



What Primary Care Clinicians Need to Know About Once-Weekly Insulins

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Disclosures

- Eden Miller, DO, faculty for this educational event, is on the advisory board and speaker's bureau for Abbott, Bayer, BI/Lilly, Corcept, Novo Nordisk, Embecta, and Insulet. Dr. Miller has also received research funding from Abbott.
- The remaining Faculty, CME Planning Committee, Reviewer and Moderator have no relevant financial relationships with ineligible companies to disclose.
- The OSMA CME Manager has mitigated all information with ineligible companies listed for these individuals and has resolved all conflicts of interest if applicable.
- This CME activity includes discussion about medications not approved by the US Food and Drug Administration and uses of medications outside of their approved labeling.

Learning Objectives

Participants in this activity should be able to...

Initiate basal insulin therapy without unnecessary delays for patients with T2D who are indicated for insulin treatment.

Review the clinical efficacy and safety data for new and emerging ultra-long acting once weekly insulins.

Compare and contrast the potential benefits and risks of once weekly insulins compared to traditional basal insulins.

Introduction

Type 2 Diabetes (T2D)

- T2D is a serious public health concern globally and in the United States (US)¹
- Associated with significant morbidity due to microvascular and macrovascular complications resulting from elevated blood glucose^{3,4}
 - Diminished functional capacity, lower quality of life, and premature death

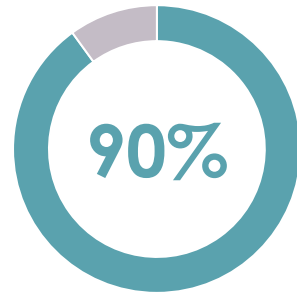
1 in 10

**Americans have
diabetes; most have T2D²**

1. Khan MAB, et al. *J Epidemiol Glob Health*. 2020;10(1):107-111. 2. Centers for Disease Control and Prevention. About type 2 diabetes. Updated May 15, 2024. Accessed June 20, 2024. <https://www.cdc.gov/diabetes/about/about-type-2-diabetes.html>. 3. American Diabetes Association Professional Practice Committee, et al. *Diabetes Care*. 2024;47(Suppl_1):S179-S218. 4. American Diabetes Association Professional Practice Committee, et al. *Diabetes Care*. 2024;47(Suppl_1):S219-S230.

The Primary Care Clinician's Role

- Primary care clinicians (PCCs) treat most patients in the US with T2D^{1,2}
 - Often the first clinicians to diagnose T2D
- Some patients with T2D may see an endocrinologist
 - Projections indicate current and future shortages of endocrinologists^{2,3}



**of patients with T2D
are treated by PCCs**

PCCs play a critical role in the management of patients with T2D, which often involves the use of basal insulin

1. Davidson JA. *Mayo Clin Proc.* 2010;85(12 Suppl):S3-S4. 2. Shrivastav M, et al. *Diabetes Spectr.* 2018;31(3):279-287. 3. Vigersky RA, et al. *J Clin Endocrinol Metab.* 2014;99(9):3112-3121.

The Role of Basal Insulin in T2D

Basal Insulin: History and Indications

- Insulin is still an essential and effective glucose-lowering treatment for many patients¹
 - Advances in molecular biology and drug delivery technologies seen in recent years
- The goal of insulin therapy is to replicate as closely as possible a normal glycemic profile without unacceptable weight gain or hypoglycemia²
- For patients with T2D, initiating insulin therapy should start with basal insulin with a preference for basal insulin analogs.²

ADA Recommendations for initiating basal insulin in T2D²

Consider as the first injectable therapy when a patient has:

- Blood glucose ≥ 300 mg/dL
- HbA1c $> 10\%$
- Symptomatic hyperglycemia or signs of catabolism due to glucotoxicity

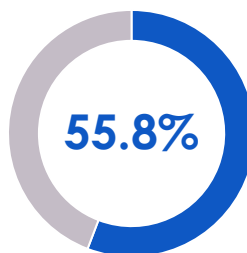
ADA, American Diabetes Association.

1. Rosenstock J, et al. *Metabolism*. 2022;126:154924. 2. American Diabetes Association Professional Practice Committee, et al. *Diabetes Care*. 2024;47(Suppl_1):S158-S178.

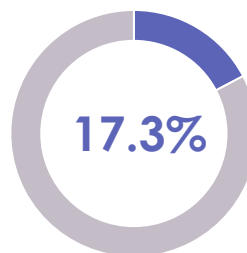
Failure to Reach Targets in T2D

- Many patients with T2D do not achieve glycemic control
- Few achieve simultaneous control of associated cardiovascular risk factors

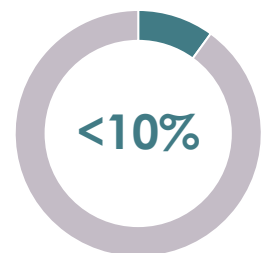
NHANES Data 2013-2016¹



patients reached target HbA1c



patients reached targets for composite of HbA1c, blood pressure, and lipids



patients reached targets for composite of HbA1c, blood pressure, lipids, and BMI

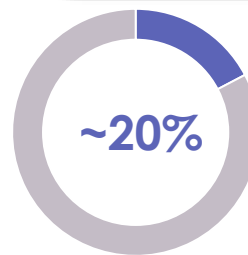
NHANES, National Health and Nutrition Examination Survey; BMI, body mass index.
1. Andary R, et al. *Am J Cardiol*. 2019;124(4):522-527.

Patient Perspectives on Insulin

- Acceptability of insulin is low among patients with T2D, leading to reluctance to initiate and continue insulin therapy¹
- A large proportion of patients interrupt or discontinue treatment shortly after initiation²

~7.4 million

Americans use one or more form(s) of insulin to manage diabetes³



of patients initiating basal insulin continued with insulin treatment within the year after initiation

1. Brod M, et al. *Qual Life Res.* 2009;18(1):23-32. 2. Perez-Nieves M, et al. *Curr Med Res Opin.* 2016;32(4):669-680. 3. Cefalu WT, et al. *Diabetes Care.* 2018;41(6):1299-1311.

Clinical Inertia in T2D

Clinical inertia: lack of treatment initiation or intensification, resulting in failure to achieve glycemic goals¹

- Clinical inertia in the US:
 - Common reason for poor glycemic control¹
 - **Fewer than 50%** of patients with T2D and a high HbA1c had their treatment appropriately intensified²
 - **Seen in more than 26%** of patients who had an HbA1c of $\geq 7\%$, and **more than 18%** of patients with an HbA1c of $\geq 8\%$; these patients also failed to have intensification of medications after a median follow-up of 4.2 years³
 - Results in **inadequate glycemic control in 40% to 60%** of patients with T2D^{4,5}

1. Khunti S, et al. *Ther Adv Endocrinol Metab.* 2019;10:2042018819844694. 2. Shah BR, et al. *Diabetes Care.* 2005;28(3):600-606. 3. Mata-Cases M, et al. *Diabetes Obes Metab.* 2018;20(1):103-112. 4. Blonde L, et al. *Diab Vasc Dis Res.* 2017;14(3):172-183. 5. Pantalone KM, et al. *Diabetes Care.* 2018;41(7):e113-e114.

Clinical Inertia in T2D (cont)

- Retrospective cohort study of >80,000 patients¹
 - Median time to intensification with insulin was **longer than 7 years** for those not achieving glycemic goals on oral therapies alone
- Study of clinical inertia in patients with T2D in primary care practice²
 - Clinicians waited an **average of 9 years** before insulin initiation
 - Average HbA1c was 9.5% and complications were present
 - Even after initiation, insulin was **not titrated adequately**
 - Average HbA1c remained at 7.9% after 4 years of treatment

1. Khunti K, et al. *Diabetes Care*. 2013;36(11):3411-3417. 2. Harris SB, et al. *Can Fam Physician*. 2010;56(12):e418-e424.

Clinical Inertia in T2D (cont)

- The prevalence of clinical inertia is remarkable, considering the focus of guidelines on the importance of glycemic control
 - Increased attention is needed to achieve glycemic targets in patients with T2D
- Newer formulations of basal insulins, such as ultra-long acting once-weekly insulins, are nearing FDA approval
- Provided that potential risks are properly addressed, once-weekly basal insulins are predicted to¹:
 - Increase treatment adherence
 - Decrease clinical inertia
 - Improve patient quality of life

SURVEY KNOWLEDGE Q

1. Rosenstock J, et al. *Metabolism*. 2022;126:154924.

Patient Case Scenario

59-year-old woman with a 20-year history of T2D presents to her PCC for a follow up visit 3 months after starting basal insulin once daily

- Despite her hesitation to agree to an injectable medication

After one month of titrating her basal insulin dose via twice weekly phone appointments, she had reached:

- 45 units of insulin glargine once daily (0.5 units/kg)
- Fasting glucose level ranging from 130 mg/dL to 140 mg/dL
- No hypoglycemic episodes

Since then, she says that she has a difficult time remembering to do her daily injections on her own

She also doesn't like having to give herself an injection every day

Patient Case Scenario (cont)

Today's visit:

- Fasting blood glucose: 195 mg/dL
- HbA1c: 9.6% (improved from 10.3% three months ago)

Other antihyperglycemic medications include:

- Metformin 2000 mg daily
- Oral semaglutide (maximum dose) once daily

States that she would like to try and work on her diet and exercise to get her HbA1c lower, toward her goal of <8%.

Is this patient at risk for clinical inertia?

How might a once-weekly basal insulin be helpful for this patient?

Patient Case Scenario (cont)

- The patient originally responded well to basal insulin therapy, with fasting blood glucose values that indicated improvement in overall glucose control
 - After she was no longer under close follow up, she began to miss doses
- She is at risk for clinical inertia, raising her risk of complications that can result from hyperglycemia
- This patient may be a good candidate for receiving a once-weekly basal insulin (if approved) to improve her adherence and overall glucose control, and due to her preference for fewer injections

New and Emerging Once-Weekly Insulins

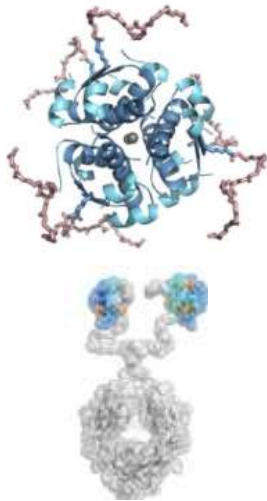
The Emergence of Weekly Insulins

- Innovative insulin formulations and delivery systems have resulted in an expansion of choices that include basal insulins, rapid-acting insulins, and intermediate-acting formulations¹
- Once-weekly basal insulin formulations are in late-stage development, with insulin icodec receiving a recommendation for marketing approval in Europe and an FDA decision is hoped for in late 2024/2025.

1. Hirsch IB, et al. *Endocr Rev.* 2020;41(5):733-755.

The Emergence of Weekly Insulins (cont)

Trevián R, Conti M, Ciardullo S. Once-weekly insulins: a promising approach to reduce the treatment burden in people with diabetes. *Diabetologia*. 2024; Apr 29; online ahead of print. doi:10.1007/s00125-024-06158-9. Figure licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution, and reproduction. The license can be viewed at this link: <https://creativecommons.org/licenses/by/4.0/legalcode>



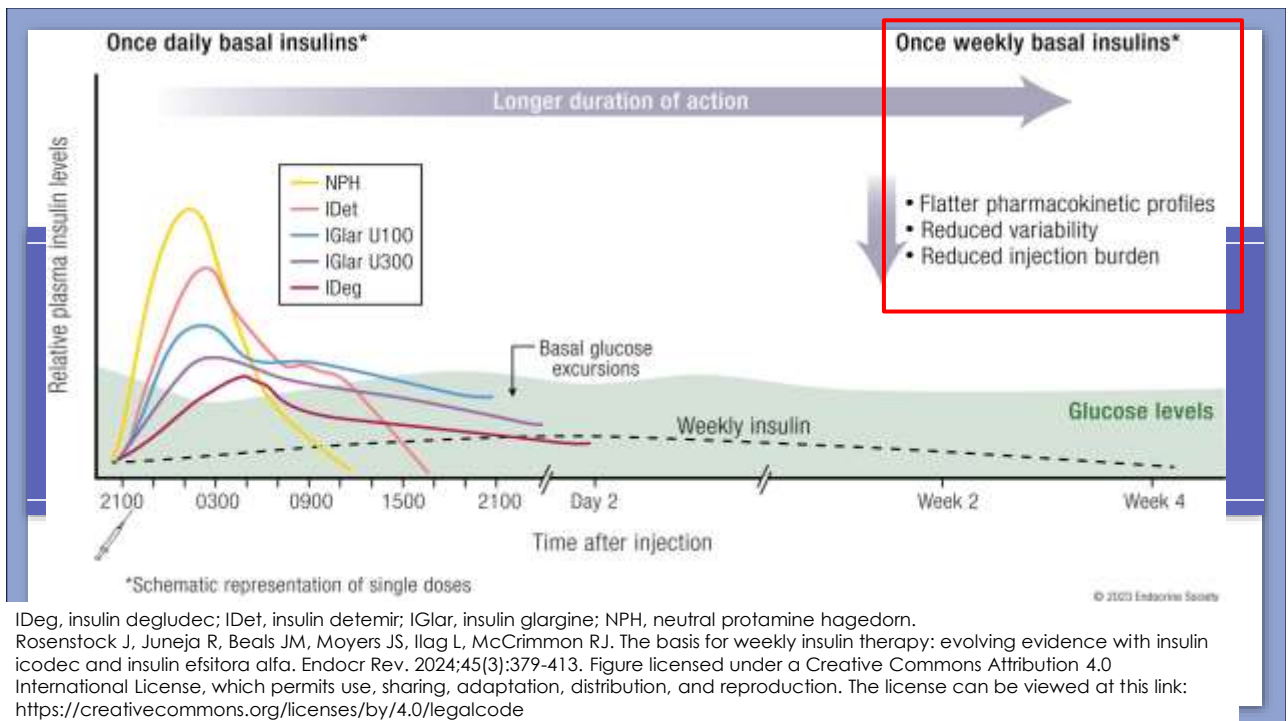
Insulin icodec

- A novel once-weekly basal insulin analog that has a prolonged half-life through strong reversible binding to albumin, reduced enzymatic degradation, and slow receptor-mediated clearance¹

Basal insulin Fc (BIF, insulin efsitora)

- A novel, once-weekly long-acting IgG Fc–fusion protein²

1. Bajaj HS, et al. *Diabetes Care*. 2021;44(7):1586-1594. 2. Frias J, et al. *Lancet Diabetes Endocrinol*. 2023;11(3):158-168.



Overview of Weekly Insulins Late-Stage Trials

- While once-weekly insulins are not yet clinically available, evidence supports their comparable efficacy and safety in patients with T2D
- Insulin icodec has been evaluated in five phase 3 randomized trials in patients with T2D
- BIF (insulin efsitora) has been evaluated in four phase 3 randomized trials in patients with T2D

Phase 3 Trials for Insulin Icodec in T2D

Trial	Design	Patients (with T2D)	Comparator	Baseline treatment	Duration (weeks)
ONWARDS 1¹	Open label	Insulin-naïve N = 984	Glargine U100	Any non-insulin drugs	78
ONWARDS 2²	Open label	Insulin-treated N = 526	Degludec	Basal insulins ± non-insulin glucose-lowering agents	26
ONWARDS 3³	Double blind	Insulin-naïve N = 588	Degludec	Any non-insulin drugs	26
ONWARDS 4⁴	Open label	Insulin-treated N = 582	Glargine U100	Multiple daily insulin injections ± non-insulin drugs	26
ONWARDS 5⁵	Open label	Insulin-naïve N = 1085	Glargine U100/300 and degludec	Any non-insulin drugs	52

1. Rosenstock J, et al. *N Engl J Med*. 2023;389(4):297-308. 2. Philis-Tsimikas A, et al. *Lancet Diabetes Endocrinol*. 2023;11(6):414-425. 3. Lingvay I, et al. *JAMA*. 2023;330(3):228. 4. Mathieu C, et al. *Lancet*. 2023;401(10392):1929-1940. 5. Bajaj HS, et al. *Ann Intern Med*. 2023;176(11):1476-1485.

Results and Hypoglycemic Events in ONWARDS Trials of Insulin Icodec in T2D

Trial	Main results	Hypoglycemic events
ONWARDS 1¹	Icodec compared to glargine: <ul style="list-style-type: none"> • A1c reduction: -0.2% • Increase in patients at target A1c without significant hypoglycemia: 10% • TIR: increased 4.3% 	Icodec: 226 episodes in 61 patients (12.4%); 1 episode severe Glargine: 114 episodes in 66 patients (13.4%); 7 episodes severe
ONWARDS 2²	Icodec demonstrated noninferiority and superiority to degludec in reducing HbA1c from baseline	No significant differences in hypoglycemia rates
ONWARDS 3³	Icodec compared to degludec: <ul style="list-style-type: none"> • A1c reduction: -0.2% • Increase in patients at target A1c without significant hypoglycemia: 15% 	Icodec: 53 episodes in 26 patients (9%); 0 episodes severe Degludec: 23 episodes in 17 patients (6%); 2 episodes severe

1. Rosenstock J, et al. *N Engl J Med*. 2023;389(4):297-308. 2. Phillis-Tsimikas A, et al. *Lancet Diabetes Endocrinol*. 2023;11(6):414-425. 3. Lingvay I, et al. *JAMA*. 2023;330(3):228.

Results and Hypoglycemic Events in ONWARDS Trials of Insulin Icodec in T2D (cont)

Trial	Main results	Hypoglycemic events
ONWARDS 4¹	Icodec compared to glargine: <ul style="list-style-type: none"> • Mean change in A1c: -1.16% in the icodec group (baseline 8.29%); -1.18% in the glargine group (baseline 8.31%) 	Icodec: 35 episodes in 22 (8%) patients Glargine: 33 episodes in 25 (9%) patients
ONWARDS 5²	Icodec in conjunction with the dosing guide app demonstrated noninferiority and superiority compared to basal insulin analogues in reducing mean A1c from baseline	No significant differences in hypoglycemia rates

1. Mathieu C, et al. *Lancet*. 2023;401(10392):1929-1940. 2. Bajaj HS, et al. *Ann Intern Med*. 2023;176(11):1476-1485.

Phase 3 Trials for Insulin Efsitora in T2D

Trial	Design	Patients (with T2D)	Comparator	Baseline treatment	Duration (weeks)
QWINT-1 NCT05662332	Open label	Insulin-naïve N = 670	Glargine U100	At least 1 glucose-lowering medication	52
QWINT-2 NCT05362058	Open label	Insulin-naïve N = 912	Degludec	At least 1 glucose-lowering medication	52
QWINT-3 NCT05275400	Open label	Insulin-treated N = 986	Degludec	Basal insulins ± up to 3 non-insulin drugs (except SUs)	78
QWINT-4 NCT05462756	Open label	Insulin-treated N = 670	Glargine U100	Multiple daily insulin injections	26

Results and Hypoglycemic Events in QWINT Trials of Insulin Efsitora in T2D¹

Trial	Results	Hypoglycemic events
QWINT-1¹ (52 weeks)	Efsitora compared to glargine: <ul style="list-style-type: none"> • A1c reduction: -0.04% • Noninferior in A1c change 	Severe or clinically significant hypoglycemic events per patient year: <ul style="list-style-type: none"> • 0.50 with efsitora • 0.88 with glargine
QWINT-2² (52 weeks)	Efsitora compared to degludec: <ul style="list-style-type: none"> • A1c reduction: -0.09% • Noninferior in A1c change • Percent of time glucose level was within target range was 64.3% with efsitora and 61.2% with degludec (95% CI, 0.1 to 6.1) 	Severe or clinically significant hypoglycemic events per patient year: <ul style="list-style-type: none"> • 0.58 with efsitora • 0.45 with degludec

1. Lilly. News release. September 5, 2024, Accessed September 20, 2024. <https://investor.lilly.com/news-releases/news-release-details/first-its-kind-fixed-dose-study-once-weekly-insulin-efsitora>. 2. Wysham C, et al. *N Engl J Med*. 2024;Sep 10. doi:10.1056/NEJMoA2403953

Results and Hypoglycemic Events in QWINT Trials of Insulin Efsitora in T2D¹

Trial	Results	Hypoglycemic events
QWINT-3¹ (78 weeks)	Efsitora compared to degludec: <ul style="list-style-type: none"> • A1c reduction: -0.11% • Noninferior in A1c change • 2 hours more time in range per day for weeks 22–26, compared to baseline 	Severe or clinically significant hypoglycemic events per patient year: <ul style="list-style-type: none"> • 0.84 with efsitora • 0.74 with degludec
QWINT-4² (26 weeks)	Efsitora compared to glargine: <ul style="list-style-type: none"> • A1c reduction: both reduced A1c by 1.07% • Noninferior A1c reduction 	Severe or clinically significant hypoglycemic events per patient year: <ul style="list-style-type: none"> • 6.6 with efsitora • 5.9 with glargine

1. Lilly. News release. September 5, 2024. Accessed September 20, 2024. <https://investor.lilly.com/news-releases/news-release-details/first-its-kind-fixed-dose-study-once-weekly-insulin-efsitora>. 2. Lilly. News release. May 16, 2024. Accessed August 17, 2024. <https://investor.lilly.com/news-releases/news-release-details/once-week-dosing-insulin-efsitora-alfa-delivers-a1c-reduction>

Looking to the Future: Once-Weekly Insulins in Clinical Practice

Preparing for Weekly Insulins

As once-weekly insulin formulations become available, **PCCs will be at the forefront of providing practical strategies** for the integration of these formulations into clinical practice¹

- Indications for once-weekly insulin are likely to be similar to those for once-daily insulin
- New insulin titration strategies will be needed because glucose-lowering will not achieve a steady state for several weeks after initial dosing
- Clinicians and patients will need to learn these approaches and how to manage dosing and concomitant pre-prandial insulin

1. Rosenstock J, et al. *Metabolism*. 2022;126:152924.

Potential Patient Selection for Weekly Insulins

- If weekly insulins become approved and available, not all patients with may be appropriate candidates for therapy
- Patients with inadequate glucose control despite multiple therapies and **poor adherence to daily injections** may benefit¹

Examples of patients who may benefit from once weekly insulins, if approved¹

- Patients with T2D inadequately controlled on multiple glucose-lowering agents who require basal insulin therapy
- Patients who prefer flexibility in dose timing and those who have difficulty with adherence to daily injections

1. Rosenstock J, et al. *Endocr Rev.* 2024;45(3):379-413.

Potential Benefits of Weekly Insulins

- Injection burden is a major barrier to insulin adherence^{1,2}
 - Fewer injections can reduce this burden and **improve the likelihood of treatment adherence**
- When once-weekly insulins reach steady state, a missed dose does not result in immediate loss of efficacy due to their long half-life¹
- Due to a flatter pharmacokinetic profile of once-weekly insulins, decrease in day-to-day glycemic variability is expected¹

Potential Benefits of Weekly Insulins¹

Lower injection burden

Improved convenience, adherence, and quality of life³

Increased flexibility in dose timing

Better glucose coverage in the case of missed doses

Decreased day-to-day glycemic variability

1. Rosenstock J, et al. *Endocr Rev.* 2024;45(3):379-413. 2. Vijan S, et al. *J Gen Intern Med.* 2005;20(5):479-482. 3. Bajaj HS, et al. *Diabetes Care.* 2021;44(7):1586-1594.

Potential Concerns of Weekly Insulins

- Patients and clinicians may worry over a “large dose” of insulin injected at once and hypoglycemia management¹
 - Increased familiarity with weekly insulins may address these concerns
- As with any insulin, hypoglycemia is a potential safety concern

Potential Concerns of Weekly Insulins¹

Lack of familiarity

Challenges with dose calculations

Clinicians' concerns about hypoglycemia

1. Rosenstock J, et al. *Endocr Rev.* 2024;45(3):379-413.

Hypoglycemia Considerations

- Meta-analysis of 7 randomized trials¹:
 - **Increased risk of hypoglycemic events** with insulin icodec compared to once-daily basal insulins (risk ratio 1.24; 95% CI, 1.02-1.50; P = .03)
 - **Numerically decreased risk of severe hypoglycemia** with insulin icodec compared to once-daily basal insulins (risk ratio 0.81, 95% CI, 0.31-2.08)
- Meta-analysis of insulin icodec's ONWARDS trials in T2D:
 - **Similar incidence but higher rates of clinically significant hypoglycemia** with insulin icodec versus comparators (incidence 17.9% vs 16.2%, odds ratio 1.14; rates 1.15 vs 1.00 episodes/participant-year of exposure, rate ratio 1.51)
 - **Fewer severe hypoglycemic episodes** with insulin icodec than comparators (8 vs 18)

1. Mukhopadhyay P, et al. *Endocr Pract.* 2024;30(2):128-134. 2. Bajaj HS, et al. *Diabetes Obes Metab.* 2024;26(9):3810-3820.

Hypoglycemia Considerations

- **Managing hypoglycemia with insulin icodec^{1,2}:**

- The fundamental principles are similar to treating typical hypoglycemia episodes in T2D, which include advising the patient to:
 - Consume 15 grams of glucose (or other fast-acting carbohydrate) for a blood glucose value of 70 mg/dL or less
 - Recheck the blood glucose 15 minutes afterward
 - If blood glucose remains at or near 70 mg/dL (or less), or if glucose is not rising, consume an additional 15 grams of fast-acting carbohydrates, repeating the process until glucose rises
 - In the case of continually ongoing hypoglycemia, seek additional care.
- Insulin icodec has a similar counterregulatory hormone response and recovery compared to insulin glargine

1. Rosenstock J, et al. *Endocr Rev.* 2024;45(3):379-413. 2. American Diabetes Association Professional Practice Committee. *Diabetes Care.* 2024;47(Suppl_1):S111-S125.

Patient Case Scenario (revisited)

Today's visit:

- Fasting blood glucose: 195 mg/dL
- HbA1c: 9.6% (improved from 10.3% three months ago)

Other antihyperglycemic medications include:

- Metformin 2000 mg daily
- Oral semaglutide (maximum dose) once daily

States that she would like to try and work on her diet and exercise to get her HbA1c lower, toward her goal of <8%.

Would this patient be a good candidate for once-weekly insulin?

Patient Case Scenario (revisited, cont)

- Revisiting the case scenario, use of a once-weekly insulin would likely help the patient be more adherent to her regimen, because she prefers to avoid daily injections
- With improved adherence to her basal insulin regimen, her blood glucose would likely improve, lowering her risk for cardiometabolic complications associated with hyperglycemia

Let's revisit Knowledge Question Two



Which of the following patients would likely be the best candidate to receive a once-weekly insulin?

- A. A 23-year-old man with newly diagnosed T2D, A1c 8.5%
- B. A 59-year-old woman with T2D who takes basal insulin along with other glucose-lowering agents and is concerned about weight gain, A1c 7.1%
- C. A 41-year-old man with T2D who takes metformin and a once-weekly GLP-1 RA with an A1c of 6.5%
- D. A 52-year-old woman with T2D who likes to travel and frequently misses doses of her daily basal insulin, A1c 8.2%

Additional Case Studies

Now let's look at another case study...

Mr. A is a 56-year-old man. He works on the line at one of the auto industry plants. He was told he had T2D about 6 years ago.

At the time, his HbA1c was 8.8% and he was started on metformin 500 mg once daily and titrated to the maximum tolerated dose.

One year ago, a once-weekly GLP-1 RA was added to his T2D regimen.

He is currently taking metformin 1000 mg in the morning and 500 mg in the evening and 2 mg of semaglutide once weekly.

Mr. A. Case Study (cont)

Today's Visit

Labs:

- Fasting Blood Sugar: 242 HBA1c: 8.2%
- No referrals have been made for Diabetes Self-Management Education(DSME) to include Medical Nutritional Therapy (MNT). No Self Monitoring of Blood Glucose (SMBG) or Continuous Glucose Monitoring (CGM)
- Weight 232 lbs, Height 5'10", BMI 33.3 kg/m²
- Physical activity: His work is active; outside of work he is not very active

Mr. A. Case Study (cont)

- History of hypertension
 - Takes lisinopril 40 mg once daily
 - Recent blood pressure 128/72 mmHg, pulse is 78 bpm
- History of elevated lipids
 - Taking rosuvastatin 40 mg once daily
 - Recent labs: LDL 68 mg/dL
- Family history of T2D - Mother and one sibling

Mr. A. Case Study (cont)

- History of hypertension, elevated Lipids, obesity, over 55 years of age
 - A1c not at treatment goal (HbA1c <7% with TIR >70% with <4% low BG)
-
- Discussed need for basal Insulin
 - Referred for diabetes self-management education (DSME) and medical nutrition therapy (MNT)
 - Discussed physical activity
 - Placed professional continuous glucose monitoring (CGM) device
 - Discussed potential benefits and risks of insulin; preventing of hypoglycemia
 - Continued metformin and GLP-1 RA
 - Patient agrees to start insulin at 20 units daily, with the first injection in the office
 - Follow up to support patient and to provide titration and education

Mr. A. Case Study (cont): Professional CGM

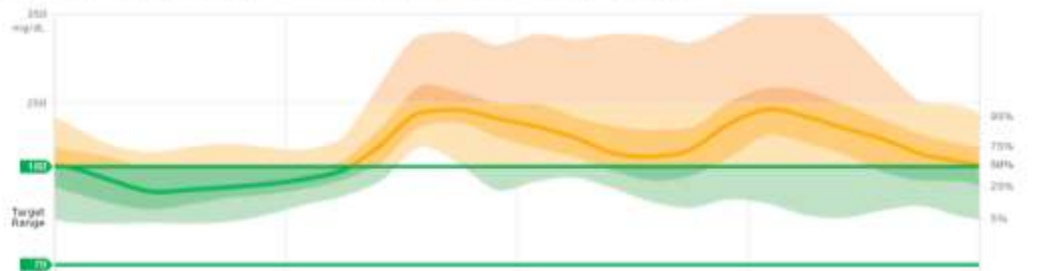


Glucose Metrics

Average Glucose <small>(Goal: 154 mg/dL)</small>	201 mg/dL
GMV <small>(Goal: 10%)</small>	8.1%
Coefficient of Variation <small>(Goal: 10%)</small>	26.1%
Time CGM Active	95.3%

Ambulatory Glucose Profile (AGP)

AGP is a summary of glucose values from the report period, with median (50%) and other percentiles shown as if they occurred on a single day.



Mr. A. Case Study (cont): Three-Month Follow-up

- Continues metformin 1000mg in the morning and 500 mg in the evening; GLP-1 RA at Maximum Dose
- Insulin glargine is taken at 9:00-10:00 every night
 - 40 units of basal insulin
- A1c is 7.6%
- Patient shares that he is doing his best to take insulin daily, but once or twice a week he falls asleep before taking his dose.

Would this patient be a good candidate for once- weekly Insulin?

Considerations



1. The patient is willing to take insulin but forgets to take basal insulin 1-2 days per week.
2. Increased adherence will improve glucose control and decrease the risk of complications.
3. Discussing the risk of hypoglycemia is important with use of all insulin formulations.
4. Diabetes education including MNT will help support the patient to be successful in managing their T2D.

Who forgets or skips insulin doses?



This may be a problem with ANY of your patients with diabetes who are treated with insulin.

Studies show that missed insulin doses are recorded for patients with T1D AND T2D.¹

In both T1D and T2D, missing insulin dosages is a problem that we need to find better ways of addressing.

Once-weekly insulins may help.

1. Robinson S, et al. *Diabetes Technol Ther.* 2021;23(12):844-856.

Case Study #3: Newly diagnosed



- A 48-year-old woman comes to the primary care clinic with complaints of thirst, weight loss and frequent urination. She was recently treated for a yeast infection.
- History of hypertension and elevated lipids – both are well-controlled
- Family history of T2D – mother and an aunt

Today's visit

- Blood glucose 296 mg/dL, HbA1c 10.4%
- Professional CGM placed

Case Study #3 (cont)

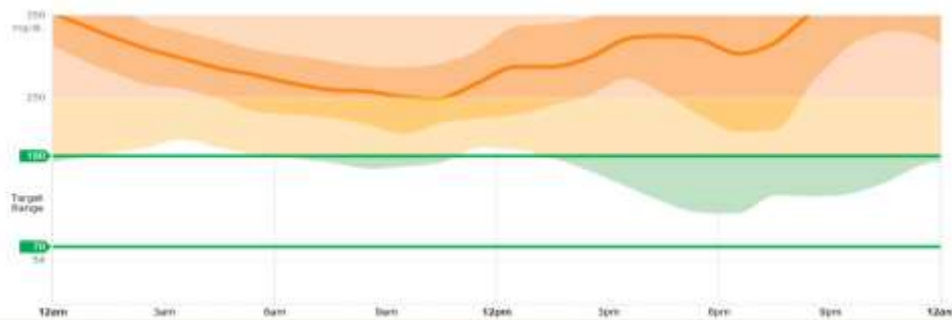


Glucose Metrics

Average Glucose	298 mg/dL
Goal: <180 mg/dL	
HbA1c	10.4%
Goal: <7%	
Coefficient of Variation	25.4%
Goal: <20%	
Time CGM Active	92.3%

Ambulatory Glucose Profile (AGP)

AGP is a summary of glucose values from the report period, with median (50%) and other percentiles shown as if they occurred in a single day.



Based on the ADA Standards of Care, what therapy would you offer this patient?

- Metformin to maximum dose tolerable
- **BASAL INSULIN**
- Personal CGM
- Diabetes education to include MNT
- Support to titrate basal insulin
- Treatment goal HbA1c <7% with >70% TIR and <4% low blood glucose

Would this patient benefit from a once-weekly insulin?

Key Takeaways

Key Takeaways

- Basal insulin remains an essential and effective glucose-lowering treatment for many patients with T2D.
- PCCs manage most patients with T2D in the US, including many who receive or are indicated to receive basal insulin therapy.
- Despite insulin's long history in treating diabetes, clinical inertia routinely occurs due to a variety of factors, resulting in treatment delays and suboptimal glucose management.

Key Takeaways (cont)

- Ultra-long-acting, once-weekly insulins may soon be approved and provide an additional option for basal insulin therapy.
- Once-weekly insulins may improve adherence and persistence, flexibility in administration time, and reduced glycemic variability compared to once-daily basal insulins.
- Potential concerns with once-weekly insulins may include challenges with dose calculations and concerns about hypoglycemia, which may be resolved as clinicians become more familiar with these insulin formulations.

Resource Toolkit



An organization that provides CME and resources for clinicians interested in metabolic disorder.

<https://www.pcmg-us.org>

Visit the website via the QR code to the right or the URL below for more information on this topic and to review the presentation.

<https://www.pcmg-us.org/toolkit/owi>





What Primary Care Clinicians Need to Know About Once-Weekly Insulins END

