

"Gheorghe Asachi" Technical University of Iasi, Romania



Posters

P72

BACTERIAL AND FUNGAL CONTAMINATION OF SAUDI ARABIAN PAPER CURRENCY AND CELL PHONES

Laila A. Nasser, Suaad Alwakeel

University of Princess Nora Bent Abdul Rahman, Riyadh, Saudi Arabia, Scientific College, Biology Department, e-mail: dr.suaad@gmail.com, e-mail: nomani.nasser@gmail.com

Abstract

Paper currency is used in exchange for goods and services and so the circulation of paper currency from one individual to another potentially spreads microorganisms. If pathogenic bacteria contaminate these currencies, the rate of infection and death rate from these infectious agents will continue to rise. This study was conducted to survey the bacterial and fungal contamination of paper money and cellular phones samples in Riyadh, Saudi Arabia in May 2010. Each bill and phone was prepared using standard procedures. Of the 390 currency notes, 282 (72.3%) were contaminated with bacteria which included *Aspergillus niger*, *Aspergillus flavus*, *Candida spp.*, *Penicillium spp.*, and *Rhizopus spp.* and bacteria which included *Enterobacter cloacae*, *Klebsiella ozaenae*, *Cedecea davisae*, *Yersinia pseudotuberculosis*, *Acinetobacter iwoffii*, *Staphylococcus warneri*, and *Enterobacter agglomerans*. All isolated bacterial species were sensitive to ciprofloxacin, gentamicin, ticarcillin, tobramycin and trimethoprim-sulfamethoxazole. The use of commercial disinfectants was only effective against *Aspergillus niger* and *Rhizopus spp.* Cellular phones were contaminated with *Micrococcus* and *Staphylococcus* species, and no fungal species were isolated from the sampled cellular phones. Prevention is the hallmark of reducing morbidity and mortality. An efficient health awareness campaign program should be fully implemented to inform the public of the hazards of contaminated paper currencies and even mobile phones.

Key words: contamination, fungi, microorganism, mobile phones, paper bills, Saudi Arabia