American Diabetes Association (ADA) Standards of Medical Care – 2025

2025 ADA: Algorithm for intensifying to injectable therapies *(Figure 9.4; S192)*

Use principles in Figure 9.3, including reinforcement of behavioral interventions (weight management and physical activity) and provision of DSMES, to meet individualized treatment goals

TO AVOID THERAPEUTIC INERTIA REASSESS AND MODIFY TREATMENT REGULARLY (3-6 MONTHS)

If injectable therapy is needed to reduce A1C[1]

Consider GLP-1 RA or dual GIP and GLP-1 RA in most individuals prior to insulin[2]

INITIATION: Initiate appropriate starting dose for agent selected (varies within class)
TITRATION: Titration to maintenance dose (varies within class)

If A1C is above goal

Considerations for adding basal insulin[3]

Choice of basal insulin should be based on person-specific considerations, including cost. Refer to **Table 9.4** for insulin cost information. Consider prescription of glucagon for emergent hypoglycemia.

Initiation and titration of basal analog or bedtime NPH insulin[4]

INITIATION: Start 10 units per day **OR** 0.1-0.2 units/kg per day
TITRATION:
- Set FPG goal (see Section 6: Glycemic Goals and Hypoglycemia)
- Choose evidence-based titration algorithm, e.g., increase 2 units every 3 days to reach FPG goal without hypoglycemia
- For hypoglycemia determine cause, if no clear reason lower dose by 10-20%

Assess adequacy of insulin dose at every visit

Consider clinical signals to evaluate for overbasalization and need to consider adjunctive therapies (e.g., elevated bedtime-to-morning and/or postprandial-to-preprandial differential, hypoglycemia [aware or unaware], high glucose variability)

If already on GLP-1 RA or dual GIP and GLP-1 RA or if these are not appropriate, or insulin is preferred

Stepwise additional injections of prandial insulin

(i.e., two, then three additional injections)

Proceed to full basal-bolus plan

(i.e., basal insulin and prandial insulin with each meal)

- If A1C is above goal and the individual is not already on a GLP-1 RA or dual GIP and GLP-1 RA, consider these classes in combination and with insulin (may use fixed-ratio product, if available and appropriate)[3]
- If A1C remains above goal

Initiation and titration of prandial insulin[5,6]

Usually, one dose with the largest meal or meal with greatest PPG excursion; prandial insulin can be dosed individually or mixed with NPH as appropriate

INITIATION:
- 4 units per day or 10% of basal insulin dose
- If A1C <8% (64 mmol/mol) consider lowering the basal dose by 4 IU a day or 10% of basal dose

TITRATION:
- Increase dose by 1-2 units or 10-15% twice weekly
- For hypoglycemia determine cause, if no clear reason lower corresponding dose by 10-20%

If A1C is above goal

Consider self-mixed/split insulin plan

Can adjust NPH and short/rapid-acting insulins separately

INITIATION:
- Total NPH dose = 80% of current NPH dose at the same total
- 2/3 given before breakfast
- 1/3 given before dinner
- Add 4 units of short/rapid-acting insulin to each injection or 10% of reduced NPH dose

TITRATION:
- Titrate each component of the plan based on individualized needs

If on bedtime NPH, consider converting to twice-daily NPH plan

Conversion based on individual needs and current glycemic control. The following is one possible approach:

INITIATION:
- Total dose = 80% of current bedtime NPH dose
- 2/3 given in the morning
- 1/3 given at bedtime

TITRATION:
- Titrate based on individualized needs

If A1C is above goal

Consider twice daily premix insulin plan

INITIATION:
- Usually unit per unit at the same total insulin dose, but may require adjustment to individual needs

TITRATION:
- Titrate based on individualized needs

1. Consider insulin as the first injectable if symptoms of hyperglycemia are present, when A1C or blood glucose levels are very high (i.e. AIC (>10% [86 mmol/mol) and blood glucose ≥300 mg/dL [≥16.7 mmol/L]), or a diagnosis of type 1 diabetes is a possibility.
2. When selecting GLP-1 RAs, consider individual preference, A1C lowering, weight-lowering effect, and frequency of injection. If CVD, is present, consider GLP-1 RA with proven CVD benefit; oral or injectable GLP-1 RAs are appropriate.
3. For people on GLP-1 RA and basal insulin combination, consider use of a fixed-ratio combination product (iDegLira or iGlarLixi).
4. Consider switching from evening NPH to a basal analog if the patient develops hypoglycemia and/or frequently forgets to administer NPH in the evening and would be better managed with a morning dose of a long-acting basal insulin. Consider dosing NPH in the morning for steroid-induced hyperglycemia.
5. Prandial insulin options include injectable rapid- and ultra-rapid-acting analog insulins, injectable short-acting human insulin, or inhaled human insulin.
6. If adding prandial insulin to NPH, consider initiation of a self-mixed or premixed insulin plan to decrease the number of injections required.

A1C, glycated hemoglobin; CVD, cardiovascular disease; DSMES, diabetes self-management education and support; FPG, fasting plasma glucose; GLP-1 RA, glucagon-like peptide 1 receptor agonist; GIP, glucose-dependent insulinotropic peptide; NPH, Neutral Protamine Hagedorn; PPG, postprandial glucose. American Diabetes Association (ADA). *Diabetes Care 2025;48(Suppl. 1):S181–S206.*

Novo Nordisk®