

P0230 **Bacterial flora colonizing long-term care facility residents: a point-prevalence study**

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Background: Bacterial flora colonizing the long-term care facilities (LTCFs) residents differs from that of individuals in the community. The study investigated factors that may promote carriage of resistant microorganisms in a region with high antimicrobial resistance.

Methods: This is a point prevalence study performed from January 2015 to June 2017 in 6 LTCFs of the Heraklion, Crete, region. In total 314 residents of LTCFs participated, after giving informed consent. Swabs were taken from nares and the rectal area. One sample per resident. Residents with infections were excluded.

Results: Of the 314 residents included, 97 were males (31%). The median age was 84 (60-103) years. Of the 257 examined for *S. aureus*, nare carriage was found in 81 (28.6%). Among them 28 isolates (34.6%) were methicillin-susceptible and 53 (65.4%) resistant (MRSA). Females were more frequently colonized with *S. aureus* than males ($p=0.048$). Constipation was significantly associated with MRSA ($p=0.013$), as well as previous exposure to antimicrobials ($p=0.028$). A total of 129 rectal swabs were collected (one per participants) and 239 Gram-negative microorganisms were identified. Of them 44 (18%) were ESBL producing, while 3 isolates (1%) were extensively drug resistant. Previous antimicrobial exposure was significantly associated with ESBL colonization ($p=0.006$) as well as a katz index ≥ 5 ($p=0.001$). Carriage of MRSA was more common in those with fecal carriage of ESBL producing bacteria ($p=0.05$). Urinary catheters were associated with carriage of fecal ESBL producing bacteria ($p<0.001$) as well as MRSA colonization ($p=0.046$), while decubitus ulcers with carriage of fecal ESBL producing bacteria ($p<0.001$)

Conclusions: *S. aureus* nare colonization and carriage of fecal ESBL producing bacteria have been found in 28% and 18% of participants respectively. Constipation, urinary catheter and previous antimicrobial exposure were significant risk factors for MRSA colonization, while previous antimicrobial exposure, urinary catheter, decubitus ulcer and Katz index ≥ 5 for carriage of fecal ESBL producing bacteria.