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In the Literature

CARE IN U.S. HOSPITALS— THE HOSPITAL QUALITY ALLIANCE PROGRAM

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While data on the quality of care in health plans have been available for more than a decade, until recently there has not been similar information on the care delivered by hospitals. Using data reported to the Centers for Medicare and Medicaid Services (CMS) under the Hospital Quality Alliance (HQA)—the first initiative to routinely report information on hospital performance nationally—Commonwealth Fund-supported researchers have now been able to see how hospitals measure up. What they found was that quality of hospital care varies widely—not only by geographic region and type of hospital, but also across conditions within individual hospitals.

In "Care in U.S. Hospitals—The Hospital Quality Alliance Program" (*New England Journal of Medicine,* July 21, 2005), researchers at the Harvard School of Public Health and Brigham and Women's Hospital examined HQA data from 2004 to answer four questions: How well do hospitals perform? How even is performance across regions? What is the likelihood that a high level of performance in one condition will predict high performance in another? And do certain hospital characteristics—profit or nonprofit status, number of beds, academic involvement, and geographic region—predict a high level of performance?

The HQA initiative was launched in 2003 by a consortium of organizations, including CMS, the Joint Commission on Accreditation of Healthcare Organizations, the American Hospital Association (AHA), and consumer groups such as AARP.

Methods

The research team looked at 10 measures that reflect quality of care for three major clinical conditions: acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia. These indicators included administering aspirin within 24 hours of arriving at the hospital, use of an angiotensin-converting enzyme (ACE) inhibitor, and pneumococcal vaccination. For each of the 10 measures, a hospital's score reflects the proportion of patients who satisfied the criterion. The research team also linked the HQA data to the database of the AHA, which maintains information on hospital characteristics.

Summary Scores and Performance Across Regions

Among the hospitals for which the researchers could calculate summary scores by condition, the mean score for AMI was 89 percent (±6%), the mean score for CHF was 81 percent (±10%), and the mean score for pneumonia was 71 percent (±11%). There were substantial quality differences among geographic regions. For example, the top-ranked region with respect to pneumonia, Oklahoma City, had a score of 82 percent, while the lowest-ranked region, San Bernardino, Calif., scored 59 percent. The gaps were smaller between the top- and bottom-ranked AMI and CHF performers. Boston ranked highest on both measures, while San Bernardino scored lowest on AMI and Lexington, Ky., scored lowest on CHF.

Predicting Quality Within Hospitals

Performance scores for AMI closely tracked

CHF scores, but not pneumonia scores. Seventy-three percent of hospitals that were in the top decile of AMI performance were in the top quartile of CHF performance and less than 1 percent were in the bottom quartile. However, only 33 percent of hospitals in the top decile of AMI performance were in the top quartile of pneumonia performance, and 41 percent were in the bottom half.

Performance and Hospital Characteristics

After adjusting for various hospital and area characteristics, the research team found that academic hospitals had higher performance scores for AMI and CHF than did nonacademic hospitals, but lower scores for pneumonia. The differences in performance were modest, but statistically significant. Not-for-profit hospitals also had higher scores for all three conditions compared with for-profit hospitals; again, these differences were small though statistically significant. Regional differences were considerable, with the Midwest and Northeast outperforming the West and South.

Conclusions

The quality of care varies greatly from hospital to hospital. Moreover, quality does not seem to be consistent within hospitals for different medical conditions. "These data do not provide support for the notion that 'good' hospitals are easy to identify or consistent in their performance across conditions," the authors say. They recommend expanding data-collection efforts to include more conditions and focusing quality-improvement efforts on a larger number of hospitals.

Facts and Figures

- For four of the five quality indicators for acute myocardial infarction (AMI), half the hospitals scored above 90 percent.
- The top-ranked regions scored 12 percentage points higher for AMI and 23 percentage points higher for pneumonia than did the bottom-ranked regions.
- Academic hospitals had somewhat higher performance scores for AMI than nonacademic hospitals (91% vs. 89%) and congestive heart failure (CHF) (85% vs. 81%), but somewhat lower scores for pneumonia (69% vs. 71%).
- Not-for-profit hospitals had somewhat higher performance scores for AMI than for-profit hospitals (90% vs. 88%), CHF (82% vs. 80%), and pneumonia (71% v. 70%).

The Top-Ranked and Bottom-Ranked Performances in Measures of the Quality of Care for AMI, CHF, and Pneumonia Among the 40 Largest Hospital-Referral Regions*

Hospital-Referral Region	AMI Score (%)	Hospital-Referral Region	CHF Score (%)	Hospital-Referral Region	Pneumonia Score (%)
Top-ranked		**Top-ranked**		**Top-ranked**	
Boston, Mass.	95	Boston, Mass.	89	Oklahoma City, Okla.	82
Minneapolis, Minn.	94	Detroit, Mich.	88	Indianapolis, Ind.	79
Kansas City, Mo.	94	Baltimore, Md.	87	Kansas City, Mo.	78
Albany, N.Y.	93	Camden, N.J.	87	Camden, N.J.	78
Indianapolis, Ind.	92	Cleveland, Ohio	86	Knoxville, Tenn.	77
Bottom-ranked		**Bottom-ranked**		**Bottom-ranked**	
Little Rock, Ark.	86	San Diego, Calif.	77	Miami, Fla.	63
Orlando, Fla.	86	Nashville, Tenn.	76	Chicago, Ill.	61
Miami, Fla.	85	Orlando, Fla.	74	San Diego, Calif.	60
Memphis, Tenn.	84	Little Rock, Ark.	69	Los Angeles, Calif.	60
San Bernardino, Calif.	83	Lexington, Ky.	68	San Bernardino, Calif.	59

* AMI denotes acute myocardial infarction, and CHF congestive heart failure.

Source: A K. Jha, Z. Li, E. J. Orav, and A. M. Epstein, "Care in U.S. Hospitals—The Hospital Quality Alliance Program," *New England Journal of Medicine* 353 (July 21, 2005): 265–74.