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Diabetes Canada

February 1, 2019

Irfan Dhalla
Vice President, Evidence Development and Standards
Health Quality Ontario
10th Floor, 130 Bloor Street West
Toronto, ON M5S 1N5

Re: Diabetes Canada Feedback on Flash Glucose Monitoring System for People with Type 1 or Type 2 Diabetes: A Health Technology Assessment

Dear Dr. Dhalla:

Thank you for the opportunity to give feedback on the draft report from Health Quality Ontario: Flash Glucose Monitoring System for People with Type 1 or Type 2 Diabetes: A Health Technology Assessment. We support the assessment and the recommendations for flash glucose monitoring for people living with diabetes.

Monitoring blood glucose levels can serve as a useful adjunct to other measures of glycemia, including A1C. Monitoring blood glucose is the optimal way to confirm and appropriately treat hypoglycemia. It can also provide information to patients and their diabetes health-care team to facilitate longer-term treatment modifications and titrations, as well as shorter-term treatment decisions, such as insulin dosing for people with type 1 or type 2 diabetes.[i] It can provide feedback on the results of changes in lifestyle, behavioural interventions and pharmacological treatments.

Monitoring blood glucose by any means is most effective when combined with an education program that incorporates instructions for people with diabetes on healthy behaviour changes in response to blood glucose values and for health-care providers on how to adjust antihyperglycemic medications in response to the readings.

In the Health Quality Ontario report, it is stated that **"**based on moderate certainty of evidence, flash glucose monitoring is more effective than self-monitoring of blood glucose in increasing time in the target glucose range, reducing time above the target glucose range, and reducing glucose variability among adults with well-controlled type 1 diabetes. The certainty of evidence on the effectiveness of flash glucose monitoring in other clinical outcomes is either low or very low". Diabetes Canada concurs with this assessment.

Flash glucose monitoring can provide valuable information about blood glucose patterns that can be used by patients and their care teams to adjust their self-management routines and/or antihyperglycemic therapy to improve their health. However, as you have highlighted, flash glucose monitoring may not be appropriate for all people with diabetes. The clinical evidence, along with clinical and social context and individual preferences, should guide decision making.

We ask you to consider the following for future evaluations and recommendations related to flash glucose monitoring as the data emerge:

1. The clinical trials may have underestimated the magnitude of benefit for flash glucose monitoring. Clinical trials often exclude pediatric or pregnant participants, and those with severe hypoglycemia unawareness. In additional, many clinical trials are designed so that both groups are treated with the same glucose lowering protocol. However, in reality, patients and physicians may not be comfortable with that intensity outside the trial protocol or intensive monitoring during a clinical trial. Thus, the benefit of flash glucose monitoring in terms of glucose control may be underestimated for the whole diabetes population.

2. There may be subpopulations who self-monitor their blood glucose by finger prick often and use more test strips than are reimbursed by the public plan. This may include people with unstable diabetes or people with occupations that require more frequent testing. The benefits in terms of cost to people who pay out of pocket for additional strips may be significant.

3. Flash glucose monitoring may be clinically appropriate in specific contexts for patients where the risk and consequences of hypoglycemia are unacceptable. For example, this may include people with a history of hypoglycemia and who live alone or are a primary caregiver of a young child, and those for whom hypoglycemia would be dangerous in the workplace (truck drivers, shift workers, pilots).

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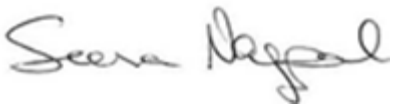
4. Education for use of flash glucose monitoring is essential to achieving the full benefits of the technology and encouraging patients to persist with use. Patients require training and support from health care professionals to use the device and the information it provides. Within a program for reimbursement, there should be a strong component of training and education to support diabetes management practices to improve outcomes.

Diabetes Canada is an organization that produces world-renowned, evidence-based clinical practice guidelines and represents clinicians who practice evidence-based medicine. We believe that treatment standards and protocols should be based on currently available data. However, we note that the evolution of blood glucose monitoring technology is rapid and it is difficult for guidelines, health technology assessments and public policy to quickly incorporate this information to support the best possible outcomes. Therefore, it is essential that all stakeholders commit to participating in 'living' analyses that can incorporate evidence as it emerges. We suggest that Health Quality Ontario commits to leading this 'new way' and making HTAs more nimble and responsive to the current pace of research and discovery to inform and update health policy recommendations.

We look forward to people with diabetes having access to the supports they need to manage their disease. Use of evidence-based and purposeful glucose monitoring will help people living with diabetes achieve their health potential. The selection of a particular glucose monitoring regimen, the most appropriate device/approach (flash glucose monitoring, continuous glucose monitoring, capillary glucose monitoring using test strips) and the response to testing depends on the individual and should be tailored to each patient's unique needs and situation.

Sincerely,



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[i] Berard LD., Siemens R., Woo V. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*: Monitoring Glycemic Control. Can J Diabetes 2018; 42 (Suppl 1): S47-S53.