What's in a Star Rating?

In a bid to assist patients in their choice of hospital based on quality rating, the Centres for Medicare and Medicaid Services (CMS) have just introduced a five-star hospital rating system.

The rating focuses on patient experience within the framework of the Hospital Consumer Assessment of Healthcare Providers and Systems. Presently, measures of quality of care or patients' health outcomes are not included.

"Whether hospital stars are associated with better outcomes is unclear, and critics worry that the star rating system may mislead patients into thinking that five-star hospitals are superior in quality," said study lead David E. Wang. "Therefore, we investigated whether hospitals with more stars have lower risk-adjusted 30-day mortality and readmissions than hospitals with less stars."

The review board at the Harvard T. H. Chan School of Public Health approved the study. The research team linked the October 2015 Hospital Compare data on hospital star ratings with the American Hospital Association annual survey database.

"We evaluated the characteristics of hospitals by number of stars received. We restricted our sample to acute care hospitals with 25 or more hospitalisations," Wang said. "Next, we examined the association between the number of stars hospitals received and patient 30-day mortality and readmission rates. Using 100% Medicare Inpatient File 2013, we calculated a composite patient outcome for mortality and readmissions across three conditions (acute myocardial infarction, pneumonia, and heart failure) using regression models with indicators for primary condition, patient age, sex, and coexisting conditions. We used multivariable linear regression models to further adjust for hospital characteristics (hospital size, ownership, teaching status, rurality, ICU, and hospital referral region indicators), weighted by the number of Medicare hospitalisations for each hospital."

Of the 3076 hospitals in the sample, 4.1 percent received five stars, 26.2 percent received four stars, 47 percent received three stars, 20.3 percent received two stars, and 2.5 percent received one star. "In general, four and five-star hospitals were more likely to be small, non-teaching, and located in small rural towns in the Midwest. We found that the number of stars was inversely associated with risk-adjusted mortality rate. The relationship was monotonic, with five-star hospitals having the lowest mortality rate of 9.8 percent."

The mortality ratings also included the following details:

·   four-star hospitals had a rate of 10.4 percent;

·   three-star hospitals with a rate of 10.5 percent;

·   two-star hospitals with a rate of 10.7 percent;

·   one-star hospitals with a rate of 11.2 percent.

"We found that a higher CMS star rating was associated with lower patient mortality and readmissions. It is reassuring that patients can use the star ratings in guiding their health care seeking decisions given that hospitals with more stars not only offer a better experience of care, but also have lower mortality and readmissions," Wang added.

The study was not without limitations. They included the following:

·   The analyses focused on the Medicare population so whether the findings would be relevant for younger patients is unclear;

·   It is possible that some of the worse outcomes at low-star hospitals may represent residual confounding;

·   With the differences being most obvious at the extremes, it could reflect the clustering methodology of the star rating program.

"These findings should be encouraging for policymakers and consumers," said Wang. "Choosing five-star hospitals does not seem to lead to worse outcomes and in fact may be driving patients to better institutions."

Source: JAMAInternal Medicine

Image Source: Pixabay

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