

MedsCheck Diabetes: study examines first 3.5 years in Ontario

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About half of diabetes patients received an initial assessment, but follow-up assessment rate was low

A new pharmacist-led study has examined the MedsCheck Diabetes program in Ontario during the first 3.5 years after the program's launch. The cohort study used healthcare and administrative claims data to examine trends in MedsCheck Diabetes claims and recipient characteristics.(1)

The objectives of the MedsCheck Diabetes program include promoting healthier patient outcomes and diabetes self-management; improving and optimizing drug therapy and lifestyle; achieving safe, effective and appropriate use of all types of medications, medication devices and supplies; and ensuring proper disposal of unused and/or expired medications. All patients with diabetes are eligible for one MedsCheck Diabetes assessment annually.(1)

A MedsCheck Diabetes assessment involves a one-on-one interview with the community pharmacist to review the patient's prescription and nonprescription medications. The pharmacist then prepares a summary, which documents all medications the patient is taking, the education and advice provided, the drug-related problems identified and the action plan. The original summary is given to the patient, a copy is sent to the patient's primary physician and another copy is retained in the pharmacy.(1)

Subsequent follow-up visits for patient monitoring, diabetes-device training and education are also reimbursed, provided they are conducted at the same pharmacy that provided the annual MedsCheck Diabetes assessment. No maximum exists for the number of follow-up visits allowed. The pharmacy is reimbursed \$75 per patient for the annual review and \$25 per patient for a follow up visit.(1)

Study results

A total of 406,694 Ontarians (54.2% men) received a MedsCheck Diabetes assessment during the study period (September 1, 2010 to March 31, 2014). This represented about half of all people in Ontario with diabetes.(1)

Of the patients who received a MedsCheck Diabetes assessment, 54.6% were < 66 years of age, 94.6% lived in an urban centre and 81.0% were native to Canada. More than one-third of recipients (33.5%) had a diabetes-related emergency department visit or hospitalization in the year prior to receiving their MedsCheck Diabetes assessment.(1)

A total of 13,587 MedsCheck Diabetes follow ups were completed, representing 4.1% of MedsCheck Diabetes recipients ≥ 66 years of age and 2.7% of MedsCheck Diabetes recipients < 66 years of age. (1)

MedsCheck Diabetes recipients ≥ 66 years of age had received a mean of 11 unique prescription medications in the previous year (before receiving a MedsCheck Diabetes assessment) and 12.9% had high medication costs (\$4,000+ in previous year).(1)

The antihyperglycemics most commonly used by MedsCheck Diabetes recipients were metformin (76.4%), insulin secretagogues (36.2%), insulin (20.1%) and glyburide (a high-risk drug, 15.8%). The

most commonly used nonantihyperglycemic medication classes used by MedsCheck Diabetes recipients were antihypertensives (89.5%), dyslipidemia therapies (83.8%), diuretics (52.1%), antibiotics (38.2%) and gastroprotective agents (34.9%). High-risk medications (excluding glyburide) included narcotics (25.4%), anticoagulants (23.3%), nonsteroidal anti-inflammatory drugs (21.5%) and benzodiazepines (15.5%).(1)

Conclusion

The MedsCheck Diabetes program was used extensively during the first 3.5 years of the program, with approximately half of Ontarians with diabetes receiving an assessment. However, the fact that only 4.1% of MedsCheck Diabetes recipients \geq 66 years of age and 2.7% of MedsCheck Diabetes recipients $<$ 66 years of age received a MedsCheck Diabetes follow up indicates a significant care gap. Furthermore, the majority of recipients (65.2%) received only one MedsCheck Diabetes assessment during the 3.5-year study, while annual assessments were allowed.

The authors note that the MedsCheck Diabetes follow-up service was discontinued as of October 1, 2016 and replaced with a diabetes education service. MedsCheck Diabetes recipients who take at least three prescription medications for one or more chronic conditions qualify for a medication review follow up through the MedsCheck Annual Follow-up program. Ongoing evaluation of the program is needed to ensure that continuity of care is being provided to patients with diabetes.

Commentary

In a press released that accompanied the online publication of the study results, lead author Dr. Lori MacCallum, Sun Life Financial Professor of Wellness and Diabetes Education at the Banting & Best Diabetes Centre and Assistant Professor at the Leslie Dan Faculty of Pharmacy, University of Toronto commented that "It was encouraging to confirm that almost half of Ontarians with diabetes had received this specialized pharmacist consultation, indicating that pharmacists are ready to deliver this type of care to diabetes patients. One surprising finding, however, was that we observed a very low number of follow-up visits despite this being part of the original program. This is concerning given the chronic nature of diabetes and the complexity of patients receiving the annual review. One would think that follow-up visits would be necessary and desired to ensure continuity of quality care."(2)

Dr. MacCallum also remarked that "This study provides a solid foundation for understanding how MedsCheck Diabetes reviews have been utilized since their introduction. Now, however, we need to continue this research to understand the benefit they provide to patients and the healthcare system, and discover what the enablers and impediments are that influence how this service is offered by pharmacists and accessed by patients."(2)

References

1. MacCallum L, Consiglio G, MacKeigan L, et al. Uptake of community pharmacist-delivered MedsCheck Diabetes medication review service in Ontario between 2010 and 2014. *Can J Diabetes* 2017; published online March 18, 2017. [www.canadianjournalofdiabetes.com/article/S1499-2671\(16\)30609-8/abstract](http://www.canadianjournalofdiabetes.com/article/S1499-2671(16)30609-8/abstract) (accessed April 7, 2017).
 2. Banting & Best Diabetes Centre, University of Toronto. Review of diabetes MedsCheck program in Ontario [press release]. Toronto, ON; April 6, 2017. www.diabetespharmacistsnetwork.ca/wp-content/uploads/2017/04/Press-release-Review-of-MedsCheck-Diabetes-in-Ontario.pdf (accessed April 7, 2017).
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