Every year, nurses within the telemetry and step-down units insert about 150 Dobhoff NG tubes. Of the tubes placed, there were 2 adverse events reported yearly (rate: < 1%).

Intervention:

- Two-step x-ray method, which entails the clinician inserting the Dobhoff NG tube to 35 centimeters (cm), which is at the anatomical position of the carina and taking a chest x-ray image at the bedside utilizing a portable machine. The purpose of the x-ray image at 35 cm is to assess if the tube tip is within the distal esophagus, the nurse will insert the tube to the final cm destination.

Testing:

- By utilizing the two-step x-ray method, medical centers can provide safe, prudent care without the purchase of a new device.

Results Aim 1

- 44 nurses responded to the pre-survey and 38 nurses responded to the post-survey.
- The nurses who participated in the pre-survey were majority 18 to 49 years old, female, worked day shift, were full-time employees, had an advanced degree in nursing (bachelors, masters, or doctorate), and years of nursing experience ranged from 1 month to 19.9 years.

Results Aim 2 & 3

- Of the two tubes that were placed, the total amount minutes the two-step x-ray method took was 31 minutes for one patient and 273 minutes for the second patient.
- The mean of the total number of minutes for x-ray interpretation was 152 minutes. This mean is not an accurate representation due to the sample size of two and the extreme values.
- Both NG tubes that were inserted blindly into the lung did not cause any adverse event for the patients.

Conclusion

- This DNP project successfully utilized a QI approach to show that the two-step x-ray process is a viable option to eliminate lung complications by visualizing Dobhoff NG tube placement during insertion.
- Although outcomes of this project were not statistically significant due to the small sample size, findings revealed that when blind tube insertion technique was used, Dobhoff NG tube placement within the lung occurred.
- By utilizing the two-step x-ray method, medical centers can provide safe, prudent care without the purchase of a new device.

Dissemination

- This project was selected to be one of three student podium presentations at the National Association of Clinical Nurse Specialists (NACNS) annual conference in 2021.
- This QI project will also be submitted for podium presentation at the American Association of Critical Care Nurses (AACN) National Teaching Institute (NTI) annual conference in 2022.
- Propagation of this DNP project will be accomplished through sharing the results to site A’s twenty sister hospitals.
- The findings of this project may be published within the Gastroenterology Nursing Journal.

References