HOW NOT TO ‘GO BLUE’
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Background Information

The first 24 hours after surgery is a high risk period for respiratory depression secondary to opioid administration.

Hypoventilation and collapse of alveolar tissue is common in the PACU setting.

Pulse oximetry is commonly used to assess oxygenation, but not ventilation. It does not measure the build up of CO2.

Pulse oximetry is not a good tool to detect hypoventilation in patients receiving supplemental oxygen. Oxygen therapy can mask hypoventilation.

Objectives of Project

To identify patients with respiratory depression in the PACU so as to allow reduction in opioid dosing, addition of non-opioid adjunct analgesia or the use of regional analgesia

Process of Implementation

At least every hour, PACU nurse will perform a 5 minute room air PaO2 test. The patient is removed from supplemental oxygen for 5 minutes to determine PaO2 on room air. At any point during those 5 minutes, the oxygen will be re-applied if PaO2 falls below 90%. This is a simple test to identify patients with hypoventilation.

Statement of successful practice

Hypoventilation is identified in the PACU before the patient is transferred to the in-patient unit. Nurses are promoting use of stir-up regime and inspirometer therapy. Several adjunct therapies are utilized in the PACU to alleviate pain including the use of Acetaminophen, Ketorolac, Ibuprofen, and peripheral nerve blocks.

Implications for Advancing Perianesthesia Nursing

PACU nurses are able to provide safer patient care by early identification of patients with respiratory depression. Patients and families can be taught the importance of inspirometer therapy and beep breathing/coughing in the prevention of respiratory complications.