Evaluating benefits is an important component of the connecting South West Ontario (cSWO) Program that helps to support and demonstrate the realization of health system benefits through the adoption of an electronic health record (EHR). By pursuing the measurement of organizational value (improvements in the efficiency of care delivery such as time-savings and redirected resources) and clinical value (patients undergo fewer unnecessary tests, patients have improved access to care), patients ultimately benefit from higher quality, better informed clinical decision-making.

The cSWO Benefits Realization program uses a research-based approach to identify areas of clinical best practice that are affected by the use of the electronic health record (EHR), and works collaboratively with clinicians to understand the value of the EHR. This formative evaluation process informs change management and adoption, and enables clinicians to use the EHR more effectively. This research does not include the use of any personal health information.

This document is one in a series of case studies which describe the clinical value of the EHR in different clinical settings and contexts, particularly with respect to clinical best practices. The work of the cSWO Benefits Realization program is ongoing; depending on the circumstance, these cases occasionally raise questions for further investigation, and clinicians are invited to participate in benefits evaluation to continue to develop these answers.

Value statement
The cSWO Regional Clinical Viewer, ClinicalConnect™, helps reduce the time to start the Cardiac Rehabilitation (CR) Program at the Chatham-Kent Community Health Centres (CKCHC), thereby encouraging increased enrollment and adherence and ultimately improving patient clinical outcomes.

Cardiovascular Rehabilitation
Cardiovascular rehabilitation is a crucial secondary prevention strategy proven to reduce the risk of hospital admission, improve quality of life, and reduce morbidity and mortality from cardiovascular disease.1-4 After acute cardiac interventions, cardiac care clinics refer patients to CR programs. The Cardiac Care Network (CCN) of Ontario recommends CR program staff contact patients within two weeks to arrange an intake appointment.5 Early appointments after discharge have been linked to an improved uptake and adherence to the CR program as well as improvements in patients’ clinical outcomes.6 For example, early initiation of exercise is associated with greater improvements in left ventricular end systolic and diastolic volumes and improved quality of life in the short-term.6

ClinicalConnect use in a Cardiovascular Rehabilitation Program
The Cardiac Rehabilitation Program at the CKCHC is designed for patients who have had an acute cardiac event (primarily individuals who have had stent implants and bypass surgeries as well as those with angina, myocardial infarctions, and heart transplants). This CR program consists of a six-month supervised exercise program tailored to individual patient needs, education on general risk factors, counseling in nutrition, stress management, medication, and general information on the topic of heart attack and stroke. The CKCHCs’ use of ClinicalConnect has resulted in improvements of care in the following key areas (Figure 1):

1. Prior to commencing rehab, patients require a graded exercise test (i.e., stress test) to ensure unnecessary risks are not incurred during rehab. When stress test results and clearance for rehab are communicated using ClinicalConnect, patients can begin supervised exercising earlier.
2. The rehab program has historically ordered blood tests to establish baseline measures for key indicators, such as blood cholesterol, against which to compare changes post-rehab. Currently, lab results are already available and shared through ClinicalConnect for 90 per cent of the CHC patients, meaning unnecessary duplicate tests and associated inconvenience for patients are avoided.
3. The intake assessment of the Cardiac Rehabilitation Program is a 60-90 minute discussion with a Cardiac Nurse. Using ClinicalConnect to gain important insights into the patient’s cardiac and general medical history, the Cardiac Nurse can meet the CCN standards for intake processes and establish a “patient-centered and comprehensive care plan that prioritizes goals and outlines action strategies for risk reduction.”

4. Prior to using ClinicalConnect, the cardiac rehabilitation team had to call and fax hospital cardiac units to obtain patient medical information. Recently, referring hospitals informed the CKCHCs’ cardiac rehabilitation team that providing patient information is out of scope for them and that relevant requests should be made to the hospital records department instead. As the CR program is staffed for only two days a week, this process change put timely access to patient records at risk.

**Figure 1: Benefits of ClinicalConnect in Patients’ Cardiac Rehabilitation Process**

**Testimonial**

“ClinicalConnect has significantly improved the service we provide to our Cardiac Rehab program. I use ClinicalConnect on a daily basis to look up contact information, view labs, and obtain stress test clinic notes for results and clearance from internists to start exercise. Prior to using ClinicalConnect, we would wait until the results were faxed or mailed. Having the capability to access contact information and necessary reports saves on duplication of services and, most importantly, speeds up the required process for Cardiac Rehab patients to begin a positive, long-term lifestyle change.”

Jody Emerson, Medical Receptionist for Cardiac Rehab Program, CKCHC

**Sources**


**Questions**

For questions, comments, or to participate in cSWO’s Benefits Realization program, please contact: Christin Moeller, Benefits Realization Lead, Change Management and Adoption Delivery Partner, TransForm SSO: christin.moeller@transformsso.ca