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## Identification, Characterization and Antibiotic Resistance of Bacterial Isolates Obtained from Waterpipe Device Hoses

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**Abstract:** The general lack of knowledge about the health effects of waterpipe smoking is among the reasons for its global spread. In this study, bacterial contamination of waterpipe hoses was investigated. Twenty hoses were collected from waterpipe caf?s and screened for bacterial pathogens using standard culture and isolation techniques. Additionally, resistance of isolated bacteria to common antibiotics was determined by identifying the minimum inhibitory concentration (MIC) of each isolate. Forty eight bacterial isolates were detected. Isolates included both Gram-positive and Gram-negative pathogens from species that included Micrococcus (12), Corynebacterium (13) and Bacillus (9). In addition, some of the detected pathogens were found to be resistant to aztreonam (79%), cefixime (79%), norfloxacin, amoxicillin (47%), clarithromycin (46%) and enrofloxacin (38%). In conclusion, the hose of the waterpipe device is a good environment for the growth of bacterial pathogens, which can then be transmitted to users.