Proper Use and Documentation of End Tidal CO2 Monitoring

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Introduction

In a previous research study conducted at UPMC Hamot, data revealed minimal compliance with the use of end-tidal carbon dioxide (ETCO2) to monitor patients with a patient-controlled analgesia (PCA). One theory concluded from the study was that ETCO2 use was both not being used consistently or properly documented. Per an online article regarding PCA use, there has been an increased recognition of errors in administration and inadequate monitoring of patients, which leads to serious adverse events. It is also shown that proper and consistent use of SPO2 and capnography can be more cost effective, reduce patient harm, and decrease length of stay (*Hospitals, Inpatients Safer Opioid Use*, 2019).

Conclusion

Without visualizing the patient, it is difficult to determine what monitoring device was used on the PCA. As a result, this project continues to be ongoing. From the results of our chart audits we will be ruling out continued education for all nurses. Education will include attaching the laminated algorithm to all PCAs, creating screen savers, and providing teaching points to clinicians that will be included in their morning huddles.
Once the interventions are complete, we will retrospectively review another 50 charts and look at compliance for charting and proper use of ETCO2.

Methodology

In order to assess proper documentation and implementation of the PCA policy we have audited a total of 50 charts.
We were looking to ensure that the ETCO2 was properly charted and that either the ETCO2 or SPO2 was appropriately used per protocol.

Results

Results from the data collection revealed that 46 out of 50 patients met criteria to be monitored with ETCO2, and 4 out of 50 patients should be monitored with SPO2. Out of the 46 patients who were to receive continuous ETCO2 monitoring, 13% of those patients were documented as being monitored with ETCO2 per protocol.

Materials

UPMC Hamot PCA Algorithm

UPMC Hamot