

# Insulin in People Living with Type 2 Diabetes: Initiation and Dosage

## Favourable results from a scientific study conducted by Canadian investigators on the dosage adjustment of Toujeo®

LAVAL, QC, Oct. 17, 2017 /CNW Telbec/ - Individuals with type 2 diabetes may need insulin to achieve target blood glucose levels. As such, healthcare professionals and individuals living with diabetes may have questions about insulin initiation and reaching the right dosage.

A possible reluctance to delay starting someone on insulin or increasing their insulin dose, a phenomenon called clinical inertia, may negatively affect optimal diabetes treatment. Dr. Stewart Harris, Professor in the Department of Family Medicine of the Schulich School of Medicine & Dentistry at Western University and a medical expert who took part in the study entitled *TITRATION: A Randomized Study to Assess 2 Treatment Algorithms with New Insulin Glargine 300 units/mL*, states that "patients with type 2 diabetes start insulin approximately 9 years after the diagnosis is made, when glycated hemoglobin is above 8.5% and complications of the disease have already begun to appear<sup>1</sup>. The results of the study that we have just performed support a simple and effective method to initiate and increase doses of insulin glargine 300 units/mL."

**Insulin glargine 300 units/mL once daily:**  
Favourable results from a scientific study conducted by Canadian investigators.

Published in the Canadian Journal of Diabetes<sup>2</sup>, this new Canadian study aimed to measure the efficacy and safety of adjusting once daily doses of insulin glargine 300 units/mL, marketed under the name Toujeo®.

**ALARMING STATISTICS IN CANADA**

The results of this study, conducted over a period of 12 weeks in 212 randomly selected participants with uncontrolled type 2 diabetes, demonstrate that with Toujeo®, it is possible for patients to adjust their doses at a rate of one unit per day until target blood glucose levels are achieved.

Diabetes affects approximately 8.4 million Canadians, of which type 2 diabetes accounts for 90% of cases.<sup>1</sup>

It is estimated that 5.7 million Canadians have prediabetes; this condition is characterized by blood glucose levels above normal, but not high enough to be diagnosed as diabetes. Fifty percent of individuals with prediabetes will develop type 2 diabetes.<sup>2</sup>

Left untreated, diabetes can lead to many serious complications, such as heart disease, kidney disease, loss of vision and amputation of the lower limbs.

**Late initiation to insulin: clinical inertia<sup>3</sup> would be an associated factor**  
Healthcare professionals and individuals living with diabetes may have questions about insulin initiation and reaching the right dosage. The phenomenon of clinical inertia, which concerns the insulin initiation or treatment intensification by increasing the doses, may negatively affect optimal diabetes treatment.

**Insulin makes it possible to lower the amount of glucose in the blood. Unfortunately, it is often initiated too late in the process, exposing the patient to the risk of complications associated with high blood glucose.**

Patients with type 2 diabetes start insulin approximately 9 years after the diagnosis is made, when glycated hemoglobin is above 8.5% and complications of the disease have already begun to appear.<sup>1</sup>

**Toujeo® is a basal insulin that was approved by Health Canada in 2015, and which has been studied in a large clinical program<sup>3</sup>.**  
Compared to insulin glargine 100 units/mL, Toujeo®:

- is a longer acting insulin;
- provides a constant glucose lowering effect over 24 hours with a once daily administration;
- has a low within and between day variability.<sup>4</sup>

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"Insulin makes it possible to lower the amount of glucose in the blood. Unfortunately, it is often initiated too late in the process, exposing the patient to the risk of complications associated with high blood glucose. It is thus important to have access to a simple and effective method to initiate and increase insulin doses. As part of our study, we compared the efficacy and safety of adjusting doses of Toujeo® according to Diabetes Canada's clinical practice guidelines," explains Dr. Jean-François Yale, Endocrinologist, Professor in the Department of Medicine of McGill University and member of the team of investigators who carried out the study. "Since Toujeo® is a longer-acting insulin than Lantus®, it was important to assess whether the recommendation for patients to adjust their doses at a rate of one unit per day until target blood glucose levels are achieved also applied to Toujeo®; this study's conclusions proved favourable and show that it is possible."

"We are proud that Toujeo® was instrumental to this important study for people living with diabetes," claims Niven Al-Khoury, President at Sanofi Canada. "With over 100 years of experience of working to understand and support the healthcare needs of Canadians, being able to bring valuable solutions is core to our purpose."

Diabetes affects approximately 3.4 million Canadians, of which type 2 diabetes accounts for 90% of cases<sup>5,6</sup>. It is estimated that 5.7 million Canadians have prediabetes; this condition is characterized by blood glucose levels above normal, but not high enough to be diagnosed as diabetes. Fifty percent of individuals with prediabetes will develop type 2 diabetes<sup>7</sup>. Left untreated, diabetes can lead to many serious complications, such as heart disease, kidney disease, loss of vision and amputation of the lower limbs.

"This study demonstrates Sanofi Canada's commitment with regard to the effort and energy invested by healthcare professionals to help patients receive the best possible care they need in terms of available treatments stemming from the most recent developments in research on diabetes management," concluded Dr. Hisham A.S. Mahmoud, Medical Director at Sanofi Canada.

### **About Sanofi Diabetes and Cardiovascular**

Diabetes and cardiovascular disease affect millions of people worldwide, with many managing the complex challenges of both. Building on its portfolio evolution, heritage and expertise, Sanofi has implemented a focused business unit dedicated to delivering innovative, value-based medicines and integrated solutions in these therapeutic areas. It is committed to a collaborative approach that involves strategic alliances with professional and patient associations, research institutions and leaders in healthcare and other industries, with the goal of advancing scientific knowledge, driving the convergence of science and technology, helping to improve outcomes and inspiring an evolution in care.

### **About Sanofi [www.sanofi.ca](http://www.sanofi.ca)**

Sanofi, a global healthcare leader, discovers, develops and distributes therapeutic solutions focused on patients' needs. Sanofi is organized into five global business units: Diabetes and Cardiovascular, General Medicines and Emerging Markets, Sanofi Genzyme, Sanofi Pasteur and Consumer Healthcare. Sanofi is listed in Paris (EURONEXT: SAN) and in New York (NYSE: SNY).

Together, Sanofi entities in Canada employ close to 1,900 people. In 2016, Sanofi companies invested \$130 million in research and development in Canada, creating jobs, economic activity and opportunity throughout the country.

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<sup>1</sup> Harris SB, Stewart M, Brown JB, Wetmore S, Faulds C, Webster-Bogaert S, Porter S. Type 2 diabetes in family practice. *Room for improvement*. Canadian Family Physician - [bilingual text]. VOL 49: JUNE • [bilingual text] 2003; 778-85.

<sup>2</sup> [http://www.canadianjournalofdiabetes.com/article/S1499-2671\(17\)30014-X/abstract](http://www.canadianjournalofdiabetes.com/article/S1499-2671(17)30014-X/abstract)

<sup>3</sup> Patient-level meta-analysis of EDITION 1, 2 and 3: glycaemic control and hypoglycaemia with new insulin glargine 300 U/mL versus glargine 100 U/mL in people with T2DM - Robert Ritzel, Ronan Roussel, Geremia B. Bolli, Laetitia Vinet, Claire Brulle-Wohlhueter, Stanislav Glezer, and Hannele Yki-Järvinen.

<sup>4</sup> Becker RH, Nowotny I, Teichert L, et al. Low within- and between-day variability in expo-sure to new insulin glargine 300 U/ml. *Diabetes Obes Metab*. 2015;17(3):261-7.

<sup>5</sup> Diabetes Canada, diabetes statistics in Canada: <http://www.diabetes.ca/how-you-can-help/advocate/why-federal-leadership-is-essential/diabetes-statistics-in-canada>

<sup>6</sup> Diabetes Québec, type 2 diabetes: <http://www.diabete.qc.ca/en/understand-diabetes/all-about-diabetes/types-of-diabetes/type-2-diabetes>

<sup>7</sup> Diabetes Canada, prediabetes: <https://www.diabetes.ca/about-diabetes/prediabetes>

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