MAY 2025 - ISSUE 7

GLYCEMIC ROOTS

KEEPING DIABETES EDUCATORS CONNECTED

Waterloo Wellington Diabetes Newsletter

DUO25 Diabetes and Obesity Conference

Obesity Key Take-Aways

- 30% of adults in Canada are obese, highest prevalence in NB, NFLD & SK
- Cost of inaction is over $27 billion (according to Obesity Canada 2024 report)
- HCPs: ask permission to discuss weight & apologize for healthcare system's weight stigma
- Switch from outcome based goals to process goals - focus on what a person can control
- 3 forms of treatment: psychological intervention, pharmacological, bariatric surgery
- Weight that is lost with pharmacotherapy is approximately 70% fat, 30% muscle
- High protein diet & resistance training recommended to mitigate muscle loss (> 100 grams protein/day), 30-40 grams at meals, over 40 grams at one meal not effective, not utilized by body
- Studies have shown additional benefits of GLP-1ra therapy: improvement in MACE & HF, OSA, OA pain scores, PAD, prevention of T2D, addictions, glaucoma. Class indication may expand in future
- Oral contraceptives not as effective (not absorbed as well) if on GLP-1's, should use barrier method
- Suggested terminology change from obesity to ABCD (Adiposity Based Chronic Disease) as it is a chronic and progressive disease, reduce stigma/shame
- Move away from BMI to Body Roundness Index (BRI) as more accurate, click here to access a BRI online calculator

Diabetes Key Take-Aways

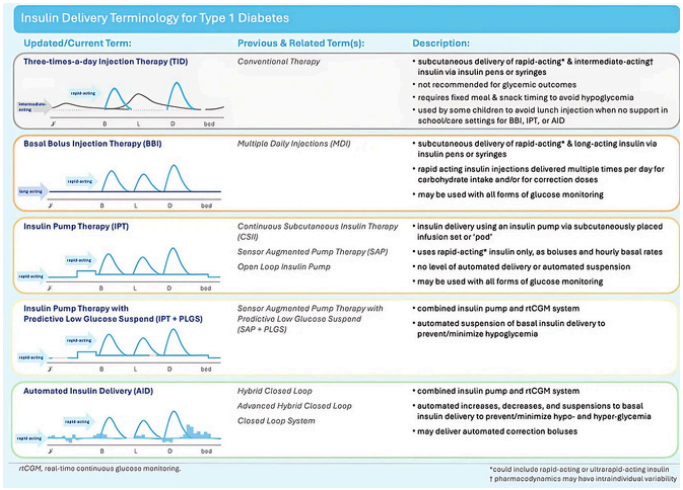
- Consider using AI for meal plan ideas for ethnic food/meal ideas, budget, dietary restrictions
- Another once weekly basal insulin coming soon (Efsitora)
- Finerenone will be added to SADMANS list
- Atypical DM presentations, steps to consider to determine diagnosis:
  - Review family history of DM, measure auto antibodies, repeat c-peptide & glucose, send for MODY testing if still unclear type
  - Classic T1D clinical features not as present in older adults at diagnosis, if they progress to BBI therapy within 3 years likely T1D. 20% will have negative anti-GAD results
  - MODY - uncommon (1-2%), < 35 years old, strong family history, c-peptide positive, no features of insulin resistance, lean body weight but no DKA if insulin held
- Time in tight range (3.9-7.8 mmol/L) aim for > 50% in 14-day period
- Diabetes is challenging to manage for the average person. Needs a supportive team to first address emotional responses to the diagnosis before developing a personalized care plan:
  - Acknowledge, empathize and normalize their feelings
  - Understand and address social determinants of health
  - Promote readiness to change - ask permission to work together
  - Behaviour modification when the person is ready

This Issue:

DIABETES CANADA
CLINICAL PRACTICE GUIDELINES

NEW Glycemic Management Across the Lifespan for People with T1D

New Terminology



Diabetes Canada Clinical Practice Guidelines, Chapter 41, Table 1

New Targets

- **Pediatric glycemic targets are now the same as adults:** CBG, A1c and time in range
- **A1c target is < 7% across the lifespan** to reduce the risk of microvascular complications

Management Approaches

- Automated Insulin Delivery (AID) systems are the preferred treatment to optimize glycemia
- Ultrarapid-acting insulin should be considered in individuals who are not at target (IPT, BBI)
- Deliver mealtime rapid insulin 10-20 mins before meal
- **Adjunctive therapy in T1D:** non-insulin antihyperglycemics (Metformin, GLP-1ra, SGLT2i) may be used in addition to insulin to help achieve health outcomes where the balance of risks, benefits, and side effects are acceptable and strategies to mitigate risks are employed
- **Updates to hypoglycemia treatment in children & adolescents:**

Table 3
Treatment of acute hypoglycemia in children and adolescents

Hypoglycemia category	Level 1 hypoglycemia (mild or alert)	Level 2 hypoglycemia (moderate)	Level 3 hypoglycemia (severe)
Description	Glucose 3.0–3.9 mmol/L Autonomic symptoms only	Glucose <3.0 mmol/L Neuroglycopenic symptoms, without significant impact on mental status	Glucose <3.9 mmol/L Neuroglycopenic symptoms with significant cognitive impairment
Management	For BBI or IPT: Oral carbohydrates (0.3 g/kg) Age <5 years: 5 g Age 5–10 years: 10 g Age >10 years: 15 g For AID: Age <5 years: 5 g Age 5–10 years: 5 g Age >10 years: 5–10 g	Same as for level 1 hypoglycemia	If able to swallow: Oral carbohydrate (20 g) If unable or unsafe to swallow: Age ≥4 years: Intranasal or injectable glucagon Age <4 years: Glucagon subq/IM. 0.5 mg if <20 kg; 1 mg ≥20 kg)

AID, automated insulin delivery; *BBI*, basal bolus injection therapy; *IPT*, insulin pump therapy.

Diabetes Canada Clinical Practice Guidelines, Chapter 41, Table 3

DKA

Children and adolescents with T1D in mild or moderate DKA

- IV fluid should be crystalloid or normal saline
- IV fluid bolus of 10-20 ml/kg can be considered and repeated 15-20 mins later if dehydration or shock persists,
- if IV access is unavailable, frequent subcutaneous insulin injections may be used as an alternative treatment

NEW Cystic Fibrosis-related Diabetes

First Canadian Guideline

Cystic fibrosis (CF) is an autosomal recessive disease affecting > 4000 Canadians. It is a genetic disorder that causes thick mucus to accumulate in organs (lungs, digestive system, pancreas) causing damage. This damage, plus the mucus, can block ducts that release pancreatic digestive enzymes making it harder to digest food and absorb nutrients. This pancreatic damage increases the risk of developing diabetes.

Cystic Fibrosis Related Diabetes (CFRD):

- prevalence increases with age and female sex
- distinctive from T1D and T2D, dysfunction of both the pancreatic exocrine and endocrine functions
- has a high burden of treatment
- increased risk of pulmonary decline, decline in nutritional status, and diabetes complications
- risk of impaired growth, weight loss and delayed puberty

Screening

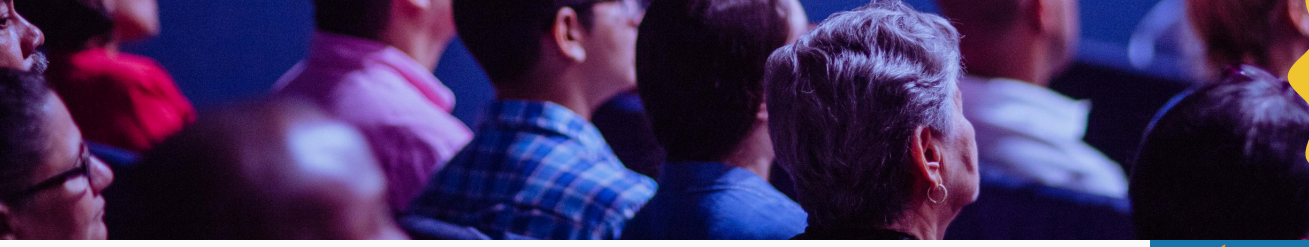
- Start at age 10 with annual A1c
  - if A1c < 5.5%, screen annually
  - if A1c 5.5-6.4%, undergo 75 gram OGTT
  - if A1c >6.4%, repeat a second test within 3 mos. to confirm diagnosis

Management

- A1c every 3-6 mos.
- CBGM (ac meal & 1-2 hr pc meal), 3-4x/wk or CGM
- Glycemic targets same as T2D adults
- Insulin is preferred treatment
- For adults with CFRD & low-risk for nutrition & pulmonary concerns, can consider AHAs
- Monitor BP & lipids at diagnosis and annually
- CFRD > 5 years follow T1D complication screening & treatment
- CFRD patients should be followed by experienced DEP & Respirologist

Pregnancy

- **CRFD:** pre-conception counselling starts at puberty
- **CF:** preconception counselling, screen in 1st trimester, if negative repeat at 24-28 wks



Want to learn how the Self-Management Program can benefit you, your patients & program? Contact Kyla at kylaplangs.org or call 519-947-1000 ext. 265

NEW

DIABETES CANADA CLINICAL PRACTICE GUIDELINES

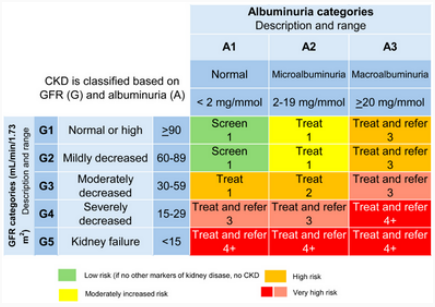
CKD in Diabetes Guideline Update

The 2025 CKD guideline update aims to provide a more nuanced and effective approach to managing CKD in people living with diabetes. Emphasizing early detection, personalized care, and the integration of new therapeutic options.

Key Takeaways:

1. Risk Prediction

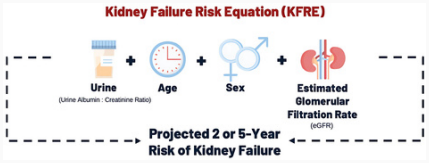
a. The KDIGO CKD staging system incorporates the stages of kidney disease and albuminuria to show how small increase in ACR and decreases in eGFR are associated with increased risk of atherosclerotic CVD and risk of progression to ESRD



2.Enhanced Risk Stratifications

a. Klinrisk score - suggested for early identification and intervention in PWD and high-risk for CKD (stages G1-G3). Click here to learn more

b. Kidney Failure Risk Equation - used in PWD & CKD at stages G3-G5 to predict the risk of ESRD over 5 years. Can help determine ESRD prevention strategies.

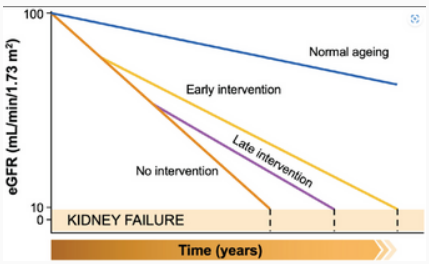


3.Medication Management

a. Recommends the use of SGLT2i for CKD patients, regardless of glycemic control, to slow kidney disease progression and reduce CV events

b. Treatment of CKD with RAASis, SGLT2is, GLP-1RAs and nsMSAs are as effective at kidney protection with low eGFR < 60 ml/min as they are with eGFR > 60 ml/min

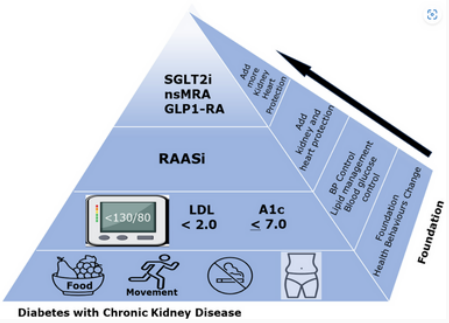
c. Suggests to start therapy with ACEi (T1D or T2D) or ARB (T2D). Currently insufficient evidence on how to sequence the next choice in cardiorenal protective therapies. Choice based on individual lab values and co-morbidities



d. Caution for hyperkalemia with RAASis and nsMRA, monitor potassium after initiation and provide low potassium diet education

e. For mild hyperkalemia (up to 5.4 mmol/L) manage with dietary intervention. For moderate hyperkalemia (5.4-5.9 mmol/L), start medical therapy for potassium excretion. For severe hyperkalemia (> 6.0 mmol/L), hold RAASi & nsMRA medications and send to ER for management

f. Cystatin C is an alternative filtration marker. Creatinine/Cystatin C eGFR can be used if creatinine-based eGFR is suspected to be unreliable



Upcoming Events

1. Diabetes Canada 2025 Update: T1D Glycemic Management Chapter

Join Dr. Ilana Halperin, Dr. Peter Senior and Alanna Chambers to:

- Understand what's new in the guidelines
- Hear directly from experts involved in the guideline development
- Engage in real-world application discussions

June 9, 2025, 6-9 pm (Toronto)
Click here to learn more

2.Corticosteroid Induced Hyperglycemia

Join moderator Lori Berard and Speaker Dr. Alice Cheng to learn how to manage corticosteroid Induced Hyperglycemia

June 11, 2025, 7-7:45 pm
Click here to learn more
Click here to register

3. Foot Focus: Inlow Demonstration

Join Carson Le, Chiropodist to watch a live demonstration on how to conduct a thorough foot exam using the 60 second Inlow screening tool

June 16, 2025, 12-1 pm
Click here to learn more

4. MASLD Masterclass

One-day in-person program designed to enhance your knowledge of MASLD

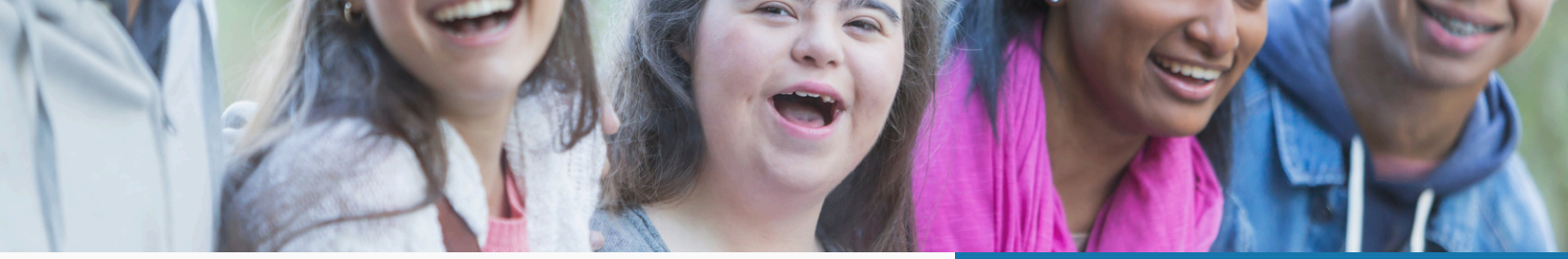
In-Person
Novotel Toronto North York

September 13, 2025, 8-3 pm
Save the date - more info to come

5. Health Literacy

Participants will gain an understanding of Health Literacy concepts and learn practical skills for clear and effective communication with patients & family members

Sept 25, 2025, 9-12:30 pm
Click here to learn more



Down Syndrome and Diabetes Risk

First Clinical Guideline for Adults with Down Syndrome

Adults with Down Syndrome face unique health challenges, including higher risks for: congenital cardiac & GI anomalies, autoimmune disorders, sleep disorders, dementia, diabetes, MASLD and obesity. Until recently, no formal clinical guidelines existed to address their specific needs, with the aim of risk reduction. There is limited research available that focuses on people with Down Syndrome, which needs to be prioritized as a future area of research.

Key Guideline Recommendations:

- Dementia - begin annual screening at age 40
- Diabetes - start screening at age 21 if obese otherwise start at age 30, repeated every 3 years
- Thyroid - screen every 1-2 years starting at age 21
- Obesity - monitor BMI annually
- Celiac Disease - annual symptom-based assessments
- **Click here** to access the guidelines

Diabetes Toolkit:

- The toolkit was created by the GLOBAL Down Syndrome Foundation: a non-profit organization that is dedicated to improving the lives of people living with Down Syndrome through research, medical care, education, and advocacy
- **Click here** to access the toolkit

Diabetes rates in adults with Down Syndrome are 4x those of unaffected adults under the age of 30 and 2x those of unaffected adults 30 years and older. People with Down Syndrome have a 3-7x increased risk of T1D compared to the general population. The underlying mechanisms still need further investigation. It is theorized that the combination of genetic susceptibility, predisposition to autoimmunity, mitochondrial dysfunction, increased oxidative stress, and cellular dysfunction are contributing factors.

A large retrospective study found patients with Down Syndrome & diabetes were less likely to be on oral medication within the first 5 years from diagnosis compared to patients without Down Syndrome. This is important to consider as advances in Down Syndrome care have improved life expectancy to average age of 60 years.
It is suggested that parents of children with Down Syndrome need to be informed of the increased risk of diabetes, importantly the signs and symptoms of the onset of T1D.
Click here to access the retrospective study

Wishing you a wonderful beginning to summer!

Trina

Tzield Approved

On May 5, 2025, Health Canada approved Tzield (teplizumab), the first-in-class disease-modifying therapy for autoimmune T1D.
Tzield is CD3-directed monoclonal antibody, designed to bind to the T-cells responsible for the autoimmune attack of pancreatic beta cells. By binding to T-cells it can help to preserve beta cells for longer.
It is approved to be used in people 8 years and older currently living with stage 2 -T1D.
Tzield has been shown to delay the onset of stage 3-T1D by a median of 2 years.
This is huge step forward in the prevention of T1D.

Zepbound Approved

On May 14, 2025, Health Canada approved Zepbound KwikPen (tirzepatide injection) for chronic weight management. It is now an option to treat obesity as an adjunct to a reduced-calorie diet and increased physical activity in adults with a BMI of:

- 30 kg/m2 or greater
- 27-30 kg/m2 in the presence of at least one weight-related comorbid condition

Contact Information:
Trina Fitter - Resource Clinician
trinaf@langs.org
519-947-1000 ext 262

info@waterloowellingtondiabetes.ca
www.waterloowellingtondiabetes.ca