

Appendix 1. Insulin Orders for Diabetic Patients Eating Meals

Step 1: Calculate total daily insulin dose

Type 1 Diabetes

1. If the patient's most recent HbA1c is <7% or recent blood sugars indicate good glycemic control (90–130 mg/dL before meals, 100–160 mg/dL at bedtime), use the total daily home dose of insulin to calculate initial orders.
2. If patient's HbA1c is unknown or >7%, use 0.3–0.7 U/kg/day as the initial daily insulin. Patients who are elderly or thin should be dosed at the lower end of the range. Adolescents and obese individuals may require doses higher than the starting range.

Type 2 Diabetes

1. Stop all oral diabetes medications.
2. If the patient has never taken insulin, use 0.3–0.7 U/kg/day as the initial daily insulin. Use doses at the lower end of the range for elderly and thin patients.
3. If the patient is treated with insulin and HbA1c is <7% or recent blood sugars indicate good glycemic control (90–130 mg/dL before meals, 100–160 mg/dL at bedtime), use total daily home insulin to calculate initial orders.
4. If the patient is taking insulin and HbA1c is unknown or >7%, use 0.4–1.0 U/kg/day as initial daily insulin. Elderly and thin patients should be dosed at the lower end of the range. Obese individuals or highly insulin resistant patients may require doses exceeding the range.

Step 2: Write insulin orders

1. Novolog should be given within 15 minutes of when a patient starts eating.
2. Lantus can be administered either in the morning or at bedtime. Lantus cannot be mixed in the same syringe with other insulins.
3. Total daily insulin dose should be divided as follows:
 - A. Novolog – ½ of total daily dose divided equally among meals
 - B. Lantus – ½ of total daily dose administered once a day

Write in doses:

	Breakfast	Lunch	Dinner	Bedtime
Novolog				
Lantus				

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Step 3: Order daytime supplemental insulin

1. Supplemental insulin should be administered in addition to scheduled mealtime insulin.

Example: Patient is ordered to receive 6 units of Humalog with meals as well as column 2 supplemental insulin. Fingerstick glucose at a meal is 225 mg/dL. Patient receives 6 units from the scheduled insulin orders plus 4 units from the supplemental order for a total of 10 units at the meal.

2. Advance to the next highest column if fingerstick glucose is >200 mg/dL two times in 24 hrs or if all values are >180 mg/dL.
3. Reduce to the next lowest column if fingerstick glucose is <100 mg/dL two times in 24 hrs.
4. Call MD if already in column 4 and fingerstick glucose >200 mg/dL twice in a day or all values are >180 mg/dL.

Circle a starting column for daytime supplemental insulin:

	Total home insulin < 30 units	Total home insulin 30-60 units, or <u>not on home insulin</u>	Total home insulin 60-90 units	Total home insulin > 90 units, or patients post-op for trauma or CVS
	Column 1	Column 2	Column 3	Column 4
141-200	1 unit	2 units	3 units	4 units
201-250	2 units	4 units	6 units	8 units
251-300	3 units	6 units	9 units	12 units
301-350	4 units	8 units	12 units	16 units
> 350	5 units	10 units	15 units	20 units

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Step 4: Order nighttime supplemental insulin

1. Administer supplemental insulin only if the patient's fingerstick glucose is >200 mg/dL.
2. Recheck the fingerstick glucose 2 hr after administering nighttime supplemental insulin. Provide a 15–20 gram carbohydrate snack (eg, ½ cup of fruit juice, ½ cup of gelatin, ½ cup of fruit ice/sorbet) if the fingerstick glucose is <100 mg/dL.

Circle a starting column for nighttime supplemental insulin:

	Total home insulin < 30 units	Total home insulin 30-60 units, or <u>not on home insulin</u>	Total home insulin 60-90 units	Total home insulin > 90 units, or patients post-op for trauma or CVS
	Column 1	Column 2	Column 3	Column 4
201-250	1	2	3	4
251-300	2	3	4	6
301-350	2	4	6	8
> 350	3	5	8	10

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