

Reducing Medication Errors in Pediatric Patients

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Reducing Medication Errors in Pediatric Patients

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BACKGROUND

NICU is the highest at-risk group for medication errors; 0-4 year olds have the second highest rate of medication events

- 72-75% of medication errors are r/t administration vs. prescribing, dispensing, or documentation
- Opioids are the most common drug class with errors, with morphine being the most common drug

PICO QUESTION

In the pediatric population (P), does a two RN independent double verification of high risk medications (I) decrease medication error (O) as compared with single RN verification of medication (C)?

EVIDENCE

Independent double checks (IDC): A second practitioner independently verifies that the dosage is correct without input from the first practitioner; answers are compared to verify if correct.

Independent double checking (IDC) of medications is best practice

- IDC causes 95% of others' mistakes to be caught
- IDC prevents bias
- In one study, IDC helped reduce pediatric ADEs by 42%
- **Checklists, role modeling, and peer support help encourage compliance with IDC**
- **Interruptions, noise levels, and busyness of unit can create non-compliance with IDC**

METHODS

- **Worked with ADE group of interdisciplinary team members (physicians, residents, unit managers & RNs)**
- **Identified high risk medications & compiled a specific list for the pilot**
- **Identified process, and specific components (7 rights of medication safety)**
- **Outlined actual work-flow on unit by providing step-by-step checklist for RNs to follow**
- **Implemented IDC of high risk meds on pediatric unit and PICU**
- **Collected feedback from unit RNs, via anonymous surveys**

RESULTS

- 94 medications recorded in pilot study
- No medication errors recorded during study
- Sign off paper adjusted to include patient weight and safe dose range

OUTCOMES

- 6 surveys completed anonymously by RNs on pediatric unit
- 5/6 surveys performed double check at the bedside
- Sign off paper reformatted to include patient's weight and safe dose range for medication

CONCLUSIONS

- One limitation: no pre-implementation data
- Continue working with ADE group for further study and advancement of protocols
- Have Pyxis give high alert warnings
- Include dual-sign off prompt in EPIC

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