

AUGUST 2024 - ISSUE 4

# GLYCEMIC ROOTS

## KEEPING DIABETES EDUCATORS CONNECTED

Waterloo Wellington Diabetes Newsletter

NEW

## Once Weekly Basal Insulin is Here Insulin Icodec (Awiqli)

Icodec is a once-weekly basal insulin analogue designed to provide basal insulin requirements for a full week in a single subcutaneous injection. As a new class of insulin, it has the potential to redefine insulin therapy and improve quality of life for people living with diabetes.

The Icodec insulin molecule has been engineered by modifying human insulin to prolong the half-life to approximately 7 days. Three amino acid substitutions provide molecular stability, minimize the enzymatic breakdown and reduce receptor mediated clearance. Icodec has 196 hour duration with a flatter profile than other basal insulins with less variability. Studies have shown similar if not better A1c lowering compared to other ultra long-acting basal insulins with low risk of hypoglycemia. Almost all of the Icodec molecules bind to albumin in the blood to form an inactive depot. Slowly over the week, Icodec molecules are released from albumin to achieve a stable glucose lowering effect. Icodec achieves a steady dosing state after 3-4 weeks. Icodec is cleared via insulin receptor mediated clearance (no renal clearance).

Icodec is a U700 (units/ml) to ensure the injection volume is similar to that of once-daily basal insulin. It is available in two pen sizes: 1.5 ml (less than 170 units/wk) and 3.0 ml (greater than 170 units/wk).

Injection burden or fear can be a major barrier to insulin initiation. Decreasing the number of injections required to achieve glycemic control from 365 to 52 per year may improve willingness to start insulin therapy. It may also improve time in range without as much burden on daily life. Due to the long duration of action, there is a grace period of 3 days of the chosen injection day without a stacking effect. Canada is the first country to approve Icodec and it will be available starting June 30, 2024. Cost has been estimated to be similar to Degludec but needle tips will be included with Icodec pens.

[Click here](#) for more information

[Click here](#) for the product monograph

## This Issue:

**NEW** - Once Weekly Basal  
Insulin Therapy

Page 1

The Impact of Sleep  
Disturbances on Glycemic  
Control

Page 2

**NEW** - Diabetes Canada  
Impact Report, Mental  
Health & Diabetes HCP  
training

Upcoming Events

Page 3

**NEW** - Small Steps to Big  
Changes program  
Sinai Health Trial  
Recruitment

Page 4





# The Impact of Sleep Disturbances on Glycemic Control




Evidence suggests a bidirectional relationship between sleep disorders and type 2 diabetes. People living with T2D and a sleep disorder are at higher risk of developing diabetes complications. Specifically, sleep disorders are a risk factor for mental health disorders, arterial hypertension, myocardial infarction, heart failure, obesity, cardiovascular diseases and increased mortality. Sleep disorders may also play a role in the development of cognitive impairment.

## Common sleep disorders include:

1. **Obstructive Sleep Apnea (OSA)** – a sleep-related breathing disorder that is characterized by non-restorative sleep, snoring and accompanied by obstructive respiratory events. People living with OSA are at higher risk of developing diabetes.
2. **Chronic insomnia** – diagnostic criteria: a disturbance in nocturnal sleep with related daytime impairment that occurs at least 3 nights per week for a period of 3 months or more.

Sleep disorders are more prevalent in people living with type 2 diabetes (research estimates approximately 75%). Consider assessing for sleep disturbances in your initial assessment and follow up appointments. If a patient reports disturbed sleep or sleep duration of less than 5 hours, consider suggesting a sleep assessment to the patient's primary care provider. A sleep assessment will help to determine possible medical, psychiatric, neurological or lifestyle factors that are impacting sleep. Current treatment options include: addressing medical or lifestyle factors, sleep education & cognitive behavioural training for insomnia and pharmacotherapy.

A 2022 consensus report by the American Diabetes Association and the European Association for the Study of Diabetes summarize the positive impacts of treating sleep disorders (see chart below). [Click here](#) to read the report.

	Glucose/insulin	Blood pressure	HbA <sub>1c</sub>	Lipids	Physical function	Depression	Quality of life
 SITTING/BREAKING UP PROLONGED SITTING	↓	↓	↓	↓	↑	↓	↑
STEPPING	↓	↓	↓	↓	↑	↓	↑
 SWEATING (MODERATE-TO-VIGOROUS ACTIVITY)	↓	↓	↓	↓	↑	↓	↑
STRENGTHENING	↓	↓	↓	↓	↑	↓	↑
 ADEQUATE SLEEP DURATION	↓	↓	↓	↓	?	↓	↑
GOOD SLEEP QUALITY	↓	↓	↓	↓	?	↓	↑
CHRONOTYPE/CONSISTENT TIMING	↓	?	↓	?	?	↓	?

Davies MJ, Aroda VR, Collins BS, et al. Management of Hyperglycemia in Type 2 Diabetes, 2022. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care. 2022;45(11):2753-2786. doi: 10.2337/dci22.0034

## Waterloo Wellington Self-Management Program: Better Sleep Series

Offers a **free** 5 week **Better Sleep** program for people struggling with sleep disturbances. Participants will learn the most effective cognitive behavioural strategies to help decrease insomnia frequency. The focus is on practicing strategies to relax the mind and body to improve sleep quality, and to be able to fall asleep or back to sleep easier. Consider sharing the program information with your patients reporting sleep disturbances. [Click here](#) to learn more

Want to learn how the **Self-Management Program** can benefit you, your patients & program? Contact Danielle at [danielleh@lans.org](mailto:danielleh@lans.org) or call 519-496-7231



NEW

## Diabetes Canada Impact Report

Make sure to check out the 2023 Diabetes Canada Impact Report to learn about new research investments, new initiatives and programs that have been launched this year to help support people living with diabetes and Healthcare Professionals.

[Click here](#) to access the report



NEW

## Mental Health + Diabetes Training Program

Diabetes Canada collaborated with JDRF Canada to help address some of the gaps in mental health support for people living with diabetes. This collaboration has resulted in the development of the **Mental Health + Diabetes Training Program**. This bilingual program provides knowledge and tools to help registered Canadian mental health providers deliver the best support to their clients living with type 1 or type 2 diabetes.

[Click here](#) to learn more

### Mental Health + Diabetes Directory

This directory aims to provide individuals living with or affected by diabetes access to information about registered mental health providers with specialized training in understanding the impact of living with diabetes.

Every provider included in the directory has successfully completed the Mental Health + Diabetes Training Program.

[Click here](#) to learn more

## Upcoming Events

### 1. Health Literacy Training

September 13, 2024

Hosted by Waterloo Wellington Self-Management Program

**FREE**

[Click here](#) for more information

[Click here](#) to Register

### 2. Waterloo Wellington Diabetes Educator Collaborative Meeting

Coming October 2024

### 3. 2024 Fall New Hires Diabetes Program

A program for regulated HCPs new to working in diabetes education. Seven virtual 3-hour sessions Registration fee \$130.00

[Click here](#) for more information

[Click here](#) to register

### 4. Evidenced Based Management of the Diabetes Epidemic

**SAVE THE DATE**

November 13, 2024, 12-5 pm

Virtual OR In-Person

**FREE**

Liuna Station, Hamilton

### 5. London Diabetes Update 2024

**SAVE THE DATE**

November 13, 2024

Virtual OR In-person

### 5. 2024 Diabetes Canada Professional Conference

November 20-23, 2024

Halifax Convention Centre

**Early bird date ends Sept 6th**

[Click here](#) to view the agenda

[Click here](#) to register

**\*\*Did you know Diabetes Canada offers a Professional Membership Bursary Program?**

They offer at least 3 - \$2000 bursaries for members to attend the annual conference.\*\*

[Click here](#) to learn more



## Small Steps for Big Changes

### *Change your life one step at a time*

Small Steps for Big Changes is an evidence-based lifestyle program designed to help people make lasting lifestyle changes to lower their risk of developing type 2 diabetes. The purpose of Small Steps for Big Changes is to help individuals feel empowered to make changes to their exercise and diet with the goal of maintaining these changes long-term.

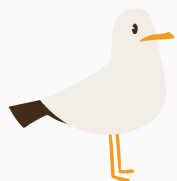
Small Steps for Big Changes is a personalized, one-on-one, 3-week training and counselling program. Individuals will engage in exercise, one-on-one counselling sessions and practice making changes at home. Individuals will participate in various types of aerobic exercise: including exercise at a steady pace for 20-30 minutes, interval exercise that involves alternating between bouts of up to 1 minute of brisk activity and 1 minute of light activity for 12-15 minutes. YMCA trained coaches will provide two – 30 minute check-in appointments over the following two years.

The program is free and will be starting in summer 2024 at the Kitchener YMCA site. Additional sites may be added in 2025.

Patients are eligible if they are between the ages of 18 years or older and at risk for developing type 2 diabetes. They must also be able to read and comprehend English and have a BMI between 25 and 40 kg/m<sup>2</sup>.

For more information, [click here](#)

For inquiries about the program, please email [wellness@tr.ymca.ca](mailto:wellness@tr.ymca.ca) or call **519-743-5201 ext. 2113**



Wishing you a wonderful finish to the summer season and a beautiful beginning to Autumn.

*Trina*

## Sinai Health Diabetes Research Trials: Recruiting

### 1. **Diabetes Longevity Study**

- DM duration 50 yrs or more
- Better understand protective factors

### 2. **Ustekinumab in newly dx T1D**

- Diagnosis of T1D in past 3 mos, ages 18-25 years, willing to travel to Toronto
- Research goal is to protect pancreatic cells, and delay progression

### 3. **EMPA Trial**

- GDM pregnancy within last 3 years, willing to travel to Toronto
- 20-50 years and not currently breastfeeding
- Research goal is to preserve beta cell function, and prevent T2D

### 4. **Metabolic Impact of Intermittent Fasting in Early T2D**

- T2D dx within 10 years, age 20-70, A1c 5.5-9.0%, BMI > 25
- Treatment: lifestyle, Metformin/ DDP4
- Research goal is to determine if fasting improve beta cell function

### 5. **CLIMB**

- Pregnant women with T1D
- Study effectiveness of closed loop pumps during early post partum

[Click here](#) for trial information

## Contact Information:

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