Benefits Realization:
Documenting clinical and
organizational value of
community pharmacy access
to the electronic health record

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 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

Access to the cSWO Regional Clinical Viewer, ClinicalConnect™, increases clinical value among community pharmacists by enabling them to access patient information, which can help them to mitigate adverse drug events and enhance patient safety. ClinicalConnect also enhances organizational workflow for community pharmacists, allowing them to quickly review lab reports and hospital discharge notes electronically and thus avoid time-consuming phone calls and faxes.

Community pharmacist access to EHRs supports expanded scope of practice

The landscape of community pharmacy is changing across Canada, as the roles and responsibilities of community pharmacists are expanding beyond medication dispensing to encompass medication counseling, targeted medication reviews, and disease state management.[1] Along with an expanding pharmacy role comes the need for additional diagnosis and disease information to ensure patient safety and avoid adverse drug events. A recent survey suggests that 82 per cent of community pharmacists in Canada perceive that access to provincial/ territorial EHR and complete patient information (e.g., lab results, imaging reports, medication profiles) is important to advancing the quality of care they provide.[2] The integration of EHRs may differ depending on the type of community pharmacy practice; for example, one study found that community pharmacists who provided a wider scope of care by involving medication therapy management activities tended to use the EHR in a more comprehensive way, including accessing lab tests.[3]

Furthermore, giving community pharmacists access to EHRs has been found to enhance communication between pharmacists and physicians while simultaneously reducing the burden of interruptions in workflow from telephone calls and faxes.[4] Keller et al (2015) found that sharing EHRs with community pharmacists enabled pharmacists to more readily access data related to patient medical conditions, prescribed medications, lab data, and treatment plans.[4] There is some evidence indicating that collaboration between physicians and pharmacists through EHRs contributes to improved patient care and reduced costs.[5,6]

Improved workflow and patient care at Preston community pharmacy

In February 2017, a pharmacist at the Preston Community Pharmacy in Cambridge tracked her use of ClinicalConnect over a one-month period. This pharmacist works 2 days a week in the community pharmacy role, and thus tracked her use for a total of eight days. During that time, she used ClinicalConnect on seven occasions. In three of those instances the data in

ClinicalConnect improved organizational workflow and informed her care decisions. However, in the other four instances the data she was looking for was not available in ClinicalConnect. Figure 1 (below) highlights the three scenarios in which ClinicalConnect supported efficient and safe patient care:
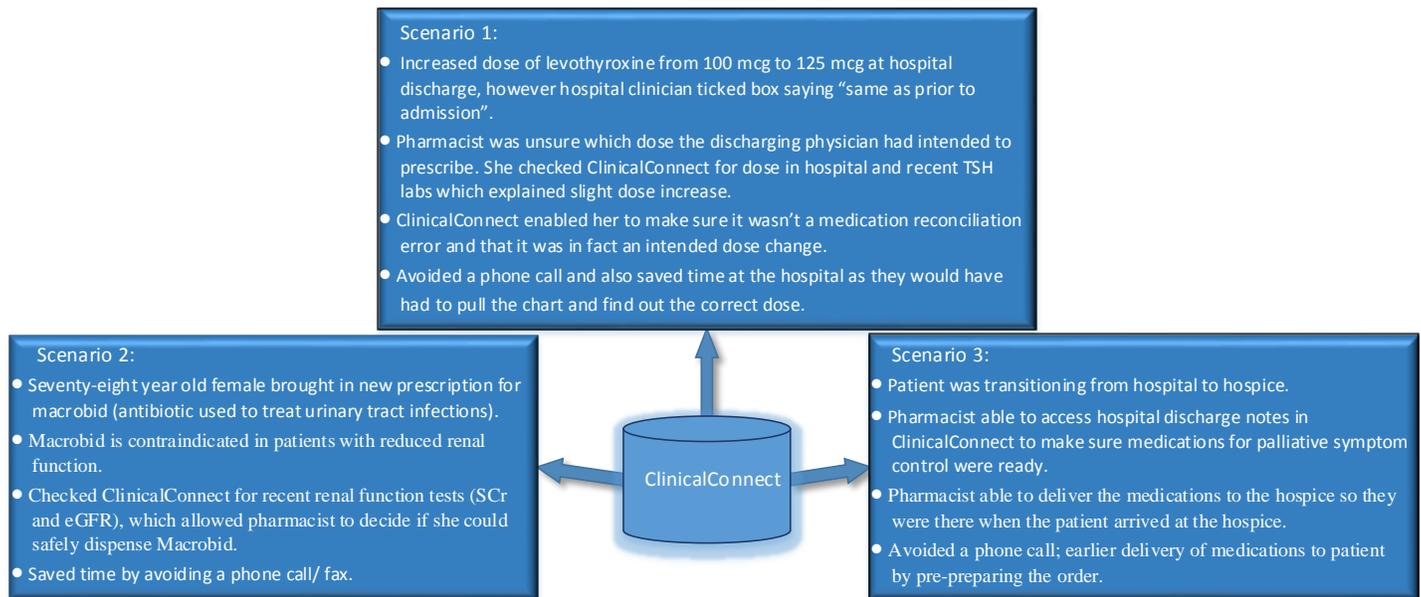
Scenario 1:
- Increased dose of levothyroxine from 100 mcg to 125 mcg at hospital discharge, however hospital clinician ticked box saying "same as prior to admission".
- Pharmacist was unsure which dose the discharging physician had intended to prescribe. She checked ClinicalConnect for dose in hospital and recent TSH labs which explained slight dose increase.
- ClinicalConnect enabled her to make sure it wasn't a medication reconciliation error and that it was in fact an intended dose change.
- Avoided a phone call and also saved time at the hospital as they would have had to pull the chart and find out the correct dose.

Scenario 2:
- Seventy-eight year old female brought in new prescription for macrobid (antibiotic used to treat urinary tract infections).
- Macrobid is contraindicated in patients with reduced renal function.
- Checked ClinicalConnect for recent renal function tests (SCr and eGFR), which allowed pharmacist to decide if she could safely dispense Macrobid.
- Saved time by avoiding a phone call/ fax.

ClinicalConnect

Scenario 3:
- Patient was transitioning from hospital to hospice.
- Pharmacist able to access hospital discharge notes in ClinicalConnect to make sure medications for palliative symptom control were ready.
- Pharmacist able to deliver the medications to the hospice so they were there when the patient arrived at the hospice.
- Avoided a phone call; earlier delivery of medications to patient by pre-preparing the order.

Figure 1: Enhancing organizational efficiency and patient safety at Preston Community Pharmacy

In the four instances in which the community pharmacist was unable to access the information she needed through ClinicalConnect, she had been looking for hospital discharge notes that had not yet been transcribed. As many patients go straight from hospital discharge to pharmacy to pick up prescriptions, the time to transcription is a limitation which impacts meaningful use of ClinicalConnect for community pharmacists.

Testimonial

"Access to ClinicalConnect has improved the efficiency of my day to day operations by reducing faxes and phone calls to hospitals and physicians. Availability of hospital notes and lab data has made the dispensing process timelier, and has also improved my confidence in making recommendations and counselling patients, as there is a more comprehensive picture of the patient's medical history available."

Gina Di Vizio, Community Pharmacist, Preston Community Pharmacy

Questions

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Sources

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