

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.

In the Fall of 2016, the Ministry of Health and Long-Term Care (MOHLTC) began an initiative to integrate the Digital Health Drug Repository (DHDR) into the cSWO Regional Clinical Viewer, ClinicalConnect™ to enhance the data and information available in the EHR. Three early adopter health service provider sites in Guelph were provided with access to drug information in this initial stage with a focus on testing the ability to share information currently available via a standalone drug profile viewer (DPV) with a more widely dispersed interface (the EHR). The data that is shared through the DHDR includes similar data elements to those that already exist in DPV, as well as expanded access to dispensed drug events, including Narcotics Monitoring System (NMS) data.

By pursuing the measurement of organizational value (easier access to patient drug information) and clinical value (better informed prescribing decisions and reduction in potential adverse drug events), patients ultimately benefit from higher quality, better informed clinical decision-making.

## Value statement

Using a reliable source for patient narcotic information, viewable through the EHR, enables emergency department (ED) physicians to make better evidence informed prescribing decisions, and increases overall patient safety.

## Evidence on the value of narcotics data for appropriate opioid prescribing

In British Columbia, the PharmaNet system connects all pharmacies and hospitals to a centralized, real-time database of all prescription records for all provincial residents. A recent study examined the impact of PharmaNet on inappropriate prescribing and dispensing of opioids and benzodiazepines for individuals on social assistance and individuals over the age of 65.<sup>1</sup> This study found a rapid and sustained reduction in inappropriately dispensed opioids, with an overall relative reduction of 32.8 per cent for residents receiving social assistance and 40.1 per cent reduction for seniors over the age of 65. An American study completed within an ED in Ohio measured the impact of a state-wide narcotic registry on physicians prescribing decisions for patients with complaints of non-traumatic pain.<sup>2</sup> The ED physicians in this study changed their opiate prescription plan for 41 per cent of patients after reviewing the narcotic registry information. Another study from America found that states that implemented prescription drug monitoring programs had reductions in opioid-related overdose deaths.<sup>3</sup>

## DHDR online survey with ED physicians

Guelph General Hospital (GGH) was one of the DHDR early adopter sites in the province of Ontario, and was provided with access to narcotic information viewable through the regional EHR in December 2016. After two months of accessing the DHDR, GGH's ED physicians were invited to participate in an online survey designed to understand the clinicians' perceptions of the utility and benefits of the DHDR. Seven physicians completed the survey within a two-week timespan in February 2017. Survey results were very

*"[The DHDR is] helpful for patient presenting with undifferentiated drug overdose to determine prescribed medications and possible interactions or side effects."*

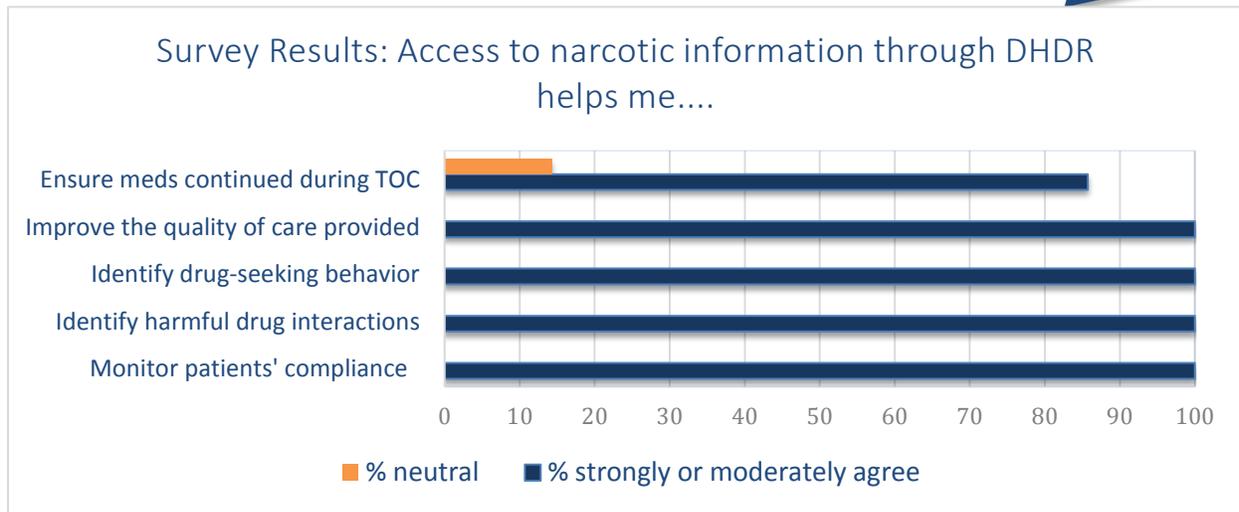
*"[I used DHDR to] ensure someone was telling the truth for an Emergency Narcotics renewal request after hours."*

positive, with all respondents indicating that having access to the narcotic information in the DHDR has influenced their prescribing decisions and has helped them to avoid inappropriate prescribing. The ED physicians indicated that the DHDR was enabling clinical benefits within their workflows.

As noted by both the physicians' comments and the survey responses outlined in the figure included below, the DHDR is viewed as a reliable source of narcotic information useable within the ED workflow, which can mitigate potential adverse drug events and improve patient safety.

*"I used it to get medication lists on people who did not bring their meds in. I had no clue what they were taking and [it was] in the middle of the night. It allowed me to provide better care at that time."*

*"It is good to see a real patient medication list. [The] current process of filtering through drugs manually and figuring out dosing schedule is unacceptable."*



## Testimonial

In a separate interview, one ED physician expressed that he was extremely pleased with the DHDR (quoted right).

*"The DHDR prevents medication error and saves me time!"*

## Questions

For questions, comments, or to participate in cSWO's Benefits Realization (BR) program, please contact: Julia Bickford, BR Specialist, Change Management and Adoption Delivery Partner, eHealth Centre of Excellence: [Julia.Bickford@eHealthCE.ca](mailto:Julia.Bickford@eHealthCE.ca)

## Sources

- <sup>1</sup> Dormuth, C.R., et al., *Effect of a centralized prescription network on inappropriate prescriptions for opioid analgesics and benzodiazepines*. CMAJ, 2012. **184**(16): p. E852-6.
- <sup>2</sup> Baehren, D.F., et al., *A statewide prescription monitoring program affects emergency department prescribing behaviors*. Ann Emerg Med, 2010. **56**(1): p. 19-23 e1-3.
- <sup>3</sup> Patrick, S.W., et al., *Implementation Of Prescription Drug Monitoring Programs Associated With Reductions In Opioid-Related Death Rates*. Health Aff (Millwood), 2016. **35**(7): p. 1324-32.