A case study on the impact of the Diabetes EMR Tool in primary care

The Evidence2Practice Ontario (E2P) Diabetes EMR tool supports clinicians in providing the optimal standard of care for patients with pre-diabetes and type 2 diabetes by bringing the most up-to-date evidence to the point of care.

In 2024, an estimated 4.4 million Ontarians were living with prediabetes and type 2 diabetes (diagnosed and undiagnosed).[1] People with diabetes are at risk of developing serious complications, including severe hypoglycemia, long-term microvascular complications affecting the eyes, kidneys, and nerves, as well as coronary artery disease, stroke and heart failure[2]. These complications can often be prevented or delayed through proactive and appropriate screening, yet research on adherence to evidence-based best practices suggests variability in the implementation of best practices across care settings[3]. Deviations from best practices for patients with diabetes must be minimized, as adherence to evidence-based best practices in diabetes care is crucial for effective disease management and reducing the risk of complications[4].

E2P's EMR-integrated point-of-care tools provide clinicians with access to the right evidence at the right time, allowing them to focus on caring for their patients while simultaneously ensuring their clinical practice is in alignment with best practices. Grounded in Ontario Health's quality standard, the E2P diabetes tool supports clinicians in the early identification of patients at risk, monitoring and assessing glycemic targets, assessing risk factors and complications of diabetes using standardized testing, and providing patient education and resources.

Impact in practice

Feedback gathered from primary care physicians highlights the effectiveness and applicability of E2P tools:

Clinicians feel satisfied with the clinical information provided by the tool modules.

Clinicians agreed that using the E2P tool improves the quality of care that they provide.

Using the E2P tool helps assess patients with diabetes.

This case study explores how the E2P Diabetes EMR tool supports evidence-based diabetes care. By examining real-world use, this case study seeks to highlight the tool's impact on clinical practice, ensure alignment with best practices, and identify opportunities to further support clinicians in delivering high-quality diabetes care.

Evidence2Practice Ontario (E2P) brings together multi-disciplinary, cross-sector expertise under the joint leadership of the Centre for Effective Practice, eHealth Centre of Excellence and North York General Hospital. Funding and strategic guidance for E2P is provided by Ontario Health in support of Ontario's Digital First for Health Strategy.

Dr. B. Newton is an independent physician in the Toronto region who began using the E2P Diabetes tool in September 2023. She has accessed both change management support and academic detailing through the E2P program. To better understand the impact of the tool on patient care, we evaluated Dr. Newton's tool use over a 7-month period. Her practice includes:

343 patients with diabetes

133 patients have had the **Diabetes tool used** during their visit.

100% of diabetes patient visits during the study were supported by the tool

For her patients with diabetes with whom she used the E2P DM tool, we found that:

100%
of patients had set individualized glycemic targets (HbA1C).

70%
of patients experienced improved, stable, or target-range HbA1C scores (<0.07%)

Best practices recommend that people with diabetes are screened for complications and risk factors at least annually[5]. One of the more serious and common complications associated with diabetes are diabetic foot ulcers, which cause about a third of all nontraumatic below-the-knee amputations in Canada[3]. Yet only 53% of Canadians with diabetes reported receiving a foot exam by their healthcare provider in the past year[6].

82% of patients in the study who were treated with support of E2P tools were screened for risk factors and complications within the last 365 days.

80% of these patients received the appropriate foot care.

Diabetic foot ulcers affect **up to 25%** of individuals with diabetes [7]. Rates of lower-limb amputations vary significantly across Ontario Health Regions, with the highest rate being almost eight times that of the lowest [7].

Based on the findings of this case study, use of E2P tools at the point of care has the potential to standardize and improve the care of patients with pre-diabetes and type 2 diabetes across Ontario.

If you have any questions or would like further information on this case study, contact evidence2practice@cep.health.

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