

Pre-operative and Pre-procedure Insulin Guidelines

(Adults with type 1 or type 2 diabetes)

General guidelines

1. Assessment of the patient's baseline control will help in decision-making (home blood glucose measurements, HbA1c, hypoglycemia episodes etc).
2. Most patients with Type 1 diabetes should be using a combination of a basal (intermediate /long-acting) insulin and bolus (rapid/short-acting) insulin. Type 1 or type 2 patients with unusual insulin regimens, or with poor control, may benefit from having their endocrinologist or internist assist with preoperative insulin dosing. Alternatively, a preoperative endocrine or medicine consultation may be in order for elective procedures.
3. Blood glucose should be checked every 1-2 hours before, during and after procedure.
4. Preoperative insulin infusions along with dextrose containing fluids (e.g., D5W) are appropriate for patients undergoing procedures over 2 hours long, or if a prolonged NPO status is expected. Target blood glucose on insulin drip to 100-140mg/dl.

For Patients with Type 1 Diabetes

Basal insulin *must not* be withheld in patients with type 1 diabetes, or they will go into diabetic ketoacidosis.

For Patients with Type 2 Diabetes

Oral diabetes medications are generally held on the day of surgery.

A. Night before procedure

- 1) Patient taking evening or bedtime insulin
 - NPH/Levemir® (detemir) – Give usual dose
 - Mixed insulins (70/30, 75/25 etc) – Give usual dose
 - Lantus® (glargine) – Give 80% of usual dose
- 2) Patients using insulin pump
 - Continue basal rate

B. Morning of procedure (for patients who are NPO)

- 1) Morning insulin injections

Morning intermediate or long-acting insulin

 - NPH/Levemir® (detemir) – Give 1/2 of usual morning dose
 - Lantus® (glargine) - Give 80% of usual morning dose
 - Mixed insulin – Give 1/3 usual morning dose

Morning short-acting insulin (Novolog®, Humalog®, Apidra®, Regular)

 - Hold all short acting insulin
- 2) Patients using insulin pump
 - Continue basal insulin rate
 - Intra-operative and postoperative use of the pump needs to be addressed on an individual basis.