

5th European Conference on Public Health, Well-being and Healthcare

August 11-12, 2022 | Webinar

Volume: 12

Assessment of Microbial Load in Regional Hospitals in Albania

Gjergj Koja

Aleksandër Xhuvani University, Elbasan, Albania

Contaminated hospital indoor environments can expose patients to microorganisms and different infections. The aimed study was to assess the microbial load in hospital facilities inside Albania Regional Hospitals during the period 2017-2019. A cross-sectional study was conducted during the period 2017-2019 for the assessment of microbial contamination in operating rooms, resuscitation, and delivery rooms in 12 regional hospitals in Albania. One thousand and three hundred microbiological specimens were collected from air and surfaces using 5% sheep blood agar (Oxoid, UK) and processed at IPH microbiology laboratory following the standard bacteriological procedures. Data were analyzed using Statistical Software Package for Social Sciences (SPSS) version 23. Out of the total number of samples, 1148 (88.3%) were collected from surfaces and 152 (11.7%) were from the air. Bacterial growth was identified in 314 (24.2%) out of 1300 samples (95% CI 21.89–26.62). From the total site samples processed during the study period, bacterial growth showed 282 (89.8%) samples from surfaces and 32 (10.2%) air samples. There was found a significant association p -value = 0.035. Regarding the sampling place collection, the largest number were collected in operating rooms (60.3%) followed by emergency rooms (28.2%), ICUs (7.7%), and maternity units (3.8%). Gram-negative isolates were predominant at 235 (74.8%), while the Gram-positive were at 60 (19.1%). *E. coli* was the most frequent bacterial isolate (50%) followed by *Pseudomonas aeruginosa* (23.6%), *Staphylococcus aureus* (19.1%), and *Klebsiella pneumoniae* (1.3%). Also, we found a fungal agent such as *Aspergillus* in 19 (6.1%) samples. The isolated bacteria's overall drug resistance profile revealed that 66.8% of gram-positive bacteria were resistant to two or more antimicrobial drugs tested. This study revealed that the surface and air and air within different wards of the hospitals studied were contaminated with different types of bacteria. Bacterial loads on the surface and air exceeded normal limits. Additionally, the study pointed out high levels of antimicrobial resistance to the drugs commonly prescribed for isolates. Therefore, intervention strategies need to be strengthened to expand infection prevention practices in hospitals. Continuous monitoring and monitoring of in-hospital pathogen types and susceptibility patterns should be performed on a very regular basis.

Biography

Dr. Gjergji Koja has a diploma from the University of Tirana, Faculty of Medicine in 1995 as a Medical Doctor. In the same year, he became part of Durres Hospital as a pathologist medical doctor. Meanwhile, Dr. Koja has completed his Master in Medical Sciences during the years 2001-2002 and Master in European Studies during the years 2004-2005. He gained the Doctor of Medical Sciences (Ph.D.) in the Faculty of Medicine, University of Tirana, in 2008. In 1999 he pursued a rich career that began with his appointment as Director of the Durres Regional Hospital and later as Deputy Minister and then Minister in the Ministry of Health. From 2001-to 2005 he was a member of the Albanian Parliament and Deputy Chairman of the Parliamentary Committee on Health and Environment and Deputy Chairman of the Parliamentary Committee on Health, Labor and Social Affairs. Also, since 2006, he has been a lecturer initially at the Faculty of Medicine and since 2020 a full-time internal lecturer at the University "Aleksandër Xhuvani", Elbasan, Faculty of Medical and Technical Science.

koja.gjergji04@yahoo.com