Michigan Medicine Hospital Glycemic Management

LINK http://www.med.umich.edu/1info/FHP/practiceguides/InptGlycemic/Glycemic-final.pdf

HOSPITAL BLOOD GLUCOSE TARGETS

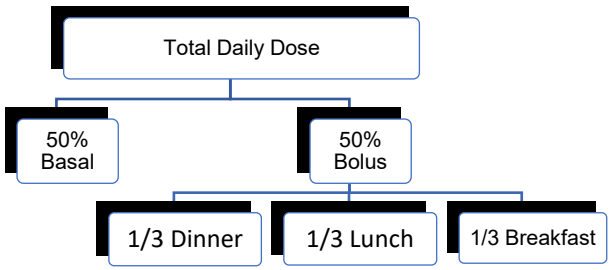
	Most patients	Severe Comorbidities
Pre-meal	100-140mg/dl	120-180 mg/dl
Random (Postprandial)	< 180 mg/dl	< 200mg/dl

BASAL-BOLUS REGIMEN

1. **Calculate patient's total daily dose** (TDD) of insulin using one of the following methods:
   - ➔ HOME insulin - use 75%-100% of patient's total home insulin
   - ➔ WEIGHT based dose:
     - Insulin sensitive = 0.25-0.3 units/kg
     - Moderately sensitive = 0.4 units/kg
     - Insulin resistant = 0.5-1 units/kg
   - ➔ INSULIN DRIP RATE: Add total amount of insulin in most recent 4 hour period where drip was stable and multiple by 6.
   - ➔ CORRECTION DOSE: For those not on scheduled insulin previously, add up all the insulin by correctional insulin given in last 24 hours

2. **Divide total daily insulin dose** (TDD) into basal and bolus as follows:
   - Basal - 50% of TDD given QHS (insulin **glargine**)
   - Bolus - 50% of TDD given QAC (insulin **lispro**)
   - Correctional/sliding scale - QAC & QHS (insulin **lispro**)

TDD of Insulin	Low Scale	Moderate Scale	High Scale
Units/day	< 40	40-80	>80



DISCHARGE CHECKLIST

If poorly controlled diabetes prior to admission or a wide discrepancy between hospital and home regimen reassess prior to discharge.

Ensure they have supplies for home

- ✓ Glucometer, test strips, lancets and lancing device
- ✓ Long and short acting insulin as appropriate. One vial =1000 units OR one pen = 300 units insulin
- ✓ Needles (5/16" or 15/64 31-gauge) OR pen needles (4mm x 32G).
- ✓ Syringes 30, 50, or 100 units
- ✓ Glucagon nasal spray or GVoke (sub-q auto-injector) If appropriate
- ✓ Order supplies from outpatient encounter via database

ALGORITHMS

Stress Hyperglycemia (i.e. normal A1c, no diabetes history)

- Initiate BG checks and moderate dose correction QAC & QHS
- If POC glucose >180mg/dl x2) - add glargine 0.1-0.2 units/kg/day
- Titrate glargine for next few days
- If still above goal add lispro 0.1-0.2 units/kg divided QAC or DPP-4 Inhibitor

Known Type 2 diabetes, NOT on insulin at home

- Diabetes meds (except DPP-4Is) should be stopped on hospital admission.
- If A1c <7.5% on ≤ two OADS at home → start moderate dose correction QAC/QHS.
  - If BG still >180mg/dl add glargine 0.1-0.2units/kg.
- If A1c ≥ 7.5% or using >2 OADs at home → start glargine 0.1-0.2units/kg + moderate dose correction QAC & QHS.
  - If BGs are still >180mg/dl add lispro 0.1-0.2 units/kg divided QAC or DPP-4.

Known Type 2 diabetes, on basal insulin w/o meal coverage at home

- If A1c <7.5% start 75-100% of home basal insulin dose + low/moderate dose correctional insulin QAC/QHS
- If A1c ≥ 7.5% start glargine at either 75-100% home dose or 0.15-0.2 units/kg + lispro 0.15-0.2 units/kg divided QAC + correctional lispro QAC

Known Type 2 diabetes, on basal-bolus insulin at home

- If A1c <7.5% start glargine and lispro at 75-100% of home dose plus correctional scale
- If A1c ≥7.5% start glargine at either 75-100% home dose or 0.2-0.4 units/kg + lispro 0.2-0.4 units/kg divided QAC + correctional lispro QAC

Type 1 diabetes

- NEVER hold basal insulin in a Type 1 patient
- Mealtime insulin as fixed dose or carb ratio (i.e. #units insulin per gram carb consumed in the meal).
- Custom correction 1:50 >150mg/dl may be needed for insulin sensitive pts

Tube Feeds

Continuous Tube Feeds → regular insulin scheduled q6 hours + correction. Can use basal insulin for up to 20-40% of TDD needs but do NOT use basal alone.

Nocturnal (12hr) Tube Feeds → regular insulin scheduled + correction at start and 6 hours into tube feed OR one dose NPH at start of tube feed.

Steroids → Steroids increase prandial sugars > fasting sugars

- For patients already on basal-bolus, increase meal insulin aiming for 60% TDD as bolus and 40% TDD as basal. Increase correction scale.
- Patients on basal and/or correction insulin, may need to add mealtime insulin.
- Patients on once a day morning prednisone, an alternative is to give NPH qAM timed with the prednisone. A reasonable starting point is 5-10units NPH.

U-500 - Endocrine consult mandatory

Insulin Pump – Discuss pump appropriateness and orders with Endocrine consult team