Safety Update: Patient Controlled Analgesia (PCA)

Situation: Patient controlled analgesia (PCA) pump programmed incorrectly with patients receiving the wrong dose of pain medication.

Background: There continues to be Safety Learning Reports (SLRs) submitted with medication errors in the delivery of narcotics via the PCA pump.

> *SLR-Incorrect concentration of Fentanyl programmed in PCA pump, ordered concentration of Fentanyl was programmed incorrectly at 10mcg/ml when the concentration of medication was actually 50mcg/ml resulting in an* ***overdose.*** *This was noticed when the patient started having signs of being over sedated, lethargy and decreased respiratory rate.*
>
> *SLR-Physicians ordering changes in PCA medication dose or rate and the RN signing the order and not completing the task of changing the rate as ordered. The patient is receiving the incorrect dose of medication, in some cases extending through multiple handoffs of care unchecked.*

Assessment: When caring for a child on a PCA pump there are many opportunities to catch programming errors including during handoffs of care (Team Member Checking), during the routine checking of orders (validate and verify) and with pain assessment and reassessment (AIR Cycle).

Recommendation-(Best practice):

- When starting a PCA syringe (new or existing) bar code scan the patient and scan the medication complete 6 rights of medication administration. PCA pumps require bar code scanning at the pump (Audio-ID) for programming, and 2nd RN verification of medication and programming.
- Verification of pump programming should be done at a minimum at the change of shift and upon transfer of care.
- Documentation of pump including intake volumes, and history needs to be done at a minimum of every 4 hours (CLINICAL STANDARDS MANUAL Section E: Medications NARCOTIC ANDBENZODIAZEPINE ADMINISTRATION: PCA INFUSION PUMP, CONTINUOUS IV AND INTERMITTENT).

Thank you for filling out Safety Learning Reports they are always appreciated!

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Children's Hospitals and Clinics of Minnesota