

UCSF Medical Center

ADULT SUBCUTANEOUS INSULIN ORDER SHEET PATIENT EATING

DO NOT TRANSCRIBE ITALICIZED TEXT ADJACENT TO ORDERS

(Check "✓" in box activates orders)

UNIT NUMBER

PT. NAME

BIRTHDATE

DATE:

TIME:

LOCATION

DATE

1. Check blood glucose and give insulin before meals, bedtime, and 2 AM.
2. Discontinue previous SQ insulin order.
3. If patient becomes NPO for procedure/stops eating:
 - HOLD nutritional dose of Aspart
 - Give correctional dose of Aspart if BG >130 mg/dL.
 - Give Glargine dose. If BG has been <70 mg/dL in last 24 hours, call MD to consider adjusting Glargine dose.
 - Call MD for SQ insulin NPO orders if patient on 70/30, NPH insulin or has been NPO >12 hours.

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

Patient Eating TIME	Breakfast	Lunch	Dinner	Bedtime
Aspart (NovoLog) Nutritional Dose	units	units	units	units
	units	units	units	units
NPH	units		units	units
Glargine (Lantus)	units		units	units
NovoLog Mix 70/30	units		units	

B. MEAL TIME CORRECTIONAL Insulin with ASPART. Check box to choose scale. Add or subtract from nutritional dose of aspart.

Blood Glucose Range:	<input type="checkbox"/> Sensitive BMI less than 25 and/or <50 units per day	<input type="checkbox"/> Average BMI 25-30 and/or 50-90 units per day	<input type="checkbox"/> Resistant BMI >30 and/or >90 units per day	<input type="checkbox"/> Custom
<70 mg/dL	Treat for Hypoglycemia per protocol (see order #6). 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 #4A 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

C. BEDTIME AND 2 A.M. CORRECTIONAL INSULIN WITH ASPART IF BG ≥200mg/dL

BG Range:	Default Value	<input type="checkbox"/> Custom
200-250 mg/dL	1 unit	_____ units
251-300 mg/dL	2 units	_____ units
>300 mg/dL	3 units	_____ units

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

6. 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 20 grams glucose PO or 6 oz. fruit juice. Repeat Q 15 minutes until BG ≥ 100 mg/dL.
- Give 25 mL D50W IV push if patient cannot take PO. Repeat Q 15 minutes until BG ≥ 100 mg/dL.
- Check fingerstick glucose every 15 minutes and repeat treatment until BG is ≥ 100 mg/dL.

7. 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 receiving Extraneal, Gamimune N, Octagam, D-xylose, Winrho D SDF, Hepagam B, Orencia, or Adept adhesion reduction solution, do not use glucose meter for BG checks. All BGs must be sent to the laboratory.

Signature _____ Provider No. _____ Date _____ Time _____ Pager _____

ORDERS MUST INCLUDE LEGIBLE PROVIDER NUMBER, DATE, AND TIME

Orders checked by _____ R.N. Date _____ Time _____

ADULT SUBCUTANEOUS INSULIN ORDER SHEET PATIENT EATING

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:	<input type="checkbox"/> Sensitive BMI less than 25 and/or <50 units per day	<input type="checkbox"/> Average BMI 25-30 and/or 50-90 units per day	<input type="checkbox"/> Resistant BMI >30 and/or >90 units per day	<input type="checkbox"/> 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

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 (short term, i.e. NPO after midnight with expectation feeding will resume by noon).

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 or Prolonged NPO (NPO greater than 12 hours)

1. Use insulin infusion ICU form #602-068; Med-Surg Form #602-028 or NPO SQ form #105-0144..

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 (use order sheet #105-0145)

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 (use order sheet #105-0144)

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.