BENZACLIN® Topical Gel

Ingredients: Benzoyl peroxide, 10% (w/w)

Benzoyl peroxide has been shown in several clinical trials and in vitro studies to be effective in the treatment of acne vulgaris.

Precautions: Use as directed by the physician. Do not use on skin irritation or open wounds. Avoid contact with the eyes, mucous membranes, or broken skin. Use only as indicated by the physician.

Contraindications: Use in children under 12 years of age or during pregnancy is not recommended.

Adverse Reactions: The most common adverse reactions include dryness, irritation, and redness of the skin. In some cases, these reactions may be severe enough to require discontinuation of therapy.

Dosage and Administration: Apply a thin layer of Benzacin® Gel to the affected areas of the skin twice daily, morning and evening, or as directed by the physician.

Supply and Storage: Store at room temperature (15–30°C). Use within 3 months of opening. Do not use on broken skin or when there is an infection.

REFERENCES: The information provided is based on clinical studies and literature review. For complete information, consult the prescribing information.

Cleaning Products Drive Antimicrobial Resistance

BY JEFF EVANS
Senior Writer

Bethesda, MD. — Use of household cleaning products that contain benzalkonium chloride may increase the susceptibility of bacteria to other antimicrobial ingredients in cleaning products and increase their resistance to antibiotics, according to the results of a randomized, double-blind study.

The study is the first attempt to statistically assess the relationship between the use of two biocidal ingredients found in household cleaning products—benzalkonium chloride (BZK) and triclosan—and antimicrobial resistance in the household setting. Allison E. Aiello, Ph.D., reported at an annual conference on antimicrobial resistance sponsored by the National Foundation for Infectious Diseases.

Consumer antisepsics and disinfectants are products that can prevent infections by killing or inhibiting the growth of microorganisms. Biocidal ingredients in these products often are quaternary ammonium compounds (such as BZK) and triclosan or various other biocides.

Some studies have found triclosan in more than 75% of liquid hand-washing soaps sold in the United States. Triclosan has been ubiquitously since the 1960s and can be found in some toothpaste and mouthwash products that are embedded in products such as cutting boards and baby diapers. Triclosan is also known to remain in treated sewage that is recycled for use in agriculture, according to Dr. Aiello, an epidemiologist at the University of Michigan, Ann Arbor.

In 2000, Dr. Aiello and her co-investigators provided households with either antibacterial products (floor cleaner with 0.08% BZK, surface cleaner with 2.7% BZK, and liquid hand-washing soap with 0.2% triclosan) or the same products without the antibacterial ingredients. They cultured the hands of household members before the study started and then after 1 year. Isolates of bacteria from the cultures were tested to determine the minimum inhibitory concentrations (MICs) of BZK and triclosan on which bacteria can grow.

The investigators defined MICs that were above the median for each biocide as “high” and those equal to or less than the median as “low.” The investigators analyzed the general trends and changes over time in antimicrobial species combined because they could not compare the same isolates at baseline and at the end of 1 year.

Isolates from all bacteriologic species combined, there were no differences between the groups in susceptibility to BZK at baseline or 1 year. Dr. Aiello and her colleagues then analyzed isolates of bacteria from all species with a high MIC for BZK at baseline. These isolates from either group of house- holds had similar rates of antibiotic resistance or high MICs for triclosan. But, after 1 year, the isolates that came from households using antibacterial cleaning products had more than twice the odds of developing a high MIC for triclosan than did isolates from households that did not use products with antibacterial ingredients.

At 1 year, isolates from households that used antibacterial products had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics. A sub-analysis showed that gram-negative bacterial isolates from households using antibacterial products also had more than double the likelihood of developing resistance to antibiotics.