

Enhancing the Usage of Evidence-Based Order Sets on the Pediatric Hospital Medicine Service

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BACKGROUND

The MUSC Pediatric Hospital Medicine (PHM) service admits patients with a vast array of diagnoses, including common pediatric conditions requiring acute / emergent care.

Condition-specific order sets are designed to decrease unnecessary practice variation and to promote evidence-based practice.

From 2017-2019, evidence-based order sets were created based on practice guidelines for children with common pediatric acute care diagnoses admitted to MUSC's PHM service.

Given high rates of resident turnover annually, it is unknown how often these order sets are utilized on the PHM service.

AIM STATEMENT

To increase relative usage of evidence-based order sets on the Pediatric Hospital Medicine service by 30% by March 31st, 2022

Quality (Increase Inpatient Quality Care Composite)

METHODS / INTERVENTION

Assessed usage of evidence-based order sets for five of the most common pediatric admission diagnoses with up-to-date order sets (asthma, skin/soft tissue infection, nephrotic syndrome, seizures, bronchiolitis)

Obtained baseline evidence-based order set usage beginning in July 2021. Performed education of providers beginning in January 2022. Utilized run charts to monitor order set usage from Feb 9th – March 31st, 2022.

Educational Interventions

- Resident, PHM fellow, and PHM faculty global education on evidence-based order sets
- Targeted education of residents on PHM rotation per block: Order set flyers posted in each workroom
- Encouraged adding evidence-based order sets to "Favorites" list in EPIC
- Utilized run charts to inform residents of progress at housestaff meetings and morning reports

RESULTS

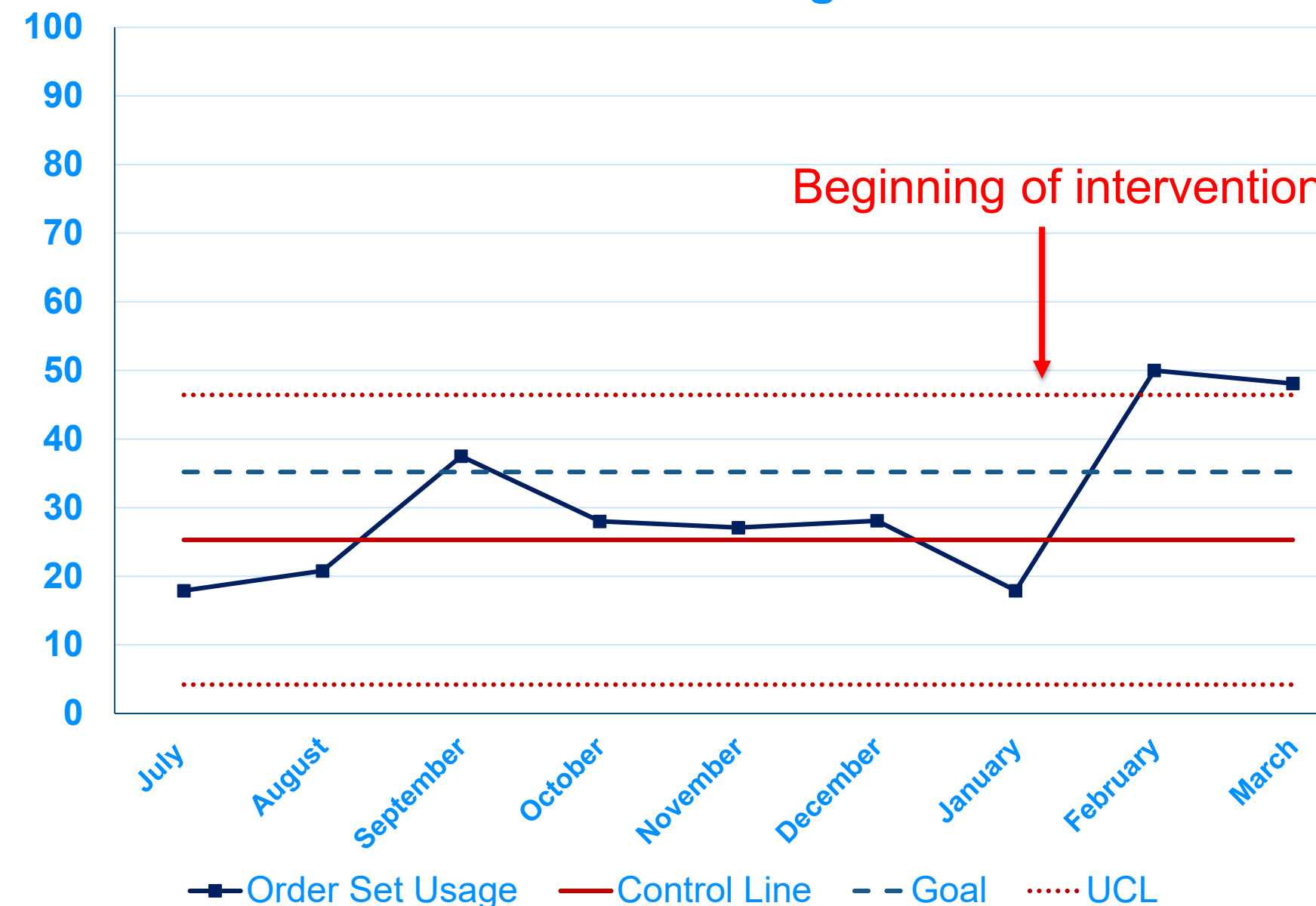
Baseline Data

Order Set Usage Project	7/1/21 -2/9/22		
Order Set	Order Set Used	Pt with Dx Admitted	Percent Used
Asthma Admission Order Set	40	174	23.0%
Skin and Soft Tissue Infection	1	34	2.9%
Nephrotic Syndrome Albumin	8	14	57.1%
Seizure With/Without Status Epilepticus	52	187	27.8%
Bronchiolitis	38	150	25.3%
Total	139	559	24.9%

Intervention Data

Order Set Usage Project	2/10/22 -3/31/22		
Order Set	Order Set Used	Pt with Dx Admitted	Percent Used
Asthma Admission Order Set	11	30	37.0%
Skin and Soft Tissue Infection	0	2	0.0%
Nephrotic Syndrome Albumin	2	4	50.0%
Seizure With/Without Status Epilepticus	31	55	56.0%
Bronchiolitis	4	7	57.0%
Total	48	98	49.0%

Order Set Usage



CONCLUSIONS

Baseline usage of evidence-based order sets for common pediatric diagnoses on PHM is low

A multi-tiered approach to enhancing the usage of five evidence-based order sets nearly doubled their usage (improved from baseline of 25% to 49% during study period, a relative increase of 96%).

BARRIERS

New residents rotate onto PHM in each block

Ensuring problem lists are accurate so diagnoses are fully captured

Small volume of certain diagnoses during study period (seasonality with diagnoses like bronchiolitis)

NEXT STEPS

Update outdated material in order sets utilized, update based on new guidelines

Increase recognition of order sets for other diagnoses on PHM

Increase resident usage of evidence-based order sets in other clinical areas