**TUBE FEEDS SUBCUTANEOUS INSULIN ORDER SET**

To be used for patients with diabetes or hyperglycemia on tube feeds but NOT on insulin drips

1. **DISCONTINUE PRIOR DIABETIC REGIMEN** (list):
   - ☒ Discontinue:
   - ☐ Discontinue ALL other insulin orders

2. **MONITOR BLOOD GLUCOSE**:
   - ☒ Every 4 hours for continuous tube feeds OR prior to feeds if on bolus feeds

3. **HYPOGLYCEMIA ORDERS for BG <70 mg/dL**: Notify physician as soon as possible. 5 gram glucose tabs are the preferred treatment for patients that are eating.
   - If conscious and able to swallow:
     - ☒ For BG 50-69 mg/dL, give 15 grams oral carbohydrate
     - ☒ For BG < 50 mg/dL, give 30 grams oral carbohydrate
   - If semi-conscious, unconscious, uncooperative, unable to swallow or is NPO:
     - ☒ Administer 50 ml of D_{50}W slow IV push OR if no IV access then Glucagon 1mg SubQ or IM and establish an IV
     - ☒ Repeat glucose check and treatment q 10 minutes until ≥70mg/dL
   - Once ≥70mg/dL, repeat blood glucose check q 1 hour X 3 to monitor for recurrence.

4. **LONG ACTING/BASAL INSULIN**:
   - ☒ Hold if tube feeds stopped
   - ☐ Insulin glargine (Lantus®) _______ units subq at bedtime (2100 hours) OR
     - ☒ Q 24 hours at _______ (time)
   - ☒ Insulin NPH _______ units subq q am and _______ units subq at bedtime

5. **RAPID ACTING/BOLUS INSULIN**:
   - ☒ Hold if tube feeds stopped
   - ☒ Scheduled Nutritional glulisine (Apidra®) Insulin Orders:
     - ☒ Hold if tube feeds stopped, less than 50% of goal rate, OR BG <70 mg/dL
     1. Continuous tube feeds:
        - ☒ Insulin Apidra _______ units subq every 4 hours while tube feeds are running
     2. Bolus tube feeds: Administer within 30 minutes of the start of the tube feed.
        - ☒ Insulin Apidra _______ units subq with each tube feed
   - ☒ Supplemental insulin glulisine (Apidra®) orders:
     - ☒ Administer supplemental Apidra every 4 hours from scale below along with scheduled nutritional Apidra insulin orders in 5A
     - ☒ Do not give for the first 4 hours that tube feeds are turned off.

<table>
<thead>
<tr>
<th>Glucose</th>
<th>☐ BM1 &lt;25, non-diabetic, NPO or on Dialysis</th>
<th>☐ BMI 25-30</th>
<th>☐ BMI &gt; 30</th>
<th>☐ OTHER</th>
<th>☐ Post OP CV Surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;70 mg/dL</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>No Change</td>
</tr>
<tr>
<td>70-110 mg/dL</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>+1 units Apidra</td>
</tr>
<tr>
<td>111-130 mg/dL</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>+2 units Apidra</td>
</tr>
<tr>
<td>131-150 mg/dL</td>
<td>No change</td>
<td>No change</td>
<td>No change</td>
<td>+3 units Apidra</td>
<td>+3 units Apidra</td>
</tr>
<tr>
<td>151-175 mg/dL</td>
<td>+1 units Apidra</td>
<td>+2 units Apidra</td>
<td>+3 units Apidra</td>
<td>+4 units Apidra</td>
<td>+4 units Apidra</td>
</tr>
<tr>
<td>176-200 mg/dL</td>
<td>+2 units Apidra</td>
<td>+3 units Apidra</td>
<td>+4 units Apidra</td>
<td>+5 units Apidra</td>
<td>+5 units Apidra</td>
</tr>
<tr>
<td>201-225 mg/dL</td>
<td>+3 units Apidra</td>
<td>+4 units Apidra</td>
<td>+4 units Apidra</td>
<td>+5 units Apidra</td>
<td>+6 units Apidra</td>
</tr>
<tr>
<td>226-250 mg/dL</td>
<td>+4 units Apidra</td>
<td>+5 units Apidra</td>
<td>+4 units Apidra</td>
<td>+6 units Apidra</td>
<td>+6 units Apidra</td>
</tr>
<tr>
<td>251-300 mg/dL</td>
<td>+6 units Apidra</td>
<td>+7 units Apidra</td>
<td>+8 units Apidra</td>
<td>+8 units Apidra</td>
<td>+8 units Apidra</td>
</tr>
<tr>
<td>301-350 mg/dL</td>
<td>+8 units Apidra</td>
<td>+9 units Apidra</td>
<td>+10 units Apidra</td>
<td>+10 units Apidra</td>
<td>+10 units Apidra</td>
</tr>
<tr>
<td>351-400 mg/dL</td>
<td>+10 units Apidra</td>
<td>+11 units Apidra</td>
<td>+12 units Apidra</td>
<td>+12 units Apidra</td>
<td>+12 units Apidra</td>
</tr>
<tr>
<td>&gt;401 mg/dL</td>
<td>+12 units Apidra</td>
<td>+13 units Apidra</td>
<td>+14 units Apidra</td>
<td>+14 units Apidra</td>
<td>+14 units Apidra</td>
</tr>
</tbody>
</table>

When continuous tube feeds are stopped (even temporarily)
- ☒ Start D10W IV at the same rate that tube feeds were last running AND notify physician
- ☒ Monitor blood glucose every 2 hours X 3, then q 4 hours
- ☒ Adjust D10W rate based on blood glucose
   - Decrease rate by 50% if blood glucose ≥150 mg/dL
   - Turn OFF if blood glucose remains ≥150 mg/dL, physician order OR tube feeds restarted
- ☒ Hold all insulin for the first 4 hours that tube feeds are off
- ☒ Beginning 6 hours after tube feeds are stopped
   - Use supplemental scale for BMI <25
   - Continue to hold basal and scheduled nutritional insulin
- ☒ When tube feeds are restarted, turn off D10W and resume prior orders
- ☒ If stopping tube feeds permanently, notify physician to complete “BASIC Subcutaneous Insulin Order Set”

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**Supplemental insulin glulisine (Apidra®) orders: Physician select from scale below**

**PATIENT LABEL**

Physician Signature: __________________________ Date/Time: __________ Pager #: __________

10/08 BGSMS Glycemic Control Subcommittee
**Step 2: Calculate the estimated total daily dose (TDD) of insulin based on ONE of the following methods (in order of preference)**

1. **Transferring from insulin gtt.** Use average hourly rate over the last 6 hours (exclude any increased rates that covered a meal), multiply by 20 to get the TDD.
2. **Use total insulin required at home (all types added together).**
3. **Calculate/estimate insulin requirement** as follows based on body size:
   - **Dialysis** (regardless of BMI) or CrCl<15 mL/min use 0.3 units/kg/day,
   - **Lean** (BMI < 25), CrCl 15-30 mL/min new steroid induced hyperglycemia or new diagnosis of DM: use 0.4 units/kg/day
   - **Overweight** (BMI 25-30) use 0.5 units/kg/day,
   - **Obese** (BMI > 30) use 0.6 units/kg/day

**TOTAL DAILY DOSE (TDD) of insulin = _____ Units**

**Step 3: Determine the distribution of the TDD:** Note: if basal insulin exceeds 50% of the TDD the patient is at higher risk for hypoglycemia for longer periods of time if the nutrition source is stopped. If the patient is on high dose steroids, consider giving only 30% of TDD as basal and 70% meal.

**Step 4: Evaluate insulin dose daily.** Determine the total dose received for the day prior and adjust as below (calculations also available on the Banner intranet insulin dosing tool) to attain the targets listed in Step 1:

- If some glucoses were < 80 mg/dl use 80% of yesterday’s total insulin given as new total
- If some glucoses were > 180 mg/dl and none < 80 mg/dl use 110% of yesterday’s total as new total
- Redistribute your new total into 50% basal and 50% bolus
- If the supplemental scale is not matching your patient’s needs, consider calculating the expected decrease in glucose for one unit of insulin (correction factor) by using **1700/TDD given** = Correction factor