

METHODS TO REDUCE OVERSEDATION

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Can a structured communication tool designed to identify high risk postoperative patients result in a decreased incidence of oversedation on an orthopedic unit?

PROBLEM

A trend of increasing naloxone administrations was observed on the orthopedic unit Sept. 2006 through March 2007.

A statistically significant increase in the incidence of naloxone usage over the last 12 months was defined at the 95% confidence level.

Literature review indicated oversedation of postoperative patients is a growing concern. The Institute for Safe Medication Practices noted that overaggressive pain management since 2001 has led to increases in oversedation. The American Journal of Surgery article, "Has the pendulum swung too far in postoperative pain control" found patients may be reaching dangerous levels of sedation during the first 24 hours postoperatively. Further literature review suggested postoperative rates of naloxone administration to be at .19 – 3 %.

Except for patients receiving patient controlled or intrathecal analgesia, high risk patients were not formally identified by nursing.

PURPOSE

Define interventions to reduce the need for and incidence of naloxone administrations.

METHOD

Comprehensive chart review was conducted to identify patient risk factors that may have contributed to these issues. No single risk factor stood out as being a significant risk factor for naloxone use.

A structured communication tool (SBAR) was coincidentally implemented hospital-wide.

Continuous pulse oximetry was coincidentally placed bedside for all patients on the orthopedic unit in April 2007.

In August 2007, the SBAR handoff tool between recovery room and the orthopedic unit was refined for identification of all patients at high risk for oversedation postoperatively. In addition, an educational tool was provided to the orthopedic nurses for quick reference which compared commonly prescribed opioid properties (half-lives, equivalencies). A one to one inservice re: educational materials and the refined tool was provided to each nurse on the orthopedic unit.

RESULTS/DISCUSSION

An immediate decrease in the incidence of oversedation as defined by naloxone usage was noted from mid-March 2006 through September 2007.

CONCLUSION

A significant increase in the incidence of oversedation was recognized . Measures recently adopted including continuous pulse oximetry at bedside, the use of structured communication, and educational interventions resulted in an immediate decrease in the incidence of oversedation. In an effort to even further reduce the incidence of oversedation, consultation via private communication from a pain management expert was obtained. A sedation scale with actions specific to opioid titration has been approved for trial on the orthopedic unit.

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