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Does Capnography Monitoring Reduce the Occurrence of Code Blue?

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Introduction

South Wing 6 is a 32-bed adult surgical unit caring for thoracic, urology, colorectal, and bariatric surgery patients. Postsurgical patients make up most of the population along with emergency room and preoperative patients. These patients are at risk for respiratory depression due to anesthesia and postoperative narcotics. Capnography is a technique of measuring concentrations of carbon dioxide in respired gases. Could we prevent code blues by recognizing respiratory depression and/or oversedation earlier by utilizing capnography?

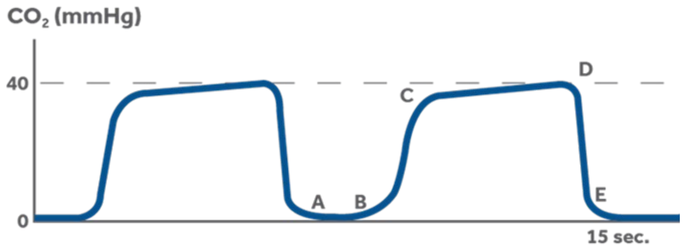
PICOT Question

Does capnography monitoring on a 32 bed post-surgical unit reduce the incidence of code blue over a 30-day trial period when compared to no capnography?

Intervention

A 30-day pilot was conducted, and an interdisciplinary team provided education on capnography as a respiratory measurement and education on the newly acquired capnography equipment. A nurse pocket guide was created to help streamline the education and process for use of capnography on patients. The team also instructed nurses about the data collection tools.

The project team met regularly and gathered information and debriefed on the challenges including key findings and future adjustments to the trial.



Results

The key finding with this EBP project was that there were no code blues on the unit.

During the capnography trial at least two patients were considered a “catch” as they had respiratory events. After the trial ended, capnography utilization continued and nurses were able to apply capnography for high-risk post operative somnolent patients.

One key barrier was documentation during the capnography trial. It was found that documentation was inconsistent.

Conclusion

Capnography monitoring may prove to be a successful intervention in helping to reduce the occurrence of code blue events in the hospital setting. Further development of standard procedure and protocols around the use of capnography monitoring is necessary, including identifying appropriate patient selection and documentation.