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Title: *Nalbuphine as a Primary Parenteral Opioid for Acute Pain in a Community Hospital: A Retrospective Review.*

#### OBJECTIVE

To determine if intravenous (IV) nalbuphine could be a reasonable, safer parenteral analgesic option to treat acute pain in a hospital when compared to first-line pain medications such as intravenous morphine.

#### DESIGN

Retrospective chart review

#### SETTING

HSHS St. Elizabeth's Hospital in O'Fallon, IL between January 1, 2018 and June 30, 2018.

#### PARTICIPANTS

Patients admitted to HSHS St. Elizabeth's Hospital who received IV morphine or IV nalbuphine for the treatment of acute pain.

#### OUTCOME MEASURES

The primary outcome was the average pain score to compare efficacy. The secondary outcomes consisted of required change in parenteral opioid during hospital stay, opioid presence at admission, change in dose from initiation, delayed discharge due to uncontrolled pain, opioid related adverse effect, and opioid prescription at discharge.

#### RESULTS

A total of 138 participants were included in the study. Only 123 were included in the primary outcome after 15 were excluded for the utilization of multiple pain scoring systems. Neither the primary outcome nor any of the secondary outcomes were found to be statistically significant, which suggests that there is no difference in efficacy or safety of parenteral morphine and nalbuphine. Although there was not statistical difference between groups in required dose changes, there was a trend toward an increased frequency in the morphine group.

#### CONCLUSION

The data suggests that nalbuphine is as effective for acute pain management in an inpatient setting as morphine when parenteral analgesia is required, with no statistical difference in adverse drug reactions, required dose changes, or adverse drug reactions. Having an option for treating acute pain that would provide equal pain relief as a long-time, first-line agent while having less frequent and severe side effects could be clinically significant. However, larger, more detailed studies are needed.