



## Endocrinology Division

### INSULIN DRIP ORDERS – Drs. Biggs / Usala / Brantley / Arias / Dodson

- 1) Initiate IV Insulin Flowsheet and keep on the bedside record.
- 2) Start IV :
  - Normal Saline at 10 ml/hr
  - D5W with 20meq KCL/l at 100 ml/hr
  - D5 ½NS with 20meq KCl/l at \_\_\_\_\_ ml/hr
  - Other: \_\_\_\_\_
- 3) Mix insulin drip:  
100 units Novolin R into 100ml NS to equal a concentration of 1.0 units per cc. Flush 20ml of solution through the IV tubing to 'prime' the tubing.
- 4) Piggyback insulin drip into IV using IMED or equiv pump.
- 5) Start insulin drip on pump at rate determined by this formula:  
$$(BG - 60) \times 0.02 = \text{number of UNITS insulin / hr}$$

BG = Current blood glucose      0.02 is the "multiplier"
- 6) Target range for BG:

Low Target (circle one)	High Target (circle one)
100 - 120 - 140 or _____	120 - 150 - 180 or _____
- 7) a. Check BG every hour by fingerstick. Do not use alternate sites without endocrinology approval.  
b. Adjust current multiplier in drip formula #5 above according to the following directions:
  - 1) Whenever BG is greater than HIGH target – increase multiplier by 0.01
  - 2) Whenever BG is less than LOW target – decrease multiplier by 0.01
  - 3) Whenever BG is within target range – No change in multiplier.

- 8) Treat for hypoglycemia if BG less than 80 or \_\_\_\_\_.  
 a. Give D50W by IV push using formula :  
 $(100 - BG) \times 0.3 = \text{ml of D50W to be given IV push.}$   
 b. Decrease the Insulin Drip modifier by 0.01 and continue insulin drip, and  
 c. Recheck glucose in 15 minutes, and  
 d. Resume BG monitoring and Insulin Drip protocol in order #7 above.

- 9) Call endocrine MD if :  
 BG < 61 (to help recalculate dose)  
 BG > 200  
 Episode of BG below 70 twice in a row  
 Patient is scheduled for surgery.  
 Other physicians order insulin sq, iv, or in TPN.  
 Feedings, TPN or steroids are started, stopped, or changed.  
 Other physicians turn off drip for any reason.

- 10) Obtain Lab glucose if fingerstick BG is < 40 or > 450.

11) **Please note that you must recalculate the insulin dose every hour with the latest BG, even if the multiplier doesn't change.**

12) **The targets refer to the Blood Glucose [BG] , *not the BG minus 60.***

Time: \_\_\_\_\_ Date: \_\_\_\_\_ MD Signature: \_\_\_\_\_

**NOTICE:**

This protocol is for use by AMS endocrine division physicians experienced in its theory, implementation and management. The authors of this protocol are not responsible for any other use.

Attribution: This algorithm was adapted for use at our location and is derived from the work of Atlanta Diabetes Associates and is used with permission. Our modifications by 2003-2011 by William C Biggs, MD. (806) 358-8331