touch™ ENDOCRINOLOGY

Empowering T2D management: The evolution of basal insulin therapy

Practice aid for T2D

For more information, visit: www.touchendocrinology.com

Insulin in T2D: When and how[1]

Initiate insulin when:

- The patient is experiencing severe hyperglycaemia
- The patient is not at HbA1c target despite maximal non-insulin therapy
- The patient is experiencing acute glycaemic dysregulation
- T1D is suspected

Start using basal insulin (10 units or 0.1–0.2 units/kg per day) at bedtime or more flexibility with timing for longer-acting analogues

Titrate to FPG target but avoid overbasalization of insulin (consider introduction of CGM)

When FPG is on target but HbA1c or TIR is not

If not already on GLP-1RA, consider use of GLP-1RA

ADD MEALTIME INSULIN IN FORM OF:
Basal plus (progressive addition of boluses)
Premixed insulins
Multiple daily injections

- Maintain cardiorenal protective agents
- Maintain metformin, SGLT2 inhibitor and GLP-1RA to avoid weight gain and limit insulin dose and hypoglycaemia risk
- Consider using combination products of basal insulin/ GLP-1RA

Intensify along the way and preferentially at each step

- Healthy behaviour
- Nutritional therapy
- Diabetes self-management education and support: with additional focus on injection technique, hypoglycaemia, weight

When not familiar with insulin use or when targets not reached, consider shared care with specialist team

Talking to patients about insulin: Practical tips[2]

Use these open-ended questions to talk to patients with T2D about their concerns, beliefs and preferences about insulin therapy. These conversations may help overcome barriers to insulin therapy as well as issues with adherence.

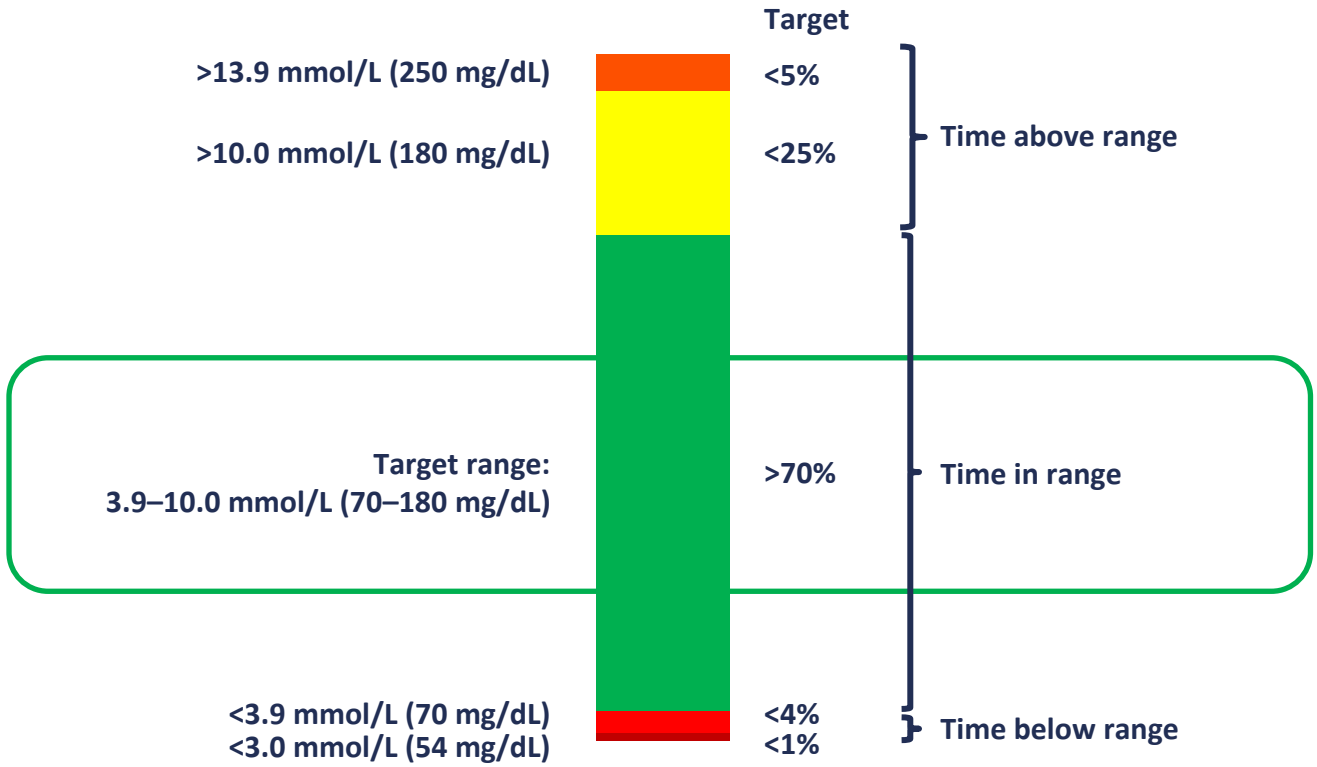
	What questions do you have about insulin?
	What frightens you most about diabetes?
	How does diabetes affect your day-to-day activities and family?
	How do you feel about going on insulin?
	What have you heard from other people who use insulin?
	Are there any religious beliefs or spiritual values, traditions or customs that are important to you and may help us work together?
	What do you think are the benefits/disadvantages of using insulin?
	How do you think insulin might affect your health and lifestyle?
	What is your main concern about insulin?

Steps for initiating weekly insulin[3]

When to initiate	• HbA1c remains above target despite dual/triple therapy • Already on GLP-1RA, GLP-1RA is not appropriate, or insulin in preferred • HbA1c ≥11% (97 mmol/mol), symptoms of catabolism, T1D is a possibility
Setting treatment goals	• "Fix the fasting first" approach • FPG targets should be individualized • To reach HbA1c of ≤7% (53 mmol/mol), FPG should be maintained at <130 mg/dL (7.2 mmol/L)
Initial dose and titration	• Choose a simple patient-directed titration algorithm • Start with an initial dose of 10 IU/day (or 0.2 U/kg/day) • Increase dose by 1 U/day until target FPG is reached
Monitoring	• Monitor FPG • If HbA1c levels are not properly controlled and FPG values are within range, PPG monitoring may be needed
Combination therapy	• Basal insulin is added to pre-existing therapies • May offer advantages, e.g. limiting weight gain, lowering insulin dose, CVD benefits • Choice of combination therapy should be individualized based on patient characteristics
Hypoglycaemia	• Patients at risk of hypoglycaemia should be identified and modifiable risk factors adjusted • Less stringent glycaemic goals, additional monitoring or education may be needed • After a hypoglycaemic event, identify the cause to prevent future events
When basal insulin is not enough	• If 2-hour PPG is >180 mg/dl (10.0 mmol/L), treatment intensification may be required • Options include addition of a prandial insulin injection ("basal plus"), addition of SGLT2 inhibitor, addition of GLP-1RA, switching to a premixed insulin

CGM time in range at a glance[4–6]

- Patients should aim to stay within target range at least 70% of each day, or about 17 hours
- Patients should check CGM app or receiver regularly to monitor glucose trends



Abbreviations and references

Abbreviations

ADA, American Diabetes Association; CGM, continuous glucose monitoring; CVD, cardiovascular disease; FPG, fasting plasma glucose; GLP-1RA, glucagon-like peptide-1 receptor agonist; HbA1c, glycated haemoglobin; PPG, postprandial glucose; SGLT2, sodium–glucose co-transporter-2, T1D, type 1 diabetes; T2D, type 2 diabetes; TIR, time in range.

References

1. Davies MJ, et al. *Diabetes Care.* 2022;45:2753–86.
2. Renda S, Freeman *J. Postgrad Med.* 2024;136:150–61.
3. Forst T, et al. *Diabetes Metab Res Rev.* 2021;37:e3418.
4. Battelino T, et al. *Diabetes Care.* 2019;42:1593–603.
5. Diabetes Canada Clinical Practice Guidelines Expert Working Group. *Can J Diabetes.* 2021;45:580–7.
6. American Diabetes Association. CGM & Time in Range. Available at: https://diabetes.org/about-diabetes/devices-technology/cgm-time-in-range (accessed 16 April 2025).