PROOF VERSION #9 01-10-08

UCSF Medical Center

Orders must be written in black or blue ink. Nurse transcribing orders will indicate the transcription by signing their name and classification, the date and time the transcribing is completed. When an order is discontinued, write "Discontinue" giving date and naming order.

UNIT NUMBER

PT. NAME

BIRTHDATE

LOCATION DATE

ADULT SUBCUTANEOUS INSULIN ORDER SHEET

PATENT NPO or on TPN, TUBE FEEDS

Insulin allergy: ☐ Yes ☐ No (√ Check in box activates order)

1. ☐ **NPO** ______________________ (start date / time)
   ☐ **TPN** ☐ **continuous** ☐ **cycle** ____________
   ☐ **TUBE FEED** ☐ **continuous** ☐ **cycle** ____________
   1. **Check blood glucose and give insulin every 4 hours.**
   2. Discontinue previous SQ insulin order.
   3. If patient becomes NPO for procedure/stops eating/tube feed/TPN held:
      - **HOLD** nutritional dose of Aspart.
      - Give correctional dose of Aspart if BG > 130 mg/dL.
      - Give Glargine dose. If BG has been less than 70 mg/dL in last 24 hours, call MD to consider adjusting Glargine dose.
   4. ☑ If TPN/Tube Feed interrupted >30 minutes, hang D10W at rate of Tube Feed/TPN.

A. BASAL AND NUTRITIONAL INSULIN DOSE (IN UNITS):

BLOOD GLUCOSE TIME	6:00	10:00	14:00	18:00	22:00	02:00
Aspart (NovoLog) Nutritional Dose	units	units	units	units	units	units
	units	units	units	units	units	
Glargine (Lantus)	units	units	units	units	units	

B. CORRECTIONAL Insulin with ASPART Every 4 hours Check box to choose scale. Add or subtract from nutritional dose of aspart.

Blood Glucose Range:	☐ Sensitive BMI less than 25 and/or <50 units per day	☐ Average BMI 25-30 and/or 50-90 units per day	☐ Resistant BMI >30 and/or >90 units per day	☐ Custom
<70 mg/dL	Treat for Hypoglycemia per protocol (see order #3). Once BG ≥100 mg/dL give Aspart with following change:			
Once BG ≥100mg/dL give:	2 units less	3 units less	4 units less	______ units less
70-100 mg/dL	1 unit less	2 units less	3 units less	______ units less
101-130 mg/dL	Give nutritional dose Aspart as in #1A above			
131-150 mg/dL	0 unit	+1 unit	+2 units	+______ units
151-200 mg/dL	+1 unit	+2 units	+3 units	+______ units
201-250 mg/dL	+2 units	+4 units	+6 units	+______ units
251-300 mg/dL	+3 units	+6 units	+9 units	+______ units
301-350 mg/dL	+4 units	+8 units	+12 units	+______ units
351-400 mg/dL	+5 units	+10 units	+15 units	+______ units
Greater than 400 mg/dL	+6 units	+12 units	+18 units	+______ units

2. CALL MD FOR BG < 70 mg/dL OR > 400 mg/dL.

3. For BG < 70 mg/dL, use Hypoglycemia Protocol below. These hypoglycemia orders remain active for duration of SQ insulin administration.

For patient taking PO, give 20 gm of oral fast-acting carbohydrate per patient preference:

☑ Give 4 glucose tablets (5 gram glucose/tablet). Repeat Q15 minutes until BG ≥100 mg/dL.

-OR-

☑ Give 6 oz. fruit juice. Repeat Q15 minutes until BG ≥100 mg/dL.

☑ Give **25 mL D50 IV push** if patient cannot take PO, or 6 oz. juice per feeding tube. Repeat Q15 minutes until BG ≥100 mg/dL.

☑ Check fingerstick glucose every 15 minutes until BG is ≥ 100 mg/dL.

4. Discontinue above monitoring and intervention orders when SQ insulin is discontinued.

NOTE: Glargine (Lantus) CANNOT be mixed with any other insulin. Give Glargine as a separate injection.
If patient is on tube feeds, give insulin at the start of tube feeds.

Signature __________________ **M.D. #** ___ ___ ___ ___ ___ **Time** _________ **Date** ________ **Pager #** _____________

FLAG CHART TO INDICATE NEW ORDER **Checked by** ___________________________ **R.N. Time** _____________ **Date** _____________

105-0144 (Rev. 01/08) WorkflowOne ORIGINAL - MEDICAL RECORD COPY YELLOW - NURSING COPY

PROOF ONLY

Endocrine fellow 443-9125
Diabetes Nurse Specialist 443-2951

Adult Inpatient Insulin Dosing Guidelines

Basal - amount of insulin needed when patient is not eating (use NPH or Glargine – dose ~ 0.1 to 0.4 units/kg/day).
Nutritional - insulin for food or TPN or tube feeds. Hospital meals 60-75 grams carbohydrates per meal.
Correctional - insulin for high BG – to bring BG to target range of 130 mg/dL premeals and 200 mg/dL bedtime, 2am.

Insulin Regimens

I. Patient controlled on diet only at home but needs insulin in hospital because of hyperglycemia.

Day 1: 1) Write correctional with Aspart based on BMI - refer to Table 1.
Day 2: 1) If BG pre meals >150mg, add nutritional insulin with Aspart based on appetite - refer to Table 2.
2) If FBG>150mg, add Basal insulin NPH or Glargine 0.1 unit per kg body weight.
Day 3: 1) Adjust insulin dosing based on BG pattern. Increase or decrease basal (Glargine, NPH) based on FBG. Adjust nutritional (Aspart) needs based on premeal BG levels.

II. Patient on oral agent at home but requiring insulin in hospital because of hyperglycemia or difficulties using the oral agents in the hospital.

Day 1: 1) Start Aspart TID based on appetite – refer to Table 2.
2) Write correction with Aspart based on BMI – refer to Table 1.
Day 2: 1) If FBG >150mg, add basal, start NPH/Glargine 0.1 unit/kg at bedtime.

Table 1. CORRECTIONAL Insulin with Aspart Pre Meals or every 4 hours Check box to choose scale.

Blood Glucose Range:	☐ Sensitive BMI less than 25 and/or <50 units per day	☐ Average BMI 25-30 and/or 50-90 units per day	☐ Resistant BMI >30 and/or >90 units per day	☐ Custom
<70 mg/dL	Treat for Hypoglycemia per protocol (see order #5). Once BG ≥100 mg/dL give Aspart with following change when patient eats:			
Once BG ≥100mg/dL give:	2 units less	3 units less	4 units less	_______ units less
70-100 mg/dL	1 unit less	2 units less	3 units less	_______ units less
101-130 mg/dL	Give nutritional dose Aspart as in #2A above			
131-150 mg/dL	0 unit	1 unit	2 units	_______ units
151-200 mg/dL	1 unit	2 units	3 units	_______ units
201-250 mg/dL	2 units	4 units	6 units	_______ units
251-300 mg/dL	3 units	6 units	9 units	_______ units
301-350 mg/dL	4 units	8 units	12 units	_______ units
351-400 mg/dL	5 units	10 units	15 units	_______ units
Greater than 400 mg/dL	6 units	12 units	18 units	_______ units

Table 2. Nutritional Aspart insulin (Write in section 2 of SQ Insulin Order Sheet.)

Appetite	Aspart (or Regular) pre meals
Not eating	0 units
Eats < 50%	1 unit
Eats 50-75%	2 units
Eats > 75%	3 units

PROOF ONLY

III. Patient on insulin at home.
1. Assess home BG control, appetite, creatinine, hypoglycemia.
2. Basal Need: continue home regimen if satisfactory or start 0.2 units/kg insulin Glargine or NPH.
3. Nutritional Need: Aspart with dose based on appetite – refer to Table 2.
4. Correctional: write correction if BG >130mg based on BMI – refer to Table 1.

IV. Patient NPO Procedure
1. Decrease a.m. NPH dose by 50%; hold nutritional insulin, 70/30 insulin; insulin secretagogues.
2. Give Glargine dose provided BG has not been <70 mg in past 24 hours.
3. At bedtime, give same dose NPH.
4. High glucose correction every 4 hours with Aspart if BG >130mg – refer to Table 1.

V. NPO Surgery
1. Use insulin infusion ICU form #602-068; Med-Surg Form #602-028.
2. Need maintenance IV Dextrose (minimum rate 10mL/hour).
3. Give SQ insulin at least 30 minutes prior to D/C insulin infusion.

VI. Transition to SQ insulin from Insulin Infusion

Patient Eating
1. Calculate the total 24 hour insulin infused and use 80% of that TDD for the calculation.
2. Basal Need – 1/2 of the 80% of the TDD
3. Nutritional Need – 1/2 of the 80% of the TDD divided by 3
4. Correctional – write if BG > 130mg/dL – Based on BMI – refer to Table 1
   Example: 1.8 units per hour X 24 hours = 43.2 units in 24 hours. 80% of 43 is 34 units
   Basal dose: 34/2 = 17 units, so 17 units Glargine
   Nutritional dose: 17/3 = 6, so 6 units Aspart per meal

Tube Feed
1. Calculate the total 24 hour insulin infused – use the lowest value – this is the total daily dose.
2. Basal Need – divide Total Daily Dose by 2 for Glargine dose.
3. Nutritional Need – divide Total Daily Dose by 10 for Aspart dose every 4 hours.
4. Correctional – write if BG >130mg every 4 hours – Based on BMI – refer to Table 1.