UNIT NUMBER

PT. NAME

BIRTHDATE

LOCATION DATE

ADULT INSULIN INFUSION ORDERS

[Not For Acute Diabetic Ketoacidosis (DKA)]

DATE	TIME

ALLERGIES_____**HT(cm)**_____**WT(kg)**_____

"√" in box indicates additional orders

1. ☐ D/C previous insulin orders.

2. ☐ D/C _____ (oral antidiabetic agent).

3. Maintenance IV FLUIDS (Should contain dextrose infused at a constant rate. Note: Additional fluids over 100 cc/hour should not contain dextrose)

☐ D5 NS at 100 cc/hour

☐ D5 1/2 NS at 100 cc/hour

☐ D10 NS at _____ cc/hour (for patients with fluid restrictions or renal failure)

☐ Additive: KCl ____meq/liter (generally 20 meq/l)

☐ other_____ at _____cc/hour

* An IV dextrose infusion must be maintained while the patient is on an insulin infusion.

4. **Insulin Infusion**

A. Standard Insulin Solution is prepared by Pharmacy (25 units regular human insulin in 250 ml NS). Standard Concentration is 1 unit/10 cc. Flush first 50 cc through tubing before connecting to patient.

B. Before beginning infusion, check Blood Glucose (BG) with glucose meter.

5. **Start Insulin Infusion Rate as follows (when BG ≥100 mg/dl):**

☐ 1 unit/hour for patients previously diet controlled, taking oral antidiabetic agent, or <30 units insulin daily

☐ 1.5 units/hour for patients taking >30 units insulin daily

☐ other _____ units/hour

6. **Adjust Insulin Infusion Rate as follows:**

BG <80 mg/dl	Stop infusion and **Call House Officer; see #8 below** *****Do not restart insulin infusion until BG ≥ 100 mg/dl*
BG 80-120	Decrease drip by 0.5 unit/hour
BG 121-180	No change in drip rate
BG 181-250	Increase drip by 0.5 unit/hour
BG >250	Bolus 5 units regular insulin and increase drip by 0.5 unit/hour

7. Check BG q1 hour with glucose meter until stable (range 100-200 mg/dl) for two consecutive readings and then q2 hours. If BG has changed more than 100 mg/dl from previous reading, recheck BG before adjusting insulin dose to verify accuracy of glucose meter reading. Resume q1 hour BG check if BG > 200 mg/dl.

8. **For a BG <80 mg/dl or >400 mg/dl, call House Officer.**

- BG <80 mg/dl but >60 mg/dl, stop insulin infusion. Check BS q15 minutes.
- BG ≤60 mg/dl, stop insulin infusion; give 50 cc D50 IV push; check BG q15 minutes and repeat treatment until BG >100 mg/dl.
- When BG ≥100 mg/dl, call House Officer for new insulin infusion rate.
- BG >400 mg/dl, call House Officer to reassess insulin infusion rate.

9. **Notify House Officer** and Endocrine Service, if consulting, of any change in parenteral or enteral carbohydrate intake because insulin dose (drip rate) will need to be adjusted.

10. When converting to subcutaneous (SQ) insulin, give prescribed SQ dose 30 minutes prior to discontinuing insulin infusion. Then use SQ Insulin Order Sheet (Form # 602-562).

Signature _____ **M.D. #** ___ ___ ___ ___ ___ **Time** _____ **Date** _____ **Pager #**_____

FLAG CHART TO INDICATE NEW ORDER

Checked by _____ **R.N. Time** _____ **Date** _____

602-028 (6/00) ORIGINAL-MEDICAL RECORD WHITE-PHARMACY YELLOW-NURSING

INDICATIONS AND GUIDELINES FOR INSULIN INFUSION

RATIONALE

The predictable delivery and short biological effect (about 40 minutes) of intravenous insulin allows for rapid dose titration based on individual patient requirements glucose levels. The insulin infusion is designed to:

1. Keep the glucose level in a target range, minimizing the risk of hypoglycemia and avoiding the undesirable effects of hyperglycemia
2. Improve and maintain glycemic control, even when an operative procedure is delayed

INDICATIONS

1. Patients with diabetes who are NPO (e.g., perioperative management, prolonged nausea and vomiting)
2. Patients with diabetes who are in the ICU. Patients in the ICU are more seriously ill, have impaired peripheral perfusion, and often have considerable peripheral edema. Therefore, they are less likely to consistently and predictably absorb subcutaneous insulin.
3. For patients who are starting TPN or tube feeding, an insulin infusion may be used to establish insulin requirements; care must be taken to adjust insulin infusion when changes in rates of TPN or tube feedings are made.

IMPORTANT POINTS

1. Patients with renal failure or fluid restrictions should be given glucose as a D10 infusion at a slower rate.
2. Insulin requirements are predictably increased in certain clinical conditions: severe infections, steroid therapy (doubles insulin needs), morbid obesity, and hepatic disease.
3. If patient has continued hyperglycemia, make sure patient is hydrated and correct hypokalemia and hypomagnesemia if indicated.
4. Because insulin has a very short biological effect, it usually should be administered by infusion and not by IV push.