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Jaclyn Ramsden RamsdenBSN, RN

*Lehigh Valley Health Network, Jaclyn\_N.Ramsden@lvhn.org*

Damaris Muniz BSN, RN

*Lehigh Valley Health Network, Damaris.Muniz@lvhn.org*

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# Insulin Administration in NPO Diabetic Patients

Jaclyn Ramsden BSN, RN and Damaris Muniz BSN, RN

Lehigh Valley Health Network, Allentown, Pennsylvania

## 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 proceed with care in the following situations:*

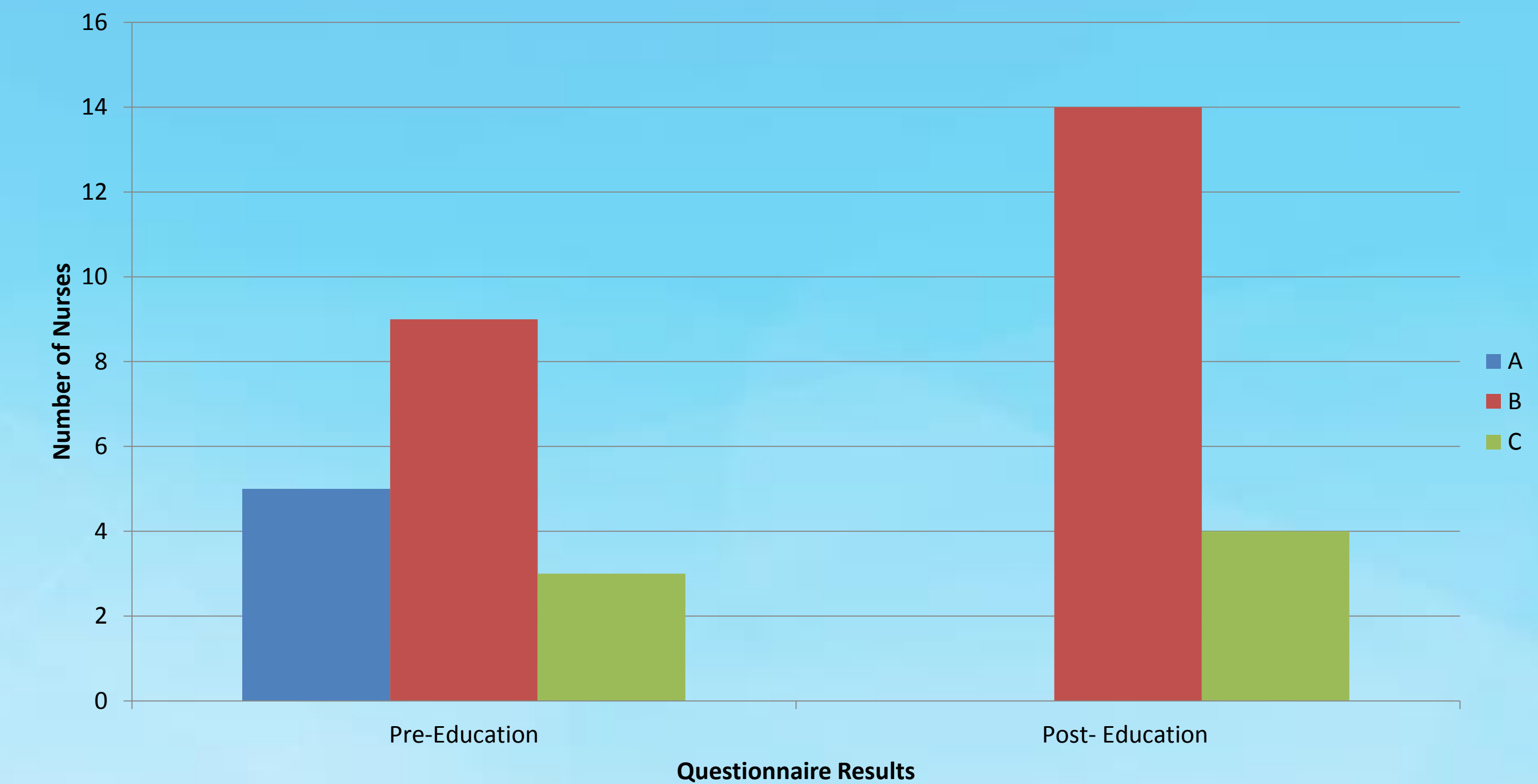
Your patient is ordered Humalog TID on the ISF 80 scale. The patient is NPO for a stress test today at 1000. Blood sugar this morning at 0730 is 238. Humalog correction coverage is due at 0800. What would you, as the nurse, do in this scenario?

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

**BG (mg/dL) Insulin Dose**  
Less than 90 - 1 unit\*  
90-180 0 units  
181-260 1 unit  
261-340 2 units  
341-410 3 units  
> 410 mg/dL Call MD

- 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



## 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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