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

† type 1 diabetes
‡ type 2 diabetes and gestational diabetes