Microbial flora reduction in educational institutions by antimicrobial copper alloys implementation


1 Microbiology Laboratory of Aretaieio Hospital, Athens University, Greece, Athens, Greece
2 Athens, Greece
3 Microbiology Laboratory of Aretaieio Hospital, Athens University, Athens, Greece

Background: Aim of this report is the application of antimicrobial copper alloys in multi-touch surfaces at educational institutions (mass gathering areas) for the reduction of microbial flora in order to protect public health.

Methods: We used antimicrobial copper alloys (Cu63%-Zn37%) to cover or replace multi-touch surfaces (door handles, railings, hand-push surfaces etc) in specific elementary school. Estimation of microbial flora and viral load carried out in two phases. Prior and after antimicrobial copper implementation. Samples were taken from surfaces, cultured in appropriate-selective culture media for microbial growth and molecular techniques for isolating viruses.

Results: Results showed clear reduction in the amount of microbial loads in all surfaces and objects replaced by antimicrobial copper. The number of bacteria isolated in the respective surfaces before the copper implementation was a multiple of bacteria isolated after copper implementation. The correlation resulted in the findings of a reduction in the number of bacteria colonies (CFU/ml) after antimicrobial copper implementation.

Conclusion: Researchers has shown great interest in antimicrobial copper since usage of both antimicrobial copper and its alloys for the protection of public health gives encouraging results. Usage of the antimicrobial properties of copper in multi-touch surfaces of mass population concentrations, such as in schools, has already started to apply worldwide. Limiting the spread of germs and viruses in those areas in combination with the implementation of the basic methods of infection preventing (clean hands, etc) is a strong antimicrobial ally to Public Health.

http://dx.doi.org/10.1016/j.ijid.2012.05.679

Towards integration of unconventional medicines in the public health service: Findings from a rapid assessment lesson in the Bhola district of Bangladesh

M.A.H. Mollik
Peoples Integrated Alliance, Dhaka, Bangladesh

Background: Cancer, pneumonia, tuberculosis, and sexually transmitted diseases (STDs) have been prevalent and even endemic in various parts of the world since ancient times. In recent years, attention has focused on these diseases because of the emergence of drug-resistant varieties of these diseases. As a result, it has become imperative to discover novel compounds to treat such diseases. Since plants form one of the best sources for obtaining pharmacologically active constituents, which can be used as remedy for diseases like cancer, pneumonia, tuberculosis, and STDs, the present study was conducted a survey amongst the traditional health practitioners (THPs) of Bhola district, a district in south-western Bangladesh to obtain information on plants used by the THPs as remedy for the above ailments. It is noteworthy in this regard that all the above mentioned ailments are prevalent in Bangladesh, and the primarily population of the country relies on plants or plant parts prescribed by the THPs to treat the above ailments.