



**NASAL COLONIZATION BY MICROORGANISMS IN
NURSING PROFESSIONALS IN UNITS SPECIALIZING IN
HIV/AIDS**

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Introduction

Antimicrobial resistance is considered a public health problem worldwide. Two main factors have contributed to the sharp increase in this resistance: the misuse of antibiotics and spread of resistant microorganisms (PENDLETON; GORMAN; GILMORE, 2013)

Introduction

The main control measures for multi-resistant microorganisms consist of early identification of colonized or infected patients, identification of the area of isolation of patients with illustrative signs, and adherence to the contact precaution measures recommended by the Department of Hospital Infection Control (BRAZIL, 2007).

Introduction

Health professionals, especially nursing staff during direct contact with patients, objects, and environmental surfaces, constitute a class susceptible to colonization by resistant pathogens (SILVA, et al.,2012).

The hands of these professionals are considered the main vehicle of transmission of bacteria between patients (CDC, 2003; DREES et al, 2008).

Nursing professionals are susceptible to nasal colonization by microorganisms.



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Objective

This study aimed to investigate the presence of microorganisms in the nostrils of nursing professionals in a Brazilian teaching hospital.

Methodology

- Cross-sectional study conducted at two inpatient units specializing in HIV/AIDS. Nasal secretion samples were collected from nursing staff from January to February 2012.
- After this the nasal secretions were collected using a Stuart swab.

Methodology

- Samples were collected by researches, processed at the institution's microbiology laboratory and analyzed using the software SPSS version 19.0.
- The ethical aspects were followed.

Results

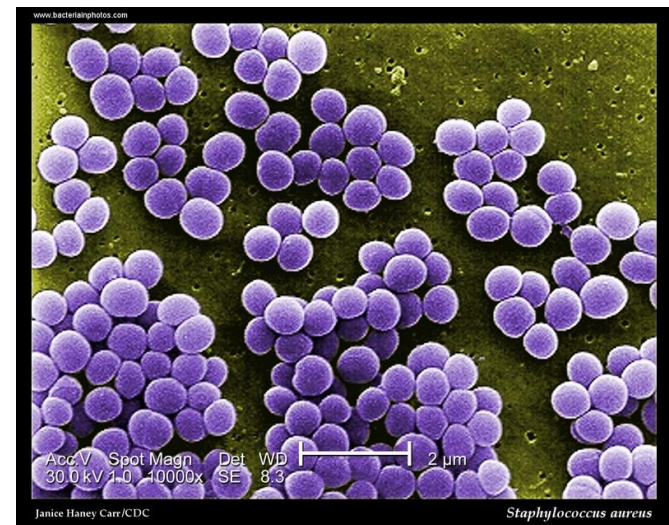
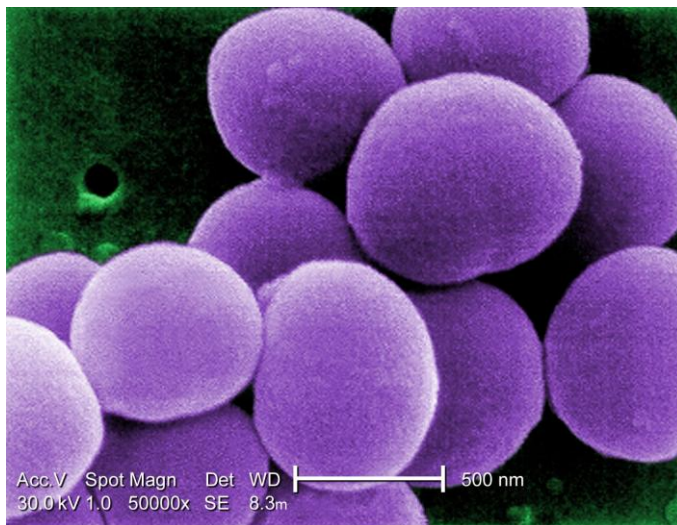
Of the 73 professionals providing nursing services, nasal secretion samples were collected from 61 (83.6%). Six types of microorganisms were isolated in 20 (32.8%) positive cultures. It is important to note that *Staphylococcus aureus* represented 23.0%, four of which were Methicillin-resistant (MRSA).

Table - Distribution of the presences microorganisms in the nasal secretion samples of nursing professionals (n=61). Ribeirão Preto, SP, Brazil, 2012

Microorganisms		n	f (%)
Negative culture	Negative	41	(67.2)
	<i>Staphylococcus aureus</i>	12	(19.7)
Positive Culture	<i>Staphylococcus aureus/Enterobacter aerogenes</i>	2	(3.3)
	<i>Enterobacter aerogenes</i>	2	(3.3)
	<i>Klebsiella pneumoniae</i>	1	(1.6)
	<i>Pseudomonas aeruginosa</i>	1	(1.6)
	<i>Staphylococcus lugdunensis</i>	1	(1.6)
	<i>Proteus mirabilis</i>	1	(1.6)
Total		61	(100.0)

Conclusion

The category of nursing professionals with the largest representation in this study were female nursing assistants, 75.4%.



Conclusion

Staphylococcus aureus was the microorganism most prevalent in the subjects of this study, representing 23.0% of those identified in the nasal site, being that 6.6% were MRSA.

Discussion

Long periods of hospitalization and prolonged and/or inadequate use of antimicrobials, together with the presence of invasive procedures, are factors that contribute to human colonization by microorganisms in hospitals (HIDRON, et al., 2005).

Discussion

Research conducted in a unit specializing in HIV/AIDS found that immunosuppression and prolonged use of antimicrobials associated with long hospitalization periods may facilitate colonization by multi-resistant bacteria in individuals with HIV/AIDS (REINATO, et al., 2013). Consequently, nursing professionals who provide direct assistance to these patients have a higher risk of contamination and colonization by resistant pathogens.

Conflicts of interest

The authors declare the absence of conflicts of interest concerning this article.

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