

Introduction

- The ambulatory surgery center (ASC) lacks a standardized approach for managing a patient with a preoperative (pre-op) peripheral nerve block (PNB) and sedation.

Background

- Significant increase in the number of patients having surgery at ASCs.
- The American Society of Anesthesiologists (ASA) and Anesthesia Patient Safety Foundation (APSF) have national standardization of evidence-based guidelines for patient monitoring during anesthesia.
- Standard ASA Monitoring consists of patient monitoring and availability of emergency equipment.
- Nurses play a crucial role in detecting and identifying risks when observing patients after a PNB and sedation.

Purpose

The purpose of this quality improvement (QI) project was to develop, implement, and evaluate an evidence-based protocol to support nursing documentation, and promote practice change.

Clinical Question

Will an evidence based PNB and sedation management protocol in an orthopedic ambulatory surgical center improve the standardization and utilization?

PNB & Sedation Protocol

- Defines PNB
- Pre-Op Block Steps
 - Checklist
 - Patient Education
 - Time-out
 - Sedation
 - PNB
- Complications of PNBs
- Assessment & Care
- Documentation
- Notify the Anesthesia Provider
- Additional info on the PNBs performed at the ASC



Methods

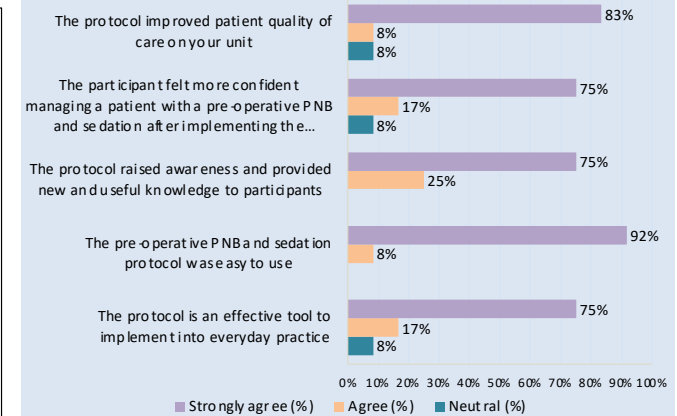
- Design:** This QI project used a retrospective chart review and an anonymous staff survey.
- Setting:** An orthopedic ASC in New York City.
- Population:** Orthopedic patients who received a pre-op PNB with sedation and remained in pre-op for 15 minutes or greater, and all nursing staff.
- Recruitment and Informed Consent:** This QI project included a change in practice approved by the facility. Consent for staff's participation in the survey was implied.
- Intervention:** Implementation of nurse-driven protocol for managing a patient with a pre-op PNB and sedation. Staff were educated utilizing the protocol, a job aide, and an educational module. Education occurred in multiple sessions during work hours.
- Measurable Outcomes:** Nursing documentation of patients who received a pre-op PNB and remained in pre-op unit for 15 minutes or greater 4 weeks before implementation compared to 4 weeks after implementation of the protocol.
- Analysis:** Data was analyzed using Excel. A Fisher's exact test was used to calculate statistical significance. A bar graph was used to analyze survey responses.

Results

- A retrospective chart review 4 weeks before (25 charts) and 4 weeks after (21 charts) the implementation of the protocol.
- 100% of the nurses participated in the project and 75% participated in the post-survey.
- 4 of the 6 documentation categories were statistically significant.
- Documentation category for provider notification was not included.
- The overall combined documentation was statistically significant

| Completed Documentation Categories | Pre-implementation | | Post-implementation | | Fisher's Exact Test p-value |
|------------------------------------|--------------------|-------------|---------------------|-------------|-----------------------------|
| | Frequency (n) | Percent (%) | Frequency (n) | Percent (%) | |
| Time-out | 25 | 100% | 21 | 100% | — |
| Vital Signs | 14 | 56% | 17 | 81% | 0.11 |
| Pain Scale | 5 | 20% | 11 | 52% | 0.031 |
| Cardiac Monitor | 3 | 12% | 13 | 62% | 0.0006 |
| Sedation Scale | 7 | 28% | 16 | 76% | 0.0027 |
| Peripheral Vascular Assessment | 0 | 28% | 15 | 71% | <0.0001 |
| Combined Documentation | 54 | 38% | 93 | 74% | <0.00001 |

Evaluation Survey Results



Conclusions

Implementation of the protocol for managing a patient with a PNB with sedation lead to increased documentation compliance and practice change.

Implications

- Healthcare Policy:** Integration of the nurse-driven evidence-based protocol into everyday practice.
- Clinical Practice:** The project impacted practice by increasing nurse documentation and promoting practice change
- Patient Care:** The QI project that promoted quality and safety by limiting the number of patients left unsupervised after a preoperative PNB with sedation.
- Economics:** The project did not measure economic/cost benefits, it can be inferred that the use of the protocol can provide a more accurate reflection of the patient's health status for health care providers and aid in faster response/treatment times.
- Education:** The project did not evaluate the impact on nursing knowledge of PNBs with sedation, the nurses who participated in the survey provided their feedback on the protocol for future recommendations.

References & Contact Information

