

TITLE: CONTAMINATION OF UNIFORMS OF DOCTORS AND NURSES WITH PATHOGENIC BACTERIA.

AUTHORS: Segovia-Coronel Nancy, Herrera Paola, Ramos Romero María Laura, Amarilla Páez Claudia, Álvarez Ferreira Azarías.

INSTITUTION: CENTRO DE INVESTIGACIONES MEDICAS-FACISA- UNIVERSIDAD NACIONAL DEL ESTE (CENTRO URBANO, MINGA GUAZU – PARAGUAY)

ABSTRACT:

Hospital infections are a major public health problem in both developed and developing countries. The use of personal protective equipment helps to reduce the health professional's exposure to surfaces or biological material contaminated, however it is known that the uniforms of these professionals are potential transmitters of microorganisms multiresistant to antibiotics. The objective of the study was to determine the frequency of contamination by pathogenic microorganisms in uniforms of resident doctors and nurses of the Regional Hospital of Ciudad del Este (HRCDE), Paraguay, after its use in health care practices. The study was prospective, descriptive cross-sectional. The sample comprised 122 uniforms of which 77 were nurses and 43 were doctors. Gram staining, identification of Gram-positive (BGP) and Gram-negative bacteria (BGN) of the *Enterobacteriaceae* family was performed by conventional tests, non-fermenting Gram-negative bacilli using the Bactray® commercial test. The sensitivity tests were performed by the Kirby-Bauer technique, for its interpretation was used the table of the Clinical and Laboratory Standard Institute (CLSI) 2016. Of the 122 samples, 94.26% (n = 115) were contaminated with some type of microorganism. Of the total BGN isolates, 83.65% (n = 133) corresponded to the *Enterobacteriaceae* family, of which 26 strains presented resistance mechanism, 96.15% (n = 25) of isolated Extended-spectrum beta lactamase resistance (ESBL) and 3.85% (n = 1) presented in addition to BLEE carbapenem resistance mechanism (KPC), of the gram-positive coccus isolates, 27.90% (n = 12) had resistance mechanisms, 58.33% (n = 7) were *Staphylococcus aureus* methicillin resistant (MRSA), 8.88% (n = 1) *Staphylococcus* coagulase Negative resistant to methicillin and 33.33% (n = 4) *Enterococcus* Vancomycin resistant (EVR).

KEYWORDS: Fomites, Contamination, Cross Infection