Insulin Administration in NPO Diabetic Patients.

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Insulin Administration in NPO Diabetic Patients

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Background

- During new RN onboarding, inconsistencies with insulin administration to NPO diabetic patients were observed.
- Current policy is under review and not available for staff reference.
- 5CP glycemic control numbers for FY17 averaged 68.3%, consistently below the 80% goal.

PICO

- **PICO Question**: In 5CP med-surg nurses, what is the knowledge deficit of proper insulin administration in NPO diabetic patients.
- **P**: 5CP Registered Nurses
- **I**: Education on timing of administration of insulin correction when a patient is NPO
- **C**: Current practice
- **O**: Identify any knowledge deficit and increase accuracy of insulin administration when diabetic patients are NPO and blood sugar is within coverage range to improve patient outcomes.

Evidence

- Meeting with the diabetes educator, Joyce Najarian, MSN, RN, CDE, to discuss hospital policy on insulin administration to NPO diabetic patients.
- The Hyperglycemia CPG policy is currently under review, and will be published in the near future.
- Nurses throughout LVHN received education regarding insulin administration at standardized education days in 2016.

Methods

- Pre education questionnaire were distributed to all 5CP nurses to determine nurse knowledge on insulin administration when a diabetic patient is NPO. 17 completed the pre test.
  - Questionnaire provided is noted below

Please do not write your name on this questionnaire. Any information is confidential and anonymous. Please be honest with how you would procede with care in the following situations:

Your patient is ordered Humalog TID on the ISF 80 scale. The patient is NPO for a stress test today at 1000. Blood sugar this morning at 0730 is 238. Humalog correction coverage is due at 0800. What would you, as the nurse, do in this scenario?

A) Hold Humalog dose due to patients NPO status
B) Administer coverage based on scale
C) Call provider

<table>
<thead>
<tr>
<th>BG (mg/dL)</th>
<th>Insulin Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 90 - 1 unit*</td>
<td>0 units</td>
</tr>
<tr>
<td>90-180</td>
<td>0 units</td>
</tr>
<tr>
<td>181-260</td>
<td>1 unit</td>
</tr>
<tr>
<td>261-340</td>
<td>2 units</td>
</tr>
<tr>
<td>341-410</td>
<td>3 units</td>
</tr>
<tr>
<td>&gt; 410 mg/dL</td>
<td>Call MD</td>
</tr>
</tbody>
</table>

- Education on proper insulin administration to diabetic NPO patients was completed via staff meeting and mass e-mail to 23 nurses on 5CP.
- Post education questionnaires were distributed to all 5CP nurses to determine the effectiveness of the education. 18 nurses completed the post test.

Results

- The pre-education questionnaire showed that 47% of the nurses on 5CP had a knowledge deficit regarding insulin administration in NPO diabetic patients.
- The post-education questionnaire showed improvement with 78% of nurses giving insulin to NPO patients when their blood sugar level was in an acceptable range. 22% chose to call a provider for order clarification.

Conclusion

- The pre-education questionnaire showed that 47% of the nurses on 5CP had a knowledge deficit regarding insulin administration in NPO diabetic patients.
- The post-education questionnaire showed improvement with 78% of nurses giving insulin to NPO patients when their blood sugar level was in an acceptable range. 22% chose to call a provider for order clarification.

REFERENCES


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