

Multi-Modal Pain Reduction for Post-Operative Thoracic Surgery Patients

Team Leaders: Cari Winiarski BSN RN CCRN, Laura Gallego BSN RN

Team Member: Elizabeth C Donaldson BSN RN CPAN

Virtua Marlton Hospital, Marlton, NJ

Abstract Background Information: After reviewing an article in the Journal of Perianesthesia Nursing entitled “Efficacy of Ice Compress Combined With Serratus Anterior Plane Block in Analgesia After Thoracoscopic Pneumonectomy: A Randomized Controlled Study”, the professional governance team for the Marlton PACU felt like a similar project would benefit the Video Assisted Thoracoscopic Surgery (VATS), Thoracotomy, and Robotic Thoracotomy population in Marlton.

Objectives of Project: Reduction of narcotic use during hospital stay after ice application to chest tube site in the immediate 24 hour post-operative period.

Process of Implementation: Starting 3/1/2024, PACU started placing ice packs on incision sites for the above patients. We developed a log (not part of medical record) to travel with the patient to track ice use on the incision site for 24 hours in the Intensive Care Unit. Nurses and the ANC for Marlton ICU were educated on use of ice pack for pain reduction, the tracking log, and journal articles. Logs were collected from 3/1/24-5/31/24 to track narcotic use of patients who received ice pack intervention (no patient identifiers were used in data collection). All narcotics, including Fentanyl, Hydromorphone, Morphine, Oxycodone, and Tramadol were converted to Morphine milliequivalents (MMEs). Pre-trial MME for the 15 patients is 17.9 MME per patient, with a total of 269 MME.

Statement of Successful Practice: Post-ice implementation MME per patient is 17.5, however the overall MME for the post group is 192.5, totaling less than the 269 from the pre-implementation group.

Implications for Advancing the Practice of Perianesthesia Nursing: The integration of ice packs in a multi-modal pain management strategy for VATS patients shows promise in reducing narcotic consumption and improve patient outcomes in the post-operative setting. There could have been 26 potential patients in the study, however the PACU Professional Governance received 11 logs, missing 15 total. This could be for a few reasons: lack of staff buy in, better education, or more consistent communication between the two units. Another important thing to consider in the future is IV narcotic use versus PO narcotic use. Vital factors need to be taken into consideration moving forward including previous narcotic history, IV drug abuse history, and history of prior thoracic surgeries.