Assessing CRNA Perceptions of a Cognitive Aid Focused on Aspiration Pneumonitis: A DNP Project

Eric LaRoque, BSN, SRNA
Maura McAuliffe, PhD, CRNA, FAAN, Project Chair

Nurse Anesthesia Program
College of Nursing, East Carolina University
Greenville, North Carolina 27858
laroquee18@students.ecu.edu

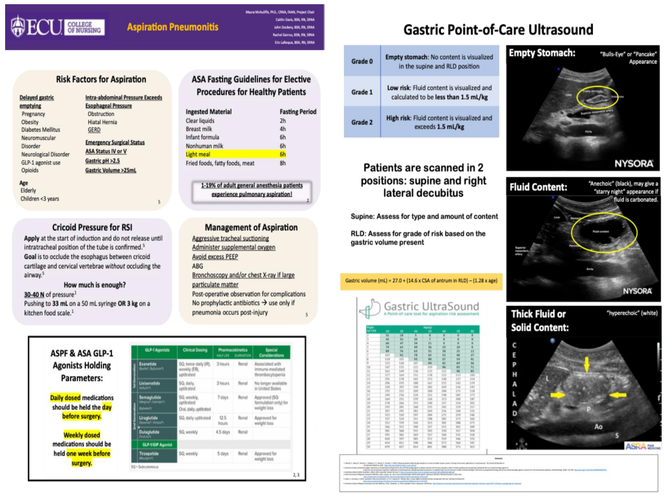
INTRODUCTION

- Aspiration pneumonitis is a significant anesthesia complication
- Associated with 5% of malpractice claims related to anesthesia
- Mortality rate of 57% of patients (3)
- Pre-screening tools such as coexisting diseases, fasting guidelines, ultrasound imaging, and use of medications can be predictors of risk (2)
- Purpose: To develop, implement, and evaluate the perception of adequacy of a QRG, (Quick Reference Guide) to aid in prompt identification, prevention, and treatment of aspiration pneumonitis

METHODS

- A single cycle of PDSA (Plan, Do, Study, Act) was completed (1)
- Educational presentation via PowerPoint along with digital and in-person QRG utilized for 14 days
- Data collection via pre- and post-implementation Qualtrics Surveys
- Analysis via Excel

QUICK REFERENCE GUIDE



RESULTS

Figure 1

Pre and Post evaluation on current ASA NPO elective surgery recommendations

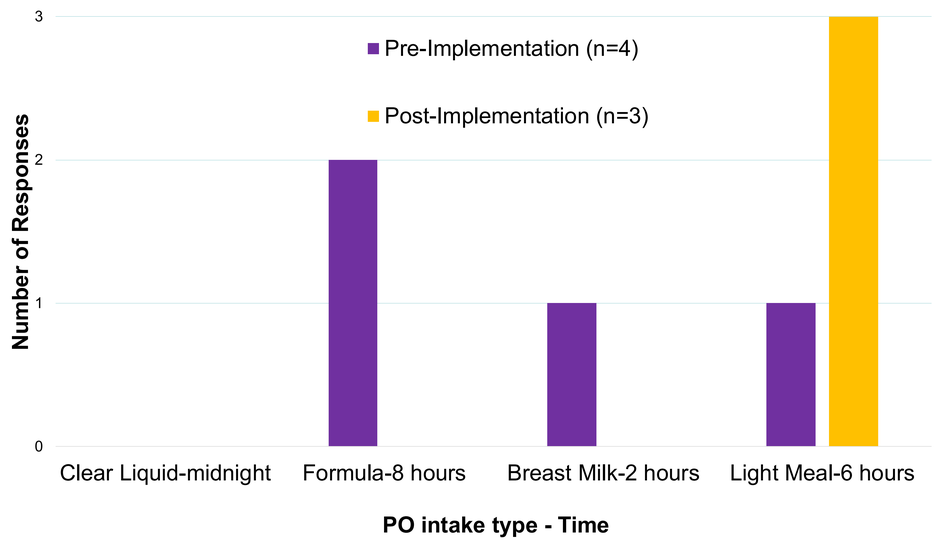
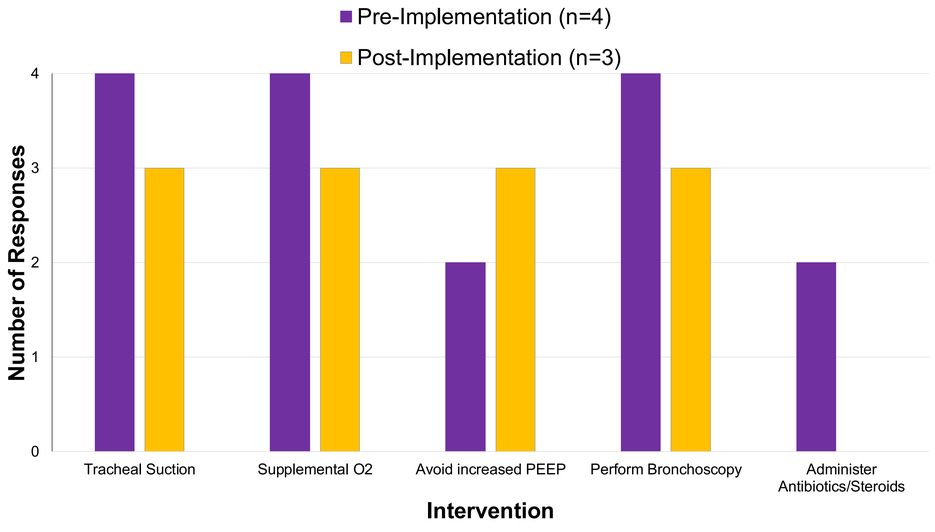


Figure 2

Pre and Post evaluation of current evidence-based management of pulmonary aspiration



DISCUSSION

- Four participants completed the pre-implementation survey
- Three participants completed the post-implementation survey
- Variation in pre- and post-surveys may indicate gaps in awareness of the latest evidence—based recommendations
- Shift in responses support use of the QRG to improve patient care processes
- Short timeframe and few participants was a limitation
- Results support use of QRG only at this location

CONCLUSION

- **Limitations:**
  - CRNA sample size compared to total at organization
  - Short implementation timeframe
  - Multiple vacations of participants during implementation
- **Recommendations:**
  - Use of this project as pilot for future projects
  - Expand the project timeframe
  - Expand the number of CRNAs included
  - Could be replicated in other institutions
- **Implications:**
  - Benefit patients by reducing aspiration events which would shorten hospitalizations and decrease costs
  - QRG could improve providers time efficiency
  - Increase in satisfaction scores
- **Sustainability:**
  - Digital availability of QRG and readily available supplies would allow ongoing use
  - Clinical providers could maintain the QRG with annual education requirements as well as new hire onboarding

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(3) Warner, M. A., Meyerhoff, K. L., Warner, M. E., Posner, K. L., Stephens, L., & Domino, K. B. (2021). Pulmonary aspiration of gastric contents: A closed claims analysis. *Anesthesiology, 135*(2), 284–291. https://doi.org/10.1097/aln.0000000000003831