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## Abstracts Book



## Clinical Microbiology

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#### ANTIBIOTIC PROFILE OF *STAPHYLOCOCCUS AUREUS* ISOLATED FROM HEALTH CARE PERSONNEL WORKING IN HEALTH CENTERS

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*Staphylococcus aureus* is known as a pathogen responsible for skin infections and invasive diseases such as meningitis, meningitides or pulmonary infection and with significant levels of carriage among in the community. Resistance to antibiotics is a problem and methicillin-resistant *S. aureus* (MRSA) have been increasingly isolated all over the world. The objective of this work was to evaluate nasal and hands carriage MRSA as well as hands carriage by among the health care staff in health care centers. From various health care centers near Porto, 322 swab samples from the nasal cavity and hands of health professionals, including volunteer doctors, nurses and auxiliaries, were collected.

Swabs were spread onto Baird–Parker Agar and characteristic colonies were further isolated in Mannitol Salt Agar. Characteristic colonies were selected and confirmed as for *S. aureus*. The susceptibility to oxacillin, penicillin and ampicillin and to antibiotics of other classes rather than betalactams, namely ciprofloxacin, gentamicin, rifampin, vancomycin, tetracycline, erythromycin, nitrofurantoin and chloramphenicol was also investigated. The presence of methicillin resistance gene (*mecA*) was also evaluated by multiplex PCR (detecting 16S rRNA, *nuc* and *mecA* genes). Enterotoxin genes *sea* – *sej* and TSST were also evaluated by multiplex PCR.

Fifty-four *S. aureus* were isolated or from nasal cavity or from hands or from both sites in the same individual representing 16.8% *S. aureus* recovered. Twenty-seven individuals carried *S. aureus* in nasal cavity (8.4%) while eight carried *S. aureus* both in nose and hands (2.5%). Eleven different individuals carried *S. aureus* only in the hands (3.4%). The prevalence of MRSA in 322 samples was only 6%, considering that and 35.2% of the *S. aureus* isolates were MRSA. The most prevalent resistance among *S. aureus* was to beta-lactams and erythromycin. Resistance to while to vancomycin and to gentamicin *S. aureus* did not show any resistance was not found. The most prevalent profile of enterotoxin genes was *sec* *bov* *seg* *sei*.