



Pittsburgh Regional Healthcare Initiative

Reprinted from *PRHI Executive Summary*, October-November 2003

Naida Grunden, editor

Antibiotic-resistant infection

Wiping out MRSA in Southwestern PA

Methicillin resistant *Staphylococcus aureus* (MRSA)—an imposing name for an imposing, antibiotic-resistant organism. The facts are these:

- ❖ Healthcare-acquired infections are the fourth leading cause of death in the nation, affecting 2.2 million people in the U.S. each year, cause 100,000 deaths, and add about \$1 billion in costs.
- ❖ In the United States, more than 50% of *Staph* infections are now methicillin resistant. The U.S. holds the dubious distinction of having the world's second highest MRSA rate. (Only Japan has more.)

Knowing that the problem exists is only the first step in eradicating it. On the inpatient surgical unit at the Veterans Administration Pittsburgh Healthcare System, an 18-month partnership between the VA, PRHI and the CDC has yielded promising advances against MRSA.

We emphasize that scientific, statistically validated studies are years off. Yet preliminary data show that on the learning unit at the VAPHS, MRSA infections have declined.

On October 2, PRHI convened nearly 100 infection control practitioners to pose an important challenge: *if Scandinavia can eradicate MRSA, why can't Southwestern Pennsylvania?*

Armed with the knowledge gained at the VA and other partner hospitals, Southwestern Pennsylvania is poised to make great strides against this growing threat.

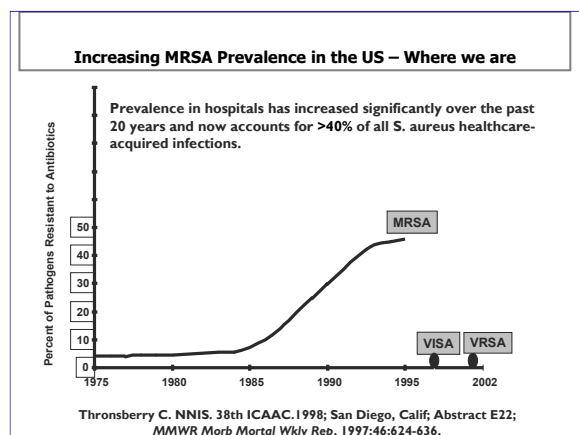
Karen Wolk Feinstein, Chairman of PRHI's Board of Directors and President of the Jewish Healthcare Foundation, challenged the group to think about MRSA not only as a way to combat all hospital-acquired infection, but as an opportunity to learn how to combat potential bioterrorism.

"Think about our country's preparations for bioterrorism," she said. "With MRSA we have a deadly organism that's transmitted the same way as SARS and other microorganisms that could be used as weapons of bioterror. If we can wipe out MRSA, we are ready for bioterrorism."

"We are very encouraged by the work being done here in Pittsburgh," said John Jernigan, MD, Medical Epidemiologist from the CDC, and guest speaker at the conference. "The work at the VA is showing us that the community approach can work, and the Perfecting Patient Care approach can work."

"I don't want to come back in 10 years and say we need to mobilize to eradicate vancomycin-resistant infections. Let's draw the line with MRSA," said Ronda Cochran, MPH, CDC Behavioral Epidemiologist. "We don't seem to be freaked out about MRSA. Maybe we should be."

In the coming months, PRHI's Infection Control Advisory Committee, a coalition of the region's infection control practitioners and others with an interest in infection control, will hold focus groups to fine-tune the approaches to MRSA eradication in Southwestern Pennsylvania. ☞



Rolling up our sleeves

10 steps we could take *today* to halt the spread of MRSA

PRHI's Infection Control Advisory Committee is planning follow-up focus groups and further action. In the meanwhile . . . here are some steps everyone can take today to halt the spread of MRSA.

1. **Use hand hygiene** precautions for all patient contacts. By itself, adequate hand hygiene may reduce healthcare-acquired infection by 25%.
2. Institute procedures to ensure that **hand soap and alcohol sanitizer** are present when and where needed.
3. **Use antimicrobial soap or alcohol sanitizer in ICUs.**
4. **Identify colonized and infected patients** with active surveillance cultures (ASC).
5. **Isolate** patients known or suspected to be colonized or infected with antibiotic-resistant microorganisms. In countries where MRSA has been all but extinguished, presumptive isolation is practiced.

Check out these CDC sites:

Hand Hygiene in Healthcare Settings
www.cdc.gov/handhygiene/

Antimicrobial Resistance Prevention
www.cdc.gov/drugresistance/

6. **Use barrier precautions** (gowns, gloves, masks) when caring for patients in isolation. Masks have been shown to protect healthcare workers from nasal colonization. Consider disposable gowns: in one study, 69% of healthcare workers' freshly laundered white coats had detectable MRSA contamination.

7. **Clean the patient care environment** effectively: surfaces include floors, beds, linens, overbed and bedside tables and drawers, patient gowns.
8. **Use dedicated equipment or clean all shared equipment** such as blood pressure cuffs, stethoscopes, etc. Wiping with 70% isopropyl alcohol swab significantly reduces colony counts on stethoscopes. Consider disposable equipment when practical.
9. **Flag medical records** of all colonized patients to ensure re-isolation on subsequent admissions.
10. **Control antibiotic use.** Between 1/4 and 1/2 of all hospitalized patients are taking antibiotics, including almost all ICU patients. Half of all antibiotic therapy is either unnecessary or inappropriate. Furthermore, antibiotic prescriptions count for up to 22% of pharmacy budgets.

