Association of Social Determinants With Children's Hospitals' Preventable Readmissions Performance

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IMPORTANCE: Performance-measure risk adjustment is of great interest to hospital stakeholders who face substantial financial penalties from readmissions pay-for-performance (P4P) measures. Despite evidence of the association between social determinants of health (SDH) and individual patient readmission risk, the effect of risk adjusting for SDH on readmissions P4P penalties to hospitals is not well understood.

OBJECTIVE: To determine whether risk adjustment for commonly available SDH measures affects the readmissions-based P4P penalty status of a national cohort of children's hospitals.

DESIGN, SETTING, AND PARTICIPANTS: Retrospective cohort study of 43 free-standing children's hospitals within the Pediatric Health Information System database in the calendar year 2013. We evaluated hospital discharges from 2013 that met criteria for 3M Health Information Systems' potentially preventable readmissions measure for calendar year 2013. The analysis was conducted from July 2015 to August 2015.

EXPOSURES: Two risk-adjustment models: a baseline model adjusted for severity of illness and an SDH-enhanced model that adjusted for severity of illness and the following 4 SDH variables: race, ethnicity, payer, and median household income for the patient's home zip code.

MAIN OUTCOMES AND MEASURES: Change in a hospital's potentially preventable readmissions penalty status (ie, change in whether a hospital exceeded the penalty threshold) using an observed-to-expected potentially preventable readmissions ratio of 1.0 as a penalty threshold.

RESULTS: For the 179 400 hospital discharges from the 43 hospitals meeting inclusion criteria, median (interquartile range [IQR]) hospital-level percentages for the SDH variables were 39.2% nonwhite (n = 71 300; IQR, 28.6%-54.6%), 17.9% Hispanic (n = 32 060; IQR, 6.7%-37.0%), and 58.7% publicly insured (n = 106 116; IQR, 50.4%-67.8%). The hospital median household income for the patient's home zip code was $40 674 (IQR, $35 912-$46 190). When compared with the baseline model, adjustment for SDH resulted in a change in penalty status for 3 hospitals within the 15-day window (2 were no longer above the penalty threshold and 1 was newly penalized) and 5 hospitals within the 30-day window (3 were no longer above the penalty threshold and 2 were newly penalized).

CONCLUSIONS AND RELEVANCE: Risk adjustment for SDH changed hospitals' penalty status on a readmissions-based P4P measure. Without adjusting P4P measures for SDH, hospitals may receive penalties partially related to patient SDH factors beyond the quality of hospital care.

Journal:

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