

**TUBE FEEDS SUBCUTANEOUS INSULIN ORDER SET**  
**TO BE USED FOR PATIENTS WITH DIABETES OR PERSISTENT HYPERGLYCEMIA ON TUBE FEEDS WHO ARE NOT ON INSULIN DRIPS**

All orders with "☒" will be followed unless crossed out

Date: \_\_\_\_\_

Time: \_\_\_\_\_

1. **DISCONTINUE PRIOR DIABETIC REGIMEN (list below):**

- Discontinue: \_\_\_\_\_
- Discontinue ALL other insulin orders

2. **MONITOR BLOOD GLUCOSE:**

- Every 4 hours for continuous tube feeds OR before each bolus if on bolus feeds
- For BS < 70, follow nursing hypoglycemic protocol

3. **CONTINUOUS TUBE FEEDS ARE STOPPED (even temporarily)**

- Start D10W IV at the same rate that tube feeds were last running AND notify physician
- Monitor blood glucose every 2 hours X 3, then q 4 hours
- Adjust D10W rate based on blood glucose
  - Decrease rate by 50% if blood glucose  $\geq 150$  mg/dL X 2 OR  $\geq 180$  mg/dL X 1
  - Turn OFF if blood glucose remains  $\geq 150$  X 2, physician order OR tube feeds restarted
- Hold all insulin for the first 4 hours that tube feeds are off
- Beginning 6 hours after tube feeds are stopped
  - Use supplemental scale for BMI < 25
  - Continue to hold basal and scheduled nutritional insulin
- When tube feeds are restarted, turn off D10W and resume prior orders
- If stopping tube feeds permanently, notify physician to complete "BASIC Subcutaneous Insulin Order Set"

4. **LONG ACTING/BASAL INSULIN:**

- Hold if tube feeds stopped
- Insulin glargine (Lantus<sup>®</sup>) \_\_\_\_\_ units subq at bedtime (2100 hours)
- OR
- Insulin NPH \_\_\_\_\_ units subq q am and \_\_\_\_\_ units subq at bedtime (2100)

Physician choose ONE  
See reverse for dosing guide

5. **RAPID ACTING/BOLUS INSULIN:**

A. **Scheduled Nutritional glulisine (Apidra<sup>®</sup>) Insulin Orders:**

- Hold if tube feeds stopped, running at less than 50% of goal rate OR Blood sugar < 70

1. Continuous tube feeds:

- Insulin Apidra \_\_\_\_\_ units subq every 4 hours while tube feeds are running

2. Bolus tube feeds: Administer within 30 minutes of the start of the tube feed.

- Insulin Apidra \_\_\_\_\_ units subq with each tube feed

B. **Supplemental insulin glulisine (Apidra<sup>®</sup>) orders: Administer supplemental Apidra along with scheduled nutritional Apidra insulin orders in 5A**

- Do not give for the first 4 hours that tube feeds are turned off

Physician choose one  
See reverse for dosing guide

Glucose	<input type="checkbox"/> BMI < 25, non-diabetic, NPO or on Dialysis	<input type="checkbox"/> BMI 25-30	<input type="checkbox"/> BMI > 30	<input type="checkbox"/> OTHER	<input type="checkbox"/> Post OP CV Surgery
<70	<b>Follow Banner Adult Hypoglycemia Management Orders AND Reduce Scheduled Dose of Apidra by 50%</b>				
70-110 mg/dl	No change	No change	No change		No Change
111-130 mg/dl	No change	No change	No change		+2 units Apidra
131-150 mg/dl	No change	No change	No change		+4 units Apidra
151-175 mg/dl	+1 units Apidra	+2 units Apidra	+3 units Apidra		+5 units Apidra
176-200 mg/dl	+2 units Apidra	+4 units Apidra	+5 units Apidra		+6 units Apidra
201-225 mg/dl	+3 units Apidra	+6 units Apidra	+7 units Apidra		+8 units Apidra
226-250 mg/dl	+5 units Apidra	+8 units Apidra	+9 units Apidra		+10 units Apidra
251-300 mg/dl	+7 units Apidra	+10 units Apidra	+11 units Apidra		+12 units Apidra
301-350 mg/dl	+9 units Apidra	+12 units Apidra	+14 units Apidra		+14 units Apidra
351-400 mg/dl	+12 units Apidra	+14 units Apidra	+18 units Apidra		+16 units Apidra
$\geq 401$ mg/dl	+14 units Apidra	+16 units Apidra	+20 units Apidra		+20 units Apidra

Physician Signature: \_\_\_\_\_ Pager # \_\_\_\_\_

# BANNER GOOD SAMARITAN INPATIENT BASAL INSULIN GUIDE: TUBE FEEDS

(See Banner Intranet Dosing Tool: Home page→"Departments"→"Pharmacy"→"insulin dosing tool" Excel file)

**Notes:** For ICU patients, an iv insulin drip is preferred but this protocol may be appropriate as extubated patients, off pressors, transition out of the ICU.  
For Patients on TPN: Regular insulin added to the TPN bag, with a correction dose scale for glucose values out of the target range is the preferred method of control  
For Exclusive Nocturnal Enteral Feeds: **DO NOT USE THIS FORM.** Add a dose of NPH at the start of tube feeds to the current daytime regimen. The dose can be determined by monitoring blood sugars every 4 hours for the first few nights with supplemental scale coverage.

**Step 1:** This protocol is appropriate if known diabetes or new persistent hyperglycemia on bolus or continuous tube feeds. D/c prior insulin orders and oral diabetic meds. If they are being placed on tube feeds and not diabetic, use the sliding scale for the first 1-2 days to determine if they have persistent hyperglycemia.

**Step 2:** Calculate the estimated **total daily dose (TDD)** of insulin based on **ONE** of the following methods (in order of preference)

1. Transferring from **insulin gtt.** Use average hourly rate over the last 6 hours, multiply by 20 to get the TDD
2. Use **total insulin required at home OR on prior days in the hospital** (all types added together)
3. **Calculate/ estimate insulin requirement** as follows based on body size:
  - a. **Dialysis** (regardless of BMI) or CrCl <15 mL/min use **0.3 units/kg/day**,
  - b. **Lean** (BMI < 25), CrCl 15-30 mL/min, new steroid induced hyperglycemia or new diagnosis of DM: use **0.4 units/kg/day**
  - c. **Overweight** (BMI 25-30) use **0.5 units/kg/day**,
  - d. **Obese** (BMI > 30) use **0.6 units/kg/day**

**TOTAL DAILY DOSE (TDD) of insulin = \_\_\_\_\_ Units**

**Step 3:** Determine the **distribution** of the TDD. Although patients are on a continuous calorie source, if basal insulin exceeds 50% of the TDD the patient is at higher risk for hypoglycemia for longer periods of time if the nutrition source is stopped.

## **Long Acting/Basal: Glargine (Lantus®) OR NPH**

**Lantus** – 50% of TDD given once daily at HS (continue even if NPO)

**NPH** - 50% of TDD divided into 1/2 in the am and 1/2 at bedtime

**If they have not received subcutaneous basal insulin in the last 24 hours,**

- If it is prior to noon, consider giving ½ the usual bedtime dose of glargine once only now or giving a dose of NPH X 1.
- If you are stopping an insulin drip, give lantus or NPH 2-4 h prior to turning drip off

## **Rapid acting: Glulisine (Apidra®)**

**Meal/Nutritional Coverage**

1. 50% of TDD as **glulisine (Apidra®)** in
  - a. **Six** equal doses if on continuous tube feeds
  - b. **Three** equal doses prior to each meal if on bolus tube feeds.

**Supplemental:** Given in addition to the above the routine nutritional dose based on fingerstick glucose.

**Step 4: EVALUATE** insulin dose daily. Determine the total dose **received** for the day prior and adjust as below

- a. If some glucoses were < 80 mg/dl use 80% of yesterday's total insulin given as new total
- b. If some glucoses were > 180 mg/dl and none < 80 mg/dl use 110 % of yesterday's total as new total
- c. Redistribute your new total into 50% basal and 50% bolus
- d. If the supplemental scale is not matching your patient's needs, consider calculating the expected decrease in glucose for one unit of insulin (correction factor) by using **1700/ TDD given = Correction factor**