IMPLEMENTING CAPNOGRAPHY IN THE PACU AND BEYOND

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Background: The potential risk of adverse effects from hypoventilation due to intravenous and/or intrathecal narcotics administration was recognized. SPMHC understood the limitations with the use of pulse oximetry and respiratory assessment in detecting adequate ventilation. Evidence has shown that capnography is the best indicator of respiratory depression.

Objectives:
1. Incorporate use of capnography as part of a comprehensive patient assessment.
2. Recognize early hypoventilation and respiratory depression in sedated patients.
3. Coordinate use of capnography from the preoperative setting to the inpatient unit.

Process of Implementation:
Evidence based research demonstrated that adequate ventilation is best captured by capnography. Hospital leadership approved purchase of capnography capability in conjunction with new IV smart pumps. A multidisciplinary team (Anesthesia, Providers, Staff Education, Surgery and Inpatient Directors, Vice President of Nursing and Nursing Council) approved the monitor and policy. The patient population targeted was those receiving PCA and intrathecal narcotics. Standardized staff education was required for all perianesthesia and inpatient nursing staff. Patient education handouts were developed. Providers were notified of the implementation plan. During implementation, the team worked closely with the Respiratory Care Department and adjustments were made to the protocol to improve overall compliance.

Statement of Successful Practice:
Early recognition of respiratory depression via capnography has enabled SPMHC to safely care for patients having intravenous and intrathecal narcotics.

Implications for Advancing the Practice of Perianesthesia Nursing:
Evidence based capnography increases awareness of respiratory depression. Early nursing intervention prevents adverse outcomes in this patient population.