Proper Dobhoff Placement

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**BACKGROUND / INTRODUCTION**

**PICO Question**

In Adult ICU patients, will a two-step placement protocol improve RN small bore feeding tube insertion competence compared to LVHN standard practice policy?

**LVHN standard practice: Blind Placement with radiographic confirmation**

“Blind” technique is defined as the clinician relying on manual feel, observation of the patient’s response, and use of anatomic landmarks to determine clinically where tube is placed.

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**METHODS**

- Focus on the literature to compare Blind Placement to Two Step Protocol Outcomes.

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**OUTCOMES**

**EVIDENCE: Blind Placement**

Sparks et al. review of pulmonary complications associated with the blind placement.

- Of 9931 placements, 187 were improper tube placements in the tracheobronchial tree.
- = 1.9% mean overall malposition rate.
- These 187 misplacements included 35 (18.7%) reported pneumothoraces, at least 5 of which resulted in patient death.
- Malpositioning was reported in 13%-32% of subsequent repositioning attempts.

**EVIDENCE: Two Step Protocol**

- Requires a first radiograph after placement to 30 cm. A second radiograph obtained after tube is fully advanced to confirm proper position.
- Mardestein et al. reported with the two step approach no tube placed in the esophagus caused pulmonary damage.
- Post-intervention incidence of pneumothorax among patients having an intrabronchial feeding tube reduced to 3.3% from pre-intervention rate of 26.9%.
- Limitations of the study consist of underreporting of malpositioned tubes.
- Cons: More time consuming because first radiograph must be read before tube can be advanced.

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**RESULTS**

Two Step Protocol can provide:

- Standardization of tube insertion.
- Reduced incidence of pneumothorax or hydro pneumothorax.
- Reduced length of stay in hospital.

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**CONCLUSIONS**

- Validate/update current practices to assure best insertion technique habits as well as proper use of manufacturer’s instructions for specific tube insertion.
- Survey ICU nurses in network on tube insertion competency.
- Plan to meet with Radiology Operations to find out how a new protocol affects work flow and the allocation of resources.
- Possible monitoring of adverse events within network through Incident Reporting System.

**REFERENCES**


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