

Empowered to improve

Memorial Hermann uses lessons from the nuclear energy industry to make quality and safety strides, help win annual NQF award

Memorial Hermann Healthcare System has found that taking a page from the operations manual for a nuclear power plant—the ultimate “safety first” institution—can make an extraordinary difference in patient safety.

All 14,000 hospital employees of the Houston-based eight-hospital system—not just physicians, nurses and pharmacists, but everyone down to the maintenance and kitchen staff—have gone through patient-safety training. As a result, even the janitor sweeping the floor can keep an eye out for an elderly patient trying to crawl out of bed, and can take action to avert a fall. Outpatient and home health staff are being trained now.

One cornerstone of the training is STAR: Stop, Think, Act, Review. “In the nuclear-power industry, they measured the decrease in errors against the length of time that you think about something before you push a button,” says Chief Medical Officer Michael Shabot, a trauma surgeon by trade. “If you stop for half a second you can dramatically reduce the error rate, and with a whole second, it drops to a tenth of what it was.”

The STAR technique helped a nurse at one of the smaller Hermann hospitals save a baby in the neonatal unit. Though a medication for the baby was being dispensed by a computerized system, and the outer packaging showed an infant dose, she stopped for that vital second and checked the inner packaging, finding an adult-strength dose. That one-second check averted a disaster that might have otherwise gotten through all the computerized, bar-coded safeguards that seem so infallible.

It’s that care and attention to detail that has earned Memorial Hermann the 16th annual National Quality Healthcare Award, presented



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—Dan Wolterman, president and CEO, Memorial Hermann Healthcare System

by the National Quality Forum in partnership with *Modern Healthcare* and the Studer Group.

“Many providers have made progress on localized small-scale improvements, but the impressive thing about Memorial Hermann was that systemwide improvement,” says Janet Corrigan, president and CEO of the National Quality Forum. “They have a real commitment to measurement and transparency, both within their organization and externally.”

Things weren’t always this way. Shortly after Memorial Hermann President and CEO Dan Wolterman took the helm in 2002, he called his top 35 executives together and asked

them to write, anonymously, the answers to two questions: What was Memorial Hermann that day? And where would it be in five years?

“I read them after the meeting and was shocked and appalled by the response,” Wolterman says. “They said we were mediocre as an organization and would continue to be mediocre in five years.” And the notes didn’t sound angry or frustrated, just resigned. Wolterman, a Memorial Hermann executive since 1999, had always been disappointed that while the system was known for many good things, its overall quality was at best average. Shifting the institutional culture became his top priority.

By the next monthly executive meeting, Wolterman had framed his message. “We were going to become known as a leader in the country from a quality and safety standpoint, and there was nothing holding us back,” he says. “We had great employees and a great facility, and we were just dropping the ball in too many places.”

One of his first steps was to create a Memorial Hermann brand, to unite a system that had always functioned more as a collection of individual hospitals. “We felt we couldn’t get to the highest level as a system if everyone was doing their own thing,” Wolterman says. “There was great variation in the (system’s) hospitals, and we didn’t do a good job of taking best practices and sharing them with everyone.”

The next step was to create a “brand promise” that reflected what the system stood for. That promise was twofold: the best possible clinical outcome and an exceptional patient-care experience. “People rallied around that and they became energized,” Wolterman says.

The system started tracking CMS core indicators and other benchmarks, and was seeing

improvements by 2005. But two serious blood transfusion errors right about that time showed that the changes hadn't been deep enough. At that point, Memorial Hermann began to develop its strategy of training every employee in patient safety. It also adopted "red rules," or simple rules that must be followed every single time without exception. The current set of red rules is:

1) Confirm patient identification with two identifiers before acting.

2) Take a "time out" before invasive and high-risk procedures.

3) Have a "two-provider check" before administration of blood, blood products and high-risk medications.

"We haven't had a single blood transfusion problem since 2006," says Wolterman proudly.

Shabot arrived in January 2007, initially as chief quality officer. He had run the surgical intensive-care unit at Los Angeles' Cedars-Sinai Medical Center, and had become active in quality issues, presenting papers at patient-safety meetings and Institute for Healthcare Improvement events. Though he was a Houston native, and returning home had a certain appeal, what really sold him on the job was Wolterman's conviction that Memorial Hermann was poised for greatness.

"He said, 'It's my goal that we become among the top few best systems in the country,'" Shabot says. "And he meant it. It wasn't something he said before a big crowd. It was just him and me over lunch."

And Wolterman is not the only quality advocate at the top. "If you were to sit at a board quality meeting, you'd have a hard time telling the doctors from the nondoctors, because they can carry on a very intelligent medical conversation," Shabot says.

Shabot served as quality officer for less than a year, moving up to the CMO position when his predecessor was elected to the state Legislature. He brought his experience with quality indicators and a tendency to measure everything that can be measured.

For example, a systemwide effort to reduce hospital-acquired infections and ventilator-acquired pneumonia began with collecting data and instituting standard protocols. "Five or six years ago, we didn't think we could prevent these infections," Shabot says. "They were like an act of God. But if you follow certain procedures to a T, you can prevent them almost every time. If I show you the curve of our infection rate and the point at which we started making measurements and publishing them, the rate goes down like it's off a cliff."

Some Memorial Hermann hospitals have gone three years without a ventilator-associated pneumonia, and the system averages fewer than



"We make the (performance) numbers available—good or bad—to everyone in the organization."

—Michael Shabot,
chief medical officer,
Memorial Hermann Healthcare System

a dozen hospital-acquired infections a month, over thousands of patients.

Here are some of the ways Memorial Hermann met the NQF Quality Award criteria:

Prioritizing goals

Memorial Hermann uses the "Big Dot" strategy backed by the Institute for Healthcare Improvement. Its four key initiatives are quality and safety, customer experience, operational excellence and growth. Each initiative has four "Big Dots" that may change from year to year, that give the institution particular goals to strive for, and particular measures of success. This year's Big Dots under the "quality and safety" initiative are:

■ Do no harm (as measured by the Agency for Healthcare Research and Quality patient-safety indicators).

■ Clinical excellence (CMS/Joint Commission core measures).

■ Saving lives (Hospital standardized mortality rate).

■ No unexpected complications (prevention of ventilator-associated pneumonia and catheter-related infections).

Dashboards and data

Each of Memorial Hermann's organizations puts together a monthly operating report, including quality and safety information, in a standardized format, incorporating multiple dashboards and drill-down tables and graphs. The monthly report is the basis for a two- to

2009 National Quality Healthcare Award Jury

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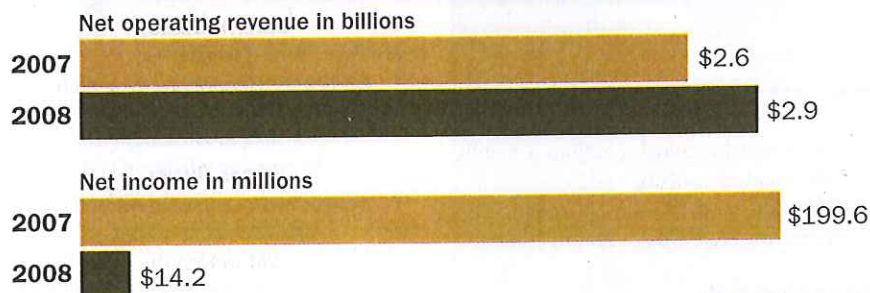
Special Feature

Memorial Hermann at a glance



Founded: 1997	2008 emergency department visits: 377,256
Headquarters: Houston	2008 outpatient visits: 586,106
Hospitals: 8	Employees: 19,500
Staffed beds: 2,673	Medical staff members: 4,178
2008 admissions: 140,763	

FINANCIALS



Source: Memorial Hermann Healthcare System

four-hour review by the system's leadership, to pinpoint areas for improvement.

In addition, an intranet electronic reporting tool called the Daily Flash Report is embedded on the computer screens of all managers, directors and executives. It shows current and historical quality measures, both standard ones like the CMS core measures, and those specific to current quality-improvement efforts, such as performance on hospital-acquired infections and prevention of ventilator-acquired pneumonia.

The displays are color-coded: blue for areas where the system is hitting its targets, and red where it's falling short.

Even front-line employees have dashboard access, through the Partners in Excellence, or PIE, tool, which uses simple pie charts to track overall performance. Where employee bonuses are tied to certain indicators, the dashboard shows how close their division is to achieving bonus-worthy performance.

"We make the numbers available—good or bad—to everyone in the organization," Shabot says. "We have a dozen different ways to measure the effectiveness of our sterile procedures. Just measuring improves everyone's performance."

Data-driven improvement

Memorial Hermann has adopted a special focus on using data from its electronic health-record system to improve chronic care. For example, one of its physician groups, the

Past winners of the National Quality Healthcare Award

2008 Baylor Health Care System, Dallas	2001 Catholic Health Initiatives, Denver	Special Recognition: Ohio State University Medical Center, Columbus St. Luke's Hospital of Kansas City (Mo.)
2007 HealthPartners, Bloomfield, Minn.	2000 Munson Medical Center, Traverse City, Mich.	
2006 Brigham and Women's Hospital, Boston	1999 BJC Health System, St. Louis	Honorable Mention for Progress Targeted to Special Populations: Independence Blue Cross, Philadelphia Tourette Regional Medical Center, Centerville, Ill.
2005 Northwestern Memorial Hospital, Chicago	1998 University of Pennsylvania Health System, Philadelphia	
2004 Trinity Health, Novi, Mich.	1997 St. Luke's Health System, Kansas City, Mo.	1995 Evanston (Ill.) Hospital Corp.
2003 Lehigh Valley Hospital and Health Network, Allentown and Bethlehem, Pa.	Special Recognition: Shadyside Hospital, Pittsburgh	Honorable Mention: Our Lady of the Lake Regional Medical Center, Baton Rouge, La.
2002 Carilion Health System, Roanoke, Va.	1996 Intermountain Health Care, Salt Lake City	
		1994 Henry Ford Health System, Detroit

Physicians at Sugar Creek, doubles as the system's family medicine residency program. It uses the EHR to monitor clinical quality and provide a "healthcare home" for patients with chronic illnesses.

All physicians, including residents, have a laptop computer to use while they see patients. Charts automatically display core quality measures and alert the physician if a patient isn't up to date with tests or treatments prescribed by Memorial Hermann practice guidelines.

The EHR generates automatic reminders to the physicians when patients need to be seen for prescription updates, disease screening or other routine monitoring. It also sends regular "report cards" to the patients.

Not only does the EHR help physicians keep on top of chronic-care issues, it also trains residents on how to use data to improve care. The pop-up reminders link to mini lessons explaining why a given indicator or action is important in treating a patient with a chronic condition.

Residents leave the program with high expectations for EHRs in their future hospitals and medical practices.

Additionally, Memorial Hermann

reports systemwide quality data on its public Web site, as well as on CMS' Hospital Compare site. Not only does the public Web site include the quality indicators, but also it puts them into context by explaining the significance of each measure and providing national average performance data.

The systemwide patient-safety training program, Breakthroughs in Patient Safety, encourages employees to think critically, communicate openly and consider alternatives. It gives employees a license to question, double-check, and communicate with their peers. A recent patient-safety climate survey showed that 85% of the system's employees agreed with the statement: "Colleagues encourage me to report safety concerns." Only 13% thought it was difficult to speak up if they saw a problem with patient care.

Demonstrated results

Memorial Hermann has scored 95% or better on several Joint Commission and CMS core measures related to acute myocardial infarction, congestive heart failure and pneumonia. Even some that are not yet in that 95% range have improved dramatically over the

past two years. In 2008, 91% of heart attack patients received percutaneous coronary intervention within 90 minutes of arriving at the hospital, up from only 61% in 2006.

The TMF Health Quality Institute gave quality improvement awards to five Memorial Hermann hospitals in 2007, including Texas Medical Center, Northwest, Katy, the Woodlands and Sugar Land. <<

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What do you think?

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