

INSULIN INFUSION FOR THE INTRAPARTUM PATIENT- INSULIN DRIP STUDY PROTOCOL B

1. Equipment

- a. Usual labor room equipment, including automatic vital sign equipment and electronic fetal monitor
- b. Two double IVACs for mainline, insulin infusion, and possible oxytocin and magnesium sulfate infusions
- c. Oxygen, airway and suction apparatus
- d. POC glucose monitor
- e. Urine dipsticks

2. Procedure

- a. General Patient care
 - i. Admit patient to labor and delivery unit
 - ii. Obtain and document baseline vital signs
 - iii. Discontinue previous insulin, oral hypoglycemic agent, and insulin pump orders
 - iv. Check POC glucose before initiating IV fluids
 - v. Check baseline maternal urine ketones
 - vi. Insert IV catheter and obtain blood work. Add glucose to routine admission lab work
NOTE: Insert 2 IV catheters, utilizing separate sites
 - vii. Start IV fluids according to blood glucose level using nomogram
 - viii. Strict I&O
 - ix. Check urine ketones every 2 hours

b. Intrapartum glucose management

i. Check POC glucose

1. According to the nomogram
2. As needed for signs of hypoglycemia

ii. Obtain insulin infusion from pharmacy

NOTE: 250 units regular insulin in 250 mL NSS (1 unit= 1 mL)

iii. Piggyback insulin infusion into solution of 0.9% NSS at port closest to patient

iv. Follow hypoglycemia protocol for POC glucose ≤ 60

v. Adjust insulin infusion rate and IV fluids according to POC glucose using the following nomogram

NOTE: insulin infusion initiation occurs at different blood glucose levels depending on the type of diabetes

- For type 1 diabetes, initiate insulin infusion when blood glucose is ≥ 70 mg/dL
- For type 2 diabetes and gestational diabetes, initiate insulin infusion when blood glucose is ≥ 110 mg/dL

vi.

Blood glucose	Insulin dose	IV Dextrose	Fluids (LR)	Blood glucose checks
<50	Contact physician	Hypoglycemia protocol 200 mL/hour D5LR or 10 mL D50 IVP	50 mL/hour	Every 15 minutes until above 70 mg/dL twice
50-69	Hold infusion	150 mL/hour D5LR	50 mL/hour	Every 15 minutes until above 70 mg/dL twice
70-89 †	0.5 units/hour	100 mL/hour D5LR	50 mL/hour	Every hour
90-109	1.0 units/hour	50 mL/hour D5LR	100 mL/hour	Every hour
110-129 ‡	2.0 units/hour	0 mL/hour D5LR	125 mL/hour	Every 30 minutes until below 110 mg/dL
130-149	3.0 units/hour	0 mL/hour D5LR	125 mL/hour	Every 30 minutes until below 110 mg/dL
150-169	4.0 units/hour	0 mL/hour D5LR	125 mL/hour	Every 30 minutes until below 110 mg/dL
170-189	5.0 units/hour	0 mL/hour D5LR	125 mL/hour	Every 30 minutes until below 110 mg/dL
≥190	Contact physician	0 mL/hour D5LR	125 mL/hour	Every 30 minutes until below 110 mg/dL

† type 1 diabetes

‡ type 2 diabetes and gestational diabetes