

# All hands on deck for patient safety

At Children's Hospital Boston we all have a role in ensuring the safety of our patients—whether we work in direct patient care, as an administrator, a security guard or any other position in the hospital. We hear about patient safety all the time in the media and here at Children's, but in practical terms, how does it translate into improved patient care? The Joint Commission on Accreditation of Healthcare Organizations (JCAHO), a national agency that sets the standards for health care quality in the U.S. and around the world, has spelled out 10 goals to keep patients safe and hospital visits error-free in 2005 and beyond. In the coming months you will hear a lot about the efforts of Children's Program for Patient Safety and Quality, JCAHO's National Patient Safety Goals, and other safety and quality practices developed by multi-disciplinary teams at Children's to help ensure that every patient has a high quality, error-free experience here.

90,000 patients die each year in the U.S. as a result of hospital-acquired infections.

2 million patients acquire infections in U.S. hospitals annually.

One of JCAHO's goals that's easy to accomplish is preventing infections by improving hand hygiene. Children's already has an active hand hygiene program in place for clinicians. But beginning this month, you'll see hospital-wide efforts, including more Purell dispensers strategically placed in clinical and central areas, posters encouraging families to ask their child's caregivers to wash their hands before touching their child, a new computer-based hand hygiene learning module for staff and more.

To remind everyone at Children's of this important step in patient care, *Children's News* takes a look at hand hygiene in this month's center pages.

Hospital-acquired infections kill more than twice the number of Americans as auto accidents.

Costs associated with treatment of hospital-acquired infections are \$4.5 billion annually in the U.S.

## Hand sanitizer gel works—in the hospital, in day care and at home

Two separate studies conducted by **Thomas Sandora, MD, MPH**, and **Grace Lee, MD, MPH**, both in Children's Hospital Boston's Division of Infectious Diseases, show that using alcohol-based hand sanitizer gel can reduce the spread of gastrointestinal (GI) and respiratory illnesses.

Both studies observed families with at least one child in day care. In Sandora's study, half were given hand sanitizer and educational materials on hand hygiene; the remaining families received only materials about basic nutrition. Results showed that those who used hand sanitizer gel had a 59 percent reduction in the spread of GI illnesses compared with those who didn't.

"This is the first trial to show that hand sanitizer reduces the spread of germs in the home," says Sandora. "Using hand sanitizer can be an alternative to soap and water when a sink isn't convenient."

Lee's study tracked secondary transmission rates (number of illnesses per susceptible person per month) of respiratory and GI illnesses in families through symptom diaries. Results showed that illness transmission to family members occurs frequently in homes where children are enrolled in day care. They also indicated that the use of alcohol-based hand sanitizer gel was associated with reduced respiratory illness transmission in the home.

"Misconceptions about the mechanisms of illness transmission were common," says Lee. "We need to educate families about the importance of hand hygiene in reducing the spread of illnesses."

On average, hospital staff in the U.S. follow hand hygiene procedures only 40% of the time.

## Using alcohol-based hand sanitizers

1. Apply a nickel-size amount of hand sanitizer to the palm of one hand.
2. Rub hands together, covering all surfaces, including areas around and under fingernails.
3. Continue rubbing hands together until hand sanitizer dries.

ACTUAL SIZE



If you have applied a sufficient amount of hand sanitizer, it should take at least 10 to 15 seconds of rubbing before hands feel dry.

## Soap & Water

A guide to proper hand washing



Wet hands with warm water.

Apply about 1 teaspoon of soap (one pump from most soap dispensers).

Vigorously rub together, scrubbing all surfaces for at least 15 seconds.

Rinse with water.

Dry thoroughly.

Use paper towel to turn off faucet.