

# Technology in patient safety



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# Patient safety



## Pt Safety

- Never leave the medication room with a syringe unless it has a label on it that includes the patients name, dose, and name of medication.



# [WHO - 5 moments of medication safety.pdf](#)

# Data on near miss alerts and its interpretation on the patient safety and improvement dashboard

# Learning objectives



At the end of this session the attendee will be able to:

- analyze the data on Medication near miss alerts in EMR
- list down the reasons for near miss alerts
- demonstrate the strategies to prevent near misses

# What is Near miss?



**Any medication error that does not result in patient harm or error with potential for harm that does not reach the patient**

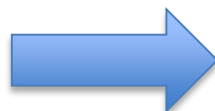
# Preciseness in MAR in EMR



- Patient medication error rates have been significant
- Today, bar coding improves safety of medication administration by leveraging the National Data Code barcode that is found on all medications with the patient's identification band bar code.
- Implementation of EMR created a transformation of nursing care and medication administration business practices leading to improved patient safety.



# EMR & NEAR MISS ALERTS



> BCMA Overall		100.0%	100.0%	100.0%	100.0%
> Patient Scanning		100.0%	100.0%	100.0%	100.0%
> Medication Scanning		100.0%	100.0%	100.0%	100.0%
> Early Medication Administration		0.0%	0.0%	0.0%	0.0%
> Late Medication Administration		10.5%	14.3%	0.0%	0.0%
> MAR Near Miss Alerts		5.3	0.0	16.7	0.0
> MAR Overridden Alerts		21.1	0.0	16.7	0.0

Medication Administration Metrics		HH10 NICU					
		Back to Weeks					
		17/9	18/9	19/9	20/9	21/9	22/9
> BCMA Overall		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
> Patient Scanning		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
> Medication Scanning		-	100.0%	-	100.0%	-	100.0%
> Early Medication Administration		-	0.0%	-	0.0%	-	0.0%
> Late Medication Administration		-	0.0%	-	0.0%	-	0.0%
> MAR Near Miss Alerts		-	0.0	-	0.0	-	0.0
> MAR Overridden Alerts		-	0.0	-	0.0	-	0.0

# Reasons identified for Near miss alerts

- Off schedule
- Additional dose
- Different dose
- Inactive order scanned
- Wrong order scanned

# Off schedule



## **Scanning before or after the due time**

Strategies in place:

- Avoid scanning when the column for due administration is still inactive for initial dose
- Scan at the exact due time or within the permitted duration

# Additional dose



- **Administered a dose of completed order – expired order**
- **Duplicate orders or discontinued IV Fluids or TPN**

Strategies in place:

1. Check orders for fluids that are near expiry
2. Doctors to place the order at least 2 hours before the order will expire to give ample time for the pharmacy to prepare the fluids. Inform the pharmacy regarding the order and the time that patient will be needing the fluids
3. Doctors to place the new fluid as future dose so as not to duplicate any existing order. Make sure that fluids are ordered as “continuous” and not once
4. Discontinue the existing fluid before the order expires in order to prevent having additional dose of the medication.

# Different dose



- Partial package :Dose entered is less than the ordered dose
- Titratable Fluids

Strategies in place:

1. For partial package medications such as Caffeine Citrate, Antibiotics and Nebulization make sure to select the “Partial Package” option in the system and not to select the override option
2. Make sure that there is an order to titrate the fluids as per the patient condition or baby’s feeding increment.

# Inactive order scanned



## Scanning an inactive order or different medication bar code

Strategies in place:

1. If the previous medication doses are finished, wait for the pharmacy to supply the medication with the present order
2. Be mindful with the order number and date in the medication barcode label and scan only the active medication label
3. If there is still remaining medication in the patient box from the discontinued order, return the medication to the pharmacy for issuing bar code for the new order.

# Wrong order scanned

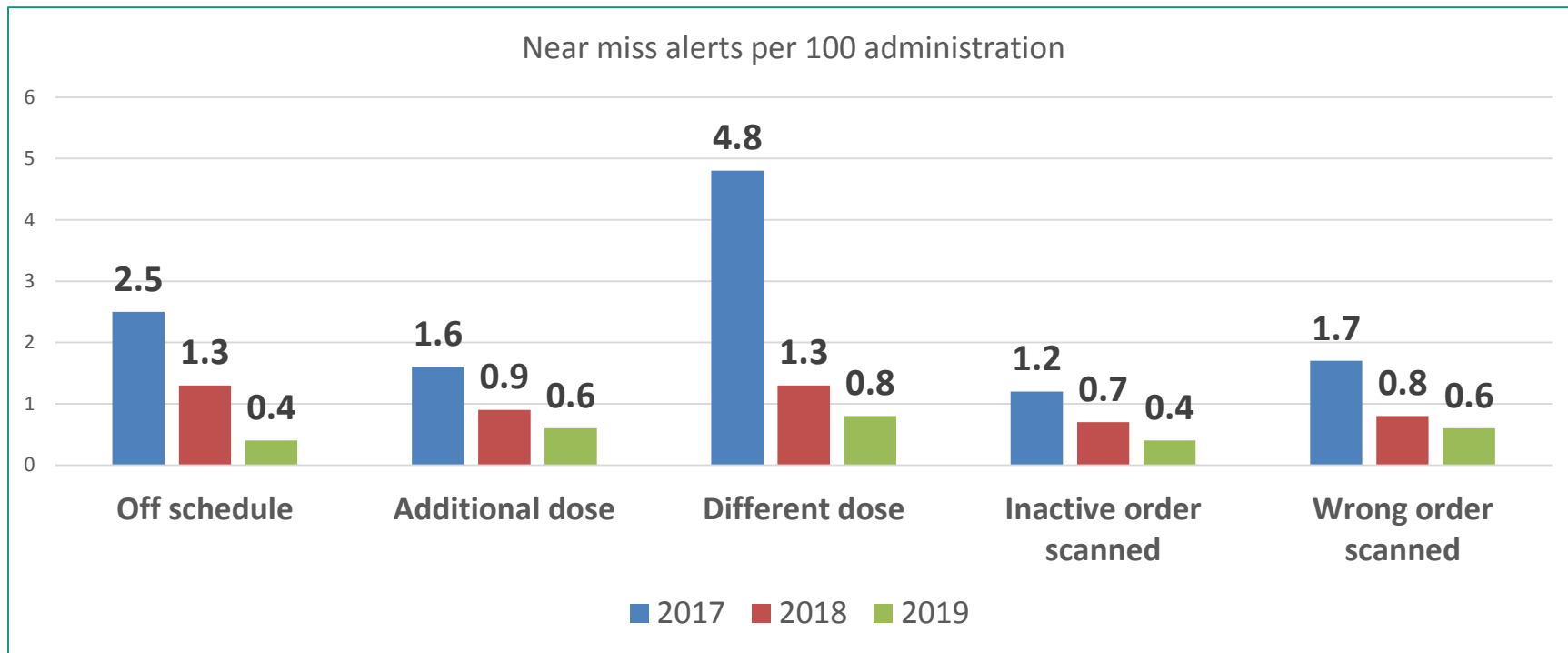


- **Medication scanned for another patient**
- **EBM scanned for another patient**

Strategies in place:

1. Before administering the medication make sure to check first the patient name and MRN against the medication label before scanning.
2. Before administering the EBM feeding make sure to check the patient name and MRN in the system against the EBM label before scanning

# ALERTS PER 100 ADMINISTRATIONS





# To summarize....



- MAR workflow in EMR is a multifaceted strategy to prevent medication errors and improve patient safety
- Near miss alerts are the road blocks to any errors that could happen

# Conclusion



# References



- [EMR – DHA](#)
- <https://www.coventryrugbyccg.nhs.uk/mf.ashx?ID=fd90fcdb-2c01-475a-b3ce-ead7c18f3399>
- [https://en.wikipedia.org/wiki/Near\\_miss\\_\(safety\)](https://en.wikipedia.org/wiki/Near_miss_(safety))
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- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2723209/>

# Thank you!!

