

## **Antibacterial Soap No Better Than Regular Soap, NIH-Funded Study Shows**

CHICAGO - October 24, 2002 - Despite medical experts' doubts that antibacterial soap is a better germ-killer than regular soap, half to two-thirds of hand cleansers on store shelves are labeled as antibacterial. Now a National Institutes of Health (NIH)-funded study confirms what medical experts have suspected. Results are being presented here at the 40th Annual Meeting of the Infectious Diseases Society of America (IDSA).

### AT A GLANCE

- Antibacterial soaps are no better at killing germs than regular soap, a study funded by the National Institutes of Health (NIH) shows.
- In the study, there were fewer bacteria on the hands of people using both antibacterial soap and those using regular soap after one year, but no difference between the groups.
- Some health care professionals fear using antibacterial soap might add to the growing antibiotic resistance problem.

“It makes you wonder why they call it antibacterial, because according to our research, it isn't any more so than plain soaps,” said Elaine Larson, Ph.D., R.N., associate dean for research at the Columbia University School of Nursing, New York, principal investigator of the study. “We found antimicrobial or antibacterial soaps provide no added value over plain soap.”

Further, some health care professionals are concerned that the ubiquitous use of triclosan, the antibacterial agent most commonly found in such soaps, could add to the growing problem of antibiotic resistance.

“There is no proof that antibacterial soaps can lead to resistance, but if there's even a theoretical risk of that, why use it?” said Dr. Larson, who searches out soaps that are not marketed as antibacterial for use in her own home.

The study was the first double-blinded, randomized controlled clinical trial – the protocol considered most scientifically sound – to compare antimicrobial soap to regular soap. The study involved primary caretakers in 222 New York City households: half were randomly assigned to use antimicrobial soap for daily hand washing and half were given non-antimicrobial hand soap. Microbe cultures were taken after a single hand washing and following a year of washing with the assigned soap. Neither the caretakers using the soap nor the investigators who analyzed the cultures were aware who had been assigned regular vs. antibacterial soap.

The two groups were assessed after one wash with the particular soap and after one year of regular use of the assigned soap. Cultures showed that after a year, there were fewer microbes on the caretakers' hands in each group, but there was no difference between the groups.

Although the soaps are typically labeled antibacterial, they are actually antimicrobial, meaning they affect viruses as well as bacteria, just as regular soaps do.

The study was funded by the National Institute of Nursing Research, a division of the NIH.

Research suggests that the waterless alcohol-based antiseptics used by health care workers in hospitals are the more effective germ killers.

The waterless antiseptics are not cleaning agents, however, as they don't remove surface dirt, which is why hand-washing with regular soap is still the best approach for regular daily hygiene.

“If you've got a newborn or a preschooler with a cold, you might consider using an alcohol-based waterless product for a little extra protection against germs,” said Dr. Larson. “But for daily hygiene, hand-washing with regular soap is fine. Just be sure to wash all of the surfaces on your hands, the backs, between the fingers, etc. It's not the amount of time that's important, but covering all the surfaces, as well as applying friction.”

The American Medical Association (AMA) recently noted that there was no evidence that antibacterial products – including soaps, lotions and other household products – work, whereas this study substantiates that they don't, said Dr. Larson.

Co-authors of a paper on the topic being presented at IDSA by Dr. Larson are Allison Aiello, Susan Lin, Lillian V. Lee, D. James Kain and Phyllis Della-Latta.

IDSA is an organization of physicians, scientists and other health care professionals dedicated to promoting human health through excellence in infectious diseases research, education, prevention and patient care. Major programs of IDSA include publication of two journals, The Journal of Infectious Diseases and Clinical Infectious Diseases, an Annual Meeting, awards and fellowships, public policy and advocacy, clinical affairs and other membership services. The Society, which has nearly 7,000 members, was founded in 1963 and is headquartered in Alexandria, Va.