

Microbiological colonization of ICU healthcare workers' mobile phones

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Argomento: Altro

Introduction: careful hand hygiene of health-care workers (HCWs) is recommended to reduce transmission of pathogenic microorganisms to patients [1]. Mobile phones are commonly used during work shifts and may act as vehicles of pathogens [2,3]. The purpose of this study was to assess the colonization rate of ICU HCWs' mobile phones before and after work shifts.

Methods: prospective observational study conducted in an academic, tertiary-level ICU. HCWs (including medical and nursing staff) had their mobile phones sampled for microbiology before and after work shifts on 6 different days. Samples were taken with eSwab in a standardized modality and seeded on Columbia Agar plus 5% sheep blood. A semiquantitative growth evaluation was performed at 24 and 48 hours after incubation at 35°C.

Results: fifty HCWs participated in the study (91% of department staff). One hundred swabs were taken from 50 mobile phones. Forty-three HCWs (86%) reported a habitual use of their phones during the work shift, and 38 of them (88.4%) usually kept their mobiles in the uniform pocket. All phones (100%) were positive for bacteria. The most frequently isolated bacteria were Coagulase Negative Staphylococcus, Bacillus sp. and MRSA (97%, 56%, 17%, respectively). No patient admitted to the ICU during the study period was positive for bacteria found of HCWs' mobile phones. No difference in bacteria types and burden was found between the beginning and the end of work shifts.

Conclusion: HCWs' mobile phones are always colonized mainly by flora resident on HCW's hands, even before the work shift and irrespective of the microbiological patients' flora. Further studies are warranted to investigate the role of mobile phones' bacterial colonization in the ICU setting and to determine whether routine cleaning of HCWs' mobile phones may reduce the rate of infection transmission in critical patients.