

# Heart care at the click of a button: the Internet as an effective mode of delivering cardiac rehabilitation programming

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The BC Alliance on Telehealth Policy and Research (BCATPR) has developed a 'virtual' cardiac rehabilitation program (vCRP) to deliver programming via the Internet to patients living in small urban and rural areas. The vCRP, funded by the Heart and Stroke Foundation, showed with testing to be an effective tool for reducing heart disease risk in patients.

The vCRP is currently being implemented within Fraser Health.

## BACKGROUND

Patients who have had a heart attack or other heart conditions are at high risk of subsequent events and premature death. Cardiac rehabilitation programs are effective ways of improving the risk of future health problems in these patients. However, because the programs are usually based out of hospitals and health centres, they are not always convenient to attend. In fact, they are only attended by 10-30% of eligible patients, with many listing travel distance, time commitment and schedule inflexibility as main barriers. This is especially true for patients living in rural areas.

The vCRP mimics in-hospital programs but can be completed at the patient's convenience from their home, via the Internet. The BCATPR examined health outcomes of patients after 16 weeks in the program and at one year following its completion, compared to a control group not enrolled in any programs.

## KEY FINDINGS

- After 16 weeks in the vCRP, patients saw improvement in their exercise capacity, diet and cholesterol levels, and all of these changes were still present one year after the end of the program.
- There were fewer hospital visits among patients in the program than in usual care.
- Drop-out rates were lower (less than 10%) than what is reported in literature (up to 35%).
- Staff time required to administer the program was lower than in-person care, at 8 hours (\$435) per participant.
- Follow-up interviews revealed that participants found the vCRP to be accessible, convenient and effective.

Participants additionally identified that:

- they came out with greater awareness of and motivation for managing their health conditions and improving their lifestyle
- the program was useful in allowing them to assess and monitor their progress
- they saw an improvement in health measurements over time
- they had increased confidence when interacting with healthcare professionals
- of those who experienced difficulty using the program, the main barrier was computer literacy.

## RECOMMENDATIONS

There exists a need for more accessible alternatives to in-hospital cardiac rehabilitation programs, especially to support patients living in more remote areas. The BCATPR found that a cardiac rehabilitation program delivered exclusively through the Internet was safe and effective at improving exercise capacity and reducing heart disease risk, eliminating the need for face-to-face visits and directly-monitored exercise. It showed to be a low-cost, scalable solution to improving the lifestyles, health profiles and self-management of patients with heart disease.

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