

ABSTRACT

Bacterial Pattern of *Staphylococcus aureus*, *Escherechia coli* and *Pseudomonas aeruginosa* in make up tester

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Introduction : Some people like to try cosmetics before pro-chasing them. Rich texture of cosmetics can provide a suitable medium for growth of pathogenic microorganisms. The common bacteria that usually contaminate the make up tester are *Staphylococcus aureus*, *Escherechia coli*, and *Pseudomonas aeruginosa*. In addition, skin microflora of anyone is unique which might be harmful to another person. Skin and eye pathogenicity could be communicated by sharing the make up tester. The aim of this study was to assess the level of microbiological contamination of cosmetics used by one person and by several people.

Methods : This study was conducted using 30 make up tester samples representing 15 compact powders and 15 lipstick testers used by several people. In cosmetic samples the general numbers of aerobic mesophilic bacteria were determined with the spread plate method on Nutrient Agar, Blood Agar, and Mac Conkey agar and further checked with the biochemical test.

Results : The number of aerobic mesophylic bacteria in the tested cosmetics ranged from the level below the method detectability to <10 cfu/g or ml. The presence of *Staphylococcus* spp was found in 3 out of 15 compact powder tester samples (20%) and 6 out of 15 lipstick tester samples (40%). *Bacillus subtilis* was also found in 13 out of 15 compact powder tester samples (86.67%) and 6 out of 15 lipstick tester samples (40%). *Escherechia coli* and *Pseudomonas aeruginonas* were not detected.

Conclusion : Based on the results, *Staphylococcus aureus* and *Bacillus subtilis* were found in 30 make up tester samples while *Escherechia coli* and *Pseudomonas aeruginosa* were absent.

Key words : *cosmetics, bacteria in cosmetics, cosmetic usage, Staphylococcus in cosmetics, Pseudomonas in cosmetics, Escherecia coli in cosmetics*