

Proper Dobhoff Placement

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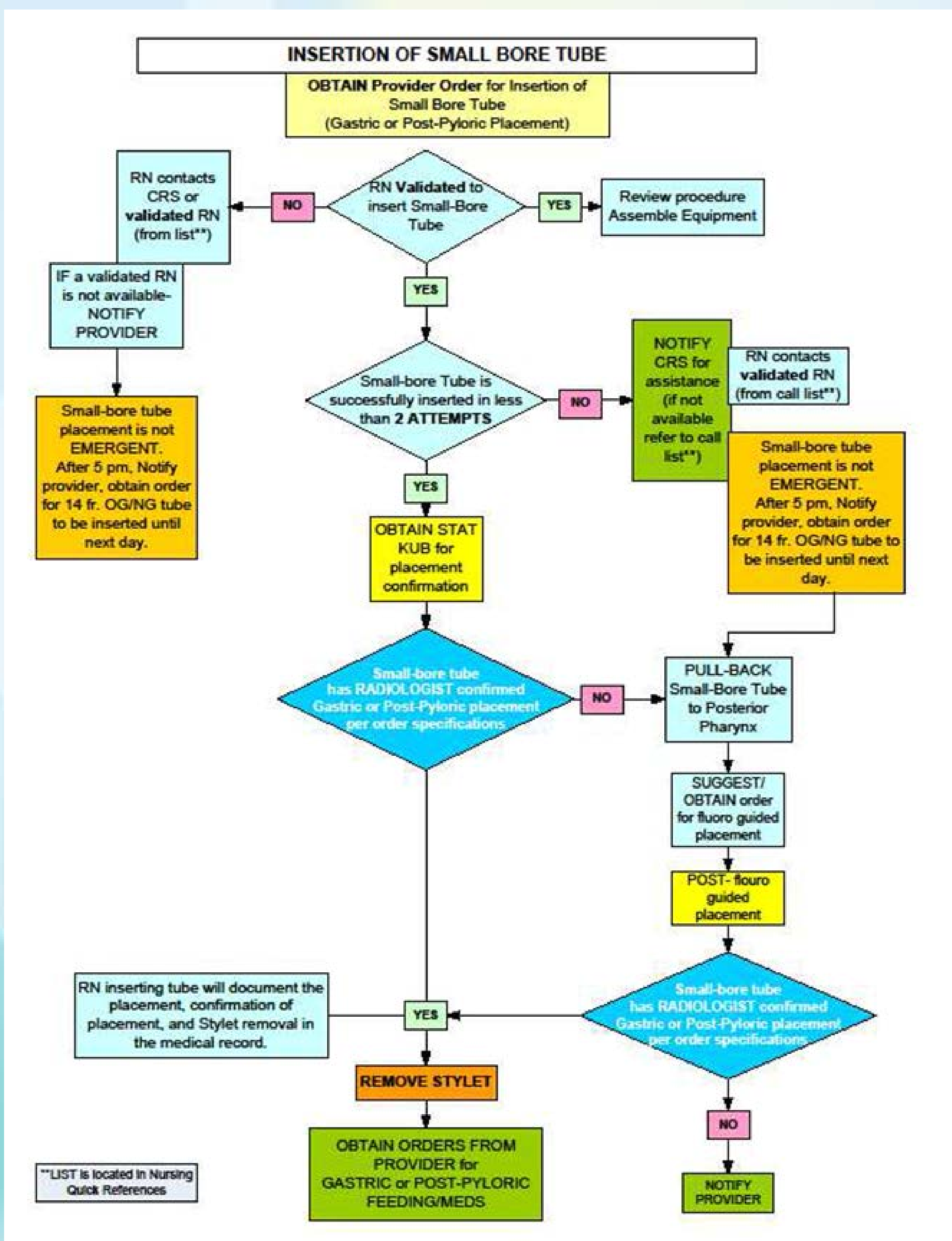
BACKGROUND / INTRODUCTION

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.



METHODS

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

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.

RESULTS

Two Step Protocol can provide:

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

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.

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