Screening Pediatric Patients for Readmission Risk

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Screening Pediatric Patients for Readmission Risk

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Pediatric Readmission Costs

- Cost per event\(_1\) = $9,540
- Average yearly Medicaid claim for single complex patient = $69,906
- Nationwide annual cost (2015) = $1.5 Billion
- Increased risk for developing HAC
Case Management Standard of Care

“Case management is expected to have a defined method for screening/identification and assessment of patients in need of case management services”

Screening/ Identification

Through use of identification criteria, stratify patients at risk

Assessment

Expand on knowledge gained by screen and complementary to other disciplines’ assessments
Screening for Readmission Risk

**Adult Screen Tools**
- Modified LACE Tool
- Pra Risk Tool
- Cerner’s readmission stratification score
- HOSPITAL Score

**Pediatric Screen Tools**
Why Develop a Screen Tool?

**Decrease**
- Readmissions
- Length of Stay
- ED Visits

**Increase**
- Patient & Caregiver Satisfaction
- Compliance with national standards of practice & CMS regulations
QI Project Measures

**Outcome**
100% of admitted patients will have a screen complete within 24 hours of admission

**Process**
>85% reliability between Care Managers
Decrease average completion time
100% of fields completed within each entry

**Balancing**
Nurse Care Manager satisfaction
30-day readmission rate
Research Overview

- **Evaluate**: Evaluate each category of tool for validity and reliability
- **Associate**: Associate values based on statistical findings
- **Combine**: Combine values to produce a total score
- **Identify**: Identify high, moderate, and low risk based on score value
- **Validate**: Cross validate findings
Study Demographics

**Sample Size:**
5371 Patients

**Duration:**
12 Months

**Control Group:**
Randomized Patients not readmitted within 30 days

**Test Group:**
30 Day Readmissions
Evaluate Risk Factors

- Admitting Diagnosis
- Chronic Condition Indicator
- Readmission History
- Admission Acuity
- Insurance
- DME
- Home Nursing
- Home Therapy
- Language
Identify Risk Categories

Risk score 14: 4 responses out of 5371 possibilities
Cross Validate

![Graph showing the probability of readmission vs. risk score. The graph indicates a positive correlation between risk score and the probability of readmission. The line graph is labeled as 'Predicted' and the diamond points are labeled as 'Observed'.]
C-Statistic Score compared to Adult Risk Tools

Modified LACE 0.63

Pra Risk Tool 0.65

HARRPS 0.68

Cerner’s Adult readmission calculation 0.69

HOSPITAL Score 0.76
HARRPS Development Timeline

- **Fall 2015**: Investigation of current risk tools
- **Spring 2016**: Literature Reviews & Initial Build
- **Fall 2016**: Quality Improvement Project
- **May 2017-June 2018**: Research Project
- **Summer 2018**: Data Review and Tool Finalization
- **2019 & Beyond**: Tool Dissemination & Additional Research

**Timeline**:
- Fall 2015
- Spring 2016
- Fall 2016
- May 2017-June 2018
- Summer 2018
- 2019 & Beyond
Next Steps

Share tool with other pediatric organizations

Collaborate with other organizations to determine best practice interventions for high risk patients

Future research opportunities
Interventions Based on Risk Category

High
- Care Navigation Consult
- All interventions below

Moderate
- Care Management Assessment to identify individualized plan for patient
- All interventions below

Low
- Discharge Instructions
- Medication Reconciliation
- Recommended Follow-Up(s)