

SERVICE	ATTENDING	RESIDENT/ARNP/PA	
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**Protocol (Not For DKA/HHS or Pediatrics)**

► **CONSULT ENDOCRINE SERVICE FOR:**

- Acute Care patients on insulin infusion receiving oral nutrition or intermittent tube feeding

**GOAL Blood Glucose (BG) RANGE :**

**ACUTE CARE OR ICU:** 100-180 mg/dL initiate when ordered

**ICU ONLY:**  100-140 mg/dL initiate when BG>140 x 2

**Discontinue all previous insulin orders.**

**Insulin Infusion:** 100 units insulin/ 100 mL NS given IV infusion, at:

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

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

- **NO PATIENT STARTS AT ALGORITHM 3 OR 4.**

► See back of form for the Algorithms and decision tree

► When transitioning to SubQ: Use [www.uwmedres.org/resources](http://www.uwmedres.org/resources) for dosing assistance: Give specified basal SubQ insulin dose, and then stop insulin infusion in 2 hours.

**Fluid/Nutrition Orders:**

Recommendations for patients that are not eating:

**DM Type 1** (10 grams glucose/hour) **DM Type 2** (5 grams glucose/hr)

D51/2 normal saline with \_\_\_\_\_ mEq/L Potassium chloride IV at \_\_\_\_\_ mL/hr

D5LR with \_\_\_\_\_ mEq/L Potassium chloride IV at \_\_\_\_\_ mL/hr

TPN or Enteral Feeds (see separate orders)

Other \_\_\_\_\_ at \_\_\_\_\_ mL/hr

**Patient Monitoring:**

Check BG every 1 hour until it is within **goal** range for 4 hours. Then decrease BG checks to every 2 hours. **ALWAYS** resume hourly checks if BG exits goal range.

► Hourly monitoring may be indicated for critically ill patients or patients having medical or surgical procedures even if they have stable BG.

**Notify the Provider:**

For any BG increase >100 mg/dL from a stable baseline

For 2 consecutive BG decreases of >100 mg/dL

For any hypoglycemia which results in loss of consciousness **OR** does not resolve within 20 min of implementing the hypoglycemia protocol below

**Treatment of Hypoglycemia (BG <70 mg/dL) or symptoms of hypoglycemia**

**Turn off** insulin infusion for any BG below goal **AND**

Give 25 mL (1/2 amp) of 50% dextrose IV if BG 50-69 mg/dL **OR**

Give 50 mL (1 amp) of 50% dextrose IV if BG < 50 mg/dL.

Recheck BG every 20 minutes until BG ≥100 mg/dL

→ IF BG is <70 mg/dL repeat 25 mL (1/2 amp) 50% dextrose

→ WHEN BG is ≥100 mg/dL, restart the insulin infusion at a lower dose by using one algorithm **LEFT** from previous algorithm (see "Evaluating Trends & Using Algorithms" section).

**TPN/ Enteral feeding:**

If TPN/ Enteral feeding is stopped or significantly reduced, decrease insulin infusion by 50% for 1 hour. Then, use algorithm table & instructions to determine subsequent rate changes **AND** check BG every 1 hour x 4 hours.

PROVIDER SIGNATURE	PRINT NAME	PAGER	NPI	DATE	TIME
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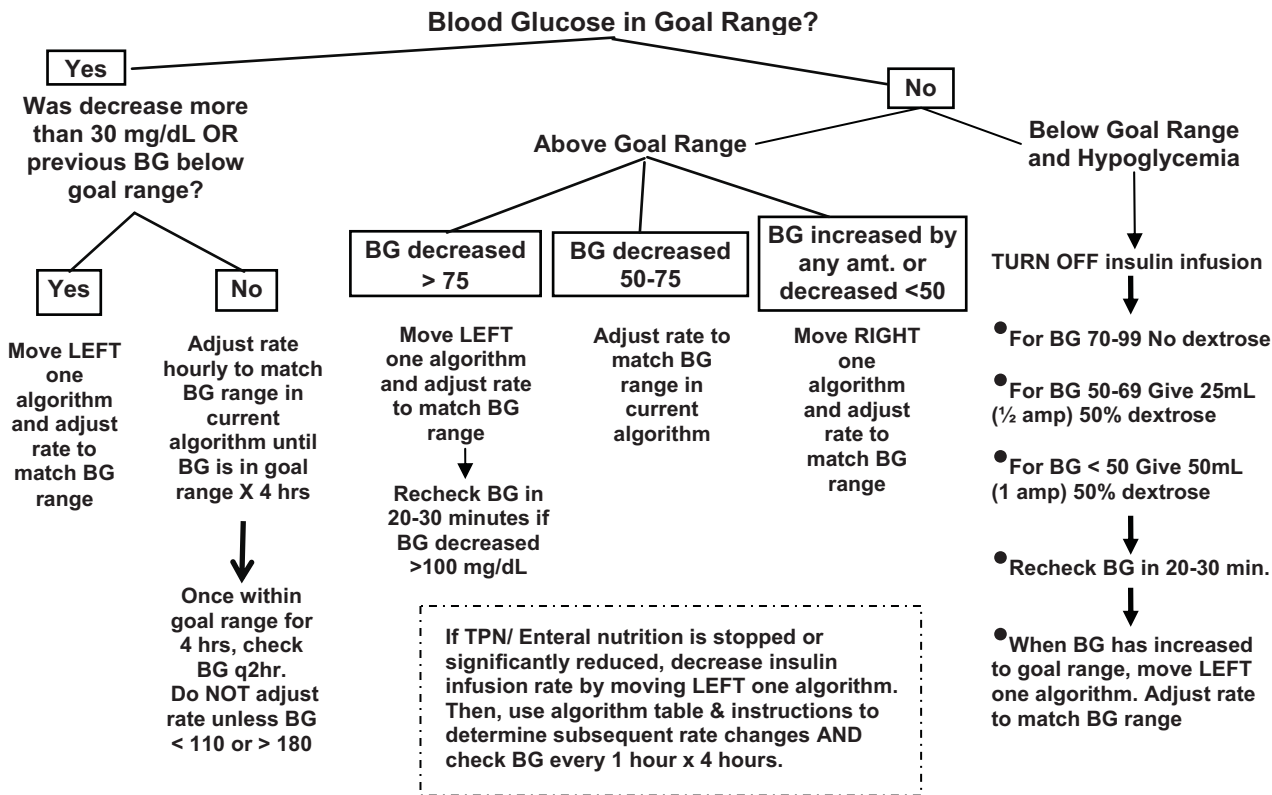
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NAME

DOB

**BG monitoring:** Check BG every 1 hour until it is within **goal** range for 4 hours. Then decrease BG checks to every 2 hours. ALWAYS resume hourly checks if BG exits goal range and when there is a change in algorithm. Check BG in 20-30 minutes as noted below. Hourly monitoring may be indicated for critically ill patients or patients having medical or surgical procedures even if they have stable BG.

## Insulin Infusion Algorithm Decision Tree



Algorithm 1		Algorithm 2		Algorithm 3		Algorithm 4	
BG	Unit/hr	BG	Units/hr	BG	Units/hr	BG	Units/hr
<b>&lt;70 = Hypoglycemia See front of form for treatment</b>							
<b>70-99: Off x 20-30 minutes &amp; recheck BG</b>							
100-120	0.5	100-120	1	100-120	1.5	100-120	2
121-140	0.8	121-140	1.5	121-140	2.5	121-140	3.5
141-160	1.2	141-160	2	141-160	3	141-160	4.5
161-180	1.5	161-180	2.5	161-180	4	161-180	6
181-210	2	181-210	3	181-210	5	181-210	7.5
211-240	2.5	211-240	4	211-240	6.5	211-240	9.5
241-270	3	241-270	5	241-270	8	241-270	11
271-300	3.5	271-300	6	271-300	9	271-300	13
301-330	4	301-330	6.5	301-330	10.5	301-330	15
331-360	4.5	331-360	7.5	331-360	12	331-360	17
>360	5	>360	8.5	>360	14	>360	19

If NOT achieving glycemic control with Algo 4 X  
 ≥3 consecutive hours  
 Consider High Dose Infusion Protocol