Assigning Hospital Performance Categories

The Centers for Medicare & Medicaid Services (CMS) categorizes the performance of hospitals that participate in voluntary public reporting of the Hospital 30-Day Risk-Standardized Readmission Rate Following Percutaneous Coronary Intervention (PCI) Measure. CMS estimates each hospital's risk-standardized readmission rate (RSRR) and the corresponding 95% interval estimate. The RSRR is our best estimate of the hospital's rate. As with all estimates, there is a degree of uncertainty associated with it. The interval estimate is a range of probable values around the RSRR that characterizes the amount of uncertainty associated with the estimate. A 95% interval estimate indicates that there is 95% probability that the true value of the rate lies between the lower limit and the upper limit of the interval.

CMS assigns hospitals to a performance category by comparing each participating hospital's interval estimate to the CathPCI Registry® readmission rate (the readmission rate for all patients in the measure calculation). Comparative performance for hospitals with at least 25 cases is classified as follows:

- "Better than CathPCI Registry® rate" if the entire 95% interval estimate surrounding the hospital's rate is lower than the CathPCI Registry® rate.
- "No different than CathPCI Registry® rate" if the 95% interval estimate surrounding the hospital's rate includes the CathPCI Registry® rate.
- "Worse than CathPCI Registry® rate" if the entire 95% interval estimate surrounding the hospital's rate is higher than the CathPCI Registry® rate.

If a hospital has fewer than 25 cases, CMS cannot reliably tell how well the hospital is performing and assigns the hospital to a separate category: "Number of cases too small."

Figure 1 displays the 95% interval estimates of the RSRRs for three simulated hospitals and compares them to the CathPCI Registry® rate. RSRRs should always be interpreted *along with* their interval estimates. The interval estimates in Figure 1 are not intended to provide a basis for direct hospital-to-hospital comparisons. Interval estimates should be compared to the CathPCI Registry® rate.

In Figure 1, the 95% interval estimate of each simulated hospital's RSRR is represented by a horizontal grey line. The vertical dotted line indicates the CathPCI Registry® rate (11.9%). If the entire interval estimate line falls to the left of the dotted line, then the hospital's RSRR is considered better than the CathPCI Registry® rate. This is shown by the interval estimate of Example Hospital 1. If any part of the interval estimate line overlaps with the dotted line, then the hospital's RSRR is considered no different than the CathPCI Registry® rate. This is shown by the interval estimate of Example Hospital 2. If the entire interval estimate line falls to the right of the dotted line, then the hospital's RSRR is considered worse than the CathPCI Registry® rate. This is shown by the interval estimate of Example Hospital 3.

Figure 1. Example 95% Interval Estimates for Interpreting Hospital Performance