

## VCMC Adult Insulin Infusion Orders (not for DKA)

- Discontinue all previous insulin orders.
- Initiate insulin infusion of **Regular** insulin 100 units/100 mL 0.9% normal saline via an infusion device.
- Add glycohemoglobin (HbA1c) to next blood draw if not done in the last 30 days.

**Goal BG Range:**

- 100-150 mg/dL (most ICU patients)
- 110-180 mg/dL (most DOU patients)
- Other \_\_\_\_\_ - \_\_\_\_\_

**Initiating the infusion:**

**Algorithm 1:** Start here for most patients.

**Algorithm 2:** Start here if s/p CABG, solid organ transplant, receiving glucocorticoids, or patient receiving >80 units/day of insulin as an outpatient.

**Algorithm 3:** NO PATIENTS START HERE.

**Algorithm 4:** NO PATIENTS START HERE.

- Start insulin infusion with **Algorithm 1**
- Start insulin infusion with **Algorithm 2**

**Moving Algorithms:** Move up or down only one algorithm per BG check.

● **MOVING UP:** Algorithm failure is defined as BG out of goal range (see above) and BG that has not decreased by at least 40 mg/dL in one hour.

● **MOVING DOWN:** When BG < 100 mg/dL or if BG decreases > 40 mg/dL in an hour. Restart insulin drip when BG is greater than 100 mg/dL and move down an algorithm.

Algorithm 1		Algorithm 2		Algorithm 3		Algorithm 4	
BG	Units/hr	BG	Units/hr	BG	Units/hr	BG	Units/hr
<70 = Hypoglycemia (see below for treatment)							
<100	Off	<100	Off	<100	Off	<100	Off
100-119	0.2	100-119	0.5	100-119	1	100-119	1.5
120-139	0.5	120-139	1	120-139	2	120-139	3
140-159	1	140-159	1.5	140-159	3	140-159	5
160-179	1.5	160-179	2	160-179	4	160-179	7
180-209	2	180-209	3	180-209	5	180-209	9
210-239	2	210-239	4	210-239	6	210-239	12
240-269	3	240-269	5	240-269	8	240-269	16
270-299	3	270-299	6	270-299	10	270-299	20
300-329	4	300-329	7	300-329	12	300-329	24
330-359	4	330-359	8	330-359	14	>330	28
>360	6	>360	12	>360	16		

**Patients who are eating:**

- Administer subcutaneous prandial (mealtime) **lispro** (Humalog) insulin immediately post-meal, IN ADDITION TO intravenous insulin infusion, based on the Insulin-to-Carbohydrate ratio below.

What Algorithm is the patient receiving at the time of the meal?	Algorithm 1	Algorithm 2	Algorithm 3	Algorithm 4
Insulin-to-Carbohydrate ratio	1 unit of insulin for 15 grams of carbohydrates	1 unit of insulin for 10 grams of carbohydrates	1 unit of insulin for 7 grams of carbohydrates	1 unit of insulin for 5 grams of carbohydrates

- See reverse for additional guidelines.

Physician Signature \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_



VENTURA COUNTY MEDICAL CENTER  
SANTA PAULA HOSPITAL  
**ADULT INSULIN INFUSION ORDERS**

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### **Patient Monitoring:**

- Check BG every hour until it is within goal range for 4 hours. Then check every 2 hours for 4 hours. If BG remains stable, may decrease monitoring to every 4 hours. Resume hourly checks if BG falls out of goal range.
- Hourly monitoring may be indicated for critically ill patients even if they have stable blood glucose.
- Check BG every hour x 3 hours after patient starts eating.
- For TPN/Tube Feeds, decrease insulin infusion rate if nutritional therapy is discontinued or significantly reduced and check BG every hour until BG in goal range.

### **Treatment of Hypoglycemia (BG < 70 mg/dL): Turn off insulin infusion AND**

- If patient can take PO, give 15 gm of fast-acting carbohydrate, such as 4 oz. fruit juice (“15-15 Rule”).
- If patient cannot take PO and BG 50-70 mg/dL, give 25 mL (1/2 amp) D<sub>50</sub>W IV push.
- If patient cannot take PO and BG < 50 mg/dL, give 50 mL (1 amp) D<sub>50</sub>W IV push.
- Recheck BG every 15 minutes and repeat above if BG is less than 70 mg/dL. Restart drip once BG is > 100 mg/dL for 2 consecutive checks. Restart infusion with lower algorithm (see Moving Down section above).

### **Notify the Physician:**

- For any BG change > 100 mg/dL in one hour.
- For BG > 360 mg/dL.
- For any hypoglycemia which results in loss of consciousness.
- For any hypoglycemia which has not resolved within 20 minutes of administering 50 mL of D<sub>50</sub>W IV and discontinuing the insulin infusion.
- Failure of Algorithm 4.