

## CV Surgery Insulin Protocol

### INSULIN DRIP

1. Mix drip with 100 Units Novolin R (Regular Insulin) into 100 mL of Normal Saline (1Unit/1 mL)
2. Prime IV tubing with Insulin Drip and place on infusion pump.
3. **Start Insulin Drip** with the following formula:
  - a.  $(\text{Blood Glucose} - 60) \times 0.03 = \text{Number of Units of Insulin/Hour}$
  - b. Note: Use the current blood glucose, and the **starting “multiplier” is 0.03**
4. **Titrate the drip** hourly based on the following criteria:
  - a. BG greater than 140 mg/dL increase multiplier by 0.01
  - b. BG less than or equal to 100 mg/dL decrease multiplier by 0.01
  - c. BG is between 101 – 140 mg/dL No change in the multiplier
5. Recalculate the insulin dose every hour with the latest BG even if the multiplier does not change
6. If BG less than 80 mg/dL , recheck in 30 minutes
7. If BG less than 60 mg/dL:
  - a. Give D5W IV push using the following formula:
    1.  $(100 - \text{BG}) \times 0.3 = \text{Milliliters of D50W to be given IV push}$
  - b. Decrease the insulin drip multiplier by 0.01 and continue insulin drip
  - c. Recheck BG in 15 minutes
8. While on the drip, **call the Hyperglycemic Management Team** if any below occur:
  - a. BG less than 60 mg/dL twice in a row after intervention
  - b. BG less than 70 mg/dL twice in a row
  - c. BG greater than 200 mg/dL on 3 consecutive Accuchecks and trend isn't moving toward target zone
  - d. Do not D/C insulin drip between 11pm and 5am. If by 9pm, it looks like you may have criteria to wean off the drip before 5am, then call for specific orders
9. Obtain lab glucose for verification if BG less than 50 mg/dL OR greater than 450 mg/dL

### WEANING INSULIN DRIP

1. Convert to a subcutaneous insulin regimen, if you have no increase in the multiplier for 8 hours. A decrease in the multiplier is considered a favorable condition for weaning the insulin drip.
2. Call the Hyperglycemic Management Team for the subcutaneous Novolin N weaning dose order. Have the patient's weight (kg), HgbA-1C, and the total number of insulin units given on the insulin drip over the past 24 hours.
3. Administer Novolin N dose subcutaneously **2 hours prior to the discontinuation of the drip.**
4. See flow sheet at the bottom of this reference text for further weaning instructions.
5. **If BG is trending up, call the Hyperglycemic Management Team.**

### CV SURGERY SLIDING SCALE – REGULAR INSULIN SUBCUTANEOUS

Symptomatic  
Non-symptomatic

Less than 61 mg/dL - 25 g D50W IVPush  
61-70 mg/dL - 18.75 g D50W IVPush  
71-80 mg/dL and symptomatic - 12.5 g D50W IVPush  
71-80 mg/dL and non-symptomatic - No treatment and recheck BG in 1 hour  
81-140 mg/dL - 0 units subcut  
141-160 mg/dL - 2 units subcut 161-180 mg/dL - 4 units subcut  
181-200 mg/dL - 6 units subcut 201-224 mg/dL - 8 units subcut  
225-249 mg/dL -10 units subcut  
250-299 mg/dL -12 units subcut  
300-324 mg/dL - 14 units subcut  
Greater than 324 mg/dL - 20 units subcutan and call **Hyperglycemic Management Team**

