

Neonatal Intubations: Standardizing Care To Enhance
Success and Decrease Risk Factors For a High Risk
Procedure in the Neonatal Intensive Care Unit

Ryan Moore, MD
Tara Stroud, MSN, RN, NNP-BC

Unified Quality Improvement Symposium
February 6, 2019

Background / Introduction

- Fewer opportunities to perform neonatal intubations
- Neonates in NICU setting are at risk
- Approaching lower volume procedures in standardized manner may improve outcome

Collaborative Team Members

- Tara Stroud, APP/nurse leader
- Ryan Moore, Physician
- Christy Turner, Pharmacy leader
- Meredith Mahafee, NICU Pharmacist
- Debora Williams, Respiratory Quality leader

Team Leader Key Contact Info: Tara Stroud, 816-3742, tara.stroud@vidanthealth.com

AIM Statement with Numerical Goals

The Aim Statement for my project was:

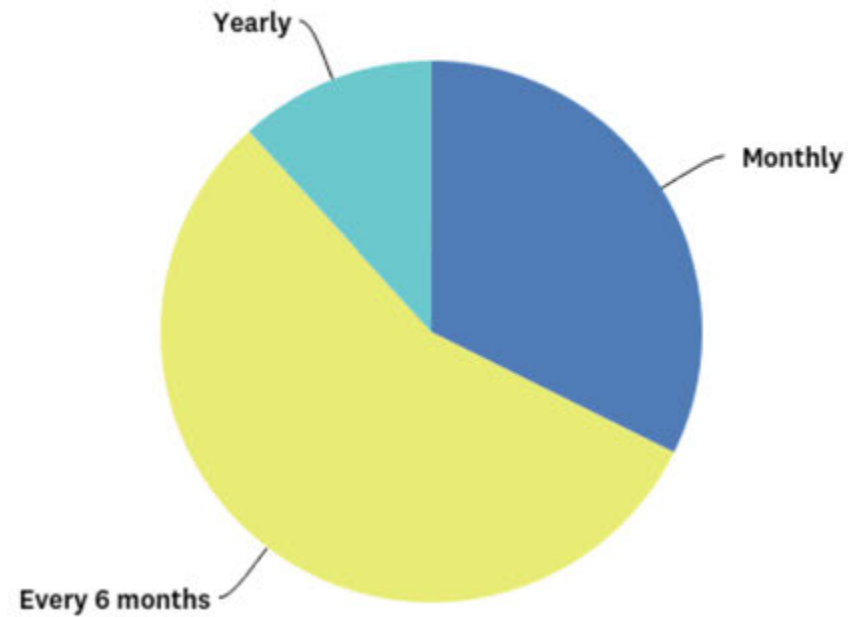
Standardize practice guidelines to increase number of successful non-emergent intubations on first attempt by December 31, 2018 by 10% for personnel while improving provider confidence level.

How Will We Know This Change Is An Improvement?

- Increase in use of sedation prior to non-emergent intubations
 - Standardize medication administration
 - Improve opportunity for success
 - Mitigate risk factors
- Increase in successful intubations on first attempt

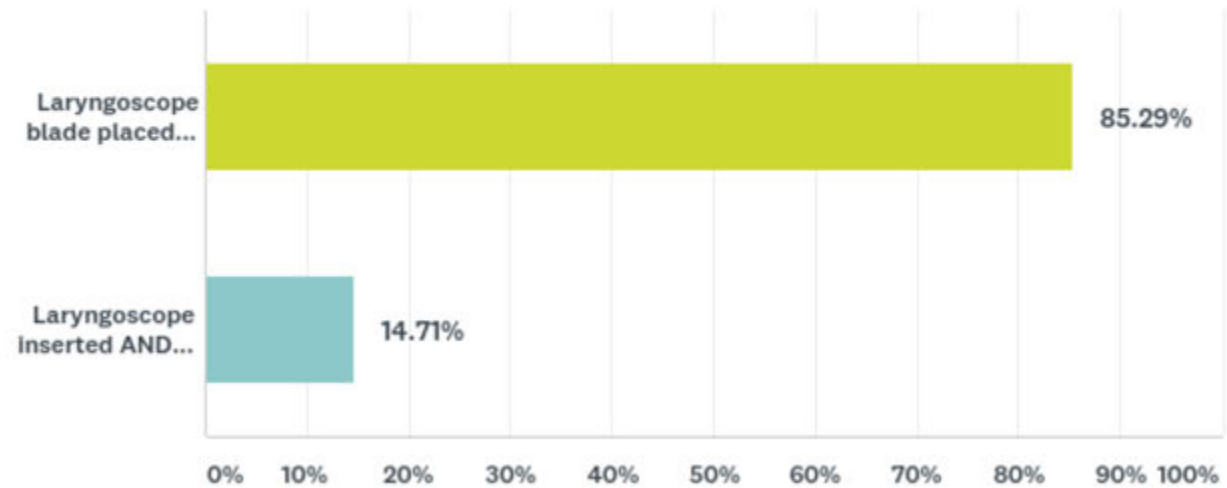
Baseline Data

Q5 On average, how often do you have the opportunity to attempt an intubation?



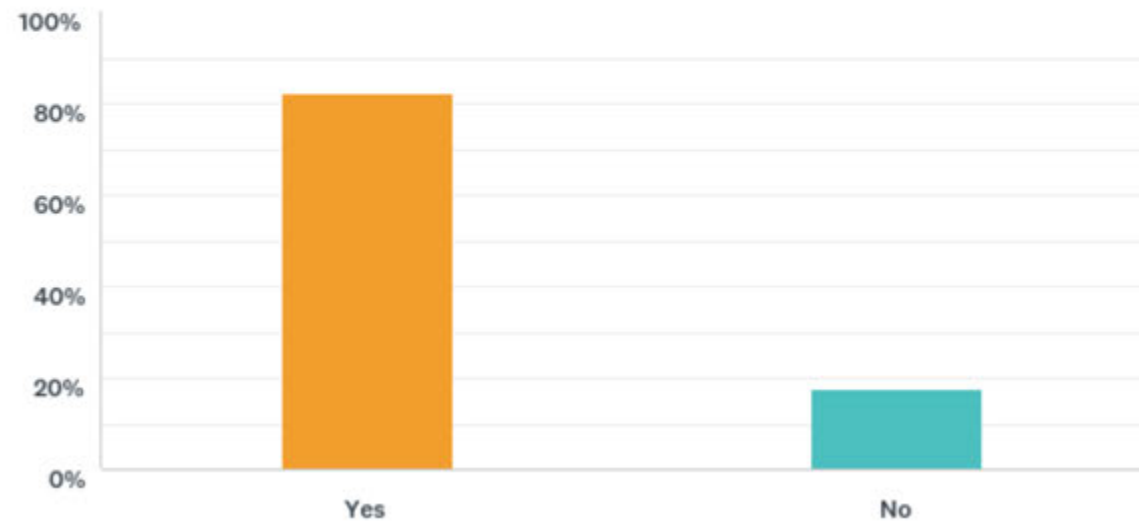
Baseline Data

Q4 How do you define an attempt at intubation?



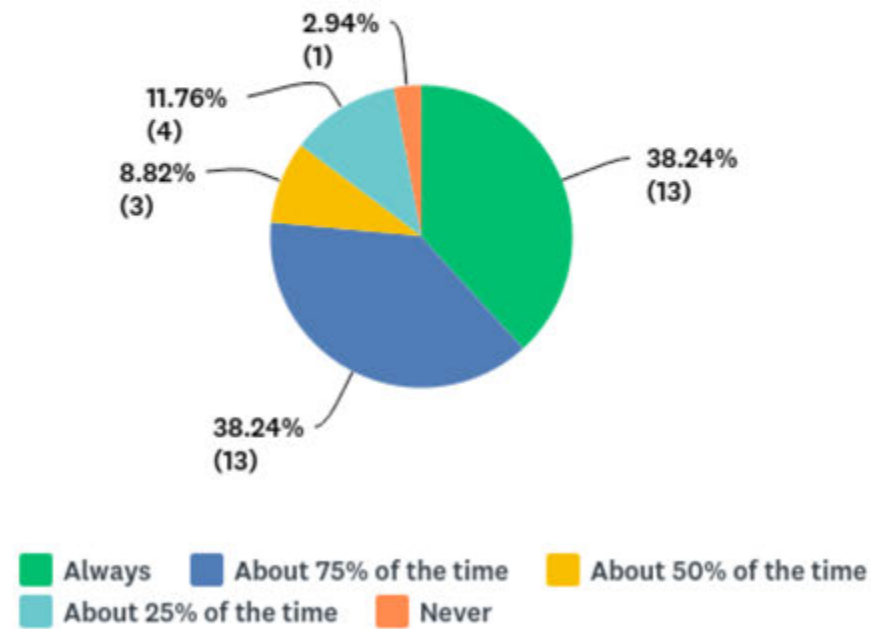
Baseline Data

Q8 Does sedation prior to non-emergent intubation improve success in intubation?

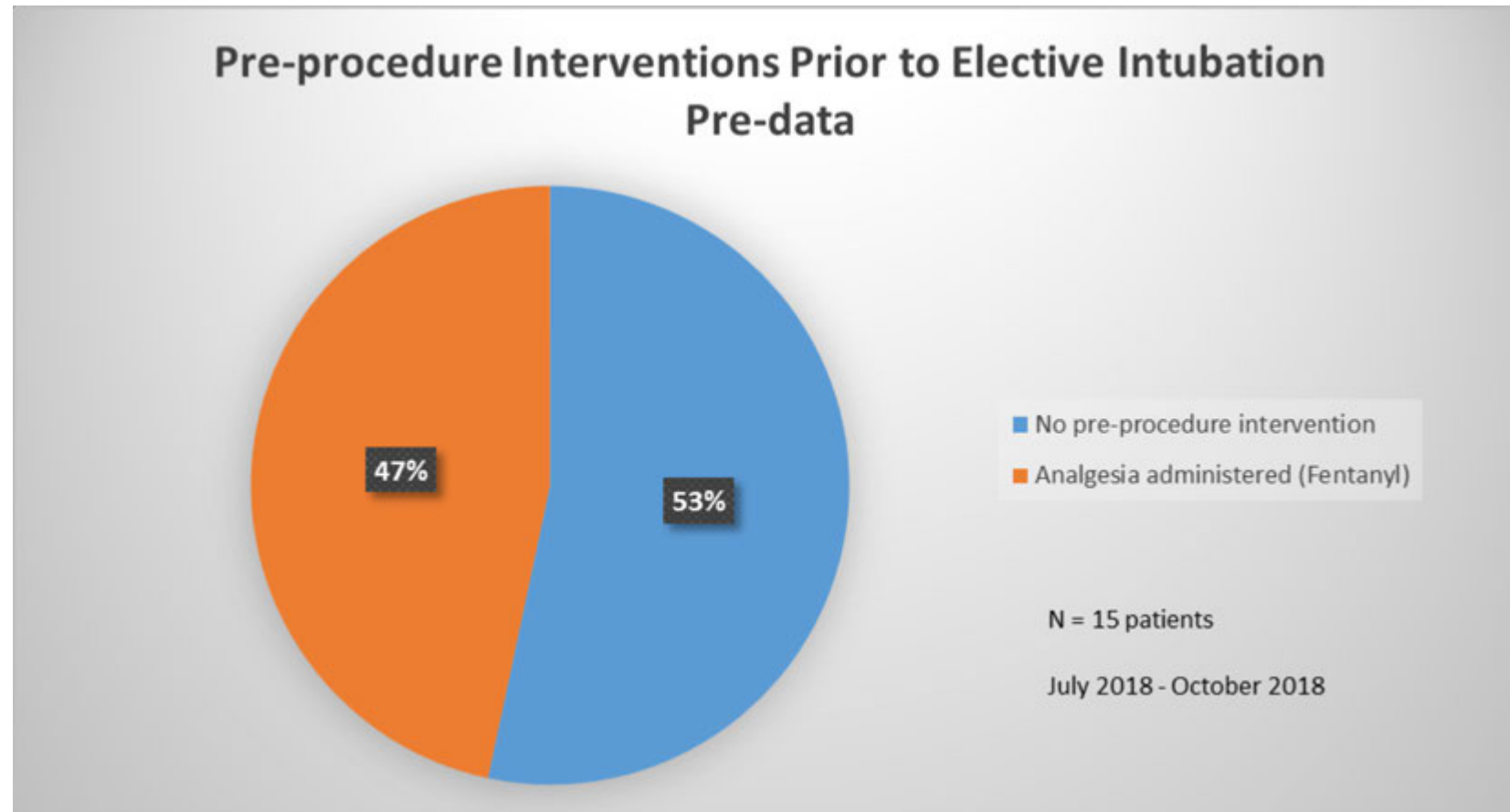


Baseline Data

Q7 How often do you order or request sedation prior to non-emergent intubation?



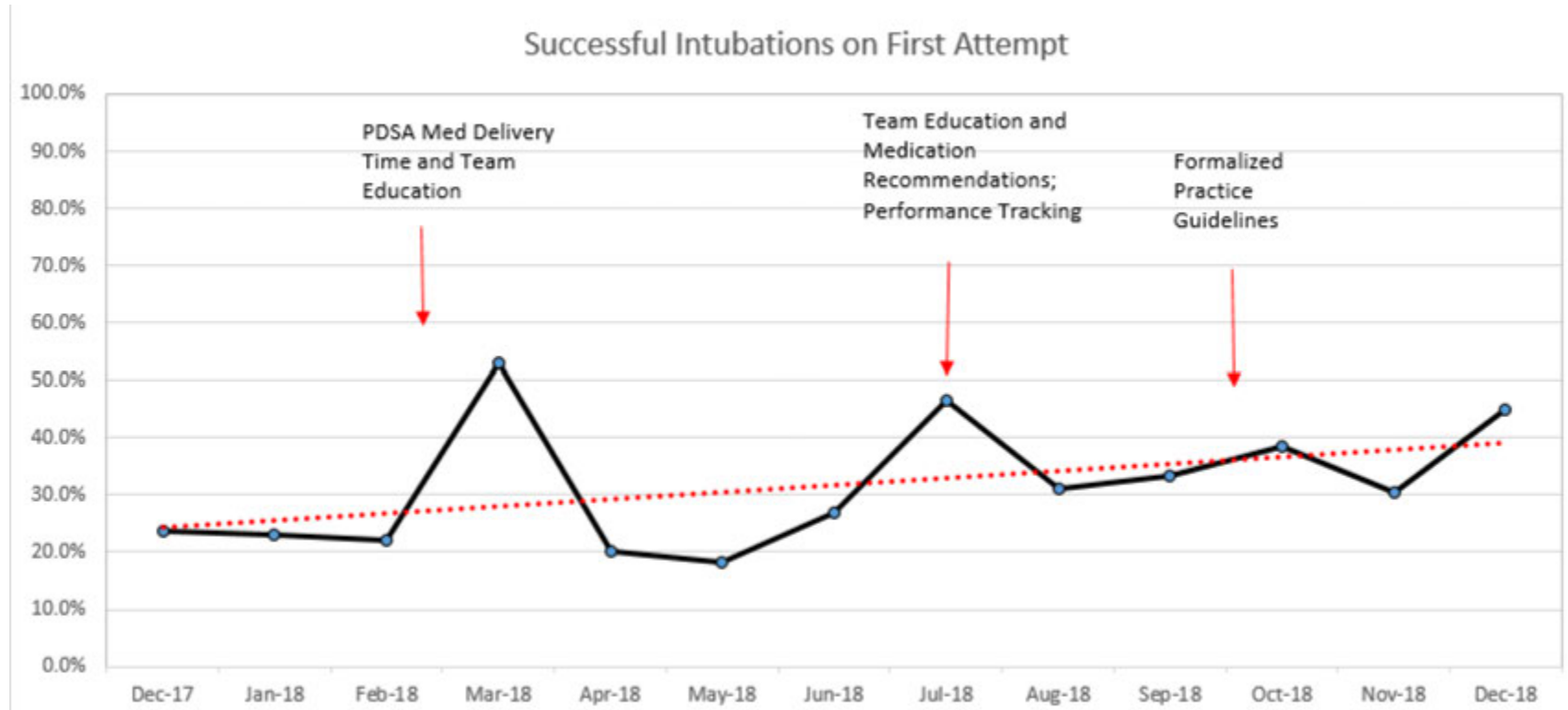
Baseline Data



Improvement Strategies Employed

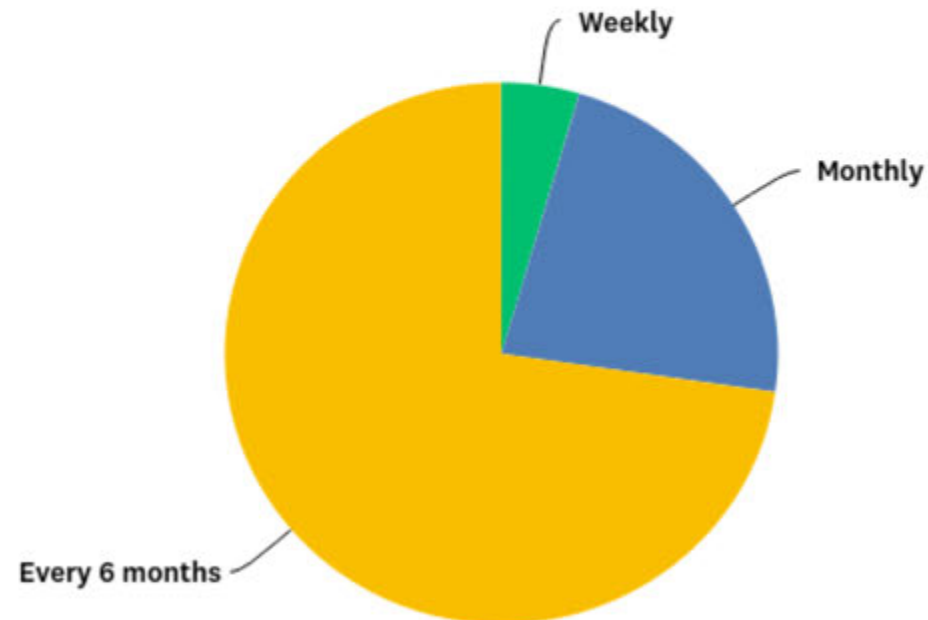
- PDSA #1: Timing medication delivery to the unit
 - Staff education to order STAT
- PDSA #2: Performance sheet tracking
- PDSA #3: Provider education regarding sedation
- PDSA #4: Formalize guidelines

Run Chart



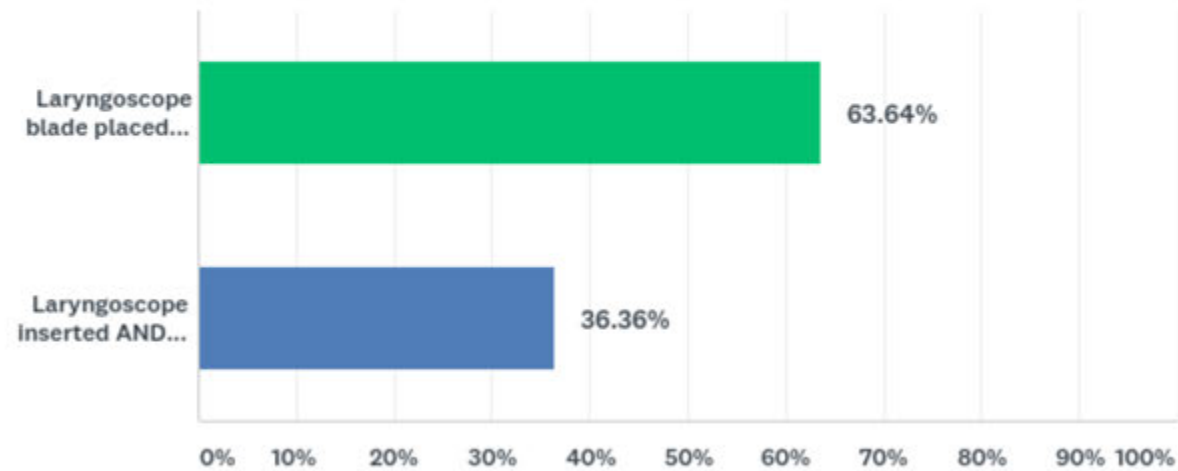
Outcomes

Q5 On average, how often do you have the opportunity to attempt an intubation?



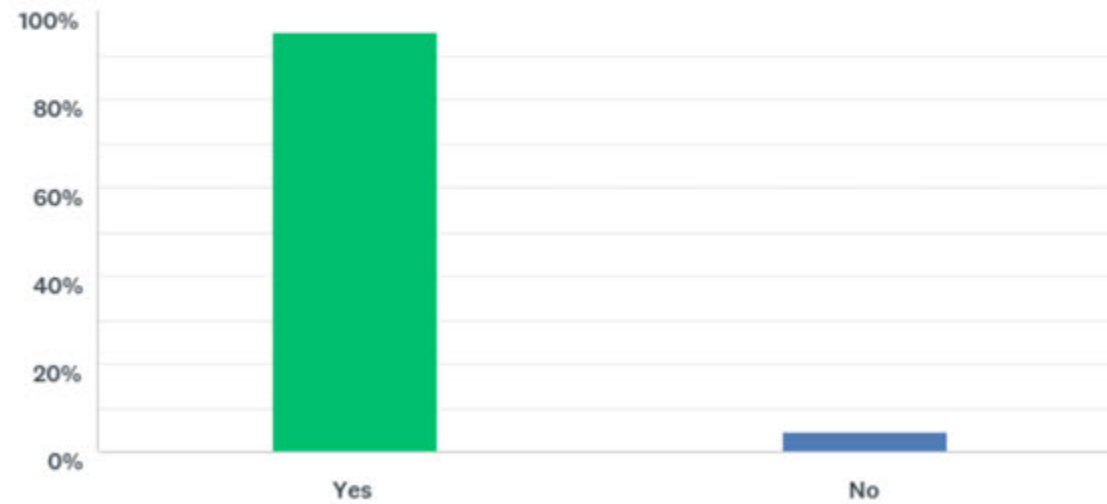
Outcomes

Q4 How do you define an attempt at intubation?



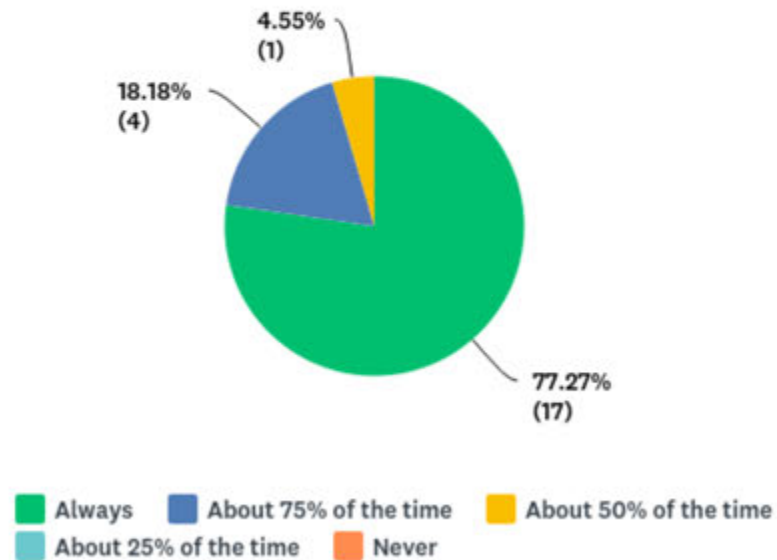
Outcomes

Q8 Does sedation prior to non-emergent intubation improve success in intubation?

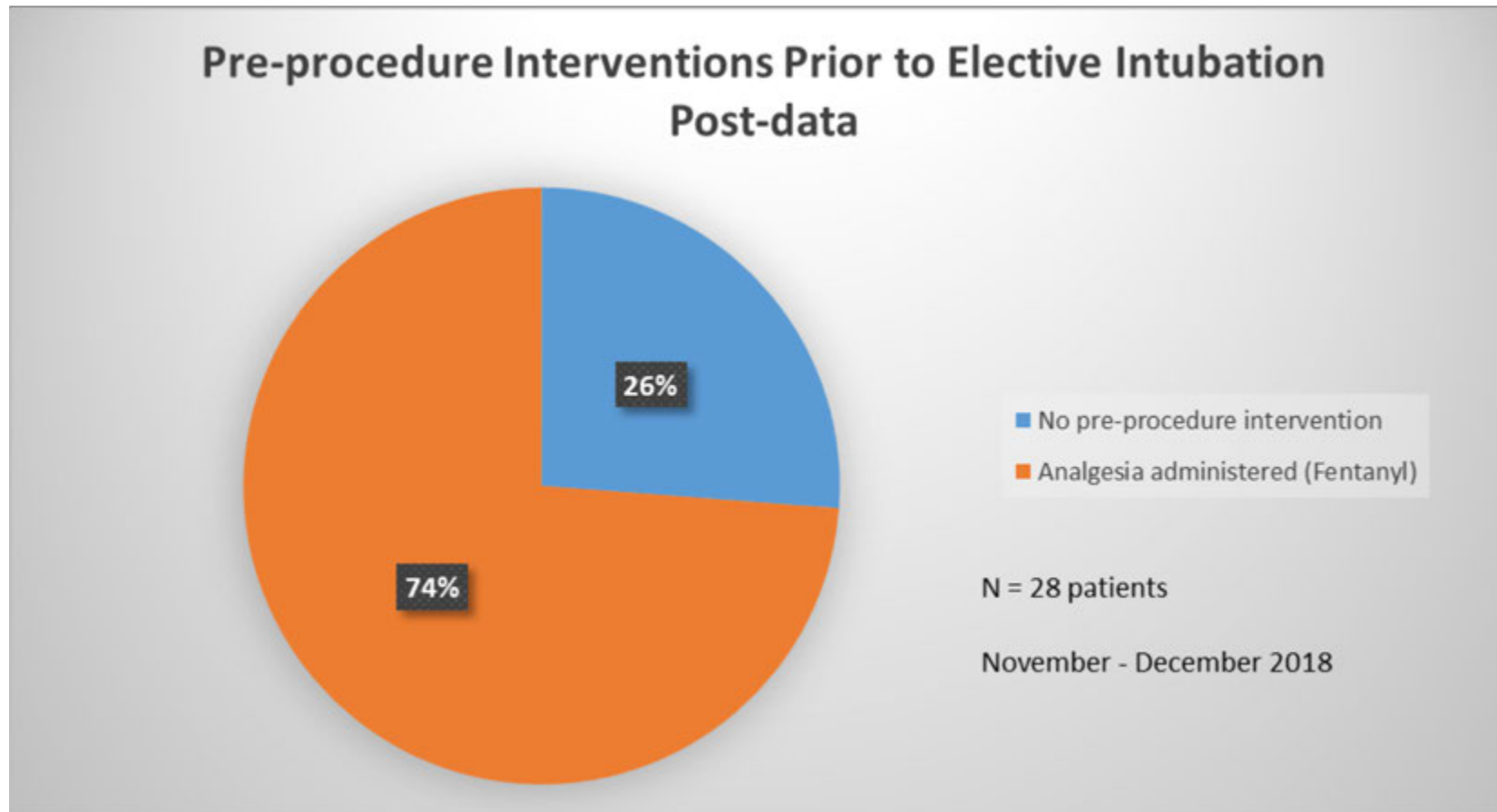


Outcomes

Q7 How often do you order or request sedation prior to non-emergent intubation?



Post Intervention Percentage of Analgesia



Challenges Encountered in QI Process

- Culture
- Documentation
 - Definition of attempt
 - Data validation
- Competing priorities for team leaders

Lessons Learned Through QI Efforts

Team Leaders Lessons

- Start small
- Validate your data
- Consider the size of your team

Staff Lessons

- Belief is not reality
- Ability may not be as high as perceived

Next Steps

- Ongoing monitoring of intubation attempts
- Continue reviewing guideline usage
- Areas of opportunity
 - Further define attempts
 - Potential need for competency revisions

Questions?

Ryan Moore
252-744-4690
moorer15@ecu.edu