

Costs of blood glucose test strips to top \$500 million in Ontario over next 5 years

Ontario Public Drug Program spends approximately \$100 million per year on blood-glucose test strips, accounting for over 3% of Ontario public drug expenditures

What do we know?

- Previous research suggests routine use of blood glucose test strips may not meaningfully improve outcomes and quality of life among adults with Type 2 diabetes treated with oral diabetes drugs or diet and exercise, and may increase discomfort, inconvenience, and worsen symptoms of depression.
- This study showed that the number of patients over 65 using blood-glucose test strips increased by 250% from 1997 to 2008, and almost half of these individuals are unlikely to benefit meaningfully from this monitoring.

Clinical Implications

Self monitoring of blood glucose is not effective for all patients, particularly those using oral glucose lowering drugs or no drug therapy. In these patients, increased discomfort and symptoms of depression may outweigh the benefits of regular testing; therefore consider more judicious use of testing.

How do we know this?

These findings are the results of a cross-sectional time-series analysis tracking the prescription claims for blood glucose test strips paid for by the Ontario Public Drug Program for Ontario residents over the age of 65 between 1997 and 2008. Patients were grouped into one of four diabetes therapy groups: (1) insulin, (2) oral diabetes drugs that can cause low blood sugar (3) oral diabetes drugs that do not cause low blood sugar and (4) no diabetes drug therapy. Use and costs of blood glucose test strips were calculated for each group, and future costs were projected. From 1997 to 2008, the number of people using blood glucose test strips increased from 76,320 to 263,513. Five models of restricted test strip use found that the Ontario government could avoid between \$26 and \$305 million between 2009 and 2013 if these models are implemented.

Gomes T, Juurlink DN, Shah BR, Paterson JM, Mamdani MM. Blood glucose test strips: options to reduce usage. *CMAJ* 2010;182:35-38.

Gomes T, Juurlink DN, Shah BR, Paterson JM, Mamdani MM. *Blood Glucose Test Strip Use: Patterns, Costs and Potential Cost Reduction Associated with Reduced Testing. ICES Investigative Report*. Toronto: Institute for Clinical Evaluative Sciences; 2009.

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