

Occupational exposure in Health care facilities - Review

D. Alexandre¹, M. M. Belo¹, P. Pena¹, A. Monteiro^{2,3,4}

¹ Environmental Health students, Escola Superior de Tecnologia da Saúde de Lisboa, Instituto Politécnico de Lisboa, Lisboa, Portugal ² H&TRC- Health & Technology Research Center, ESTeSL- Escola Superior de Tecnologia da Saúde, Instituto Politécnico de Lisboa, Portugal; ³ Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal; ⁴ Escola Nacional de Saúde Pública, Universidade NOVA de Lisboa, Lisbon, Portugal

Introduction:

Health care facilities (HCF) must adopt strategies and systems of epidemiologic surveillance to control infections^{1,2} in order to reduce the impact of microorganisms in healthcare workers and reduce the cost in the health sector.

To improve public health and reduce the impact on workers health, the aim of this study is characterize the occupational exposition to microbiota in HCF and to describe the most reported effects caused by this contaminants.

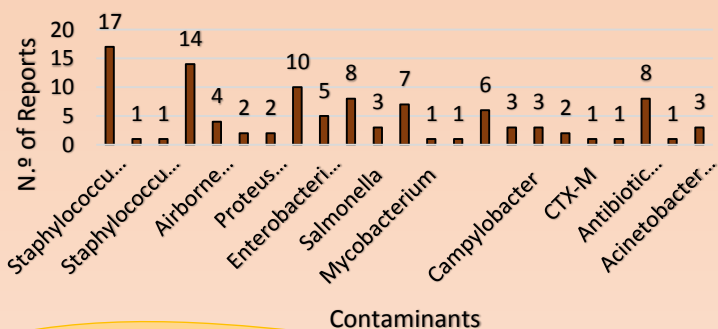
Materials and Methods:

For this review have been used articles searched in PubMed, Web of Science and Scopus, resulting in a total of 299 articles, only used 87 after the exclusion criteria . The research was made using descriptors such as Bacteria, Health care facilities and Occupational exposure. With the searched articles a table State of Art with reported effects and contaminants was realized.

Results/Discussion:

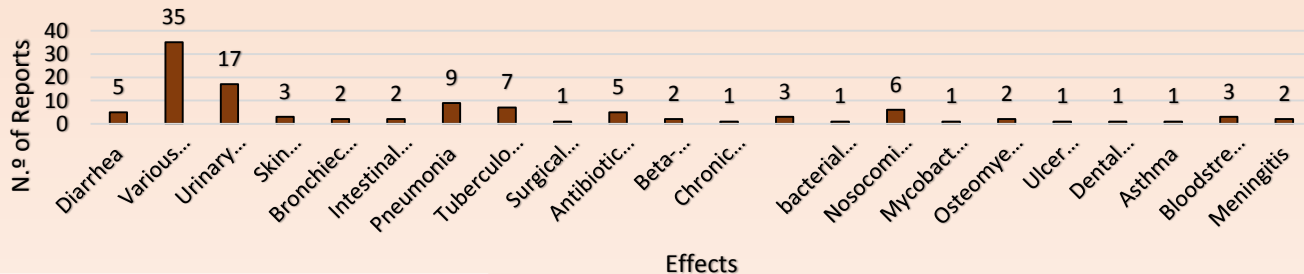
From the results is possible to conclude that the most reported contaminants were: *Staphylococcus aureus*, *E. Coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae* (Image I).

Figure I - Contaminants Reported



The most prevalent health effects reported were respiratory infections, cardiovascular diseases, Urinary tract infections, Pneumonia and Tuberculosis (Image II).

Figure II – Health Effects reported



Conclusion:

Workers in health facilities are exposed to several bacterial pathogens with consequent health effects, as a result the characterization of occupational exposure is necessary to prioritization actions and establish protocols and guidelines adapted to HCF.

References:

¹Montella E, Reis W, Palladino R, et al. Prevalence survey of healthcare- associated infections in the Universty Hospital Federico II of Naples. Italy Ann Ig. 2012;25(1):73-81.

²Swensen SJ, Kaplan GS, Meyer GS, et al. Controlling healthcare costs by removing waste: what American doctors can do now. BMJ Qual Saf. 2011;20(6):534-537.