



Canadian Agency for  
Drugs and Technologies  
in Health

## Optimizing Blood Glucose Testing in Long-Term Care

### What could you do if you had more time for patients?

An equally important question: If your long-term care facilities were able to identify and reduce unnecessary expenditures, how could that money be used to improve patient care?

The answers are many, but the result would likely be better and more patient-centred care for residents.

The Canadian Agency for Drugs and Technologies in Health (CADTH) proposes an initiative for increasing efficiency, releasing time for direct patient care, and improving the quality of care in long-term care residential facilities.

### The clinical issue

Type 2 diabetes is a growing concern in Canada, and the effective management of this condition is becoming ever more challenging. The Canadian Diabetes Association (CDA) reports that one in four Canadians either has diabetes or pre-diabetes,<sup>1</sup> and it is likely that residents in long-term care facilities are affected in similar, if not larger, numbers.

Monitoring of blood glucose using test strips is one of the most common diabetes management practices and is critical for managing insulin-dependent diabetes. However, this kind of monitoring has also become widespread practice in managing type 2 diabetes for those who do not require insulin, despite a lack of evidence demonstrating a benefit to this population.

In 2009, CADTH carried out an in-depth health technology assessment of the existing evidence supporting the monitoring of blood glucose. The

results of this study demonstrated that most adults with type 2 diabetes who are not using insulin do not require routine monitoring because it offers little to no benefit to their health.



Exceptions to the general rule do exist and include the following:

- patients who are starting or changing medications that impact blood sugar directly
- patients who are sick with the flu
- patients who are prone to hypoglycemia.

Ultimately, most patients with type 2 diabetes have more to gain from a focus on proven strategies, such as regular physical activity, following a healthy diet, ensuring good foot and vision care, getting hemoglobin A1C measured, and taking medications as prescribed.

### Releasing Time to Care™ for Residents with type 2 diabetes

Frequent monitoring of blood glucose for residents with non-insulin dependent type 2 diabetes can be a time-consuming practice for care providers in residential settings, taking time away from other important care approaches. Releasing Time to Care™ is a continuous improvement program that puts patients at the

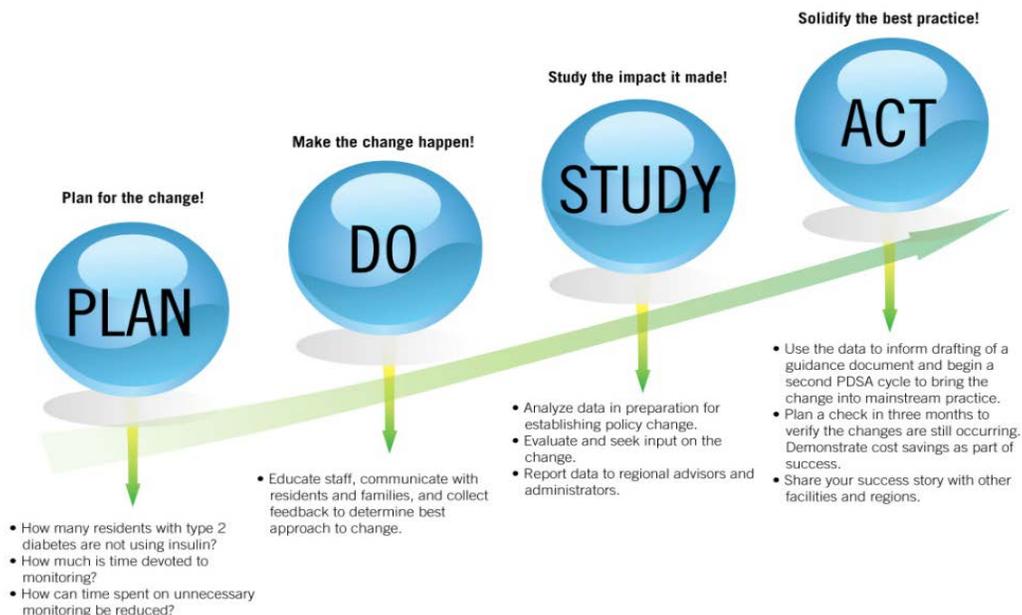
<sup>1</sup> Canadian Diabetes Association [www.diabetes.ca/diabetes-and-you/living/harsh-reality](http://www.diabetes.ca/diabetes-and-you/living/harsh-reality). Accessed May 1, 2012.

centre of health care and is increasingly being considered by Canadian health systems and authorities as a framework for delivering efficient, high-quality health care services.

Other considerations when addressing the frequency of blood glucose monitoring in long-term care is the pain and inconvenience for residents. What's more, at a cost of approximately \$1 per test strip, frequent monitoring is expensive, even if full coverage is provided for these products. And with no added health benefit to most residents with type 2 diabetes not managed with insulin, the question becomes: is blood glucose monitoring the best use of time, effort, and resources for these residents and their care providers? The answer seems evident!

## Plan, Do, Study, Act: Framework for a proposed approach

CADTH's evidence represents significant potential value to support more efficient and purposeful practices that can increase time for direct patient care and reduce unnecessary expenditures. A suggested first step for implementing this evidence into long-term care facilities or networks can be conceptualized using the Plan, Do, Study, Act (PDSA) cyclical approach as described by the Health Quality Council<sup>2</sup>:



<sup>2</sup> Saskatchewan Health Quality Council.  
[www.hqc.sk.ca/portal.jsp?MJ1nwhLzZWe/a0jFSx/i3TBizBf0QfLQKUwK4QBZaJtcgd48p7IQX4zOVcA+lmY4](http://www.hqc.sk.ca/portal.jsp?MJ1nwhLzZWe/a0jFSx/i3TBizBf0QfLQKUwK4QBZaJtcgd48p7IQX4zOVcA+lmY4). Accessed May 2, 2012.

## Next Steps

Talk with colleagues, Physicians, and your Manager/Director to see if this might be the next quality improvement initiative or patient and family centred care approach to take on your unit.

Share information with your colleagues and plan approaches to inform and educate family members of the change in practice.

Plan for education sessions to ensure all staff members are knowledgeable about signs/symptoms of hypoglycemia and hyperglycemia among Residents with Type 2 diabetes.

Develop a collaborative plan for A1c testing for Residents with Type 2 diabetes (if there isn't one in place already) and outline next steps for having all staff reduce daily blood glucose testing among Residents.

Share/communicate the results of your quality improvement initiative with others in your facility, region, or province.