

Currently in Peel Region, approximately 15.5% (1) of the population, aged 15 years and older, are smokers. Thus, more than 170,500 individuals are at an increased risk of tobacco-related illness. Peel Public Health's Strategic Plan includes *Living Tobacco-Free* as one of the four program priorities.

One of the three pillars of the strategy is smoking cessation, the other two being protection and prevention. Peel Public Health has an excellent relationship with the 831 primary care physicians in the region and is interested in partnering with them to expand the reach of cessation services. This rapid review explores the question of effective primary care strategies for smoking cessation.

2 Context

Difficulty quitting smoking stems from an addiction rather than a lifestyle choice. Nicotine is one of the most addictive substances in existence (4). It is important for primary care practitioners to recognize and treat tobacco dependence as a chronic disease and remember that a person remains vulnerable to relapse for life. It should be stressed to patients that there are health benefits from quitting despite frequency and duration of tobacco use (4).

When surveying Peel smokers in 2007/08 (Table 1) (1):

- A large proportion of Peel smokers were thinking about quitting in the next six months and about half had tried to quit in the past twelve months.
- There was an average of four quit attempts among Peel smokers for at least twenty four hours in the past twelve months.

When surveying Ontario smokers in 2003 (Table 2) (5) :

- Approximately 92% of Ontario smokers had a regular medical doctor.
- The majority of Ontario smokers (daily and occasional) had visited their regular medical doctor in the past year.
- Approximately 96% of Ontario smokers (daily and occasional) had a physician who was aware of their smoking status.
- About 70% of these smokers had a doctor advise them to quit in the past year.
- Approximately 44% of these smokers received specific help or information to quit smoking from their doctor.

The goal of this report is to provide the evidence and recommendations required for effective cessation interventions to be carried out in primary care settings, which ultimately increases the number of smokers receiving help.

Table 1. Quitting Intentions and Behaviours of Current Smokers (daily and occasional)[†], by Sex, Peel 2007/2008

	Male	Female	Total
	Per cent (95% confidence interval)		
Thinking of quitting in next 6 months	61.9 (50.6-72.1)	59.5 (47.5-70.5)	61.2 (52.7-69.0)
Thinking of quitting in next 30 days [‡]	39.7 (28.2-52.5)	41.4* (24.7-60.2)	40.2 (30.4-50.8)
Tried to quit in past year	53.1 (42.8-63.2)	43.6 (32.0-55.9)	49.9 (41.9-57.9)
	Mean (95% confidence interval)		
Number of quit attempts (≥24 hrs) in past year	4.0 (3.0-5.0)	3.1* (1.9-4.4)	3.8* (2.9-4.6)

Notes:

* use with caution.

† a current smoker is a person who currently smokes daily or occasionally, has smoked at least 100 cigarettes in their lifetime and some in the past 30 days.

‡ only among smokers who were seriously considering quitting in the next 6months.

Source: (1)

Table 2. Interactions Between Current Smokers (daily and occasional)* and their Doctors, Ontario, 2003

	Current Smoker*	Non-smoker	Total
	Per cent (95% confidence interval)		
Have a regular medical doctor	88.5 (87.4-89.5)	92.7 (92.2-93.1)	91.8 (91.4-92.3)
Visited their regular medical doctor in the past year**	70.3 (60.5-78.6)		
Doctor knows that they smoke[†]	95.6 (90.8-98.0)		
Doctor advised them to quit smoking in the past year[‡]	69.6 (59.5-78.2)		
Doctor gave them specific help or information to quit smoking in the past year[‡]	43.6 (34.0-53.6)		

Notes:

* a current smoker is a person who currently smokes daily or occasionally, has smoked at least 100 cigarettes in their lifetime and some in the past 30 days.

** includes only those who report having a regular medical doctor.

† includes only those who report visiting their regular medical doctor in the past year.

‡ includes only those whose doctor knows that they smoke.

Sources: (1); (5)

In the Region of Peel, cessation services have been provided by Peel Public Health as well as primary care practitioners. Peel Public Health Cessation Clinics, until the end of January 2011, had four staff members working in the clinics for a total of 2.5 FTE, at an annual cost of \$280,000. A review of utilization of the last twelve months of these clinics revealed that a maximum of twenty smokers were being seen per week. This was of concern because it was very low reach for Peel's 170 500 smokers.

The Region of Peel Council has set *Tobacco Free Living* as one of the Term of Council Priorities for 2011 to 2014. Their desired outcome is to reduce smoking prevalence and exposure to second-hand smoke. They support the implementation of new strategies including launching a cessation program in primary care.

The Province of Ontario has developed a number of supports for smoking cessation in primary care. Since 2005 the Stop Study has provided free medication and counselling to aid in cessation efforts. It is administered by the Centre for Addiction and Mental Health (CAMH) and funded primarily through the Ministry of Health Promotion and Sport.

As of Spring 2011, the Ministries of Health and Long-Term Care and Health Promotion and Sport are providing nicotine replacement therapy and expert counselling through Family Health Teams (FHTs) at no cost to the smoker. Although these services may be available through select Public Health Units, Community Health Centres, Aboriginal Health Access Centres, pharmacies and hospitals, the goal is to increase smoking cessation over the next two years through a broader reach.

The Ottawa Model for Smoking Cessation in Primary Care is a program that provides primary care practices with training, patient and provider tools, follow-up patient support, and the collection of performance data. It is complementary to the free NRT and counselling training for FHTs described above.

In Peel, we currently have six FHTs: Wise Elephant, Queen Square Doctors, Central Brampton and North Peel in Brampton, and Summerville and Credit Valley in Mississauga. These FHTs serve over 100,000 patients.

Financial incentives exist for primary care physicians to provide smoking cessation services. Physicians who are most responsible for the patient are allowed to bill three codes related to smoking cessation: E079, K039 and Q042. E079 is used once per patient, per twelve month period for the initial smoking cessation consultation and is an add-on code that must be used in conjunction with one of a number of other eligible codes (assessments). K039 can be billed twice in following-up with the patient in the twelve months after use of E079 but can only be billed by the physician who originally used the E079 code for that patient. Q042 is an additional fee code to be used by physicians who participate in eligible patient enrolment models for providing smoking cessation counselling to enrolled patients. As an additional incentive, as of October 2010, family practitioners who are funded through a blended capitation model will receive 100% of their billings for these codes as they are considered “out of basket” of primary care services as opposed to “in basket” codes which are paid at 15%.

Utilization of the three smoking cessation billing codes by general practice physicians for the two Local Health Integration Networks (Central West and Mississauga Halton) in the Region of Peel in 2009 shows that approximately half or fewer general practice physicians in Peel are using the initial visit for smoking cessation code and fewer than half of those are billing the follow-up code (6). There is potential for increased use of these codes to help provide smokers with effective therapies to help counter the substantial threat to health from smoking.

Table 3: Use of Smoking Cessation Billing Codes by Physician and for Patient Visits in 2009

Local Health Integration Network GP Physicians (#)		Initial visit for smoking cessation (billing code: E079)	Follow-up visit for smoking cessation (billing code: K039)	Additional fee for physicians in eligible patient enrolment models (billing code: Q042)
Central West (530)	GP Physicians (#)*	221	100	56
	Patient visits (#)	6118	893	526
Mississauga Halton (853)	GP Physicians (#)*	435	170	109
	Patient visits (#)	13587	2363	1283
Ontario Total (24 358)	GP Physicians (#)*	6177	2653	1600
	Patient visits (#)	200965	39555	26716

Notes: *Physicians were only counted once

Source: (6), (7)

Recently, concerns have arisen regarding the impact of varenicline on the cardiovascular system, particularly for people with pre-existing cardiovascular disease. The events of concern include heart attack, stroke, disturbances of heart rhythm, congestive heart failure and death. Health Canada is currently reviewing this medication and directs smokers to discuss appropriate treatment options with their physician. Health Canada (8) and The U.S. Food and Drug Administration (9) state that “the risk for patients with cardiovascular disease was found to be 2%, compared to 1% for those taking no drug” based on a randomized, double-blind, placebo-

controlled clinical trial, published in 2010, involving 700 smokers with cardiovascular disease (10).

A meta-analysis published in the Canadian Medical Association Journal on 4 July 2011 reviewed 14 double-blind randomized controlled trials (including the above-mentioned trial) which included a total of 8216 individuals taking either varenicline or placebo (11). 1.06% (52/4908) of varenicline users had an event versus 0.82% (27/3308) of placebo users; Peto odds ratio 1.72, 95% confidence interval 1.09-2.71; $I^2 = 0\%$. Due to the small number of deaths, no conclusions were reached regarding mortality. The European Medicines Agency (12) identified a number of limitations to this meta-analysis: there was a low number of events seen, the types of events counted, the greater drop-out rates of placebo users, and lack of information regarding the timing of events. Although the agency lists the exclusion of studies in which no one had an event as a limitation, we note this as inconsistent with Singh, S., et al. (11) which does state that studies reporting no cardiovascular events were included. This agency concluded that there is a “positive benefit-risk balance” for use of varenicline.

Varenicline use has also been associated with the occurrence of neuropsychiatric side effects, including depressed mood, thoughts of harm to self and others, agitation, hostility and behavioural changes. Health Canada endorsed a safety announcement from Pfizer (13) stating that of the 708 534 varenicline prescriptions filled in Canada between April 2007 and 30 April 2008, 226 Canadian cases of neuropsychiatric adverse events were reported. Prescribers are encouraged by Health Canada to consider these potential drug effects and closely monitor patients for whom these drugs are prescribed.

3 Research Question

The research question for the current literature review is: “What are the effective smoking cessation strategies used by primary care physicians that lead to successful quit periods of at least six months?” This question was placed within the context of all cessation approaches in a conceptual model which is presented in appendix A.

The research question can be described in the PICOT format, as follows:

P (Population)	Smokers (of all ages)
I (Intervention)	Effective smoking cessation strategies used by primary care physicians
C Comparison)	No intervention
O (Outcome)	Smoking cessation
T (Time)	Cessation for six months

4 Search Strategy

Due to the large body of research for this question, we restricted the search to guidelines. Our systematic search was led by our librarian. The following clinical practice guideline websites were searched using the term “smoking cessation”: Agency for Healthcare Research and Quality, Royal Australian College of General Practice, CAN-ADAPTT, the CDC Guide to Community Preventative Services, National Institute for Health and Clinical Excellence Public Health Guidance, Ontario College of Family Physicians, Registered Nurses Association of Ontario and the World Health Organization. The search resulted in twelve clinical practice guidelines.

Of the twelve guidelines found, one was a duplicate and eight did not satisfy our inclusion and/or exclusion criteria. We critically appraised the remaining three guidelines.

4.1 Inclusion, Exclusion and Relevance Criteria

Inclusion Criteria: all languages, any country, publication date of 2008 or later, any age group, any cultural group, focus on primary care interventions, guidelines including evidence from randomized controlled trials, cessation for six months or longer.

Exclusion criteria: duplicates, position papers, systematic reviews or lower in the evidence hierarchy, different primary care setting i.e. from a demographically different country, specific populations i.e. pregnant women, guidelines offering too limited a range of strategies.

Relevance Criteria: relevant to the PICOT question: focus on primary care interventions and includes studies that have cessation for six months or longer as an outcome measure.

5 Critical Appraisal

5.1 Critical Appraisal Tool

The AGREE2 tool was used to critically appraise the guidelines. Three were appraised as moderate quality or greater. Please see table 4 for the results summary of the three independent reviews. The AGREE2 tool does not provide a classification of scores to designate an overall quality rating; this is left to the reviewers. We have designated a score of one or two as low, three through five as moderate, and six or seven as high.

Table 4: AGREE2 Critical Appraisal Results

The guidelines are:

Guideline	Scope & Purpose	Stakeholder Involvement	Rigour of Development	Clarity of Presentation	Applicability	Editorial Independence	Overall Quality
NICE, 2008	89%	89%	97%	81%	89%	61%	6 (High)
CAN-ADAPTT, 2008	93%	80%	42%	94%	6%	53%	4 (Moderate)
U.S. Department of Health, 2008	100%	94%	92%	100%	68%	81%	6.6 (High)

5.2 Clinical Practice Guideline #1:

- National Institute for Health and Clinical Excellence, *Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities*, February 2008.

5.3 Clinical Practice Guideline #2

- The Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment (CAN-ADAPTT), Drugs and Tobacco Initiatives Program, Health Canada, *Dynamic Guidelines for Tobacco Control in Canada Version 1.0*, August 2008.

5.4 Clinical Practice Guideline #3

- U.S. Department of Health and Human Services, Public Health Service, *Treating Tobacco Use and Dependence*, 2008.

6 Synthesis of Findings

A data extraction table is presented in appendix C. The Canadian guideline is based on five other guidelines, one of which is the U.S. guideline, which we decided to independently critically appraise as the Canadian guideline was appraised as moderate quality. All three guidelines provide congruent recommendations; the U.S. guideline comments that other published guidelines and analyses from a variety of sources provide essentially consistent findings. The U.S. guideline stresses that tobacco dependence should be treated as a chronic disease and not treating tobacco dependence would mean failing to meet the standards of clinical practice. This guideline also states that clinicians should choose the most appropriate treatment course based on clinical circumstances rather than on relative effectiveness of an individual modality; the U.K. guideline advises not to favour one medication over another but rather have the clinician and patient jointly choose appropriate therapy.

The key strategies shown to be effective by guideline are:

Counselling and Psychosocial Therapy:

All patients should have their tobacco use documented, and have their willingness to quit and nicotine dependence levels assessed, as advised by all three guidelines. Face-to-face counselling (individual and group), telephone counselling and tailored self-help materials (print and Web-based) are all effective modalities. The U.S. guideline states that delivering interventions in multiple formats increases success, with the use of three or four formats being particularly effective.

There is a solid association between the time spent counselling a person and their chance of quitting smoking. Intensity may be increased by duration of individual treatment session and/or number of treatment sessions provided. A minimum of four sessions is recommended for individual counselling albeit any duration is effective to some extent. There is no evidence that more than ninety minutes of total contact time significantly increases abstinence rates. Individual counselling can be brief (U.S. guideline: fewer than three minutes; U.K. guideline: fewer than ten minutes) or intensive. A variety of clinicians trained in evidence-based smoking cessation practices providing counselling to a patient leads to increased abstinence rates. The two types of counselling recommended are practical counselling (problem solving skills/skills training) and providing support and encouragement; cognitive behavioural therapy is named by the Canadian and U.K. guidelines as an example of a type of effective therapy to help with environmental cues, stress and situations likely to trigger relapse. Intensive group therapy is to be provided for at least five sessions of one hour duration occurring over at least one month per the Canadian guideline; the U.K. guideline advises weekly sessions for a minimum of four weeks. Telephone counselling is defined by the U.S. guideline as at least some contact initiated by the quit line counsellor; the Canadian and U.K. guidelines advise the use of proactive (counsellor calls the patient) or reactive (patient calls the counsellor) telephone counselling. An evidence-based framework to use is the five As:

- **Ask** patients about smoking status;
- **Advise** patients about the health risk of tobacco use and to quit;
- **Assess** patients' readiness to quit;
- **Assist** patients who are ready to quit;
- **Arrange** follow-up.

Tailored self-help materials, either print or Web-based, are shown to be effective by all three guidelines and their use should be encouraged either in combination with other approaches or for smokers to use without any professional assistance. The U.S. guidelines describe these materials as tailored to variables such as availability of help, time since quitting, and specific issues surrounding quitting. The U.K. guideline advises that general self-help materials are also useful.

Motivational interviewing techniques are recommended by the Canadian and U.S. guidelines to help smokers who are not yet ready to quit. The U.S. guideline outlines use of the “five Rs” to improve the number of quit trials: relevance, risks, rewards, roadblocks and repetition.

Regular follow-up during treatment and afterwards is encouraged as part of a plan for successful treatment of tobacco dependence.

Pharmacotherapy:

Pharmacotherapy is an effective smoking cessation treatment and should be offered to all smokers, provided there are no contraindications, according to all three guidelines. First-line medications are varenicline, bupropion SR (slow-release) and nicotine replacement therapy (patch, gum, lozenge, inhaler, and nasal spray). Second-line medications are clonidine and nortriptyline and are recommended by the U.S. and Canadian guidelines. The U.K. guideline advises to consider patient preferences, contraindications, intention and motivation to quit smoking, and treatment history. It also states that pharmacotherapy should only be offered to smokers who will not smoke during treatment and in small allotments depending on success (NRT for two weeks, varenicline or bupropion for three to four weeks); pharmacotherapy should be given along with “advice, encouragement, and support.” It further advises to not reattempt a

quit trial until six months has passed if a person has failed an attempt. The Canadian guideline advises to use NRT for a minimum of six weeks and for as long as necessary; patients should choose which type of NRT to use. Doses should be tailored to meet their need and then tapered down with time.

Combination pharmacotherapy options, as supported by the Canadian and U.S. guidelines, include long-term (> 14 weeks) nicotine patch plus another NRT (gum and spray); the nicotine patch and the nicotine inhaler; the nicotine patch and bupropion SR. All three guidelines state that varenicline is not to be combined with either NRT or bupropion. The U.K. guideline states that NRT should not be combined with either bupropion or varenicline but the various NRT therapies can be combined with each other.

The U.S. guideline states that these medications should not be offered to populations in which there is “insufficient evidence of effectiveness:” pregnant women, adolescents, smokeless tobacco users and light smokers. The U.K. guideline states that bupropion and varenicline should not be given to pregnant women, breastfeeding women or persons under eighteen years of age but may be prescribed for persons with unstable cardiovascular disease, depending on clinical judgment. Although the scope of this particular rapid review targets tobacco dependence in the general population, we would like to make note that the special populations mentioned above have been specifically addressed by these guidelines, and we refer the reader to them for additional information.

Counselling and Pharmacotherapy:

All three guidelines support the combination of counselling and pharmacotherapy as the most effective strategy to achieve tobacco abstinence.

7 Applicability and Transferability

Members of the Tobacco Team, along with their manager and the Associate Medical Officer of Health, met on 29 June 2011 for a facilitated discussion. The purpose of the meeting was to discuss the feasibility and generalizability of this report, guided by the applicability and transferability tool from the National Collaborating Centre for Methods and Tools. The following points were noted:

- Regional Council is very interested in smoking cessation programming.
- At a health system level, there is interest in having smoking cessation as a standard of practice.
- Counselling plus pharmacotherapy are most effective, however, drugs from the U.S. and Canadian guidelines (rather than the U.K.) are most applicable to Peel cessation practice and are supported by the Ontario Medical Association.
- A number of resources are in place: funding for NRT for FHTs, local doctor interest, billing codes, electronic medical records, relationships with Peel physicians and the Ontario College of Family Physicians.
- Billing incentives for physicians who succeed in getting patients to quit.
- Building on the *Communicating with Physicians to Influence Practice* (Gillespie, 2010) rapid review, it was suggested to use academic detailing for local primary care doctors to

provide effective, short counselling for example, as used in the Ottawa Model for Smoking Cessation in Primary Care.

- Despite the solid association between counselling intensity and tobacco abstinence, the Ontario Ministry of Health & Long-Term Care has structured the tobacco-related billing codes to cover three visits per patient, per twelve month period however, other codes are available to be used for this purpose.
- Peel Public Health may wish to begin physician outreach strategy with billing code promotion.
- The team wondered if physicians have the time and interest to participate in future smoking cessation programming.
- Concern was expressed about lack of electronic medical records in all physicians' practices.
- The importance of peer leaders for physician communication was discussed.
- There are opportunities for collaboration among other teams and divisions at Peel Public Health.
- The Tobacco Team may need additional training and support to roll out this program.
- Guidelines state that it is cost-effective to provide recommended treatments.
- Concern was expressed for special target groups' access to primary care.
- Special targeted cessation will be required for young men (due to a high smoking prevalence), pregnant women and youth.
- Peel Public Health has committed to Regional Council to reduce the number of Peel smokers by 4800 per year, however we would like to exceed this number to reach as many as 10 000 Peel smokers per year.

8 Final Recommendations and Next Steps

Paul Batalden (14), M.D. stated "every system is perfectly designed to get the results it gets." To-date, the smoking prevalence in Peel Region has decreased to approximately 15% (1) through a multi-pronged approach. The smoking cessation services at Peel Public Health are under major transition in order to move from an individual strategy to a population level strategy in line with the Public Health Way in order to broaden our reach and continue to decrease smoking prevalence. The Tobacco Team's clinical experience will be invaluable as Peel Public Health moves forward in this direction.

The rapid review process has led to the following recommendations:

- Build a physician outreach strategy that includes:
 - the most effective intervention for primary care: counselling plus pharmacotherapy.
 - promotion of specific guideline recommendations regarding pharmacotherapy and counselling.
 - recommendations from previous rapid reviews: *Communicating with Physicians to Influence Practice* (2) and *Learning Concepts in Workforce Development of Public Health Professionals A Literature Review* (3).
 - the involvement of local and provincial physicians to develop an implementation plan.
 - an increase in physician utilization of tobacco-related billing codes.
 - optimal use of electronic medical records to assist physician cessation practice.

References

- (1) Statistics Canada. Canadian Community Health Survey. Share File 2008.
- (2) Gillespie M. Communicating Effectively with Physicians to Influence Practice: A Rapid Review of the Evidence. 2010.
- (3) Gola M. Learning Concepts in Workforce Development of Public Health Professionals: A Literature Review. 2010.
- (4) Fiore MC, Jaén CR, Baker TB, et al. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. 2008 May 2008.
- (5) Statistics Canada. Canadian Community Health Survey. Share File 2003.
- (6) Nastos S. Ontario Medical Association Economics Division. 2011.
- (7) College of Physicians and Surgeons of Ontario. Registering Success 2010 2010 Registration Report 2011 May 2011; Ontario Physician Human Resources Data Centre.
- (8) Health Canada. Health Canada reviewing stop-smoking drug Champix (varenicline tartrate) and potential risk of heart problem in patients with heart disease. 2011; Available at: http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/2011/2011_84-eng.php.
- (9) U.S. Food and Drug Administration. FDA Drug Safety Communication: Chantix (varenicline) may increase the risk of certain cardiovascular adverse events in patients with cardiovascular disease. 2011; Available at: <http://www.fda.gov/Drugs/DrugSafety/ucm259161.htm>.
- (10) Rigotti NA, Pipe AL, Benowitz NL, Artega C, Garza D, Tonstad S. Efficacy and safety of varenicline for smoking cessation in patients with cardiovascular disease. *Circulation* 2010;121(2):221.
- (11) Singh S, Loke YK, Spangler JG, Furberg CD. Risk of serious adverse cardiovascular events associated with varenicline: a systematic review and meta-analysis. *Can Med Assoc J* 2011.
- (12) European Medicines Agency. European Medicines Agency confirms positive benefit-risk balance for Champix. Press Release 2011 21 July 2011(EMA/579351/2011).
- (13) Prigent B. New safety information regarding Champix (varenicline tartrate) - For Health Professionals. Pfizer Canada Inc. 2008; Available at: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/pdf/medeff/advisories-avis/prof/2008/champix_hpc-cps-eng.pdf
- (14) Nelson EC, Batalden PB, Godfrey MM. Quality by design: a clinical microsystems approach. Illustrated ed.: John Wiley and Sons; 2007.

Appendices

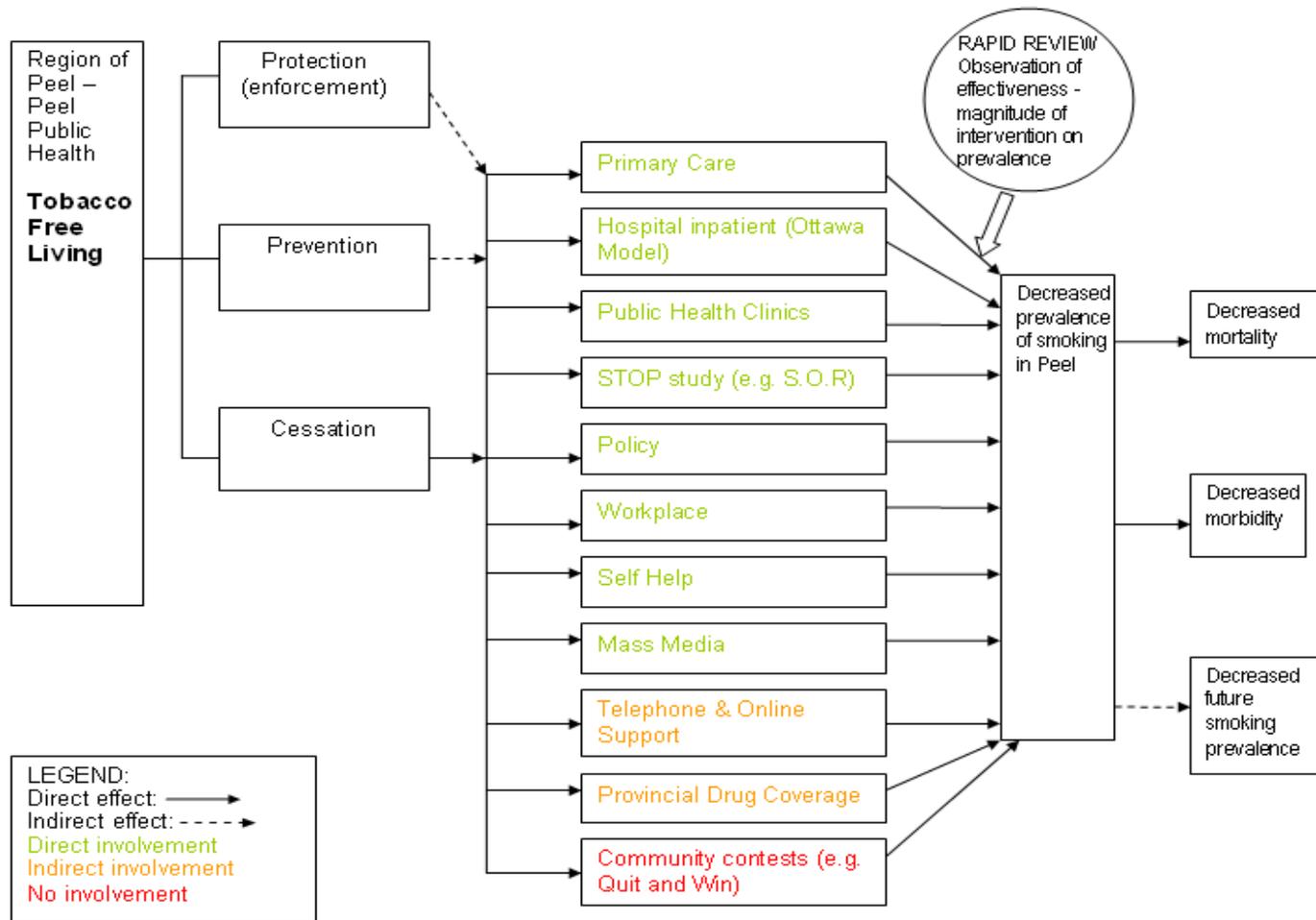
Appendix A: Conceptual Model

Appendix B: Overview of Search Process

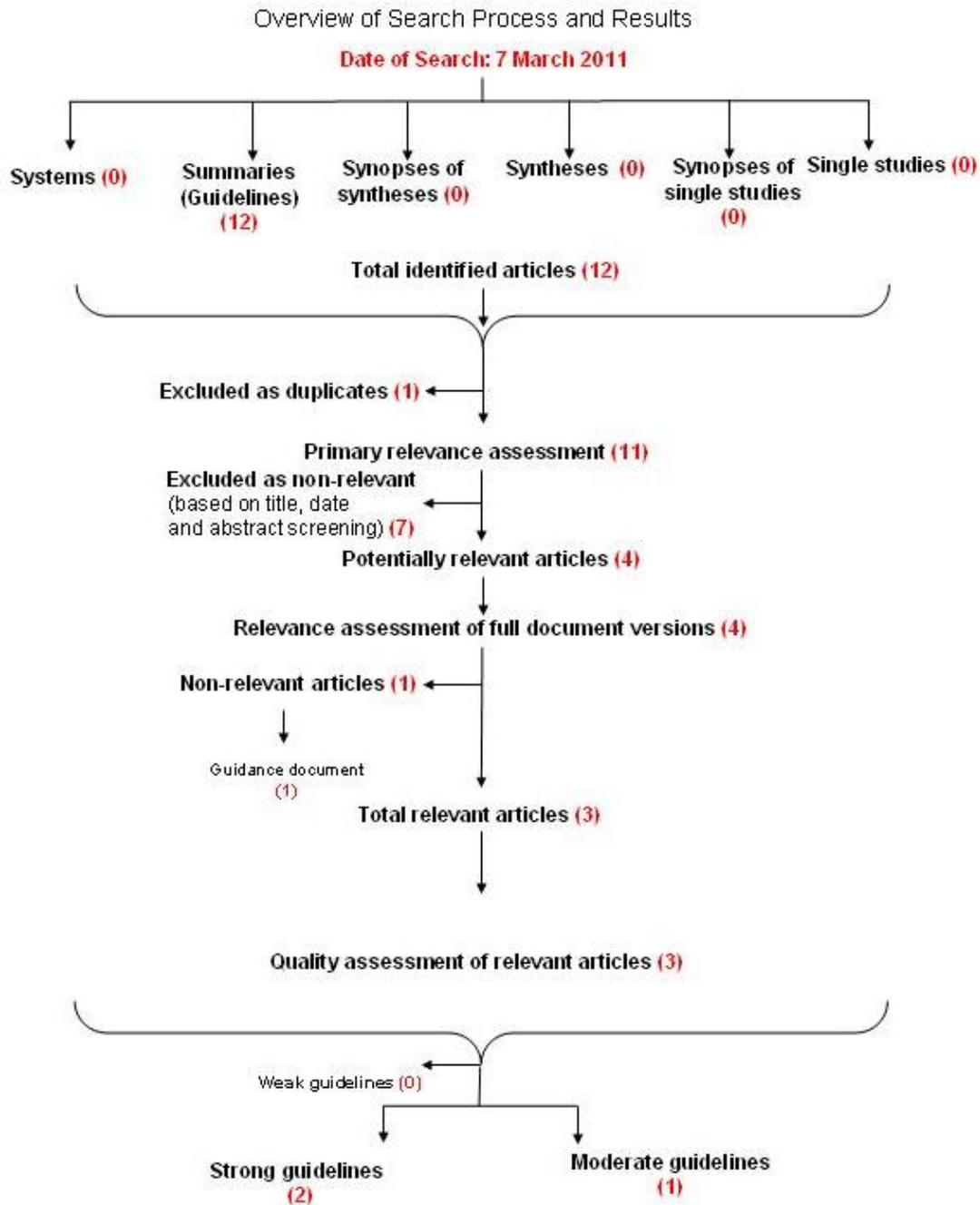
Appendix C: Data Extraction Tables

Appendix D: Applicability & Transferability Worksheet

Appendix A: Conceptual Model



Appendix B: Overview of Search Process



Source: Health-evidence.ca. Keeping Track of Search Results: A Flowchart. 2009: http://www.health-evidence.ca/public/tools/10/Keeping_Track_of_Search_Results_-_A_Flowchart.ppt.

Appendix C: Data Extraction Tables

Guideline #1 Reviewed	Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities
General Information & Quality Rating	
1. Author & date	National Institute for Health and Clinical Excellence, 2008
2. Country	United Kingdom
3. AGREE2 Quality Rating (Independently rated by 3 reviewers)	Overall rating: 6 (High quality) Totalled domain scores: Scope & purpose: 89%; Stakeholder involvement: 89%; Rigour of development: 96%; Clarity of presentation: 81%; Applicability: 89%; Editorial independence: 61%
4. Generalizability	Similar population
Details of Each Review	
Evidence used to develop this guideline	7 Systematic Review of reviews, 1 expert paper, 1 economic appraisal, stakeholder comments and fieldwork results
Types of studies	Systematic reviews (that include the following study types: meta-analyses, systematic reviews of RCTs, individual RCTs, systematic reviews of non-RCTs, case control studies, cohort studies, ITS, correlational studies, controlled before and after studies, non-analytic studies)
Search period	1900-2007
Number of databases searched	23 (Databases searched are as follows: AMED; ASSIA; British Nursing Index; CINAHL; Cochrane Database of Systematic Reviews; Cochrane Controlled Trials Register (CENTRAL); Controlled Clinical Trials; Database of Abstracts of Reviews of Effects; DARE; DH-Data; EMBASE; Google Scholar; Health Technology Assessment Database; HSTAT; King's Fund; MEDLINE (Ovid); National Guideline Clearinghouse National Research Register (including CRD ongoing reviews database and unpublished reports); NICE web pages (published appraisals); PsycINFO; SIGN Guidelines; Sociological Abstracts;TRIP)
Quality Appraisal	'Methods for development of NICE public health guidance'
Details of Interventions Included in Review	
Description of interventions	The guideline presents effective smoking cessation strategies, supported by evidence. These include brief interventions, individual behavioural counselling, group behaviour therapy, pharmacotherapies, self-help materials, telephone counselling and quit lines. All recommendations are considered cost effective.
Recommendations	
	<ul style="list-style-type: none"> • Brief interventions: <ul style="list-style-type: none"> ○ Primary and community care professionals, fewer than 10 minutes ○ May include one or more of the following: simple opportunistic advice, an assessment of the individual's commitment to quit, pharmacotherapy and/or behavioural support, self-help material, or referral to more intensive support such as the NHS Stop Smoking Service • Individual behavioural counselling: <ul style="list-style-type: none"> ○ Face-to-face meetings with a counsellor trained in smoking cessation ○ Typically, weekly sessions over a period of at least 4 weeks after the quit date ○ Normally combined with pharmacotherapy • Group behaviour therapy: <ul style="list-style-type: none"> ○ Scheduled meetings to provide advice, encouragement and some form of behavioural intervention (e.g. cognitive behavioural therapy) ○ Weekly for minimum of 4 weeks post quit date ○ Normally combined with pharmacotherapy

	<ul style="list-style-type: none"> • Pharmacotherapy: <ul style="list-style-type: none"> ○ NRT, varenicline, or bupropion ○ Along with giving advice, encouragement, and support or referral to a smoking cessation service ○ Consider intention and motivation to quit and likelihood to follow course of treatment, patient preferences, previous treatments (if any) and contraindications to specific treatments • Self-help materials: <ul style="list-style-type: none"> ○ Comprise any manual or structured programme, in written or electronic format ○ Can be used by individuals in a quit attempt without professional help ○ Can be aimed at anyone who smokes, particular populations or interactively tailored to individual need • Telephone counselling and quitlines: <ul style="list-style-type: none"> ○ Encouragement and support over the telephone ○ Any smokers who want to quit or have recently quit ○ Counsellors can call (proactive) or client can call (reactive)
Results of Review	
Comments/limitations	<p>Limitations noted by the author:</p> <ul style="list-style-type: none"> • Limited evidence available regarding certain health questions <p>Comment from reviewers:</p> <ul style="list-style-type: none"> • NICE uses a standardized, systematic process for creating guidelines. For reviewers who are not familiar with this process, it is challenging to navigate the site in order to find the information necessary to fully understand it

Guideline #2 Reviewed	Dynamic Guidelines for Tobacco Control in Canada Version 1.0
General Information & Quality Rating	
1. Author & date	CAN-ADAPTT: Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-informed Tobacco Treatment, August 2008
2. Country	Canada
3. AGREE2 Quality rating (Independently rated by 3 reviewers)	Overall rating: 4 Totalled domain scores: Scope & purpose: 93 %; Stakeholder involvement: 80%; Rigour of development: 42%; Clarity of presentation: 94 %; Applicability: 6%; Editorial independence: 31%
4. Generalizability	Recommendations applicable to practice settings and population.
Details of Each Review	
Number of studies included	5
Types of studies	Guidelines
Search period	Not specified
Number of databases searched	Not specified
Inclusion and/or exclusion criteria	Not specified
Details of Interventions Included in Review	
Description of interventions	The guideline included evidence regarding counselling and psychosocial interventions including details of treatment elements, structure and intensity, along with medication recommendations.
Recommendations	

COUNSELLING AND PSYCHOSOCIAL RECOMMENDATIONS

- Screening and assessment:
 - All patients should be asked if they use tobacco and should have their tobacco use status documented on a regular basis.
 - Clinicians should assess patient's willingness to quit and level of tobacco use dependence (suggests using the Fagerstrom test for nicotine dependence).
- Treatment structure and intensity:
 - Where possible, offer intensive smoking cessation support through group sessions (five one-hour sessions over approximately one month) that include skills training and social support.
 - Intensive smoking cessation support should include NRT and directions for use.
 - All physicians and other health care workers should strongly advise all patients who smoke to quit and, at least, provide brief advice.
 - Every tobacco user should be offered at least a minimal intervention; however four or more intensive intervention sessions are more effective.
 - Treatment should be delivered by a variety of clinician types and by multiple clinicians who are trained in evidence-based smoking cessation practices.
 - Telephone counselling, face-to-face counselling and tailored self-help materials are all effective formats of psychosocial treatments and should be used.
 - Follow-ups should be conducted regularly to assess abstinence at the completion of treatment and during subsequent contacts to assess adherence to treatment.
- Treatment Elements
 - Behavioural and cognitive therapy is validated and recommended for smoking cessation interventions.
 - Multiple sessions of counselling combined with medication increase the chances of a successful quit.
 - Motivational intervention techniques can be effective in increasing a patient's likelihood of making future quit attempts.

MEDICATION RECOMMENDATIONS

- Use of pharmacological agents with regular follow-up should be encouraged for patients attempting to quit or who have relapsed.
- First-line medications:
 - Bupropion is an effective smoking cessation treatment that patients should be encouraged to use.
 - NRT (in the form of gum, inhaler, lozenge, nasal spray and/or patch) should be recommended for a minimum of six weeks and for as long as is required for a successful quit. Patients should choose which type they would like and dosages should be tailored to their needs and tapered down over the course of treatment.
 - Varenicline is an effective smoking cessation treatment that patients should be encouraged to use.
- Second-line medications:
 - Clonidine is an effective smoking cessation treatment to be used under physician's supervision.
 - Nortriptyline is an effective smoking cessation treatment that can be offered to patients to use.
- Combination therapy:

	<ul style="list-style-type: none"> ○ Smokers should be encouraged to use NRT products in combination, combining bupropion as needed.
Results of Review	
Main results	<p>Key recommendations regarding effective tobacco dependence counselling and medication for clinicians with patients using tobacco.</p> <p>In order to have evidence of moderate quality or greater, only recommendations rated by the guideline as having a strength of evidence (SOE) rating as A* or B** were included.</p>
Comments/limitations	<p>No limitations noted by the author/contributors in the guideline.</p> <p>Limitations noted by reviewers:</p> <ul style="list-style-type: none"> • Authors did not include a section regarding methodology; the search cannot be replicated; there was no information provided about systematic search methods or criteria for selecting the evidence. • No indication that the authors conducted a quality assessment of the evidence used for recommendations. • There are no supporting implementation documents or guidance regarding the application of the recommendations.

Guideline #3 Reviewed	Treating Tobacco Use and Dependence: 2008 Update
General Information & Quality Rating	
1. Author & date	U.S. Department of Health and Human Services (Public Health Services), May 2008
2. Country	United States
3. AGREE2 Quality rating (Independently rated by 3 reviewers)	Overall rating: 6.6 Totalled domain scores: Scope & purpose: 100 %; Stakeholder involvement: 94%; Rigour of development: 92%; Clarity of presentation: 100%; Applicability: 68 %; Editorial independence: 81 %
4. Generalizability	Similar population
Details of Each Review	
Number of studies included	695 studies used in meta-analyses
Types of studies	Randomized Control Trials (RCT) for meta-analyses; other types of research studies used to inform opinion and judgment, not for meta-analyses
Search period	January 1975 to June 2007
Number of databases searched/source of evidence	11 electronic databases (details not included) and reviews of published abstracts and bibliographies
Inclusion and exclusion criteria	Placebo/comparison RCT of a tobacco use treatment intervention (randomized on the patient level); follow-up results at least five months after the quit date; published in English in a peer-reviewed journal; one of the 11 topics chosen to be included in the 2008 update.
Details of Interventions Included in Review	
Description of interventions	The guideline provides strategies and recommendations for effective clinical treatments for tobacco use and dependence. The guideline addressed the following topics relevant to the PICOT question: proactive quitlines; combining counselling and medication relative to either counselling or medication alone; varenicline; various medication combinations; and long-term medication use.
Recommendations	
	<p><i>A. COUNSELLING AND PSYCHOSOCIAL EVIDENCE</i></p> <p>1. Screening and Assessment</p> <ul style="list-style-type: none"> • Screen for Tobacco Use: All patients should be asked if they use tobacco

	<p>and should have their tobacco use status documented on a regular basis. Evidence has shown that clinic screening systems, such as expanding the vital signs to include tobacco use status or the use of other reminder systems, such as chart stickers or computer prompts, significantly increase rates of clinician intervention. (SOE = A)</p> <ul style="list-style-type: none"> • Specialized Assessment: Tobacco dependence treatment is effective and should be delivered even if specialized assessments are not used or available. (SOE = A) <p>2. Treatment Structure and Intensity</p> <ul style="list-style-type: none"> ○ Advice To Quit Smoking: All physicians should strongly advise every patient who smokes to quit because evidence shows that physician advice to quit smoking increases abstinence rates. (SOE = A) • Intensity of Clinical Interventions <ul style="list-style-type: none"> ○ Minimal interventions lasting fewer than 3 minutes increase overall tobacco abstinence rates. Every tobacco user should be offered at least a minimal intervention, whether or not he or she is referred to an intensive intervention. (SOE = A) ○ There is a strong dose-response relation between the session length of person-to-person contact and successful treatment outcomes. Intensive interventions are more effective than less intensive interventions and should be used whenever possible. (SOE= A) ○ Person-to-person treatment delivered for four or more sessions appears especially effective in increasing abstinence rates. Therefore, if feasible, clinicians should strive to meet four or more times with individuals quitting tobacco use. (SOE = A) • Type of Clinician <ul style="list-style-type: none"> ○ Treatment delivered by a variety of clinician types increases abstinence rates. Therefore, all clinicians should provide smoking cessation interventions. (SOE = A) • Formats of Psychosocial Treatments <ul style="list-style-type: none"> ○ Proactive telephone counselling, group counselling, and individual counselling formats are effective and should be used in smoking cessation interventions. (SOE = A) ○ Tailored materials, both print and Web-based, appear to be effective in helping people quit. Therefore, clinicians may choose to provide tailored self-help materials to their patients who want to quit. (SOE = B) <p>3. Treatment Elements</p> <ul style="list-style-type: none"> • Types of Counselling and Behavioural Therapies <ul style="list-style-type: none"> ○ Two types of counselling and behavioural therapies result in higher abstinence rates: (1) providing smokers with practical counselling (problem solving skills/skills training), and (2) providing support and encouragement as part of treatment. These types of counselling elements should be included in smoking cessation interventions.(SOE = B) • Combining Counselling and Medication <ul style="list-style-type: none"> ○ The combination of counselling and medication is more effective for smoking cessation than either medication or counselling alone. Therefore, whenever feasible and appropriate, both counselling and medication should be provided to patients trying to quit smoking. (SOE = A)
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	<ul style="list-style-type: none"> ○ There is a strong relation between the number of sessions of counselling, when it is combined with medication, and the likelihood of successful smoking cessation. Therefore, to the extent possible, clinicians should provide multiple counselling sessions, in addition to medication, to their patients who are trying to quit smoking. (SOE = A) • For Smokers Not Willing To Make a Quit Attempt At This Time <ul style="list-style-type: none"> ○ Motivational intervention techniques appear to be effective in increasing a patient’s likelihood of making a future quit attempt. Therefore, clinicians should use motivational techniques to encourage smokers who are not currently willing to quit to consider making a quit attempt in the future. (SOE = B) <p>B. MEDICATION EVIDENCE</p> <ul style="list-style-type: none"> • Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations for which there is insufficient evidence of effectiveness (i.e., pregnant women, smokeless tobacco users, light smokers, and adolescents). (SOE = A) <p>1. First-line</p> <ul style="list-style-type: none"> • Bupropion SR (Sustained Release) <ul style="list-style-type: none"> ○ Bupropion SR is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = A) • Varenicline <ul style="list-style-type: none"> ○ Varenicline is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = A) • Nicotine Replacement Therapies (NRTs) <ul style="list-style-type: none"> Nicotine Gum <ul style="list-style-type: none"> ○ Nicotine gum is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = A) ○ Clinicians should offer 4 mg rather than 2 mg nicotine gum to highly dependent smokers. (SOE = B) Nicotine Inhaler <ul style="list-style-type: none"> ○ The nicotine inhaler is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = A) Nicotine Lozenge <ul style="list-style-type: none"> ○ The nicotine lozenge is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = B) Nicotine Nasal Spray <ul style="list-style-type: none"> ○ Nicotine nasal spray is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = A) Nicotine Patch <ul style="list-style-type: none"> ○ The nicotine patch is an effective smoking cessation treatment that patients should be encouraged to use. (SOE = A) <p>2. Second-line</p> <ul style="list-style-type: none"> Clonidine <ul style="list-style-type: none"> ○ Clonidine is an effective smoking cessation treatment. It may be used under a physician’s supervision as a second-line agent to treat tobacco dependence. (SOE = A) Nortriptyline <ul style="list-style-type: none"> ○ Nortriptyline is an effective smoking cessation treatment. It may be used under a physician’s supervision as a second-line agent to treat tobacco dependence. (SOE = A)
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	<p>3. Combination Medications</p> <ul style="list-style-type: none"> ○ Certain combinations of first-line medications have been shown to be effective smoking cessation treatments. Therefore, clinicians should consider using these combinations of medications with their patients who are willing to quit. Effective combination medications are (SOE=A) <ul style="list-style-type: none"> ▪ Long-term (> 14 weeks) nicotine patch + other NRT (gum and spray) ▪ The nicotine patch + the nicotine inhaler ▪ The nicotine patch + bupropion SR <p>4. Use of Over-the-Counter Medications</p> <ul style="list-style-type: none"> • Over-the-counter nicotine patch therapy is more effective than placebo, and its use should be encouraged. (SOE = B)
Results of Review	
Main results	<p>Key recommendations regarding effective tobacco dependence treatment for clinicians to use for their patients.</p> <p>In order to have evidence of moderate quality or greater, only recommendations rated by the guideline as having a strength of evidence rating as A* or B** were included.</p> <p>*A. Multiple well-designed randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.</p> <p>**B. Some evidence from randomized clinical trials supported the recommendation, but the scientific support was not optimal. For instance, few randomized trials existed, the trials that did exist were somewhat inconsistent, or the trials were not directly relevant to the recommendation.</p>
Comments/limitations	<p>Major limitations reported by the authors:</p> <ul style="list-style-type: none"> • Acknowledged possible bias that may exist as a result of using meta-analytic techniques. • Limited evidence available regarding certain health questions. <p>Limitations noted by reviewers:</p> <ul style="list-style-type: none"> • The process of incorporating stakeholder comments into the recommendations was not described in the guideline. • The authors did not include the full search strategy. • The guideline lacks monitoring, auditing criteria, and applicability information regarding facilitators and barriers for some of the recommendations.

Appendix D: Applicability and Transferability Worksheet

Present at the applicability and transferability meeting: Lori Greco (facilitator, NCCMT), Dr. Megan Ward, Linda Pope, Barb Patten, Dr. Diane Clapham, Kathryn Bradford, Melanie Vafaie, Roopinder Singh, Jas Mahal, April Duxbury, Adam O'Connell and Brian Rawson

Factors	Questions	Notes
Applicability (Feasibility)		
Political acceptability or leverage	<ul style="list-style-type: none"> • Will the intervention be allowed or supported in current political climate? • What will the public relations impact be for local government? • Will this program enhance the stature of the organization? <ul style="list-style-type: none"> ○ <i>For example, are there reasons to do the program that relate to increasing the profile and/or create a positive image of public health?</i> • Will the public and target groups accept and support the intervention in its current format? 	<ul style="list-style-type: none"> • Tobacco cessation is a strategic priority and is among Regional Council's Terms of Priority. Council has expressed interest regarding cessation programming during recent council meetings. • There is strong political support for programs that provide cost saving measures. Recommended strategies are cost-effective. • Upcoming provincial election may change the political climate. • Funding and ministries' scopes of service keep changing. Not all Peel FHTs applied for NRT funding from MOHLTC.
Social acceptability	<ul style="list-style-type: none"> • Will the target population find the intervention socially acceptable? Is it ethical? <ul style="list-style-type: none"> ○ <i>Consider how the program would be perceived by the population.</i> ○ <i>Consider the language and tone of the key messages.</i> ○ <i>Consider any assumptions you might have made about the population. Are they supported by the literature?</i> ○ <i>Consider the impact of your program and key messages on non-target groups.</i> 	<ul style="list-style-type: none"> • Doctors have relationships of trust with and knowledge of their patients. • Consider developing interventions for a wide age range and multilingual population. • Concerns about reaching individuals without family doctors/not in FHTs. • Concerns regarding reaching special populations (i.e. youth, pregnant women, manual workers, and those with mental health issues).
Available essential resources (personnel and financial)	<ul style="list-style-type: none"> • Who/what is available/essential for the local implementation? • Are they adequately trained? If not, is training available and affordable? • What is needed to tailor the intervention locally? 	<ul style="list-style-type: none"> • Group acknowledged possibility of partnering with other teams/divisions to address this strategic priority (workplace health, cancer, diabetes & heart health, and environmental health).

	<ul style="list-style-type: none"> • What are the full costs? <ul style="list-style-type: none"> ○ Consider: in-kind staffing, supplies, systems, space requirements for staff, training, and technology/administrative supports. • Are the incremental health benefits worth the costs of the intervention? <ul style="list-style-type: none"> ○ Consider any available cost-benefit analyses that could help gauge the health benefits of the intervention. <p>Consider the cost of the program relative to the number of people that benefit/receive the intervention.</p>	<ul style="list-style-type: none"> • Need for further research/analysis on workplace health (manual labourer young males), special populations (youth, pregnant women), household members of smokers, and system supports. • Availability of funded pharmacotherapy. • Advocate for coverage of all evidence-based smoking cessation pharmacotherapies under the Ontario Drug Benefit Program and by insurance companies. • Education/information regarding contraband tobacco. • Advocacy for incentive packages. • Long term EMR costs for non-FHT physicians. • Tobacco Team members (PHNs) may require more training. • Utilize team skills (i.e. TEACH trained PHNs) when developing content. • Build on existing relationships with 831 family physicians. Queen Square Doctors FHT as resource for field testing. Use of Peel Public Health physician outreach specialist and the physician outreach rapid review. • Ottawa Model for Smoking Cessation in Primary Care model can be a resource. • Finding a starting point will be a challenge for the team. Time is needed to map out our work, determining skills and interests along with making program choices. • Tobacco Strategy Work Group (Steering Committee) providing direction. • CAMH/TEACH sessions for FHT staff training.
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Organizational expertise and capacity	<ul style="list-style-type: none"> • Is the intervention to be offered in line with Peel Public Health’s 10-Year Strategic Plan (i.e., 2009-2019, ‘Staying Ahead of the Curve’)? • Does the intervention conform to existing legislation or regulations (either local or provincial)? • Does the intervention overlap with existing programs or is it symbiotic (i.e., both internally and externally)? • Does the intervention lend itself to cross-departmental/divisional collaboration? • Any organizational barriers/structural issues or approval processes to be addressed? • Is the organization motivated (learning organization)? <ul style="list-style-type: none"> ○ Consider organizational capacity/readiness and internal supports for staff learning. 	<ul style="list-style-type: none"> • This is a strategic priority. • SFOA and Peel smoking-related by-laws. • Symbiotic with existing physician outreach strategies in Peel.
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Transferability (Generalizability)		
Magnitude of health issue in local setting	<ul style="list-style-type: none"> • What is the baseline prevalence of the health issue locally? • What is the difference in prevalence of the health issue (risk status) between study and local settings? <p><i>Consider the Comprehensive Health Status Report, and related epidemiological reports.</i></p>	<ul style="list-style-type: none"> • 15 % of Peel population (170 500) are smokers but not all may be ready to quit.
Magnitude of the “reach” and cost effectiveness of the intervention above	<ul style="list-style-type: none"> • Will the intervention appropriately reach the priority population(s)? <p>What will be the coverage of the priority population(s)?</p>	<ul style="list-style-type: none"> • Reach depends on the number of smokers in each practice, their willingness to quit, and the capacity/training of staff. • Further research/analysis and targeted approaches may be required for priority populations i.e. young males who are manual labourers, people with mental health issues, pregnant women & youth.
Target population characteristics	<ul style="list-style-type: none"> • Are they comparable to the study population? • Will any difference in characteristics (e.g., ethnicity, socio-demographic variables, number of persons affected) impact intervention effectiveness locally? <p><i>Consider if there are any important differences between the studies and the population in Peel (i.e., consider demographic, behavioural and other contextual factors).</i></p>	<ul style="list-style-type: none"> • Use findings from the US and Canada as they are consistent with TEACH training and Ontario Medical Association direction. • May not reach particular groups without access to primary care (i.e. young adult males or clients with mental health issues).

Proposed Direction (after considering the above factors):

- Suggestions for future rapid reviews:
 - “What are system supports for smoking cessation?”
 - “What is the role of voice reminder systems in the setting of a partnership between Peel Public Health and community health agencies?”
 - “What are effective smoking cessation strategies for special populations i.e. pregnant women and their partners, manual labourers, or youth?”
- Explore the risks and benefits of long-term pharmacotherapy and particular drug combinations.
- Plan to do qualitative research on themes that arise during cessation counselling through the Ottawa Model for Smoking Cessation phone calls.
- Consider the program we are trying to build.
- Create an inventory of the current state of smoking cessation strategies and programs available through primary care physicians in Peel.
- Suggestion to create a primary care package to engage primary care physicians. Specific suggestion to pilot a program to promote the smoking-related billing codes at the Queen Square Doctors FHT for field testing. Prime site due to FHT system supports and strong relationships with eager and willing primary care physicians.
- Build on the experience and knowledge of the Tobacco Team’s individual counselling experience to create a brief three minute counselling intervention package and train the clinician to use this. Review the Ottawa Model for Smoking Cessation in Primary Care to reduce redundancy.

- Investigate financial aspects concerning delegation of cessation counselling to other practitioners in the FHT model. (The current smoking-related billing codes cannot be delegated.)
- Suggestion to use *Communicating with Physicians to Influence Practice: A Rapid Review of the Evidence* (Gillespie, 2010) and the PPH physician outreach specialist to increase awareness of system supports, effective smoking cessation strategies and implement a new program to reach all primary care practitioners in Peel.
- Use academic detailing for the promotion of Electronic Medical Records (EMR) for screening, assessment, and follow-up.
- Use audit and feedback approach regarding the use of EMR to monitor intervention use, track billing code use and determine how many smokers have quit.
- Interactive presentations: Team member as a liaison orienting FHT to intervention(s), teaching and answering questions.
- Provide incentives to physicians to reach smoking cessation targets:
 - Capitalize on the competitive nature of physicians by providing a plaque from the Medical Officer of Health as a reward.
 - Advocate for the inclusion of tobacco to current FHT financial incentive programs which give primary care physicians monetary bonuses if certain targets are met.
- Acknowledgement of the importance of peer leaders amongst physicians to promote an evidence-informed approach to smoking cessation to other physicians and also to work towards treating tobacco dependence as a standard of care through physician modelling.

- . Consider getting primary care physicians to partner with medical officers of health to advocate to the College of Physicians and Surgeons of Ontario to change the treatment of tobacco dependence to become a standard of clinical practice.
- . Consider a mass media campaign.
- . Consider using the change management concept of creating small wins (Kotter & Cohen, 2002) via increased use of billing codes as a financial incentive, increasing awareness of drug availability and accessibility, and a brief counselling intervention.
- . Kotter & Cohen also advise creating a sense of urgency to prevent people from reverting back to their old practices.
- . Members stressed the importance of obtaining stakeholder input and engagement. Request to solicit thoughts and desires of primary care physicians regarding smoking cessation and partnering with Peel Public Health regarding this issue.
- . Consider how best to enrol Peel smokers with a primary care physician or other outreach strategies for those known not to attend physician appointments despite enrolment status.
- . Concerns regarding special populations e.g. approximately 35% stable smoking prevalence in young men in the construction and trucking industries. This population tends not to visit their primary care practitioner. Suggestion to use pharmacies and workplace outreach/occupational health services as the contact point to reach this population.
- . Consider the cost of smoking cessation aides versus cigarettes: in the short-term it may be expensive to pay for both but in the long-term there are significant savings (financial and health-related) if a person is able to quit successfully. Consider advocating for expansion of smoking cessation aide coverage to the government and insurance companies.

- Suggestion to work with Peel Police to curb contraband sales.
- One identified barrier was finding the Tobacco Team starting point as there exist myriad options. Suggestion to create a task force to map out a strategy that will pull together internal departments and resources.
- Consider the involvement of the Tobacco Control Area Networks (TCAN). Consideration of positions on the Tobacco Team and subcommittees that are 100% funded through the TCAN. Leverage work with the TCAN to the work of the primary care strategy.
- CAMH exists as one conduit for NRT provision and distribution. Another suggestion is to use the approximately 350 Peel pharmacists to provide counselling and pharmacotherapy. Further proposed was using the public health unit for drug distribution as parallel systems are already in place for vaccines, tuberculosis medications and sexually transmitted infection medications.
- Suggestion to include all involved Peel Public Health departments and meet with them all to present the process and findings of this rapid review.
- The Tobacco Team is in transition; they need a timeline and goals as the nature of their work changes. The Tobacco Team expressed relief at this meeting upon hearing of the numerous options available for future work directions, particularly post closure of the smoking cessation clinics and no further involvement in the Quit and Win program. The Tobacco Team expressed a desire for a planning day to capitalize on the team's eagerness. Acknowledgement of the big change in vision for the team and the importance of continued direct communication with management. The team verbalized that this meeting is the first step in realizing this new vision for the Tobacco Team.

- . There exists an increased and growing interest in our rapid reviews, particularly ones involving primary care, in the setting of a culture change to increase use of evidence-informed decision making in public health practice; we have high quality evidence to support us.
- . Our work enables our Medical Officer of Health to be solidly accountable for decision-making to our Regional Council and to Peel residents.
- . There exists a huge potential for a broad impact.
- . Our plan is consistent with Ontario's direction regarding this issue.