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NOTICE: Improving PICU Practices for High-Risk Medications

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Background

The Pediatric Intensive Care Unit (PICU) is a 7-bed unit that provides care to the critically ill child ages 0 to 21 yrs. In Fall 2021, there were two near miss incidences involving high risk medications.

High risk or high alert medications, are those medications that pose an increased risk of patient harm if not prescribed, dispensed, administered, or monitored correctly. These medications require increased awareness and procedures to reduce the risk of errors. Some examples of these high-risk medications include neuromuscular blocking agents, opiates, anticoagulants, insulins, chemotherapeutics and electrolytes. The organization adopted "Take NOTICE of Baystate Health High Alert Medications" practice.

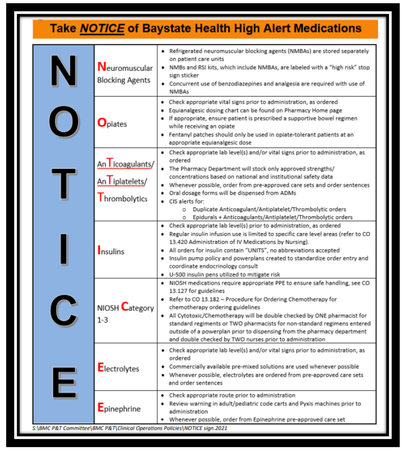
Introduction to the Problem

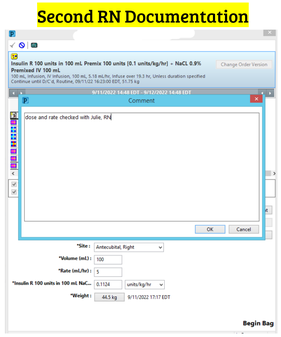
The Nursing Leadership Team and the unit based Clinical Practice Committee, met and discussed the need to change practice on the unit. PICU practice was changed to include several different double check systems, education and audits to ensure sustainability. Medications currently requiring a double check include opiate infusions, TPA, heparin drips, insulin drips, chemotherapy infusions, and concentrated electrolytes. The Institute for Safe Medication Practices (ISMP) recommends using the double check system judiciously and not for every medication as it will lose it effectiveness.

Interventions

The following interventions were implemented to decrease the risk of high-risk medication errors and/or near misses.

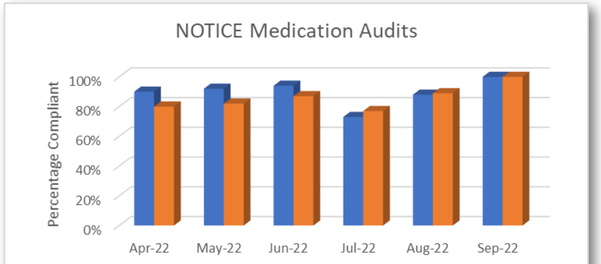
- Unit wide staff education on NOTICE.
- RN second nurse verification for all high-risk medications.
- NOTICE med audits including documentation in the electronic health record (EHR). Questions on the audit tool included:
    1. Did the order match the infusion pump?
    2. Was there a drip sheet at the bedside, signed by 2 RNs.
    3. Was there documentation of the 2nd RN name in the EHR?
    4. Was re-education provided if any items missing?





Results

With the medication audits, compliance over time improved. In the month of September, the unit was 100% compliant with the practice change.



	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22
Days	90%	92%	94%	73%	88%	100%
Nights	80%	82%	87%	77%	89%	100%

Conclusion

In the future, PICU is hopeful that the second RN double check system will be the standard of practice throughout the organization. The team would also like to include vasopressors and sedation infusions to the NOTICE high alert medication list.

The 2nd RN double check system was easily adaptable in PICU and has become the standard of practice to ensure patient's safety.