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Implementation of Evidence Based Practices to Reduce Postoperative Sore Throat

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Implementation of Evidence Based Practices to Reduce Postoperative Sore Throat

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Abstract



Introduction

- There are over 15 million intubations annually in the United States for surgeries.
- Up to 48% of patients report post operative sore throat (POST) on post operative follow up surveys.
- POST can be prevented with monitoring of cuff pressure.
- Major Causes:
 - Ischemia
 - Trauma
- Risk factors:
 - Tracheal intubation
 - Female sex
 - Younger age
 - Pre-existing lung disease
 - Prolonged duration of anesthesia

Background

- Increase risk of sore throat after 15 minutes with a ETT cuff pressure of 30 cmH2O or greater.
- Attempts to reduce post operative sore throat
 - High-volume low-pressure cuff
 - Smaller endotracheal tube (ETT) size
 - Cuff media
 - Pharmaceuticals
- Monitoring techniques:
 - Manometer
 - Minimal cuff pilot balloon palpation
 - No monitoring

Significance to Nurse Anesthesia

- Reduction of hospital stay
 - Post anesthetic care unit (PACU) delay - 14 minutes
 - Discharge delay - 51 minutes
- Reduction of adverse effects on patients
 - Pain and discomfort
 - Laryngitis
 - Tracheitis
 - Hoarseness
 - Dysphagia
- Improved patient satisfaction surveys

Project guidelines

- Anesthetist use a manometer to measure cuff pressure within 10 minutes of intubation.
- Check cuff pressure after every 8 hours and position changes.
- Goal cuff pressure 20-25 cmH2O.
- Above 30 cmH2O reduce cuff pressure.
- Below 20 cmH2O increase cuff pressure.
- Record ETT cuff pressure in EMR.
- Postoperative survey 24 to 48 hours after surgery.
- PACU nurse will conduct survey via phone call.
- Survey questions:
 - Are you experiencing POST?
 - For how long have the symptoms lasted?
 - Can you describe your sore throat?
- Contact the surgical center if POST duration is longer than 72 hours.

PICO(T) Question

- **Population:** In patients undergoing outpatient surgery who experience anesthesia with an ETT.
- **Intervention:** The use of a manometer for the measurement of ETT cuff pressure.
- **Comparison:** Revised POST guidelines vs. traditional practice.
- **Outcomes:** May positively affect the occurrence and duration of POST.

Budget

- Posey Manometer
 - \$450 each
- Staff requirements
 - Anesthesia educator
 - Anesthetists
 - PACU educator
 - PACU nurse
 - Technical support

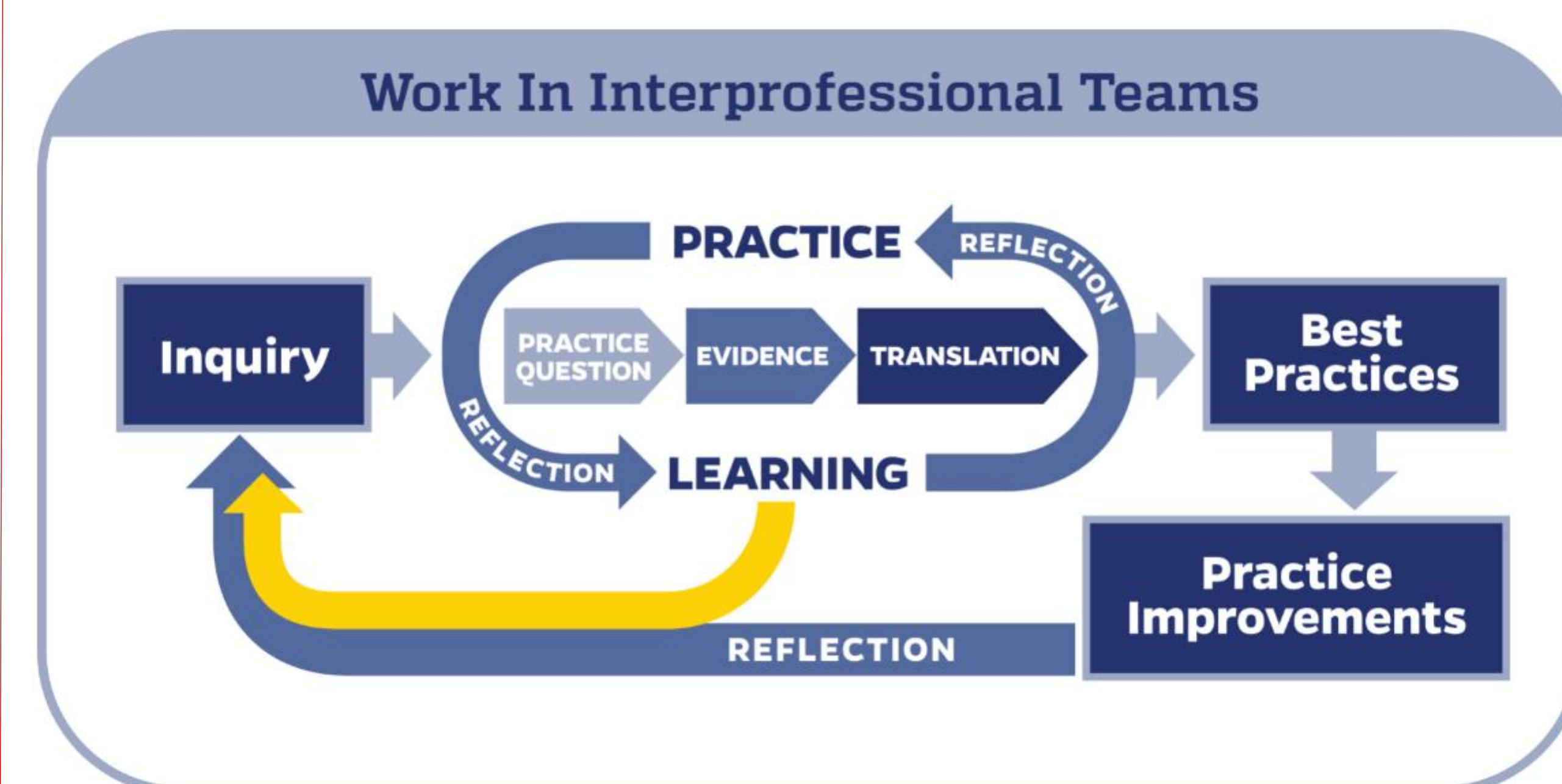


Conclusion

- Reduction in occurrences of POST
 - Continue guidelines
 - Improved patient satisfaction surveys
 - Reduced adverse effects of ETT cuff pressure.
- Increase in occurrences of POST would stop the guideline utilization.

Project Model

Johns Hopkins Nursing Evidence-Based Practice
 PET Management



Implementation

- PACU nurses will be educated on the post operative questionnaire.
- Baseline data will be collected for the number of patients that experience sore throat before implementation of the guidelines.
- Training of anesthesia staff on the proper use of the manometer and the correct documentation of the procedure.
- The EMR will be updated to include a section or domain for recording ETT cuff pressure.

Objectives

- Develop evidence-based guidelines to monitor ETT cuff pressure with manometry to prevent POST.
- Develop a comprehensive plan to implement the use of a manometer to measure ETT cuff pressure intraoperatively.
- Develop an auditing process to determine proper use of manometry if results change the occurrences and duration of POST.

Outcome Analysis

- Percent of pre guideline POST.
- Percent of post guideline POST.
- Compare data to determine effectiveness.

References:



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