

Reducing Unplanned 30-day Readmission in Pediatric Patients with Neurological Disorders

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INTRODUCTION

- Nationally, rates of potentially preventable unplanned readmission remain high despite of several ongoing interventions¹.
- 3-30%** of pediatric patients are readmitted within 30-days of discharge, depending on the index diagnosis and patient comorbidities¹.
- Pediatric hospitalizations in the US cost around **\$6 million annually** with approximately **250,000 readmissions**¹.
- It is critical to design interventions focused on standardized discharge processes and high-risk population to reduce rates of readmission significantly.

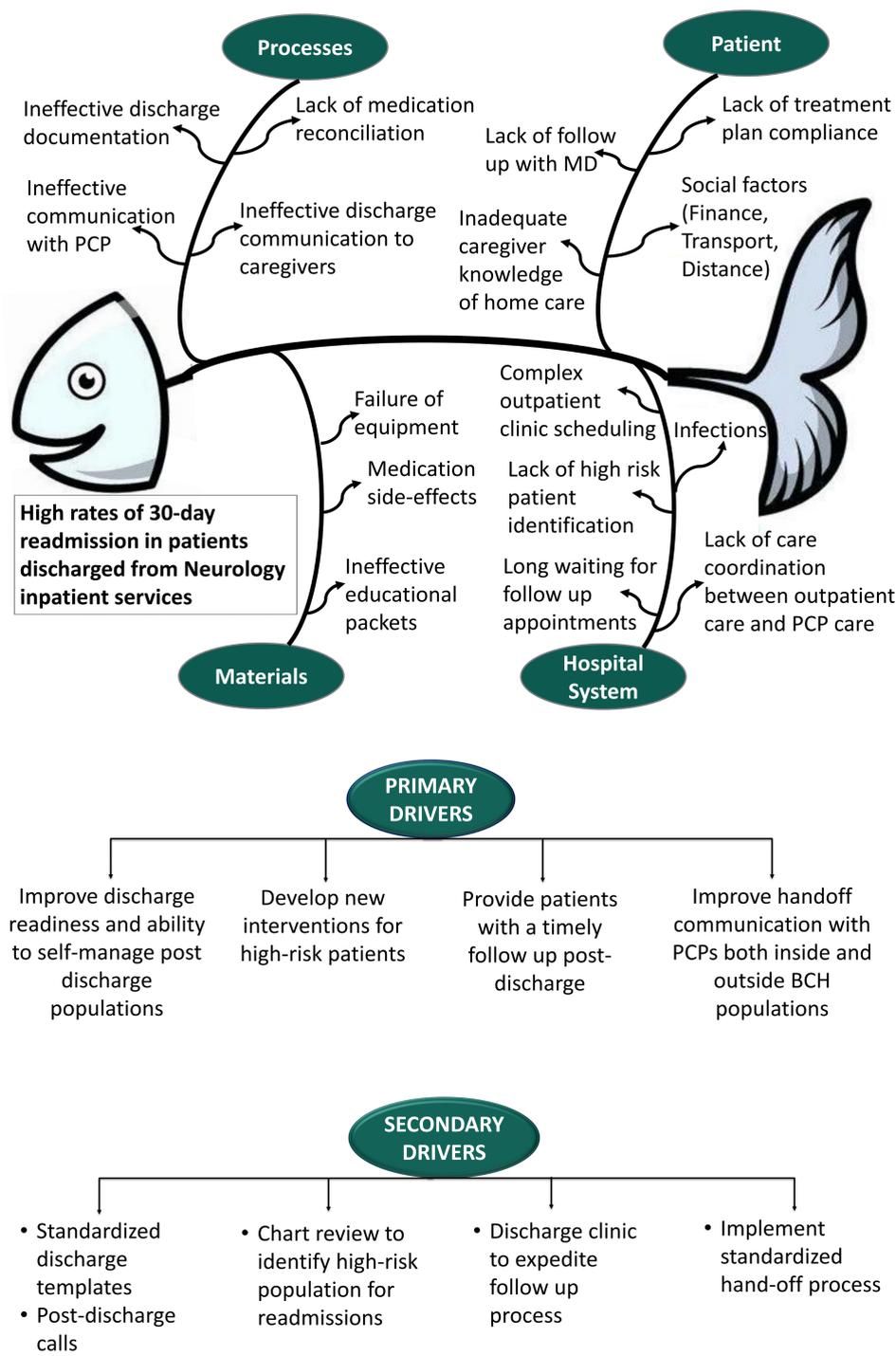
OBJECTIVES

- To design interventions that may anticipate or reduce unplanned readmission which could in turn impact the quality of life and reduce economic burden for patients and families.

SMART AIM

Reduce 30-day unplanned readmission from Neurology inpatient services by 20% by December 2019

METHODS



RESULTS

Percentage of Discharged Patients with Unplanned 30-day Readmission May 2016 – June 2018

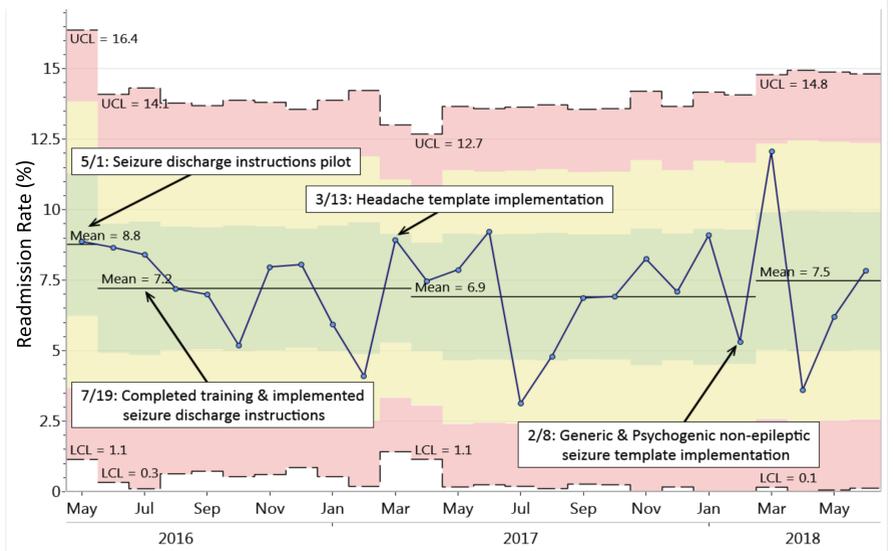


Fig 1: 3369 patients were discharged from Neurology inpatient services from May 2016 to June 2018 with a mean unplanned readmission rate of 5.8%.

Discharge Template Utilization for Any Diagnoses May 2016 – June 2018

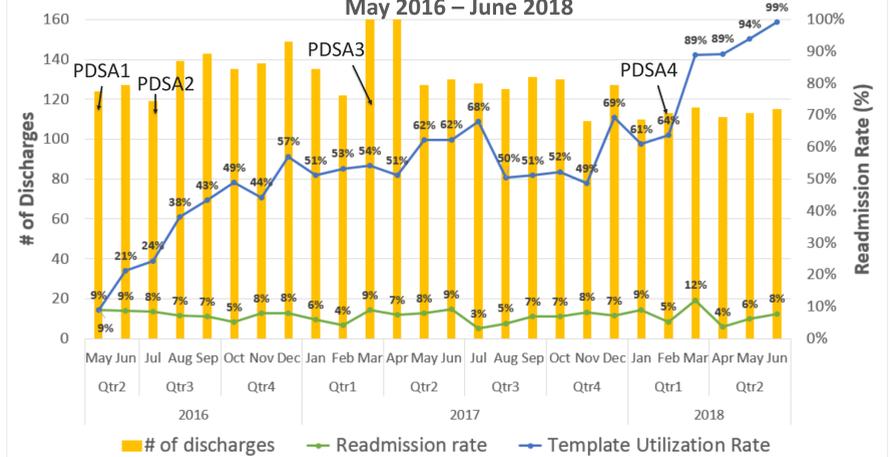


Fig 2: Discharge template utilization rate increased significantly over the course of 4 PDSA cycles with an exception of Aug-Nov 2017 when the template eligibility criteria was made more stringent.

Parental Understanding of Post-discharge Instructions May 2016 – June 2018

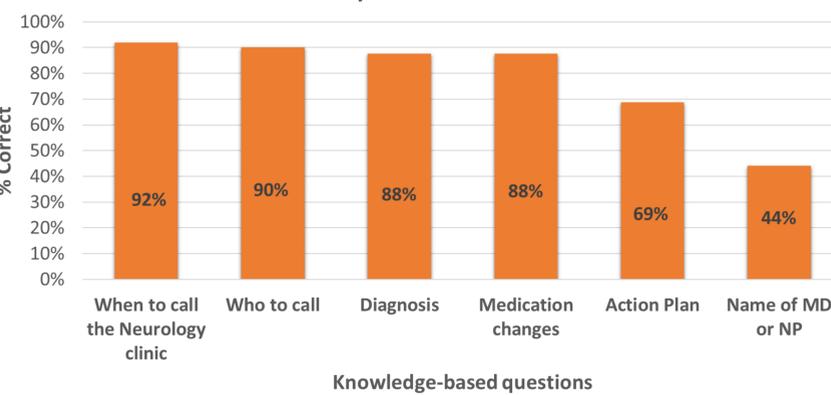


Fig 3: 211 post-discharge calls were completed from May 2016-Jun 2018. Parental understanding of post-discharge instructions was >85% in all areas except name of the provider and action plan.

Factors assessed

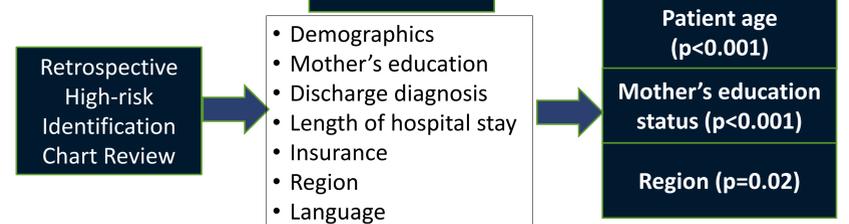
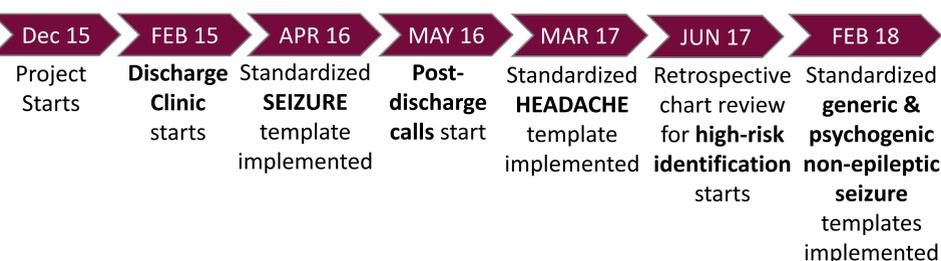


Fig 4: Retrospective chart review was conducted on 2500+ patients from Jan 2015-Aug 2017 to identify patients at high-risk of readmission. Patient age, mother’s education status, and region were statistically significant factors.

CONCLUSIONS AND NEXT STEPS

- Overall, 30-day unplanned readmission rates decreased from an average of 6.15% in 2016 to 4.95% in 2017 (~20% decrease).
- Discharge template utilization for all diagnoses (including seizures and headaches) increased significantly from 64% to 99% after implementation of generic template.
- Parental knowledge of provider’s name and action plans are the targeted areas for new interventions.
- Retrospective chart review to be continued to identify high-risk population more likely to be readmitted.
- Future interventions are being planned to improve the utilization of discharge clinic and standardized handoff communication.

PROJECT DESIGN



REFERENCES

1. Bucholz, E.M., Gay, J. C., Hall, M., Harris, M., & Berry, J. G. (2018). Timing and Causes of Common Pediatric Readmissions. *The Journal of Pediatrics*, 200:240-8

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