Children's Hospital of Philadelphia PolicyLab

Association between Postdischarge Oral Corticosteroid Prescription Fills and Readmission in Children with Asthma

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OBJECTIVES: To assess the relationships between postdischarge emergency department visits, oral corticosteroid (OCS) use, and 15- to 90-day asthma readmission in children.

STUDY DESIGN: Retrospective study of 9288 children from 12 states in the Truven MarketScan Database, ages 2-18 years, hospitalized between January 1, 2009, and June 30, 2011, with asthma, and continuously enrolled in Medicaid for 6 months prior and 3 months after hospitalization. The primary outcome was 15- to 90-day readmission for asthma. Secondary outcomes were postdischarge emergency department visits (within 28 days) and outpatient OCS prescription fills (6-28 days postdischarge or earlier if coinciding with an outpatient asthma visit). Logistic regression was used to assess the relationship of hospital readmission with patient characteristics and asthma health services surrounding the index admission.

RESULTS: Median age at index admission was 6 years (IQR, 3-9); 62% were male and 49% were black; 2.8% had a 15- to 90-day readmission (median, 50 days; IQR, 32-70). After index discharge, 4% had an emergency department visit (median, 17 days; IQR, 12-24) and 11% had an outpatient OCS fill (median, 14 days; IQR, 6-21). In multivariable analysis, children with a postdischarge outpatient OCS fill (OR, 3.2; 95% CI, 2.4-4.6) or hospitalization within 6 months preceding the index admission (OR, 2.9; 95% CI, 2.0-4.0) had the greatest likelihood for hospital readmission.

CONCLUSIONS: OCS fill within 28 days of hospital discharge was most strongly associated with 15- to 90-day hospital readmission. This finding may inform evolving strategies to reduce asthma readmissions in children.

Journal:

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