

WASHING HANDS SAVES LIVES: REDUCING MRSA RATES

NOVANT HEALTH

- ◆ Winston-Salem, NC
- ◆ 2,650 beds
- ◆ www.novanthealth.org

Novant Health is a not-for-profit, integrated health care system in western North Carolina that serves more than 3.5 million people in 34 counties from southern Virginia to northern South Carolina. It has nine hospitals, two nursing homes and senior residential facilities, nearly 350 physician clinics, outpatient surgery and diagnostic centers, rehabilitation programs, and community health outreach programs.

STEEEP

Safe

The program has led to reduced MRSA infection rates.

Effective

Compliance is defined using CDC hand hygiene guidelines.

Efficient

Hand hygiene monitors intervene on the spot when they see someone failing to use proper hand hygiene.

THE PROBLEM

MRSA accounts for more than 18,000 deaths annually nationwide, according to the CDC. The proportion of health care-associated staph infections due to MRSA has been increasing. In 1974, two percent of *S. Aureus* infections in U.S. intensive care units were MRSA. By 2004, that figure jumped to 64 percent. The most common mode of transmission is health care providers who don't wash their hands. At Novant, the MRSA infection rate was 0.54 per 1,000 patient days in 2005. Proper hand hygiene compliance was 49 percent.

THE SOLUTION

Novant Health initiated a system-wide hand hygiene program in 2004 after its executive committee chose compliance as a three-year corporate goal beginning in 2005. The target was 90 percent compliance. The major components of the campaign include internal and external marketing campaigns, staff education, the creation of two hand hygiene monitor positions, and department- and unit-level rapid-cycle improvement projects.

RESULTS

- » Hand hygiene compliance skyrocketed after direct feedback to the staff began in June 2006. System-wide performance reached 90 percent by November. As of October 2008, compliance was 99 percent.
- » Meanwhile, the MRSA infection rate fell from 0.54 in 2005 to 0.24 per 1,000 patient days at the end of 2008.

BACKGROUND

Shocked and saddened by the death of an infant from a MRSA infection in the hospital's neonatal intensive care unit, Novant Health President and CEO Paul M. Wiles started the hand hygiene campaign in 2004. That year, Novant's executive committee made hand hygiene compliance one of the system's 2005-2007 goals. A hand-hygiene committee, representing a cross-section of the organization, began meeting in 2005 and quickly decided a system-wide approach was necessary.

For data collection, the committee created two hand-hygiene monitor positions. Two nurses go to different units and facilities at different times of the day and night looking for instances when hand hygiene should be performed, explains Suzie Rakyta, RN, director for clinical improvement for the Charlotte market. Then they decide, based on specific criteria, whether employees used proper techniques and record the results. The monitors intervene to educate noncompliant employees. If that can't be done immediately (for example, in the middle of emergency treatment), they follow up later the same day. The monitors also make sure necessary resources, such as soap, sanitizing gel, paper towels and gloves, are on hand.

The effort was not without bumps. Initially, the monitors were licensed practical nurses (LPN). Early on, it was discovered that LPNs weren't confident challenging other caregivers and couldn't take heat from colleagues unhappy about being caught. So they were replaced with RNs. Arguments persisted. "We actually had to send out a memo that said if you mistreat the hand hygiene monitor, in essence you'll be fired," says James Lederer, MD, medical director of clinical improvement.

Now everyone is onboard, Rakyta says. There's friendly internal competition among departments and facilities to achieve the

TEAM MEMBERS

- » **James Lederer, MD**
Medical Director of Clinical Improvement
- » **Suzie Rakyta, RN**
Clinical Improvement Director for the Charlotte Market
- » **Stephen L. Wallenhaupt, MD**
Novant Health Chief Medical Officer
- » **Paul M. Wiles**
President and CEO
- » **Tom Zweng, MD**
Chief Medical Officer for the Charlotte Market

highest compliance, she says.

The hand hygiene committee also developed an internal and external awareness campaign. “Probably what makes this effort the most unique is the extent to which we involved marketing and communications,” Lederer says. The internal effort was hard-hitting and sober at first. One example is a poster featuring a photo of a young patient in a hospital bed. The accompanying text reads: “You could kill him with your bare hands.” Once the seriousness of the problem was recognized system-wide, some marketing materials became less somber, such as silicone wristbands inscribed with “Hand washing saves lives.”

The external campaign aims to build on the growing public awareness of MRSA. It ranges from billboards to real estate-type yard signs on hospital grounds to a message on hospital parking garage gates that reads, “It’s a dirty world out there. Wash your hands.”

“Madison Avenue would be proud of us and how we saturated the market with our campaign,” says Tom Zweng, MD, chief medical officer for Novant’s Charlotte market.

PRINCIPLES OF PERFORMANCE EXCELLENCE

Creation of High-Reliability Culture

Novant leaders’ compensation is tied, in part, to performance on the hand hygiene and other three-year goals. When it came to hand hygiene, the leadership principle set by the CEO is “it’s going to happen, and if we

don’t do it, people’s bonuses are going to be at risk,” Zweng says.

At the physician level, the hygiene monitors contact supervising medical staff when a doctor is not compliant. The physician leader then sends the doctor a letter that day describing the circumstance in which he or she was viewed as not performing proper hand hygiene. A copy of the letter is placed in the doctor’s credentials file. “We’ve had to send out a few letters,” Zweng says. “But we’ve never had to send the letter twice to the same physician.”

The compliance monitors follow up personal intervention with an e-mail to the employee’s supervisor that outlines the date, time and circumstances surrounding the instance of noncompliance. The supervisor is required to follow up with the employee within 24 to 48 hours, and a copy of the e-mail goes into the employee’s file.

The Patient Experience

Novant’s leaders want others to learn from the system’s success. “Improving patient safety and quality is something we’re committed to as an organization—any patient out there, whether they’re our patient or not,” says Stephen L. Wallenhaupt, MD, Novant Health chief medical officer. The system created an open Web site (www.washinghandsaveslives.org) where its campaign materials can be downloaded at no charge. “It’s important for us to improve for ourselves, but it’s also as important for us to help others improve,” Lederer says.

CONTINUAL IMPROVEMENT

“In health care if you don’t measure it, it doesn’t get attention,” Lederer says. “So our challenge is to continue to measure, to continue to make it real with the feedback to the employees.” Hand-hygiene compliance data is updated every month and shared in a variety of ways with leadership on down to the staff. The awareness campaign still is underway. “Marketing keeps mixing it up so we’re not thinking, ‘That’s a poster that was put up a year ago,’” Rakyta says.

In 2008, the hand-hygiene compliance goal was increased from 90 percent to 95 percent. Novant’s focus will broaden in 2009 and 2010 to include enhanced infection reduction measures, Lederer says. The system will track 12 indicators. MRSA rates and hand hygiene will be on the list, along with the incidence of such problems as ventilator-associated pneumonia, and urinary tract and bloodstream infections.

The system will stick with hand hygiene, Wallenhaupt says. “No one who does any kind of clinical work would think it is ever marginally appropriate to even consider giving a shot without prepping the skin with some kind of antiseptic. When we’ve reached that level of expectation among all of our caregivers, including ourselves, then that’s when we can back off. Until that time, we’ve got to continue to promote the critical importance of this.”