

DNP Scholarly Project- Abstract

Improving Dobhoff Tube Insertion by Utilizing the Two-Step X-ray Process

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“On my honor, I pledge that I have neither given nor received any unauthorized assistance for  
this assignment.”

## Abstract

### Background:

This QI project sought to improve Dobhoff NG tube insertion practice in order to reduce the number of tube placements within the airway. Abdominal radiography following the placement of NG tubes is considered the gold standard to establish placement; however, it has no effect on preventing inadvertent lung placement when inserting Dobhoff tubes. The practice change consisted of implementing the two-step x-ray process. This process allows for an affordable way to assist the clinician in a non-blind approach to safely insert Dobhoff NG tubes.

### Methods:

The QI project occurred within four telemetry units and one step-down unit from September 2020 to January 2021. This project utilized a pre/ post-test design comparing the nursing staff's knowledge and adherence to the intervention. All nursing staff within the five units were educated prior to the implementation via in-service and/or an hour class. Every patient who had a Dobhoff tube inserted was evaluated for complications by reviewing their radiology report. Additionally, the minutes between the first x-ray and the final x-ray interpretation was evaluated to observe for patient care time delays.

### Results:

Results showed a statistically significant increase of knowledge from the pre-test to post-test period. However, there was no statistical significance in the nurse's adherence to the intervention. During the pilot period, there were six Dobhoff tubes inserted. Two tubes were inserted into the stomach utilizing the two-step x-ray process and four tubes were inserted blindly. Of the four tubes that were inserted blindly, two tubes were placed into the lung and two tubes were inserted into the stomach.

### Conclusion:

This QI project proves 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. Technology that uses real-time imaging is the best way to confirm placement.