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Increasing Accurate and Timely Completion of Medication Reconciliation in Pediatrics

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Increasing accurate and timely completion of medication reconciliation in pediatrics



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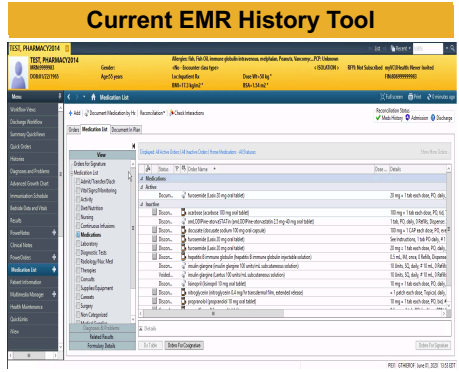
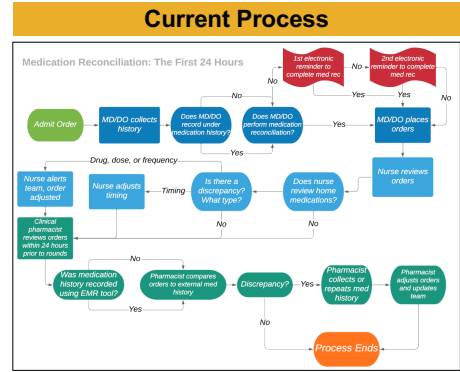
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Introduction

- The Joint Commission includes accurate medication reconciliation as a 2020 National Patient Safety Goal (NPSG 03.06.01)
- The Institute for Healthcare Improvement describes this process in three steps:
 - Verification – developing a “good effort” list of patient’s medications
 - Clarification – ensuring doses are appropriate
 - Reconciliation – identifying discrepancies and entering orders within 24 hours
- Only three adverse drug events (ADE) were reported in inpatient pediatrics in the patient safety network over the past year
- However, 77% of VCU pediatric residents report being involved in an ADE related to medication reconciliation during their training
- Our aim was to increase compliance with documentation of medication history in the Electronic Medical Record (EMR) from a baseline median of 46% to 90% by June 30, 2020

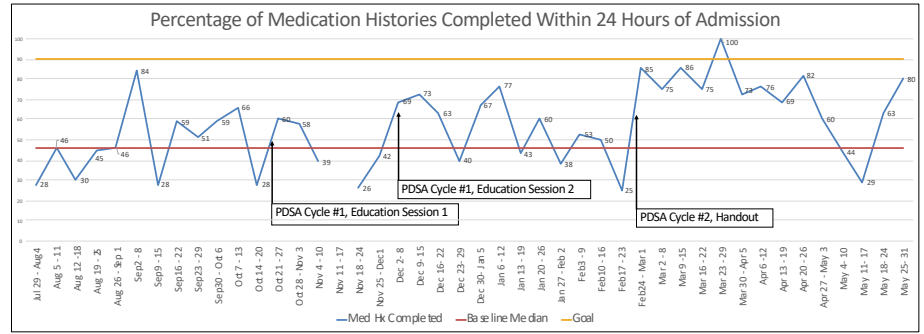
Methods

- Compliance with documenting medication history in the EMR was audited and compiled weekly
- PDSA cycle 1 - large group teaching sessions
- Pre-/post-intervention surveys distributed to assess knowledge, self report compliance, and assess barriers to completion during PDSA 1
- PDSA cycle 2 - instructional handouts distributed at the start of inpatient rotations
- Clinical pharmacists audited patient charts for medication related errors following reconciliation during PDSA 2



Results

- No special cause variation in percentage of medication histories completed following PDSA #1
- Number of pediatric residents reporting “Always” or “Almost always” documenting a medication history in the EMR increased from 41% to 71%
- Increase in percentage of medication histories to new baseline median of 76% following PDSA #2
- During PDSA cycle #2 a baseline median of 35 medication errors over 1 month related to medication reconciliation (n = 129 charts) were identified the majority were dosing errors
- Residents cited time and patient/family knowledge of medications as balancing measures to completing medication verification



How often residents report taking a medication history

	Baseline*	PDSA 1**
Always	59%	65%
Almost always	30%	27%
Sometimes	11%	4%
Almost never	0%	4%
Never	0%	0%

Residents' ability to identify medication history tool

	Baseline*	PDSA 1**
Correct	69%	83%
Incorrect	31%	17%

How often residents report updating medication history in Cerner

	Baseline*	PDSA 1**
Always	19%	28%
Almost always	22%	40%
Sometimes	26%	20%
Almost never	26%	4%
Never	7%	8%

Errors in medication orders with completed med histories (n=129 charts over 1 month)

Drug	10
Dose	24
Frequency	1

Resident satisfaction with current EMR medication reconciliation tool**

Highly satisfied	8%
Satisfied	24%
Neither satisfied/nor dissatisfied	48%
Dissatisfied	20%
Highly dissatisfied	0%

Resident time to complete medication reconciliation process**

Average	9.2 minutes
Median	10 minutes

*n = 27 **n = 25

Conclusion

- Although we did not meet our aim, there was a noticeable shift in completion and resident awareness of documenting medication histories
- Our team identified multiple “near misses” in orders with completed medication histories indicating a need for further process measures to reduce potential adverse events
- There is very little research to date on the best process measures for reducing ADEs associated with medication reconciliation