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## **THE SPREAD OF NOSOCOMIAL INFECTIONS IN THE SURGICAL HOSPITAL**

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Hospital-acquired infections continue to be a serious health problem. The pathogens responsible for the development of nosocomial infections include various types of bacteria, viruses and fungi. Studies report that in Europe rates of the prevalence of nosocomial infections range from 4.6% to 9.3%. The high incidence of nosocomial infections increases mortality in particular among the most vulnerable groups of the population, such as elderly patients, pregnant women, patients staying in surgery departments and patients with chronic diseases.

In our study we have explored possible ways of spreading nosocomial infection in a surgical hospital based on foreign and domestic literature of recent years.

Some studies indicate that most nosocomial infections are associated all with the condition of the patient himself, which includes advanced age, concomitant diseases, previous infections, preoperative hospital stay, immunodeficiency state. To the factors associated with the direct conduct procedures and conditions of execution, include: its duration, technique of execution, quality of preoperative preparation, sterilization of surgical instruments, preoperative shaving, antimicrobial prophylaxis, reliability of ventilation systems of operating units, the use of surgical drains.

The patients who spend a longer period of time in the hospital at the preoperative stage showed a trend towards higher the risk of infections. However, in this case, the duration of preoperative hospitalization is a potentially modifiable factor in clinical practice. Thus, optimization of internal resources as well as expanding the capabilities of the operating room and compliance with all possible preventive measures can significantly reduce the rates of nosocomial infections associated with hospitalization of patients.

Another important factor is medical equipment that is used daily in hospitals. Bacterial colonies can be found on various objects, including bedding, stethoscopes, computers, catheters and other small electronic devices and instruments used by medical workers. If we talk about the continuous flow of patients on whom it is applied equipment, this fact significantly increases the risk of spreading nosocomial infections or nosocomial infections between medical workers and patients. The risk of spread is especially heightened in countries with low and medium level of economic development due to limited resources, manifested in the repeated use and sharing of disposable medical devices or consumables. The spread of infections is also exacerbated by the emergence of antimicrobial-resistant strains of bacterial organisms.

One of the most important risk factors is the duration of the operation, because the time in which the tissue is exposed to the environment significantly increases the likelihood of wound contamination by pathogenic microorganisms. The hearth infection may be limited to the suture line, and inf icing microorganisms vary depending on the type and site of surgery, as well as antimicrobial drugs taken by the patient.

The emergence of strains of hospital pathogens resistant to poly antimicrobial medicines, is also a problem in providing quality inpatient care. In addition to this, infection of the postoperative wound resistant colonies of bacteria extremely worsens the patient's condition, which becomes a major problem in developing countries due to lack of prevention programs infections, hospital overcrowding and mismanagement of antimicrobial drugs.

All in all, preventing the spread of nosocomial infections among patients and healthcare workers is paramount to reduce indicators of morbidity, mortality, disability and economic costs, associated with the stay of patients in a medical institution. Extremely necessary implementation of programs for the prevention and control of nosocomial infections, that would focus on the management and control of infectious diseases.