

Nurse-Controlled Analgesia

Courtney Bloss BSN, RN
Lehigh Valley Health Network

Alyssa Boyd BSN, RN
Lehigh Valley Health Network

Kristen Halenar BSN, RN
Lehigh Valley Health Network

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Alyssa Boyd, RN, BSN

Courtney Bloss, RN, BSN

Kristen Halenar, RN, BSN

A PASSION FOR BETTER MEDICINE.™



Project Purpose

- To implement a Nurse-Controlled Analgesia (NCA) protocol

Background/Significance

- Currently, there is no efficient way to control pain in the pediatric patients who are developmentally or physically unable to utilize a PCA pump. Implementing an NCA policy would provide improved pain control.

PICO Question

- P: Pediatric population not developmentally able to use Patient-Controlled Analgesia (PCA)
- I: Use of NCA
- C: PRN pain medications
- O: Better pain scores

PICO Question

- In pediatric patients not developmentally able to use PCA, does NCA compared to PRN pain medications result in better pain scores?

Trigger?

- Case Study:

In October 2014 a seven month old PICU burn patient was prescribed a PCA pump with a basal rate infusing, but was unable to activate bolus doses due to developmental state. This is an ineffective use of a PCA pump. As policy currently stands, this patient was the only individual who could activate the PCA pump. Had an NCA policy been in place, the patient could have received bolus doses as activated by the RN.

EVIDENCE

- Search Engine: CINAHL, PubMed, Google Scholar
- Key Words: analgesia by proxy, NCA, authorized agent, pediatric population, PCA, pain control, developmental delay
- Evidence Table: See below
- Findings Overall: NCA is an effective and safe method for pain control in patients developmentally and physically unable to utilize a PCA pump

EVIDENCE

- “...PNCA is manageable for parents and nurses, may be effective, and may be safely employed through appropriate education, medication management, and diligent monitoring.”
- “The American Society for Pain Management Nursing (ASPMN) continues to support the use of authorized agent controlled analgesia (AACA)...to provide timely and effective pain management as well as to promote equitable care for vulnerable patients who are unable to independently operate patient-controlled analgesia.”

Evidence

- “Data lend support to PNCA being safe and effective for children with developmental delay on the basis of average pain scores, mean opioid requirements, frequency of side effects, and naloxone administration.”
- “The vast majority of parents in the study were comfortable and willing to assist in their child’s care...”
- “...We have found that in our practice, NCA with morphine is a safe, effective, and acceptable technique of postoperative analgesia for a broad range of ages and types of surgery.”

Current Practice at LVHN

- Nurses are currently unable to activate PCA pumps for individuals developmentally and physically unable to utilize a PCA pump
- PRN pain medications are prescribed by physicians to control pain as deemed necessary by health care providers

Implementation

- In progress
- Waiting for approval by physicians and pharmacy
- Assign TLC module to nursing staff
- Finalize policy and procedure document
- Collaborate with physicians, pharmacy and EPIC team on order sets and barcoding logistics

Implementation

- Process Indicators & Outcomes: Poor pain control as described in case study
- Baseline Data: PRN pain medications used to control pain

Practice Change

- A set guideline will be implemented for NCA administration

Results

- To be determined. Expected outcomes:
 - Better pain control in this population
 - Decreased time needed to pull medications from pyxis
 - Decreased medication waste and cost
 - More timely administration of pain medication
 - Less room for error while drawing up PRN pain medications
 - Improved pain scores and patient/parent satisfaction with pain management

Implications for LVHN

- Improved Press-Ganey Scores due to patient/parent satisfaction with pain control
- Decreased hospital costs due to less wasted medication and syringes/needles
- Improved nurse satisfaction

Strategic Dissemination of Results

- Posting use of NCA on quality boards to inform staff

Lessons Learned

- There is a need for an NCA policy throughout the Children's Hospital Services
- Many other credible Children's Hospitals successfully utilize NCA
- Collaboration between disciplines is essential for effective practice change

BARRIERS & STRATEGIES

- **Barriers:**
 - **Physician approval**
 - **Nurses' acceptance and level of comfort with NCA**
 - **Education and policy change**

Barriers & Strategies

- Strategies to Overcome Barriers:
 - Providing nurses and physicians with evidence
 - Unit based training
 - TLC modules/education

Expected Outcomes

- Resistance from health care providers
- Change in policy/practice
- Improved pain scores
- Improved patient/family satisfaction

PROJECT PLANS

- Collaborate with EPIC team and pharmacy to determine logistics of NCA implementation/use
- Assign education materials to staff
- Policy change

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