NS South Shore health authority slashes incidence of MRSA

South Shore Health, one of Nova Scotia's 9 district health authorities, has slashed its incidence of methicillin-resistant *Staphylococcus aureus* (MRSA) by more than half. That success was due directly to taking a firm hand — and promoting a clean one among health care providers.

"When compared to the national average of 5.1 [per 1000 cases], our rates were double and triple," says Suzanne Rhodenizer-Rose, infection control practitioner with the health authority that includes 3 hospitals.

Today, she notes, those numbers are below the national average. For the first 2 quarters of this fiscal year, South Shore Health had an MRSA rate of 2.7 and 4.8, respectively.

To combat the high infection rate, the health authority created a special task force 18 months ago. Chaired by internist Dr. Mada Nestel, the task force targeted frontline medical staff. First they identified barriers.

"Staff didn't really think it was important," notes Rhodenizer-Rose. "Patients aren't gloved and gowned in the community."

In addition to informing staff about MRSA, which is spread most often by contaminated hands or by touching contaminated equipment, and the importance of rigorous sanitary procedures, the task force reached out to the public. A small media campaign discussing isolation procedures was put in place and an education package for patients and their families was prepared.

The *It's Okay to Ask!* campaign, as the educational initiative was called, aims to encourage patients to become actively involved — even if that means asking uncomfortable questions.

"We wanted to empower patients to ask their health care provider — whether nurse, lab technician or cardiologist — if they have washed their hands," says Rhodenizer-Rose.

"It was hard for health care workers to accept at first," she says. But now,

"the program is working well."

To make hand-washing easier, alcohol hand hygiene stations were set up throughout the authority's 3 hospitals. As well, a screening program to enable better and faster testing for the presence of the bacteria was established, and hospital visitation hours were revamped to allow more time for cleaning. Finally, the use of disposable clothing and equipment was increased. — Donalee Moulton, Halifax

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Gender-specific knees

The first artificial knee designed specifically for women is expected to be approved for use in Canada early in 2007. Zimmer's Gender Solutions knee, approved by the US Food and Drug Administration in May 2006, is the first knee prosthesis shaped to fit the anatomy of the female knee.

The Gender Solutions knee is narrower, thinner and tracks at a different angle to better suit women's wider hips.

Women account for almost two-thirds of the 400 000 knee replacements performed annually in the US. The number of US knee replacements is expected to soar to almost 3.5 million by 2030.

Surgeons have traditionally made adjustments on the operating table when implanting "unisex" knee prostheses in women.

"We ended up having to do things to a woman's knee that you wouldn't want to do in order to make it fit," said Dr. Kim Bertin, an orthopedic surgeon at LDS Hospital in Salt Lake City, Utah.

Bertin was one of several surgeons who helped develop the Gender Solutions knee. More than 800, 3-dimensional CT scans of femurs and patellas were analyzed to pinpoint anatomical differences between male and female knees.

Bertin in Salt Lake City and Dr. Robert Booth at Pennsylvania Hospital in Philadelphia implanted the first Gender Solutions knees on May 9, 2006.

Bertin has since performed knee replacements on about 100 women, and found 97 were better fitted with the Gender Solutions knee. "There's no question [the Gender Solutions knee] is a dramatic improvement in patient care for women," said Bertin.

The market leader in knee replacements, Zimmer is currently the only medical equipment supplier with a female-specific knee prosthesis. Rival Stryker Corp. bills its unisex Triathlon Knee replacement as designed with "women in mind." Biomet Inc., and DePuy have said the differences between male and female knees don't warrant different designs.

With US hip replacements expected to increase 174% to 572 000 by 2030, Zimmer plans to have a female hip prosthesis on the market within 2 years. — Janet Brooks, Salt Lake City, Utah

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The new gender-specific artificial knee (right) is narrower, thinner and tracks at a different angle to better suit women's wider hips compared with a traditional artificial knee (left).