

## **Opioid Use and Extended Stays in the Post Anesthesia Care Unit (PACU)**

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**Introduction:** Opioid abuse has become an epidemic. By reducing opioid administration in the post-acute care unit (PACU) and utilizing a multi modal approach of non-narcotic intravenous (IV) acetaminophen and non-steroidal anti-inflammatory (NSAID) we can demonstrate the benefits of alternatives to opioids.

**Identification of the problem:** Using non-opioid medications, IV acetaminophen and NSAID's, patients will require less IV opioids thus less nausea and vomiting that leads to extended stays in PACU.

**Purpose of the Study:** Determine whether utilizing IV acetaminophen and NSAID would reduce IV narcotic administration post operatively thereby decreasing side effects of nausea, vomiting and length of stay.

**Methodology:** Analysis involved a retrospective review of 250 surgical patient charts having either hernia or gynecological procedure sub-divided into 4 groups: 1) NSAID only; 2) non-acetaminophen/NSAID; 3) acetaminophen with NSAID; 4) acetaminophen only. Data collected included narcotic medications, treatment for nausea and vomiting, and length of stay in PACU.

**Results:** Data analysis revealed statistically significant results. Study groups 2 and 3 required less opioids (25.8% and 30.8%) compared to 1 and 4 (46.2% and 54.0%). Less PACU interventions occurred in 2 and 3 (35.5% and 35.0%) than 1 and 4 (60% and 66%). Adverse events that could lead to increased length of stay occurred less in 2 and 3 (0% and 4.2%) vs. 1 and 4 (7.7% and 10.0%).

**Discussion:** By utilizing acetaminophen with an NSAID this will decrease the need for antiemetic treatment which will improve patient and staff satisfaction. More time can be spent at the patient's bedside educating on postoperative care and alternatives to opioids.

**Conclusion:** The multi-modal approach using non-narcotic medications are beneficial to decreasing opioid use, nausea, vomiting, and adverse events in postoperative patients.

**Implications for perianesthesia nurses and future research:** Progress and outcomes were shared with our hospital opioid committee and helped validate prescribing acetaminophen prior to surgery. Staff education improved in the periop setting and led to improved partnership with anesthesia. Discharge handouts regarding opioids were established, verbiage for pain are being updated and a new project undertaken led to exploring cost and benefits of IV verses by mouth acetaminophen.