

Priority Initiative

Champlain Hospital-based Smoking Cessation Network

Priority Initiative Description

This initiative is creating a network of hospital-based smoking cessation programs in the Champlain District to help hospitalized smokers quit smoking and stay smoke-free. The goal of the Champlain Hospital-based Smoking Cessation Network is to develop a regional infrastructure to identify and offer treatment to every hospitalized smoker in the Champlain District using best practice guidelines.

The network of hospital-based smoking cessation programs will use a common approach to identify smokers on admission, provide stop-smoking counseling and medication during hospitalization, link the patient back to community cessation resources, and provide follow-up after discharge from hospital. Once fully implemented, the program has the potential to reach an estimated 14,000 smokers in the Champlain District and result in 3600 successful quitters each year.

The Champlain Hospital-based Smoking Cessation Network is the first of the CCPN Priority Initiatives to rollout in the Champlain District through the provision of start-up funding from the Smoke-Free Ontario Strategy and the Ontario Hospital Association's Change Foundation. As of January 2007, 11 of the 17 Champlain LHIN hospitals are delivering comprehensive smoking cessation program, with the remainder scheduled for implementation in 2007.

Background and Rationale

Quitting smoking is the single most important intervention for the prevention and management of major chronic diseases, including heart disease, stroke and cancer²⁵. In addition, smokers have higher hospitalization rates and poorer clinical outcomes than non-smokers.

Admission to hospital can provide the ideal conditions for smoking cessation because of the restricted smoking environment, perceived vulnerability to illness and increased patient motivation to quit²⁶. It also provides a unique opportunity to systematically identify and intervene with patients who might not otherwise seek help with quitting.

National and provincial clinical practice guidelines suggest that all smokers receive minimal intervention counseling to support cessation prior to discharge from hospital and follow-up support²⁷. Brief cessation interventions using best practice guidelines for smoking cessation (ask, advise, assess, assist, arrange) increase the rate of smoking cessation by an absolute 15%^{25,28}.

Few Ontario hospitals have in place systems, policies, and environmental prompts that encourage and support consistent and effective identification and treatment of tobacco users. As a result, most smokers will leave hospital without ever having a health professional advise them to quit.

The Champlain Hospital-based Smoking Cessation Network offers a cost-efficient strategy to support and implement regional smoking cessation programs by using a combination of policy, system redesign, technology, and linkages with community partners. The Network is an expansion of an existing hospital-based smoking cessation program operating at the University of Ottawa Heart Institute (UOHI) that has been proven as an effective approach to cessation.

The Ottawa Model

Over the past several years, the UOHI) has developed an institutional approach to identify and treat tobacco users admitted to the Institute. This program annually identifies more than 1300 smokers and provides cessation counseling services to approximately 90% of them. More importantly, this approach has led to an absolute 15% increase in long-term cessation rates (from 35% to 50% at 6 month follow-up) among these smokers.

The experiences of the UOHI have been used to develop the “Ottawa Model” for hospital-based smoking cessation. The Ottawa Model consists of:

- **Identification of smoking status upon admission:** At hospital admission, smoking status is identified through the medical and/or nursing history and documented in the patient record. Smoking status is characterized using a standard question: *“Have you used any form of tobacco in the past six months.”*
- **Brief counseling delivered to all smokers prior to discharge from hospital:** All current smokers are advised to quit in a non-judgemental, unambiguous, personalized manner by their attending physician or nurse. The nurse counsellor provides minimal or intensive counseling in accordance with best practice guidelines, based on the patient’s readiness to quit smoking.
- **Pharmacotherapy:** Smokers are offered pharmacotherapy to assist with smoking cessation (and also to alleviate the withdrawal symptoms that almost always develop in smokers admitted to hospital). Care is taken to ensure that pharmacotherapy – usually Nicotine Replacement Therapy – is titrated to meet the needs of the patient in forestalling the emergence of withdrawal symptoms.
- **Self-help materials:** All smoking patients receive self-help materials provided by the Canadian Cancer Society, and standard orders ensure that all are referred to a nurse counsellor specialist.
- **Linkages to community smoking cessation resources and programs:** Patients are referred to additional community-based smoking cessation services as required to support their quit attempt.
- **Follow-up contacts:** All patients are offered post-hospital follow-up using interactive voice response (IVR) technology. IVR follow-up consists of a series of automated, computerized calls that inquire about smoking status and any difficulties experienced in the cessation process. Calls occur at 3, 14, and 30 days post-discharge – times when relapse is judged to be most likely – and then monthly for a six-month period. Nurse counsellors will scan the results of the IVR calls and respond with more personal interventions and assistance as appropriate.

Goals and Objectives

The primary goal of this initiative is to increase the number of smokers who quit and remain smoke-free six months after hospitalization at Champlain LHIN hospitals.

The objectives are:

- To introduce system-level interventions for the identification, documentation, and treatment of tobacco users across hospitals in the Champlain LHIN;
- To provide skill-based training to physicians and nurses in each of the Champlain regional hospitals to help them intervene effectively with patients who are smokers; and,
- To develop systems to link hospitalized smokers to existing cessation resources in their communities as appropriate.

Implementation Activities

To implement a smoking cessation system, institutions require strategic, tactical, technical and practical assistance to overcome barriers to the implementation of comprehensive institutionalized smoking cessation plans.

Experts have identified 10 institutional practices associated with effective treatment for tobacco use among hospitalized patients (see Table A1). These practices form the foundation to delivering the “Ottawa Model” and relate to identification of tobacco users, elements of intervention, follow-up processes, and knowledge transfer. Employing them will result in an increase in smoking cessation and a reduction in the costs resulting from associated diseases.

Table A1: The 10 Institutional best-practices for treating tobacco use and dependence

Identification
Tobacco use status queried and documented for all admissions.
Intervention
Tobacco dependence treatment delivered by trained counselor.
Tobacco dependence treatment delivered in accordance to the 5A’s and included on clinical pathways, care maps and/or Kardex.
Pharmacotherapy (e.g. Nicotine Replacement Therapy, Bupropion) information and prescriptions offered to all current tobacco users.
Follow-up
Processes to follow-up tobacco users for at least one month after hospital discharge in place.
Knowledge Transfer
Training (e.g. workshops, in-services) for tobacco dependence treatment offered to health care providers.
Patient self-help materials readily available.
Referral links to community smoking cessation programs and Smoker’s Help Line readily available.
Processes to evaluate the degree to which health care providers are identifying, documenting, and treating patients who use tobacco in place.
Processes to provide feedback to clinicians about performance and outcomes of intervention in place.

A facilitation process is being used to support program implementation in each of the Champlain hospitals and ensure implementation of the 10 institutional best practices for treating tobacco use and dependence. Expert coaching teams will spend time meeting with senior management of each of the LHIN hospitals, supporting institutional policy changes regarding the treatment of smokers, training health professionals in minimal smoking cessation counseling techniques, supporting process design, and implementing a smokers follow-up system. An average of six months is required from the time of the hospital signing on to the Champlain Hospital-based Smoking Cessation Network to the delivery of the best practice model as part of institutional care. The following activities will be part of the implementation of this program at each of the Champlain LHIN regional hospitals:

- a) **Institutional commitment:** a clear commitment to the program from the senior administrative and clinical leadership of the hospital.
- b) **Institutional policy review and development:** assessment of the institution’s current practice against best practices and the development of an institutional smoking cessation policy.
- c) **Organizational process redesign for the identification and treatment of smokers:** development of the appropriate ‘care maps’ or other clinical protocols that mandate the delivery and documentation of the

intervention; development of the forms, records and other documents necessary to capture the relevant smoking history, levels of motivation and confidence, and other pertinent clinical details.

- d) Coaching & training of professional staff at the hospitals:** training of all medical and nursing staff in the fundamentals of the program and smoking cessation.
- e) Implementation of centralized smokers' follow-up system:** installation of the IVR technology and processes for registering smokers admitted to hospitals. Once registered, the follow-up contacts will be managed centrally for the region by the UOHI.
- f) Development of evaluation & quality assurance system:** coordinated processes for the ongoing evaluation of the program including baseline assessment of smoking status amongst hospitalized smokers, collection of quality assurance information, and institutional feedback and reporting mechanisms.

Activities to Date

The Champlain Hospital-based Smoking Cessation Network was the first CCPN Priority Initiative to rollout in the Champlain District. Start-up funding for this initiative was received from the Smoke-Free Ontario Strategy and the Ontario Hospital Association's Change Foundation.

All 17 of the Champlain LHIN hospitals have signed a commitment to be part of the Champlain Hospital-based Smoking Cessation Network and are at various stages of implementation. As of January 2007, 11 LHIN hospitals are delivering the program to all hospitalized smokers, with the remaining 6 hospitals in the process of implementing the program. Additionally, the Children's Hospital of Eastern Ontario (CHEO) has expressed interest in signing on and is awaiting implementation in 2007. More than 1000 health professionals (physicians, nurses, allied health) have been trained in evidence-based cessation counseling to date. Moreover, several of Ontario's LHINs have expressed interest in broader provincial rollout of this model in their jurisdictions.

Table A2: Status of Priority Initiative Rollout in Champlain LHIN Hospitals

Currently delivering program	Implementation in Process	Pending
<ul style="list-style-type: none"> ▪ University of Ottawa Heart Institute ▪ The Ottawa Hospital* ▪ Hawkesbury & District General ▪ The Rehabilitation Centre ▪ Winchester District Memorial Hospital ▪ Carleton Place & District Memorial Hospital ▪ Arnprior & District Memorial Hospital ▪ Pembroke Regional Hospital ▪ Renfrew Victoria Hospital ▪ St. Francis Memorial Hospital (Barry's Bay) ▪ Queensway-Carleton Hospital ▪ Kemptville District Hospital ▪ Deep River & District Hospital 	<ul style="list-style-type: none"> ▪ Hôpital Montfort ▪ Cornwall Community Hospital ▪ Glengarry Memorial Hospital (Alexandria) ▪ Almonte General Hospital ▪ 	<ul style="list-style-type: none"> ▪ CHEO

*selected departments: OBS/GYN Cardiology, Stroke, Vascular, ENT, Thoracic, Lung Cancer, Shirley Greenberg Women's Health Centre

Performance Management Plan

The evaluation plan will measure the success of the program at the level of the patient, health care professional, institution, and community.

The primary outcome measure at the patient level will be 6-month quit rates. The relative quit rates attributable to the hospital-based smoking cessation program will be calculated as the difference between 6-month cessation rates in hospitals pre- and post-implementation of the program. Pre-implementation smoking rates will be established by surveying consecutive hospital admissions over a 30-day period and conducting follow-up of these patients regarding their smoking status 6-months post-discharge.

Satisfaction with the program will be evaluated at the level of the patient, hospital staff, and the organization. Cost and cost-effectiveness of the program will be evaluated globally and by patient sub-group. Community level outcomes will be measured by the use of community-based cessation services offered by public health units or other local providers.

Performance Indicators

- Number of hospitals signed as partner in Champlain Hospital-based Smoking Cessation Network
- Number of hospitals with institutional policies for the delivery of smoking cessation services
- Number of hospitals tracking smoking status upon admission
- Number of hospitals with structured processes in place for delivery of SC services
- Number of hospitals implementing comprehensive in-patient cessation programs
- Number of health professionals trained in best practice cessation guidelines in network hospitals
- Number of hospitals tracking implementation and outcomes
- Number of smokers receiving cessation counseling in Champlain network hospitals
- Number of smokers referred to community smoking cessation services
- Relative 6-month quit rate attributable to cessation intervention
- Number of smokers quit at 6-month post-discharge

Targets and Expected Outcomes

	Hospitals	Professionals Trained	Smokers Reached	Quit Rate	New Quitters
Measure	Number of hospitals implementing comprehensive in-patient cessation programs	Number of health professionals trained in best practice cessation guidelines in Champlain Network hospitals	Number (%) of smokers receiving cessation counseling in Champlain Network hospitals	Relative 6-month quit rate attributable to cessation intervention	Number of smokers quit at 6-month post-discharge
Current	1	<100	1,000	15%	150
Target (2-year)	14	1,000 / year	10,000 / year	15%	1,500 / year
Target (5-year)	17	1,000 / year	14,000 / year	15%	2,100 / year

Partners

University of Ottawa Heart Institute (UOHI)

The UOHI will serve as the lead implementation partner. The UOHI will be responsible for working with hospitals to implement network start-up activities, provide expert support during program implementation, and support quality assurance, evaluation, and monitoring activities. Experts from the UOHI will train physicians, nurses and administrators in regional hospitals to develop and implement their own effective in-patient cessation program.

Champlain Public Health Units

Regional public health units will work with hospitals and the UOHI to create links to existing cessation services offered by public health or other community partners. As appropriate, public health units will support training of hospital staff and support hospitals in program implementation.

Champlain LHIN Hospitals

Regional hospitals will be responsible for integrating cessation protocols into existing hospital policies and practice, delivering bed-side cessation counseling, integrating information technology systems, and supporting data collection and evaluation activities.

Tobacco Control Action Network (T-CAN)

The Eastern Ontario T-CAN will assist with the development of inventories of community-based smoking cessation resources and the collection of data regarding the use of community-based and provincial cessation services by program participants.