Hospital Type, Location Influence Quality of Care

BY ALICIA AULT
Contributing Writer

Academic hospitals in general and nonacademic hospitals located in the Northeast and Midwest appear to offer greater quality than nonteaching facilities or those in other geographic regions for certain conditions, according to a recent study by Ashish K. Jha, M.D., and colleagues at the Harvard School of Public Health.

The authors found that academic hospitals performed slightly better than nonacademic facilities in treating heart attack and heart failure, but underperformed in the case of pneumonia. Not-for-profit hospitals significantly outscored for-profits in all measures in those conditions, they said.

However, the data do not support the idea that "'good' hospitals are easy to identify or are consistent in their performance across conditions," the authors pointed out.

Hospital performance scores were best for oxygenation assessment in pneumonia (98%) and worst for vaccination for pneumonia (43%).

The study was the first to use national hospital data submitted as part of the Hospital Quality Alliance (N. Engl. J. Med. 2005;353:265-74).

The HQA is a joint effort of the Centers for Medicare and Medicaid Services, the Joint Commission on Accreditation of Healthcare Organizations, the American Hospital Association, and consumer groups, including the AARP. Under the Medicare Modernization Act, hospitals have financial incentives to report quarterly to CMS on a specific set of quality indicators. Initial data became publicly available in November 2004, which led Dr. Jha and colleagues to conduct their analysis.

In all, 3,558 hospitals reported on their performance in the first half of 2004, citing quality measures for acute myocardial infarction, heart failure, and pneumonia. To be included, each hospital had to report on at least 25 discharged patients. Of the participating hospitals, 16% were for-profit, 8% were members of the Council of Teaching Hospitals, and 62% were in urban settings.

The authors measured the mean performance for the 3,558 hospitals and variability of performance across the country.

They also sought to determine whether a high level of performance in treating one disease translated into equally good care in the other conditions. They investigated whether profit status, number of beds, geographic area, and academic involvement affected performance.

The heart attack measures included whether aspirin and β-blockers were given within 24 hours of admission and at discharge and if ACE inhibitors were given to patients with left ventricular systolic dysfunction. For heart failure, the measures included assessment of left ventricular function and whether an ACE inhibitor was given. For pneumonia, hospitals were measured on the timing of initial antibiotics, vaccination, and assessment of oxygenation.

The hospitals' scores reflected the proportion of patients who satisfied the criterion for the performance measure.

Overall, hospitals did best at conducting an oxygenation assessment in pneumonia patients; the mean performance score was 98%, plus or minus 5%. Hospitals had their lowest scores in rates of vaccinations for pneumonia: 43%, plus or minus 27%.

There were huge variations among regions. For the pneumonia composite score, there was a 23% difference between top-ranked Oklahoma City and bottom-ranked San Bernardino, Calif. There was a 12% difference between high and low performers on heart attack, and a 21% difference between the top and bottom for heart failure.

The authors found that high performance scores for acute myocardial infarction predicted equally good performance in heart failure, but not for pneumonia. For instance, 73% of the hospitals that were in the top decile of scores for acute MI were in the top quartile for heart failure, and less than 1% were in the bottom quartile. But only 33% of the hospitals in that top decile for acute MI were in the top quartile for pneumonia.

Limitations of the study include the fact that the investigators limited their evaluation to only 10 measures of the quality of care for 3 clinical conditions, and the results focused on process measures rather than patient outcomes, the authors noted. ■

Most of the Joint Commission Performance Measures Show Improvement at 2-Year Mark

BY ALICIA AULT
Contributing Writer

A set of process measures established by the Joint Commission on Accreditation of Healthcare Organizations has helped hospitals to improve performance, according to a study of the first 2 years of implementation.

The study, by Scott C. Williams, Psy.D., and his colleagues at the commission, found that improvements were made in 15 of 18 standardized measures, with no deterioration of quality in any of those areas (N. Engl. J. Med. 2005;353:255-64).

In 2002, the commission began measuring performance in the 18 measures at 3,377 of 4,644 hospitals accredited by the organization. Nonparticipating hospitals either did not offer the services being measured or had an average daily census of fewer than 10 patients. The facilities could choose to submit data on at least two of these: acute myocardial infarction, heart failure, pneumonia, and pregnancy and related conditions.

They did not track the pregnancy measures, as two of the measures applied to rare events, and the third, vaginal birth after cesarean section, is controversial, Dr. Williams and his associates said.

The study covered hospitals that submitted data from the third quarter of 2002 to the second quarter of 2004, with 3,087 of the 3,377 hospitals initially identified as study participants. Of those, 1,473 submitted data on heart attack measures, 1,946 on heart failure, and 1,797 on pneumonia.

Of the 18 measures, 17 looked at death in the hospital after acute myocardial infarction; the other 17 assessed processes of care. There was no improvement in the death measure, but the authors said most of the improvements in the process measures being assessed would not have influenced mortality. There was no significant drop in the mean time to thrombolysis for patients with acute MI or in mean time to give antibiotics for pneumonia.

For acute MI, researchers looked at measures such as whether aspirin was given within 24 hours of admission and prescribed at discharge, whether an ACE inhibitor was prescribed at discharge for patients with left ventricular systolic dysfunction, and the mean time from arrival to thrombolysis or percutaneous coronary intervention.

For heart failure, hospitals were tracked on whether they had given patients smoking cessation counseling and discharge instructions on medication, diet, weight, and worsening of symptoms, and whether an ACE inhibitor was prescribed at discharge for patients with left ventricular systolic dysfunction.

For pneumonia, the commission monitored whether there was an oxygenation assessment within 24 hours of admission and whether pneumococcal screening, vaccination, or both had been given at discharge, or if blood specimens were cultured before starting an antibiotic.

By the end of the study period, more than 90% of MI patients at most hospitals received aspirin at admission. Although only 74% of patients received ACE inhibitors at discharge at the lowest performing hospitals, 83% received them at the highest performing facilities.

The biggest improvement was seen in offering smoking cessation counseling. Rates went from a range of 1%-7% at the lowest performing hospitals at baseline to a range of 57%-68% at the study's end. At high-performing facilities, however, rates dropped from an 80%-98% range at baseline to a range of 74%-85% at the end.

Even after improvement, pneumococcal vaccination rates were still low, ranging from 35% in the lowest performing hospitals to 66% at the high end.

The investigators noted that one potential drawback of the study—its reliance on self-reported data—could introduce bias.

And, they said, the picture could change as public reporting of hospital data becomes more prevalent and pay for performance spreads. ■