Antibiotic sensitivity of bacteria associated with selected waste dumpsites in Akure, Nigeria

Olalemi Adewale, Arotupin Daniel and Babalola Funmilayo.

Department of Microbiology, School of Life Sciences, Federal University of Technology, Akure, PMB 704, Ondo State, Nigeria

Abstract

A study was carried out to determine the antibiotic sensitivity pattern of bacteria isolates associated with selected waste dumpsites in Akure metropolis, Nigeria. Results revealed that the total plate count of bacteria ranged from 1.3×105 cfu/g to 3.0×106 cfu/g. Bacillus subtilis, Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella typhi, Streptococcus faecalis, Shigella dysenteriae, Escherichia coli, Micrococcus luteus, Serratia marcescens, Clostridium botulinum were the isolated bacterial species. The temperature and pH values ranged from 26˚C to 28˚C and 5.68 to 6.48 respectively. Pseudomonas aeruginosa and Serratia showed susceptibility to antibiotics while Micrococcus luteus exhibited resistance to the antibiotics. Some of these isolated bacteria are pathogenic and thus, poses potential threat to the local inhabitant of the area. Therefore, proper waste management practices must be put in place to avoid environmental health hazards.

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Email: waleolas2002@yahoo.com **Tel**: +234 906 415 6284
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