For Canadian patients with diabetes treated with insulin, hypoglycemia is an ongoing concern

# Hypoglycemia matters

The Hypoglycemia Assessment Tool (HAT) study is an **observational study** examining the impact of hypoglycemia in an insulin-using global population. Data was collected retrospectively using self-assessment questionnaires and prospectively using patient diaries.<sup>1</sup>

The Canadian cohort included 498 patients with type 2 (n=315) or type 1 (n=183) diabetes, and of them, 415 patients (268 with type 2 diabetes and 147 with type 1 diabetes) provided prospective data.<sup>1</sup>

## Hypoglycemic events were not uncommon in people with diabetes<sup>1\*†</sup>

In the 4-week prospective period, a high proportion of patients in Canada reported experiencing at least 1 hypoglycemic event.



Adapted from Aronson R et al (2018).

People experienced multiple hypoglycemic events per year based on the 4-week prospective period in Canada.

### Estimated annual rates of overall hypoglycemia<sup>‡</sup>



Adapted from Aronson R et al (2018). ‡ During the 4-week prospective period of the study.

\* See back page for relevant study parameters.

† A hypoglycemic event was defined as any non-severe (managed by the patient alone), severe (requiring assistance of another person to administer carbohydrate, glucagon, or other resuscitative actions), or nocturnal event (occurring between midnight and 06:00 hours). A combined measure of hypoglycemic events was calculated based on diary and questionnaire entries.

Demonstrated rates of nocturnal and severe hypoglycemia based on the 4-week prospective period in Canada.<sup>1\*†</sup>

#### Estimated annual rates of nocturnal and severe hypoglycemia<sup>±</sup>



Adapted from Aronson R et al (2018). ‡ During the 4-week prospective period of the study

Canadian patients reported hypoglycemic events regardless of glycemic control.<sup>1</sup>



Percent of patients reporting hypoglycemia by A1C level<sup>‡</sup>

Adapted from Aronson R et al (2018). + During the 4-week prospective period of the study

A1C levels were demonstrated to not be a predictor of hypoglycemia, as patients experienced hypoglycemic events even when A1C was >9.0%.<sup>1</sup>

# Insulin-induced hypoglycemia is a major obstacle for individuals trying to achieve glycemic targets<sup>2</sup>

In a separate study, hypoglycemic events drove some patients to modify certain behaviours:<sup>39</sup>



### Following a mild or moderate hypoglycemic event

Following a severe hypoglycemic event

§ See below for study parameters.

85% of patients with type 2 diabetes did not mention mild-to-moderate hypoglycemic episodes during follow-up visits.<sup>3</sup>

Hypoglycemia is the most common side effect of insulin treatment, and the impact of these events can make diabetes management more challenging.<sup>3,4</sup>

Are your patients at risk? It is safer and more effective to prevent low blood sugar than to treat it. Talk to your patients about how hypoglycemia is impacting them!<sup>2</sup>

References: 1. Aronson R, et al. The Canadian Hypoglycemia Assessment Tool Program: Insights Into Rates and Implications of Hypoglycemia From an Observational Study. Can J Diabetes. 2018;42(1):11-17. The Canadian cohort of a non-interventional, multicentre, 6-month retrospective and 4-week prospective study, using self-assessment questionnaires and patient diaries, included 498 patients, aged ≥18 years with type 1 diabetes (n=183) or type 2 diabetes (n=315), treated with insulin for >12 months. The primary endpoint was the proportion of patients experiencing at least one hypoglycemic event during the observational period. 2. Diabetes Canada Clinical Practice Guidelines Expert Committee. 2018 Diabetes Canada Practice Guidelines for the Prevention and Management of Diabetes in Canada. Can J Diabetes. 2018;42(suppl 1):S1-S325. 3. Leiter LA, et al. Assessment of the Impact of Fear of Hypoglycemic Episodes on Glycemic and Hypoglycemia Management. Can J Diabetes. 2005;29(3):186-192. Retrospective, observational study in patients with type 1 and type 2 diabetes (n=202 and 133, respectively) to quantify the number of hypoglycemic episodes and to assess the effects that hypoglycemia and fear of hypoglycemia have on daily life and glycemic management. 4. Strachan MWJ, et al. Insulin Therapy: A Pocket Guide. Chapter 5: Side-Effects of Insulin. London: Springer Science & Business Media; 2013



