

Starting & adjusting insulin

On oral agents & HbA_{1c} ≥9 Or Symptomatic hyperglycemia
[≥300 mg (16.6 mmol) or if A1c at diagnosis >10]

Basal + meal or Premixed insulin

Premixed insulin

(Regular 70/30, Aspart 70/30, Lispro 75/25 or Lispro 50/50)

- 0.5 units/kg/day. (2/3 AM and 1/3 PM)
- Stop Sulfonylurea
- Metformin, DPP4i, SGLT-2i can be kept

If uncontrolled

Change to Basal + Meal insulin

[Long + Rapid or NPH + Regular]

- Calculate dose from above (70% basal + 30% meal)
- If changing to long basal: ↓ basal dose in premixed insulin by 25%
- Adjust doses per home glucose

Basal + Meal insulin

1) Long + Rapid

- 0.5 unit/kg/day: 50% Basal, 50% Meal (1 or 2 main meals)
- Assess need for meal insulin at other meals per post-meal glucose
- If fasting is controlled and pre-lunch/pre-dinner uncontrolled, consider twice/day basal insulin

OR

2) NPH + Regular

- 0.5 unit/kg/day: 2/3 AM, 1/3 PM (each divided into 2/3 NPH, 1/3 Regular)
- Adjust doses per home glucose
- If fasting is controlled and pre-dinner uncontrolled, consider NPH at lunch

On oral agents & HbA_{1c} <9
Or
if patient is reluctant to insulin

Basal insulin

(Long as Glargine, Detemir, Degludec or NPH)

- 0.1 units/kg at bedtime (or AM)
- Use patient-driven algorithm:
 - ↑ dose by 2 units every 3 days till fasting < 130
 - Once controlled, check other times
- Stop Sulfonylurea (some keep it)
- Consider stopping Pioglitazone
- Metformin, DPP4i, SGLT-2i can be kept
- GLP-1 agonists can be used with basal insulin

If uncontrolled

Add Meal insulin

(Aspart, Glulisine, or Lispro) Or (Regular)

- Start by 4 units with largest meal
- Decide on need for insulin at other meals according to home glucose
- Adjust per postprandial glucose

Adjusting insulin:

- Basal insulin controls pre-meal glucose
- Meal insulin controls post-meal glucose

Glucose targets:

- Premeal: 80-130 mg
- 2-hour postmeal: < 180 mg