



Pittsburgh Regional Healthcare Initiative

Improving hand hygiene requires leadership, collaboration

Semmelweiss discovered 150 years ago that caregivers with clean hands are far less likely to transmit pathogens among susceptible patients. Yet developing and maintaining the “hand hygiene habit” continues to challenge hospitals worldwide. In October 2002, the CDC issued new hand hygiene recommendations, which included a strong call for the use of alcohol-based hand rub.



For LifeCare employees seeing is believing in this very visible demonstration of hand hygiene. ICP Lynette Smith created the inservice for the LifeCare team 3 years ago. Her quest was reinforced after observing similar work at the VAPHS.

LifeCare meets the VA

LifeCare’s Infection Control Practitioner, Lynette Smith, recently visited 4 West at the Veterans Administration Pittsburgh Health System (VAPHS). With assistance from PRHI and funding from the CDC, the 4 West Learning Line is examining ways to improve and sustain hand hygiene and eliminate the spread of infection, particularly antibiotic resistant strains.

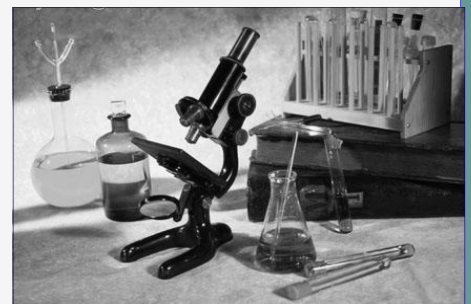
A sesquicentennial of note

Last year marked the 150th anniversary of a sentinel medical discovery. In 1847, Ignaz Semmelweiss, a Viennese physician, discovered that fatal infections were spread among patients, particularly women post-partum, by doctors who failed to wash their hands between examinations. Semmelweiss promoted a disinfecting procedure requiring physicians to wash in a chloride of lime solution after autopsies and with soap and water between patient visits. Doctors also had to change into clean lab coats before examining patients. As a result, hospital mortality rates from infectious diseases declined from 18% to 1%.

A century and a half after Semmelweiss’ discovery, studies at hospitals worldwide over the past three decades show that many clinicians do not routinely follow hand hygiene procedures.

Infectious diseases remain the leading cause of death and disease worldwide and the third leading cause of death in the United States. The U.S. Centers for Disease Control and Prevention (CDC) estimates that 2.4 million Americans acquire an infection in hospitals each year, and that hand hygiene could prevent at least half of them. Furthermore, hospital-acquired infections cause or contribute to 100,000 deaths annually.

By improving the system of health care, PRHI partners aim to achieve 100% hand washing among healthcare staff and its corollary—dramatically fewer infections.



What are CDC's hand hygiene recommendations?

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm>

1. When hands are visibly dirty or contaminated with proteinaceous material or are visibly soiled with blood or other body fluids, wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water.
2. If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in all other clinical situations...Alternatively, wash with an antimicrobial soap and water [in those clinical situations].

Excerpt from *Guideline for Hand Hygiene in Health-Care Settings*, John Boyce, MD, Hospital of San Raphael, New Haven, CT, and Didier Pittet, MD, Université de Genève, Geneva, Switzerland, October 25, 2002/51 (RR16)

At 4 West, Ms. Smith observed ways to streamline routines, allowing more opportunity for proper hand hygiene.

Noted Ms. Smith, "I saw some encouraging things at the VA. You don't have to run around to eight places to find the things you need to get your job done." Ms. Smith's observations led her to make some low-cost, low-tech improvements at LifeCare that make work just a little easier—and make patients just a little safer.

✧ Cupboards or dedicated areas now contain baskets with everything the nurse needs to obtain a blood culture through a central line.

✧ Shared patient equipment, like capillary blood glucose machines and bladder scanners, now have bright pink tags to let staff know who must clean the equipment (the user) and how.

"Hands Across LifeCare"

To renew employees' commitment to hand hygiene, infection control and UPMC laboratory personnel at LifeCare Hospital presented the third annual hand washing in-service with a "visible" difference—*Hands Across LifeCare*. They cultured the hands of 50 randomly

selected employees and planted those cultures in petri dishes. UPMC lab personnel provided rapid identification, gram-staining each plate after the specimens were incubated for 48 hours.

The results were exhibited along a wall, art gallery-style, alongside educational posters and displays. When Ms. Smith brought the staff together to show them the results, the shock was palpable. The staff was amazed at the plethora of organisms living on their "clean" hands. Seizing the "teachable moment," Ms. Smith administered a simple infection control post-test for her fellow employees.

Hands Across LifeCare has become an annual event, in part to re-inspire long-time staff members, and in part to ensure that all new staff members are exposed to this powerful learning. No matter how often it's repeated, the exercise provokes a strong response.

Ms. Smith said, "At the *Hands Across LifeCare* in-service, employees receive first-hand confirmation of something that's been known for more than 100 years. And yet, even today, seeing can be almost unbelievable." ☞

Employees receive first-hand confirmation of something that's been known for more than 100 years. Yet even today, seeing can be almost unbelievable.

Lynnette Smith, RN
Infection Control Practitioner
LifeCare Hospital



Centre City Tower
650 Smithfield Street, Suite 2150
Pittsburgh, PA 15222
Phone: 412-535-0292

Fax: 412-535-0295
Website: www.prhio.org