

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 electronic health records (EHRs). 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 Analysis and Research program uses a research-based approach to identify areas of clinical best practice that are affected by the use of EHRs, and works collaboratively with clinicians to understand the value of EHRs. This formative evaluation process informs change management and adoption, and enables clinicians to use EHRs 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 EHRs in different clinical settings and contexts, particularly with respect to clinical best practices. The work of the cSWO Analysis and Research program is ongoing; depending on the circumstance, these cases occasionally raise questions for further investigation, and clinicians are invited to participate in analysis and research to continue to develop these answers.

Value statement

The cSWO Regional Clinical Viewer, ClinicalConnect™, supports the McMaster University Medical Centre's (MUMC) General Internal Medicine Rapid Assessment Clinic (GIMRAC) pharmacist in providing drug therapy monitoring, medication reviews and medical decision making for her patients.

Role of a clinical pharmacist

The traditional role of pharmacists in Ontario is expanding as pharmacists are increasingly becoming recognized as medication management experts in the health care field. These pharmacists are delivering innovative services such as medication reviews, chronic disease management, immunization services and wellness programs. Ontario pharmacists now have authority to change drug dosage, formulation and regimen, renew and extend prescriptions for continuity of care as well as inject specific vaccinations.¹ Pharmacists working in hospitals assess the status of a patient's health condition, evaluate the appropriateness and effectiveness of the patient's medications, consult with the patient's health care providers in selecting medication therapy that best meets the needs of the patient, and support health care teams in educating the patient on important steps to improve or maintain health.²

Medication reviews often performed by a pharmacist aim to improve the quality, safety, and appropriate use of pharmaceuticals.³ An analysis of a survey completed by 2,416 Canadian Association of Retired Persons (CARP) members found that 47 per cent of respondents were more comfortable with taking their medications after a medication review, 39 per cent stated medication reviews gave them peace of mind, 22 per cent said medication reviews made it easier for them to take their medication as recommended, and 68 per cent said that their pharmacist's counsel on medication interactions was very valuable.⁴

Drug therapy monitoring is a process where pharmacists review patients' records and monitor signs, symptoms and laboratory parameters to identify the efficacy and safety of a drug treatment. When adverse drug events (ADE's) are identified, the pharmacist communicates with prescribers to resolve them.⁵

In a survey commissioned by the Canadian Pharmacy Association and Canada Health Infoway, the majority of Canadian pharmacists estimated that their ability to perform drug therapy monitoring and medication management improved more than 60 per cent since the availability of an electronic provincial drug system, thus validating the importance of having digital health tools available in Ontario.⁶

ClinicalConnect and DHDR use in medication review and drug therapy monitoring

The MUMC GIMRAC clinic in Hamilton Ontario delivers a superior level of adult outpatient healthcare that optimizes the patient experience through a model that is timely and patient centered. The GIMRAC clinic provides care to patients who do not need to be admitted to hospital, but require prompt follow-up to an Emergency Department visit.⁷ The pharmacist at the GIMRAC clinic is an integral member of the health care team who is committed to advancing coordinated, patient-centered care. Her work includes helping solve medication related issues, consulting with polypharmacy patients, making medication recommendations, and being available to answer physicians' questions for patients with complex conditions. She frequently accesses a variety of modules within ClinicalConnect, including the Pharmacy Module's Home Meds view, which presents information from the Digital Health Drug Repository (DHDR). DHDR contains records relating to publicly funded drugs, monitored drugs, and pharmacy services; with information from the Ontario Drug Benefit program going back as far as seven years, and information from the Narcotic Monitoring System going back five years.

According to the GIMRAC pharmacist, the use of ClinicalConnect has been beneficial in reducing the amount of time spent contacting other clinicians for test results, and has been helpful in validating information provided by geriatric patients who may have omitted important facts.

Alice, the pharmacist at the GIMRAC clinic, tracked the impact that accessing ClinicalConnect had on her care decisions over a three week period. The results are demonstrated to the right in Figure 1.

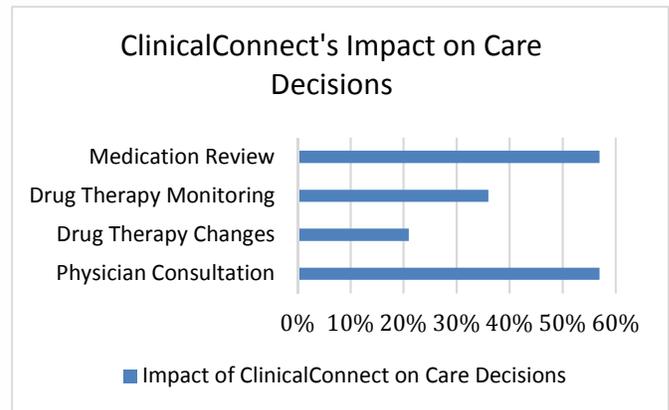


Figure 1. Chart showing how ClinicalConnect impacted care decisions as a percentage of cases tracked.

Testimonial

"ClinicalConnect has helped me tremendously in preparing for the clinic day. Accessing the laboratory data and trending the data helps me in monitoring drug therapy. Previous consult notes from other facilities have been helpful in understanding drug therapy changes. The availability of the pharmacy home meds module, specifically the 7 years of data available, helps me understand past medication history and medications that have been tried."

Alice Poulouse, Pharmacist, GIMRAC Clinic, McMaster University Medical Centre

Questions

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Published: February, 2018

Revised: August, 2018