

Patient Name: _____

MR Number: _____

Medical ICU Intensive Insulin Infusion Protocol

(NOT FOR THE TREATMENT OF DIABETIC KETOACIDOSIS)

1. Initiate Insulin Infusion:

- If blood glucose >180 mg/dL, initiate & titrate IV insulin infusion X 24 hours.
- **Goal: To maintain a blood glucose of 150-180 mg/dL**
- **Insulin Admixture:** Mix 100 units of regular insulin in 100 mL of normal saline to make a 1 unit/mL and is stable for 24 hours (250 units/250 mL admixture is also acceptable)
- Prime the IV line with 20-30 mL of the insulin IV admixture
- Based on first the blood glucose level, administer regular insulin IV bolus using smart pump and begin a regular insulin infusion according to the chart below:

Blood Glucose (mg/dL)	Insulin Bolus	Infusion Rate	Blood Glucose (mg/dL)	Insulin Bolus	Infusion Rate
181 – 230	1 unit	1 units/hr	331 – 380	6 units	2 units/hr
231 – 280	2 units	1 units/hr	381 - 430	8 units	3 units/hr
281 – 330	4 units	2 units/hr	>430	10 units	4 units/hr

2. Monitoring of Blood Glucose and Rate Adjustments

****If blood glucose decreases by more than 100 mg/dL from previous measurement, reduce rate by 50%, recheck blood glucose in 1 hour and resume adjustments as below****

- Check blood glucose q1 hour and adjust insulin infusion dose based on current rate as below until blood glucose is within target range of (150 - 180 mg/dL)
- If insulin infusion is stopped, the blood glucose should be monitored q1hour for 2 hours.

Blood Glucose	Insulin Rate of 1-5.5 units/hr	Insulin Rate of 6-10.5 units/hr	Insulin Rate of >11 units/hr
≤70 mg/dL	Stop infusion and give 50 mL D50W IVP; recheck glucose in 15 minutes: <ul style="list-style-type: none"> • If glucose remains <70 mg/dL, continue to give 50 mL D50W q15 minutes until glucose >70 mg/dL and call MD • If glucose >180 mg/dL, restart infusion at rate of 50% previous infusion rate 		
71-90 mg/dL	Stop infusion and give 25 mL D50W IVP; recheck glucose in 15 minutes: <ul style="list-style-type: none"> • If glucose remains <70 mg/dL, continue to give 25 mL D50W q15 minutes until glucose >70 mg/dL and call MD • If glucose >180 mg/dL, restart infusion at rate of 50% previous infusion rate 		
91-110 mg/dL	Stop infusion & recheck glucose q1h. Restart infusion but decrease rate by 50% when glucose >180 mg/dL	Stop infusion & recheck glucose q1h. Restart infusion but decrease rate by 50% when glucose >180 mg/dL	Stop infusion & recheck glucose q1h. Restart infusion but decrease rate by 50% when glucose >180 mg/dL
111-149 mg/dL	Stop infusion & recheck glucose q1h. Restart infusion but decrease rate by 25% when glucose >180 mg/dL	Stop infusion & recheck glucose q1h. Restart infusion but decrease rate by 25% when glucose >180 mg/dL	Stop infusion & recheck glucose q1h. Restart infusion but decrease rate by 25% when glucose >180 mg/dL
150-180 mg/dL (Target)	No Change	No Change	No Change
181-230 mg/dL	Increase rate by 0.5 units/hr	Increase rate by 1 units/hr	Increase rate by 1.5 units/hr
231-330 mg/dL	Increase rate by 1 units/hr	Increase rate by 1.5 units/hr	Increase rate by 2 units/hr
331-380 mg/dL	Increase rate by 1.5 units/hr	Increase rate by 2 units/hr	Increase rate by 2.5 units/hr
>380 mg/dL (Notify MD)	Increase rate by 2 units/hr	Increase rate by 2.5 units/hr	Increase rate by 3 units/hr

Signature: _____ MD Date _____ Time _____

Signature: _____ RN Date _____ Time _____