Context and Policy Issues

Cardiovascular disease is the leading cause of death and hospitalization in Canada.\(^1\) More than 50% of all cardiovascular deaths are due to coronary artery disease. Cardiovascular disease accounts for more than $22 billion spent annually in Canada in health care costs and lost productivity due to disability or death.\(^1\)

Cardiac rehabilitation services are designed to help patients and their families recover from a cardiac event, such as a heart attack or heart surgery, and to help prevent recurrent cardiac events.\(^2\) There is evidence that cardiac rehabilitation reduces total and cardiac mortality in patients with symptomatic coronary artery disease.\(^3\) There is emerging evidence that the beneficial effects of cardiac rehabilitation remain significant regardless of whether they are delivered as traditional hospital-based programs, as home-based programs, or integrated within community family health centres.\(^4-8\)

Despite the benefits of cardiac rehabilitation in the continuum of cardiovascular care, these services may be underutilized in Canada due, in part, to issues with accessibility or a failure to refer eligible patients.\(^9,10\)

Objectives

The purpose of this report is to provide information regarding support services provided by cardiac rehabilitation programs across Canada. The following questions will be addressed:

- What types of support (such as physician-supervised exercise and interdisciplinary information sessions) are patients offered in cardiac rehabilitation centres, following a cardiac event?
- From whom are rehabilitation centres receiving referrals (cardiac specialists, family practitioners, and/or patients doing self-referral)?

Findings

The findings of this environmental scan are not intended to provide a comprehensive review of the topic. The results of this report are based on a limited literature search and on communications with Canadian health care officials from a single centre in each province. Many of these centres are situated in major cities and as such, the comprehensiveness of this report and generalizability to rural settings is limited. This report is based on information gathered as of November 5, 2010.

Information provided by Canadian health care officials who participated in the provincial scan is presented in Table 1.

Although cardiac rehabilitation programs offered in the different provinces vary in duration and services offered, common themes between them are the involvement of multidisciplinary team members, and the inclusion of both exercise and education components. Individualized exercise sessions and structured education classes for risk factor and lifestyle management form the core elements of each program. Programs offered in centres in Alberta, Saskatchewan, Ontario, and Nova Scotia, offer home-based options to
individuals who are unable to attend on-site classes.

In most cases, referrals are accepted from physicians only. Some programs, including the centres in British Columbia, Saskatchewan, and Manitoba also accept self-referrals from patients. Other programs, including the Reh-Fit Centre in Winnipeg and the Change of Heart Program in Prince Edward Island, make contact with patients before they are discharged to promote the use of their services. Information gathered in November 2010 for this environmental scan is summarized in Table 1 below.

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<th>Jurisdiction</th>
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| British Columbia | Lions Gate Cardiac Rehab and Cardiometabolic Program, Harry Jerome Recreation Centre, North Vancouver | **Multidisciplinary team:**
The team includes physicians, exercise specialists, clinical educators, and other allied health professionals.  

**Education/exercise:**  
The program offers education seminars on risk factor and lifestyle management. Exercise sessions are overseen by a physician and supervised by an exercise specialist in the community and at the hospital.  

Patients are given the choice of one-to-one meetings with expert disciplines, and group education sessions. Patients are given the choice of five different programs of varying lengths (one day to six months) designed to meet their needs and those of their family. One of the programs uses telephone contact (and the internet, if available) for patients who live at a distance or are back at work.

Services include exercise tolerance testing and monitored group exercise. | Referrals are accepted from primary care physicians, specialists, and allied health professionals.  

Self-referrals from patients without a family doctor are accepted. |
| Alberta           | Northern Alberta Cardiac Rehabilitation Program, Glenrose Rehabilitation Hospital, Edmonton | **Multidisciplinary team:**  
The team includes cardiology technologists, dieticians, exercise specialists, nurses, occupational therapists, psychologists, physicians (internal medicine, cardiology, and psychiatry), physiotherapists, and social workers.  

**Education/exercise:**  
Services include one-to-one meetings with expert disciplines, and group education sessions. Patients are given the choice of five different programs of varying lengths (one day to six months) designed to meet their needs and those of their family. One of the programs uses telephone contact (and the internet, if available) for patients who live at a distance or are back at work.

Services include exercise tolerance testing and monitored group exercise. | Referrals from physicians in the catchment area (Edmonton zone, Northern Alberta, Yukon, Nunavut, and Northwest Territories) are accepted.  

Self-referrals are not accepted. |
Table 1: Cardiac Rehabilitation Services in Canada

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<td>Saskatchewan</td>
<td>LiveWell Cardiac Program, Saskatoon</td>
<td><strong>Education/exercise:</strong> Services include a choice of two programs (a week of educational sessions, followed by the exercise program; or a 2-day combined education and exercise program with most of the exercise component completed at home). Follow-up for either program is based on individual needs. Most patients are enrolled for 3 to 4 months. Group education classes are offered by nurses, dieticians, pharmacists, and exercise technicians on heart disease and its risk factors; lifestyle modification; medications; and the psychological and emotional aspects involved in recovery. Individual follow-up sessions are provided as requested. Services include medically supervised exercise programs that operate three times per week. Additional sessions supervised by exercise therapists are provided as positive assessments are made during the recovery process. When patients graduate from the medically supervised program, they have access to support from previous graduates, additional exercise sessions supervised by exercise therapists, and aid to purchase exercise equipment.</td>
<td>Referrals are accepted from physicians, including cardiac specialists and family practitioners. The centre also encourages self-referral. Following a cardiac event, nurse educators or graduates of the program visit patients on the hospital ward and encourage them to enrol. The program receives automatic referrals from hospitals for patients after acute myocardial infarction and cardiac surgery. Referrals are also received from physicians, including cardiologists. Self-referrals are accepted. All individuals must have</td>
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<td><strong>Ontario</strong></td>
<td><strong>Multidisciplinary team:</strong> The team includes physicians, exercise specialists, nurses, physiotherapists, occupational therapists, dietitians, psychologists, social workers, diabetes educators, and pharmacists.</td>
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<td><strong>Cardiac Rehabilitation and Secondary Prevention Program, Toronto Rehabilitation Institute, University of Toronto Hospital</strong></td>
<td><strong>Education/exercise:</strong> Services include physician supervised exercise classes that are held once a week. Participants are encouraged to do 4 more exercise sessions per week at home. A personalized exercise program lasts 6 to 12 months. Following completion, a graduate program is designed to keep participants motivated and up to date on exercise, cardiology, and heart health. A structured group educational curriculum includes topics on heart health, exercise safety, risk factors, nutrition, medications, stress management, healthy eating, and diabetes education. Family members may participate in educational sessions. <strong>Other:</strong> Counselling sessions with a psychologist and a social worker are offered to help overcome depression, anxiety, sleep disturbances, anger, social and other emotional issues. Dieticians are available to develop individualized nutritional care plans. For those who are unable to participate in the on-site program, patients may participate in a home-based program.</td>
<td><strong>Referrals are accepted from acute care hospitals (mainly cardiology, cardiac surgery), community practices (specialty and family practice), and other health care settings (e.g., diabetes education centres).</strong></td>
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<td>events, reduce depression and anxiety, and develop confidence and a sense of well-being. Physicians oversee graded exercise tests as part of patient assessments.</td>
<td>documented cardiac symptoms before entry into the program is permitted.</td>
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### Table 1: Cardiac Rehabilitation Services in Canada

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<td>Quebec</td>
<td>West Island Cardiac Wellness Program, Lakeshore General Hospital, Pointe- Claire</td>
<td>Education/exercise: Services include exercise and education sessions that take place over a 38-week period. Exercise sessions are supervised by certified kinesiologists. Educational sessions are provided on the risk factors for heart disease, diet, stress management, and depression. A dietician-led grocery store tour is offered once a year. Spouses and family members are welcome and are encouraged to attend the educational sessions.</td>
<td>Physicians (including cardiologists, cardiovascular surgeons, or family physicians) refer most patients to the program. Referrals are also received from community organizations (e.g., local YMCA). There are also patients who are self-referred or referred by an individual who has previously participated in the program. However, all patients must have a signed medical clearance and an exercise prescription from their treating physician to participate in the program.</td>
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<td>New Brunswick</td>
<td>Programme Coeur en santé/Cardiac Wellness Program, Moncton</td>
<td><strong>Multidisciplinary team:</strong> The team includes a physician, nurse, dietician, psychologist, and two kinesiologists. The physician sees all new patients before they begin the program, and at follow-up appointments at 6 weeks, 3 months, 6 months, and 1 year. Every patient also sees a dietician and psychologist once during the first 12 weeks of the program and then as needed. <strong>Education/exercise:</strong> Services include education on topics such as heart anatomy, physical activity, nutrition, stress management, medications, and monitoring blood pressure. Exercise sessions are supervised by 2 kinesiologists and a nurse.</td>
<td>Every patient treated at the New Brunswick Heart Centre, located in the Saint John Regional Hospital, is automatically referred. Referrals are also received from family physicians, specialists, and cardiologists from the Dr. Georges-L.-Dumont Regional Hospital.</td>
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<tr>
<td>Nova Scotia</td>
<td>Cape Breton Heart &amp; Lung Wellness program, Sydney</td>
<td><strong>Multidisciplinary team:</strong> The team includes physicians, physiotherapists, nurses, dietitians, psychologists, and pharmacists.</td>
<td>Referrals are accepted from any health care professional working with cardiac patients. The program is in the process of initiating inpatient auto-referral. Self-referrals are not accepted.</td>
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<td><strong>Education/exercise:</strong> Services include a 12-week program involving physical activity (either on-site or at home), education, nutrition counselling, and risk factor modification.</td>
<td>A cardiologist assesses all referrals before patients are accepted into the program.</td>
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<tr>
<td>Prince Edward Island</td>
<td>Change of Heart, A program of the Heart and Stroke Foundation of Prince Edward Island</td>
<td><strong>Education/exercise:</strong> Services include a nurse-coordinated 6 to 8-week program that is available twice a year in the communities of Charlottetown and Summerside for survivors of a heart attack or heart surgery. Each participant receives a customized exercise program. Heart health education sessions are delivered by a variety of health professionals. Following completion, there are regular follow-up appointments that may be face-to-face or by phone.</td>
<td>Referrals are accepted from physicians (both specialists and family practitioners). The program’s services are promoted to survivors of heart attack or heart surgery, who are provided with the referral forms for their physician to complete.</td>
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<tr>
<td>Newfoundland and Labrador</td>
<td>Cardiac Rehabilitation Program, St. Clare’s Mercy Hospital, St. John’s</td>
<td><strong>Multidisciplinary team:</strong> The team includes nurses, physicians, occupational therapists, social workers, psychologists, and dietitians. <strong>Education/exercise:</strong> Services include a set program of four education sessions provided by members of the multidisciplinary team. The allied health professionals are also available for one-to-one sessions. A total of 60 exercise sessions are provided. When beginning the exercise program, physician and nurse-supervised sessions are provided three days a week. Upon completing 36 physician and nurse-supervised exercise sessions, twice weekly sessions are started, which are nurse-supervised.</td>
<td>Referrals are received from general practitioners, internal medicine physicians, surgeons, and cardiologists. No self-referrals are accepted.</td>
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Conclusions

Cardiac rehabilitation programs across Canada are using a multidisciplinary approach to provide exercise and education services to participants after a cardiac event. The Canadian Heart Health Strategy and Action Plan (CHHS-AP) Steering Committee recommend that the increased adoption of cardiac rehabilitation services is an integral component of cardiovascular care in Canada. The areas identified for improvement include accessibility, primary care linkages, and community-based program delivery.

Complementing this environmental scan, CADTH has produced a rapid response report: Cardiac Rehabilitation Programs: Clinical Effectiveness and Guidelines, December 2008.

Canadian Guidelines and Recommendations


References


Cite as: Ndewa, S. Support Services for Cardiac Rehabilitation in Canada [Environmental Scan issue 13]. Ottawa: Canadian Agency for Drugs and Technologies in Health; 2010.

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