EXPANDING MULTIMODAL PAIN CONTROL TO INCLUDE STANDARDIZED USE OF IV ACETAMINOPHEN IN THE PERI-OPERATIVE SETTING: A PROPOSAL

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INTRODUCTION

Currently at Salem Health lacks a standardized approach to the utilization of IV acetaminophen (Ofirmev) during the peri-operative period.. Conflicting rationales for and against its use yield inconsistencies and confusion amongst team members attempting to provide adequate, safe, and timely pain control for patients.

What should be happening?

- All possible avenues for adequate and safe pain control should be readily available, as supported by best practice standards set forth by professional publications and organizations..
- Cohesive approaches should be established to reduce “opinion” based practices and a standardized approach should be adhered to.
- PACU RN’s should be able to request interventions for their patients with an evidence based, multi-modal approach in mind.

BACKGROUND

- The cost of IV acetaminophen compared to oral acetaminophen is several folds higher, which influences decision making..

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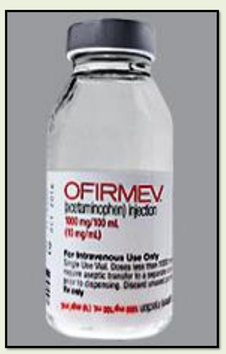
- The intravenous route results in greater bioavailability, higher plasma concentrations and a faster peak time (15 min compared to >45 min for oral)
- In some studies IV APAP demonstrated statistically significant differences with improved analgesia, rapid onset of action, and opioid consumption decreases of more than 50% when compared with placebo.
- The IV alternative has potential to provide benefits including reduced nausea and vomiting, and risk for over sedation along with a the potential for reduced need for narcotic altogether especially in the geriatric population and those highly sensitive.
- Current cultural considerations given climate of drug dependency issues and shortages in many narcotics warrant new urgency to improve and standardize multi-modal approaches to post operative pain management



PROCESSES AND OUTCOMES

What/Where	Who	When
Study Groups will contain General Surgical Patients who receive and General Surgical Patients who do not receive IV acetaminophen. Discharge criteria met time, N/V, pain scores, and overall condition of the patient groups to be compared and contrasted for overall differences between the two groups TOC will occur in PACU	Group #1- General Surgical Patients who receive IV acetaminophen Group #2- General Surgical Patients who do not receive IV Acetaminophen	TOC Tentative start date 4/22

OBJECTIVES

1. Meet pain relief goals sooner
2. Reduced need for rescue narcotic
3. Decreased need for narcotic altogether
4. Reduced undesirable levels of sedation
5. Reduced nausea and vomiting
6. Shorter PACU stays
7. Examine hospital LOS

CONCLUSION

- More investigation is needed to examine the efficacy of IV acetaminophen compared with oral acetaminophen to determine the best modality to control postoperative pain and reduce complications.
- Studies comparing IV acetaminophen to oral acetaminophen which focus on time to post-anesthesia care unit discharge in both inpatient and outpatient settings are also needed.

REFERENCES

Wang, V.C, et al. A Prospective, Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate the Intravenous Acetaminophen Versus Placebo in Patient Undergoing Robot Assisted Laparoscopic Prostatectomy. J of Pain & Palliative Care Pharmacotherapy 2018; 1-9. doi:10.1080/15360288.2018.1513436

Koh, W., et al. Intravenous Non-Opioid Analgesia for Peri- and Postoperative Pain Management: A Scientific Review of IV Acetaminophen and Ibuprofen. Korean J. of Anesthesiology 2015; 68(1): 3-12.

Olbrecht, V. et.al. IV APAP reduces length of stay via medications of opioid consumption
Clin J Pain 2018 34(7). 593-599
doi:10.1097/MJT.0000000000000026

Bollinger, A.J., et al. Is Scheduled Intravenous Acetaminophen Effective in the Pain Management Protocol of Geriatric Hip Fractures?. 2012; 6(3): 202-208 doi: 10.1177/2151458515588560

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