Pediatric Readmissions: Development of a New Federally-Sponsored Measure

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Why Measure and Prevent Readmissions?

Readmissions are

- A potential signal of increased disease morbidity
- A patient-centered quality outcome
  - Reflect effectiveness of care coordination and care transitions
- Responsible for exposure to safety risks of hospitalization
- Disruptive to patients and families
- Costly
Adult Readmissions Overview

• CMS publicly reports 30-day Medicare readmission rates for:
  - Acute myocardial infarction (20%)
  - Heart failure (25%)
  - Pneumonia (18%)

• Reporting for all-condition readmissions and readmissions for other specific conditions is coming

• Rates for adults show significant variation across hospitals
  - Suggests some readmissions might be preventable

• CMS reduces Medicare payments to hospitals with readmission rates significantly above average
Pediatric Readmission Measure Development Process

- Literature review
- Expert interviews
- Exploratory analytical work, including analysis of pediatric readmission prevalence
- Development of all-condition measure
- Development of condition-specific measures
- Pilot testing of measures
Measure Outcome

\[
\frac{\text{# of index admissions with } \geq 1 \text{ readmission within 30 days}}{\text{Total # of index admissions}}
\]
Measure Focus

- Population: Patients aged <18 years old
- Facilities: General acute care hospitals, including children’s hospitals
- Data source: Administrative claims (using ICD-9-CM codes)
Exclusions

Hospitalizations for:
• Birth of healthy newborns
• Mental health conditions
• Obstetric care, including labor and delivery

Readmissions for:
• Chemotherapy
• Planned procedures
Adjustment

Readmission rates adjusted to account for differences in hospitals’ patient populations

- Age
- Gender
- Chronic conditions
- Insurance status
Variation in Pediatric Readmissions

Adjusted 30-Day Readmission Rate Variation Across 72 Children’s Hospitals for Condition-Specific Admissions

All Admissions
Anemia/Neutropenia
Ventricular Shunt
Sickle Cell Crisis
Seizure
Gastroenteritis
Upper Resp. Infect.
Pneumonia
Appendectomy
Bronchiolitis
Asthma

*Significant variation in readmission rates across hospitals (p<0.001)

Berry et al., JAMA, 2013

AHRQ Revisit dataset
Next Steps

• Pilot testing by the New York State Quality and Safety Office
  – Other states?

• Development of condition-specific readmission measures
  – Appendectomy
  – Lower respiratory infection
  – Potentially others, such as mental health conditions?

• Exploration of reasons for readmission
Potential Users of Measure

- CMS
- States
  - By Medicaid/SCHIP programs
  - For state-wide reporting (using all-payer claims datasets)
- Private insurers
- Hospitals
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