

CAPNOGRAPHY FOR THE PERIOPERATIVE NURSE

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BACKGROUND INFORMATION:

Nurses in today's health care need cutting edge knowledge to effectively care for the complex needs of their patients. It is important for Perianesthesia care nurses to consistently evaluate their current practice to ensure that they are applying the most current evidence based practice rather than continuing care based on past methods. Capnography monitoring allows the perioperative RN to monitor respiratory status closely and accurately even before symptoms or desaturation of oxygen arises. Capnography provides earlier warning for impending depression, and can result in interventions, thereby providing a higher level of patient safety and potentially better outcomes.

OBJECTIVES OF PROJECT:

Recognition of the need for capnography education in our perioperative setting was identified. Expansion of our knowledge base of end tidal CO₂ monitoring in the PACU was identified.

PROCESS OF IMPLEMENTATION:

A visual tool and bedside practice Resource Manual was developed in collaboration with the Nurse Educators and Anesthesiologists. Hands on education with capnography was provided to the PACU RN at the bedside.

STATEMENT OF SUCCESSFUL PRACTICE:

The non-invasive capnography monitoring by the PACU RNs identified patients in a hypercarbic state earlier in the recovery period than previously. Our team targeted capnography use with sleep apnea, morbidly obese, heavily sedated, and intubated patients as key candidates for monitoring. Early findings support the use of capnography to ensure adequate ventilation is being measured. Standards of care need to be developed to ensure best practice with consistent implementation of Capnography monitoring.

IMPLICATIONS FOR ADVANCING THE PRACTICE OF PERIANESTHESIA NURSING:

This required knowledge base of Capnography monitoring within the perianesthesia setting will reduce complications for patients with Obstructive Sleep Apnea, high opioid use, and hypercarbic states. Capnography monitoring at the bedside supports the need for nurses to apply best evidence in their daily practice to improve patients' outcomes.