

Post-discharge care is key at top 100 U.S. hospitals

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CHICAGO (Modern Healthcare) - Reducing patients' risk of unnecessary readmission to the hospital after discharge is a lot like untangling the spaghetti of wires tucked behind most people's television/sound systems. At least that has been the experience at Rush University Medical Center in Chicago.

"I think what we are seeing, at least at our institution, is disease complexity and social complexity," says David Ansell, vice president of clinical affairs and chief medical officer at Rush. For example, many of Rush's patients contend with multiple diseases and with fragile socio-demographic situations, such as living alone or without emotional support.



In an effort to help patients cope after discharge, 681-bed Rush launched a pilot project in 2007 in which social workers followed up via telephone with patients at high risk of being readmitted. Patients were deemed at risk if they were 65-plus years of age, took seven or more medications, were discharged to their home, and had other complicating factors, such as living alone. Of the 1,248 patients called, 60% had unresolved issues—such as confusion about medications—that took an average of 3.5 telephone calls over 4.5 days to address. Rush isn't the only institution focused on reducing readmissions, of course.

The industry is being pushed, in part, by the CMS, which publishes 30-day readmission data on the Hospital Compare Web site. In addition, the reform bill signed into law by President Barack Obama last week includes a provision to cut reimbursement to hospitals for certain types of unnecessary readmissions.

Thomson Reuters responded to the focus on post-hospital metrics this year in its 17th annual 100 Top Hospitals: National Benchmarks study for 2009, which it released exclusively to Modern Healthcare. Thomson Reuters added measures for both 30-day readmission and 30-day mortality rates. For a full map of the top 100 hospitals, click ([here](#))

"We see this as where new best practices are going to develop that will change the delivery of healthcare for the better," says Jean Chenoweth, senior vice president of performance improvement and the 100 top hospitals programs at Thomson Reuters. In addition to 30-day readmission and mortality rates, eight other measures evaluated patient safety, clinical quality, operational efficiency, financial performance and patient satisfaction. Rush, which made the list for the first time, was among 31 newcomers to the list. NorthShore University HealthSystem in Evanston, Ill., has been on the list the most frequently—14 years. Two hospitals have appeared on the list 12 times: 579-bed Advocate Lutheran General Hospital in Park Ridge, Ill., and 391-bed Munson Medical Center in Traverse City, Mich. Vanderbilt University Medical Center in Nashville, which has 833 beds, has made the list 11 times.

How They Were Chosen

To select the 100 top hospitals, or benchmark institutions, hospitals with at least 25 beds were scored against others within the same category: Major teaching hospitals (400 or more beds and high levels of physician education and research); teaching hospitals (200 or more beds and some physician education) and three tiers of community hospitals: large (250 or more beds), medium-size (100-249 beds) and small (25-99 beds). A total of 2,926 hospitals were included in this year's study.

Hospitals in the top 100 must score well as compared with others in their size/teaching-status category, based on a composite score of the 10 measures.

The 100 top hospitals also must score at least at the median level of performance on each of the 10 measures evaluated in the study. Data for the Thomson Reuters' analysis came from the Medicare Provider Analysis and Review data set for 2007 and 2008 and Medicare cost reports for 2008. The study also used the CMS' Hospital Quality Compare data from 2005 to 2008 to calculate rates for 30-day readmission and 30-day mortality rates.

Hospital Quality Compare data for 2008 were used for a core measures score—an aggregate based on process-of-care standards for heart attack, heart failure, pneumonia and surgical-infection prevention.

To measure patient satisfaction, Thomson Reuters used the CMS' Hospital Consumer Assessment of Healthcare Providers and Systems survey data for 2008. In addition to the 100 top hospitals, Thomson Reuters released a list of 23 hospitals that not only made the list of the top 100 hospitals but also showed the greatest rate of improvement over a five-year period from 2004 to 2008.

Outpacing Their Peers

As far as the 100 top hospitals overall, they scored better than their peer hospitals on all measures:

- The risk-adjusted mortality index for the benchmark hospitals was 0.94-6.3% lower than the index score of 1 at peer facilities. (A lower score is better.)
- The risk-adjusted complications index was 0.96 at benchmark hospitals-3.4% lower than the 0.99 index score at peer hospitals. (A lower score is better.)
- The patient-safety index was 0.87-13% lower than the index score of 1 at peer hospitals. (A lower score is better.)
- Core measures average score, which measures adherence to evidence-based processes, was 95.5% at benchmark hospitals, compared with 93.4% at peer facilities. (A higher percentage is better.)
- Average length of stay was 4.69 days at benchmark hospitals-9.2% shorter than the 5.16 days at peer hospitals.
- Expense per adjusted discharge was \$5,359 at top hospitals-11% lower than the \$6,022 at peer hospitals;
- Patient satisfaction received a score of 263-4% higher than the score of 253 at peer hospitals. (A higher score is better.)
- Operating profit margin was nearly 9.1% at benchmark hospitals compared with 2.4% at peer hospitals. Benchmark hospitals also did better than peer facilities on the two new measures, although variations between the two groups were slim: n The 30-day mortality rate was 12.3% at top hospitals compared with 13% at peer hospitals.
- The 30-day readmission rate was 20.4% at top hospitals compared with 20.8% at peer hospitals.

Thomson Reuters cites several reasons for the small differential in rates between the top hospital and peer groups in the new measures. First, the CMS' methodology-hierarchical logistic regression-tends to produce tight distributions of data. Second, the agency's public reporting on rates of 30-day readmissions and 30-day mortality is relatively new, so hospitals haven't had much time to improve their performance. "Because we are measuring something entirely new, there is a lot of consistency in what hospitals do," Chenoweth says.

She speculates that it's likely a few hospitals have "thought of new things to do that can make a marked difference, but those practices have not spread across the industry yet." Officials at Rush are gathering empirical evidence about what works.

From July 2009 to March 2010, Rush conducted a randomized clinical trial to see if patients who received intervention by telephone from social workers had lower readmission rates. The study was a follow-up on the earlier pilot project. A total of 720 patients were involved in the randomized trial; half the patients received the phone calls and half didn't. Hospital officials expect to tabulate results of the study later this year. Bronson Methodist Hospital in Kalamazoo, Mich., also has addressed readmissions, particularly for patients with congestive heart failure.

"Heart failure is the biggest challenge because it is a chronic condition," says Cheryl Knapp, vice president of quality and safety at 370-bed Bronson Methodist, which has been named to the top hospital list twice. Indeed, the national average 30-day readmission rate for congestive heart failure is 24.5%, according to the CMS. At Bronson Methodist, the readmission rate for heart failure patients dropped from 22.3% in 2006 to 18.9% in 2009. How? "We have worked through a variety of initiatives," Knapp says.

"There wouldn't be one that I would say, 'This did it for us.' " In the newest program, launched in March, a nurse practitioner goes to the home of every heart-failure patient who was under the care of a hospitalist while at Bronson Methodist. Nurse practitioners visit patients for at least 30 days, regardless of whether the patients also receive services from a home health agency.

The advantage of using nurse practitioners is that they can alter medication regimes themselves, while home-health nurses must track down a physician to authorize a change, Knapp says. In addition to Bronson Methodist, 425-bed Baptist Hospital and 388-bed St. Thomas Hospital-sister institutions in Nashville-also have targeted congestive heart failure. Baptist, a four-time top hospital, and St. Thomas, a nine-time top hospital, operate outpatient clinics focused entirely on the disease. St. Thomas Heart-a cardiology group owned by St. Thomas Health Services, parent company of both hospitals-staffs the clinics. St. Thomas Health Services is part of Ascension Health. Baptist has had success with a program involving enrollees in HealthSpring, a Medicare Advantage plan. HealthSpring enrollees who are discharged from the hospital with severe congestive heart failure are referred to Baptist's heart failure clinic.

Nurses at the clinic check in with patients by phone in between doctor's appointments, while a case manager at HealthSpring solves socio-economic problems, such as lack of transportation to the clinic. Since the program was launched in September 2007, 43 patients with severe heart failure-stage 3 and stage 4-have enrolled in the program at Baptist, accounting for a total of 17 readmissions in 2½ years. Meanwhile, the heart clinic at St. Thomas Hospital in January 2010 added outpatient Aquapheresis therapy - a mechanical method to remove excess fluid from patients who don't respond to diuretics. Patients typically undergo several treatments of about four or five hours over the course of a few days.

"It keeps them from coming into the hospital," says Dale Batchelor, chief medical officer at St. Thomas Hospital.