Medication Safety: Navigating the Path to Error Free Care

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Background

- Pediatrics are at a higher risk for adverse medication events due to its complexity regarding weight-based dosing leading to negative outcomes including but not limited to death.
- An increase in incident reports regarding near misses and actual medication errors was identified in 2 inpatient pediatric med surge units.
- Literature supports reducing medication errors is most effectivewhen medication education programs include medicationinformation services, clinical pharmacist involvement,Independent Double Verification and processes to reduceinterruptions during drug calculation and preparation.

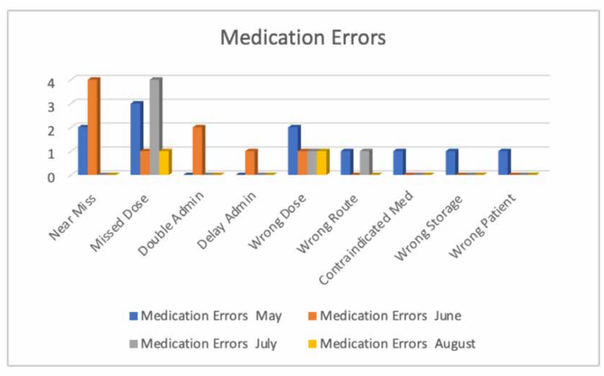
Purpose

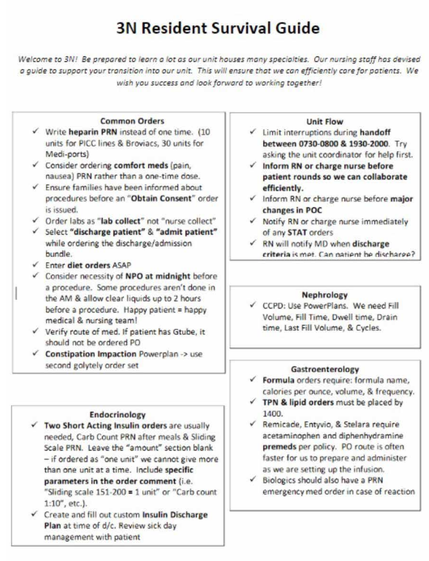
- The aim of this project was to implement evidence-based strategies found in the literature to reduce the incidence of medication errors by 10%. Designing interdisciplinary education tailored to a multigenerational group will help them prevent medication errors and ensure safe and quality care.

Methods

- Incident Reports were reviewed from May and June to gather data and sorted into two categories: actual errors and near misses.
- Near misses and actual errors were further broken down into different pockets such as missed dose, wrong route and contraindicated medication.
- A medication safety training session was created to make nurses aware of events that have recently occurred in their departments.
  - A combination of case study and game-style learning were used to provide opportunities on how to improve their practice of medication preparation and administration.
- Because medical residents rotate throughout the hospital to different subspecialties every four weeks, a survival guide was created to help them combat common order errors and delays. The survival guide is reviewed with the team the first day they begin their new rotation
- Interventions took place over a month and continue as new nurses are hired and medical residents change location.

Methods Graph





3N Resident Survival Guide

Welcome to 3N! Be prepared to learn a lot as our unit houses many specialties. Our nursing staff has devised a guide to support your transition into our unit. This will ensure that we can efficiently care for patients. We wish you success and look forward to working together!

Common Orders
- ✓ Write **heparin PRN** instead of one time. (10 units for PICC lines & Broviacs, 30 units for Medi-ports)
- ✓ Consider ordering **comfort meds** (pain, nausea) PRN rather than a one-time dose.
- ✓ Ensure families have been informed about procedures before an "**Obtain Consent**" order is issued.
- ✓ Order labs as "**lab collect**" not "nurse collect"
- ✓ Select **"discharge patient" & "admit patient"** while ordering the discharge/admission bundle.
- ✓ Enter **diet orders** ASAP
- ✓ Consider necessity of **NPO at midnight** before a procedure. Some procedures aren't done in the AM & allow clear liquids up to 2 hours before a procedure. Happy patient = happy medical & nursing team!
- ✓ Verify route of med. If patient has Gtube, it should not be ordered PO
- ✓ **Constipation Impaction** Powerplan -> use second golytely order set

Unit Flow
- ✓ Limit interruptions during **handoff between 0730-0800 & 1930-2000**. Try asking the unit coordinator for help first.
- ✓ **Inform RN or charge nurse before patient rounds so we can collaborate efficiently.**
- ✓ Inform RN or charge nurse before **major changes in POC**
- ✓ Notify RN or charge nurse immediately of any **STAT** orders
- ✓ RN will notify MD when **discharge criteria** is met. Can patient be discharge?

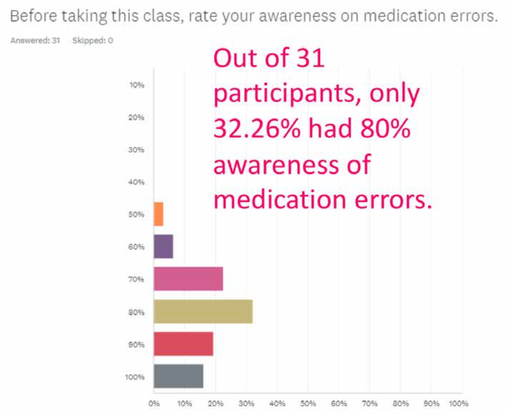
Nephrology
- ✓ CCPD: Use PowerPlans. We need Fill Volume, Fill Time, Dwell time, Drain time, Last Fill Volume, & Cycles.

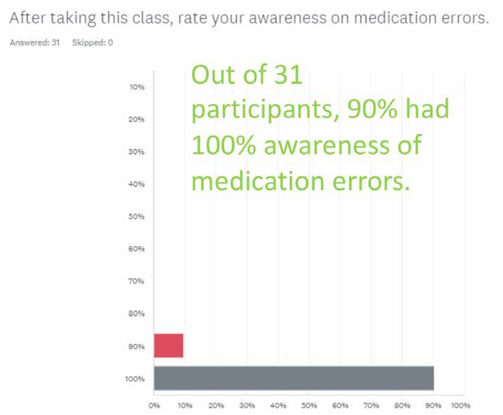
Gastroenterology
- ✓ **Formula** orders require: formula name, calories per ounce, volume, & frequency.
- ✓ **TPN & lipid orders** must be placed by 1400.
- ✓ Remicade, Entyvio, & Stelara require acetaminophen and diphenhydramine **premeds** per policy. PO route is often faster for us to prepare and administer as we are setting up the infusion.
- ✓ Biologics should also have a PRN emergency med order in case of reaction

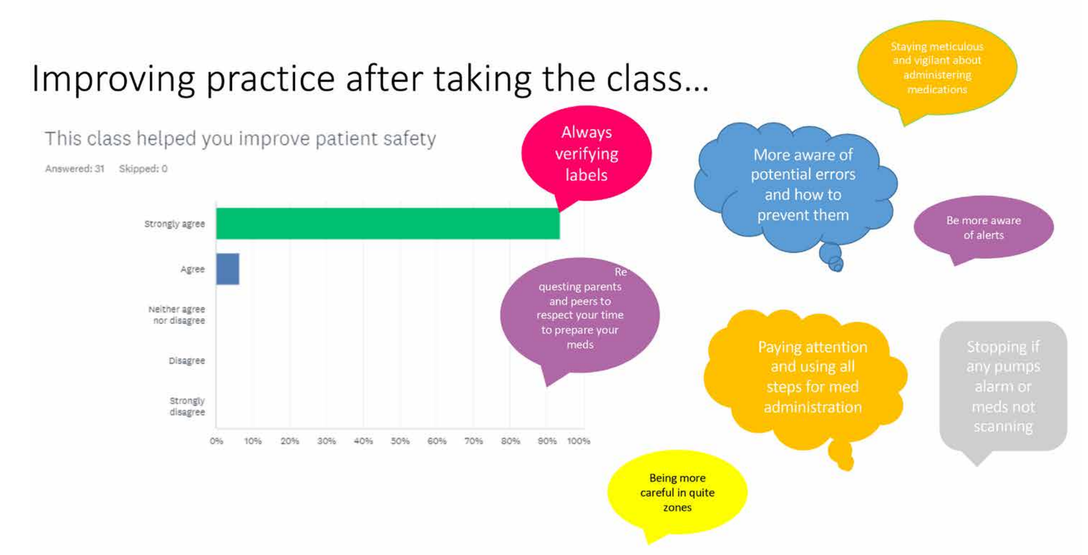
Endocrinology
- ✓ **Two Short Acting Insulin orders** are usually needed, Carb Count PRN after meals & Sliding Scale PRN. Leave the "amount" section blank – if ordered as "one unit" we cannot give more than one unit at a time. Include **specific parameters in the order comment** (i.e. "Sliding scale 151-200 = 1 unit" or "Carb count 1:10", etc.).
- ✓ Create and fill out custom **Insulin Discharge Plan** at time of d/c. Review sick day management with patient

Outcomes

- Nurses and staff are highly encouraged to complete incident reports in order to capture areas of opportunities.
- Twenty medication errors were capture through incident reports in the months prior to intervention, resulting in an 80% decrease for the first two months post intervention..
- Positive feedback from the medication safety training showed that 95% of nurses felt it helped them improve patient safety and found the game-style learning to be positive.
- Continuous reviews of incidences identify any new areas of opportunity to incorporate into the medication safety training session and/or to the survival guide.







Implication for Practice

- There are several safety measures in place that protect patients from errors. From scanning medications to the electronic medical record, alerts when documented incorrectly and hard stops on infusion pumps. These help reduce errors but they do not remove the human factor associated. EBP have shown to decrease the risk factor

Conclusion

- Identifying causes of errors and incorporating an interdisciplinary approach to patient safety decreased the number of errors related to medication orders, administration, and increased staff satisfaction.

References

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