

## The Comparison of Antibacterial Effects of Common Antiseptics against Three Nosocomial Resistant Strains

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### **Abstract**

**Background and objectives:** Today, specialists who are responsible for controlling infection in hospital use different disinfectants for instrument used in hospital to prevent from transmitting infection. The spectrum of antimicrobial effect, the condition of exploiting, the time of efficiency, the effect on environment, the destructive effect on metal and plastic materials etc. are different; therefore, we did this study to determine the antimicrobial effect of five disinfectants on those special resistant bacterial strains.

**Material and Methods:** In the current study the antimicrobial effects of five disinfectant solutions including Nanocide, Anizosin, Sulfanidis, Micros 10, and Colloid on hospital resistant strains by concentrations of 0.5 and 1 McFarland Were examined and evaluated. The concentration of disinfectants was prepared according to proposed protocol by manufacturing company. The time of contact with bacteria was defined in three times (the proposed time by company, less and more than proposed time by company).

**Results:** Nanocide haven't shown any inhibitory effect on resistant strains in none of the three times but Colloid indicates its effect only in more than proposed time. Anizosin in all three times have inhibitory effect on S.aureus in concentration 0.5 and 1 McFarland. Sulfanidis and Micros to have prevented from the growth of resistant strains in all three times.

**Conclusion:** It has been determined that disinfectant Micros 10 made of ammonium chloride stands as first degree of quality and Sulfanidis made of poly hegza methylen bigouanid hydrochloride stands as second degree of quality with respect to proper antibacterial effect for the purpose of disinfecting.

**Key words:** Disinfectant, antiseptic, Staphylococcus auras, Pseudomonas aeruginosa, Acinetobacter calcoaceticus