

Joint Event

Public Health, Women's Health, Nursing and Hospital Management

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Bacterial contamination of specified devices and surfaces used in nursing practice

The research focuses on identified devices and surfaces using in nursing practice, and on bacterial contamination of selected devices and surfaces. In the nursing practice, infectious agents of healthcare-associated infections can be very often transmitted by indirect contact, especially through different devices and surfaces. Microorganisms can persist on devices for a different length of time. In the case of ineffective implementation of basic hygienic-epidemiological precautions, they may cause the transmission and subsequent occurrence of healthcare-associated infections. Within the scope of qualitative research, various risk devices and surfaces potentially involved in the transmission of healthcare-associated infections were identified by observation technique. Identified objects include administrative objects, containers for transporting or storing of medical materials, drug delivery devices, individual packages, surfaces of medical devices, work and storage surfaces, etc. Within the next part of the experimental research, various level of bacterial contamination of kidney trays, working trays for the preparation of injection and infusion therapy was identified for both pathogenic (*Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Acinetobacter* species, *Enterobacter cloacae*, etc.), and non-pathogenic bacteria (most often bacteria of the genus *Staphylococcus* coagulase negative, sporulating microorganisms or *Micrococcus* species). Respect of basic preventive precautions is an important part of prevention of healthcare-associated infections occurrence. A new possibility of preventing these infections is the use of specified antibacterial nanolayer eliminating the infectious agents of healthcare-associated infections in nursing practice.

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