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MICROBIOLOGICAL SPECTRUM IN AMBULANCES AND EFFECTIVENESS OF AMBULANCE FUMIGATION TECHNIQUES

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ABSTRACT

The pre-hospital environment especially the ambulance is at severe risk for nosocomial infection. The ambulance disinfection has not been practiced properly; hence this study has been undertaken to estimate the Microbiological spectrum in ambulance and the effectiveness of fumigation in controlling these contamination. Ten ambulances which are active in service were selected. A total of 3 areas within the ambulance (stretcher handle, oxygen flowmeter knob and door handle) were included for sample collection. The samples were collected before and after fumigation. The samples were maintained in ambient temperature and transported to laboratory and are inoculated in 8 different culture medium for isolation of microbes and the positive culture were tested further to confirm the bacterial and fungal isolates appropriately. The most common organisms isolated were *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Bacillus* sp, coagulase negative *Staphylococci* and some Enteric bacteria. Approximately 90% (oxygen knob), 80% (stretcher handle) and 70% of door handle were contaminated before fumigation and disinfection. The fungus – *Aspergillus* sp, *Mucor* sp and *Candida albicans* were isolated. After fumigation, 90% of the microbial isolates were reduced. Through this technique, we recommend the application of fumigation techniques to reduce the infection in the ambulances.

KEYWORDS: Ambulances, Microbial Surveillance, Fumigation