

**TITLE:** Microbiological analysis of critical points of contamination in public transportation of a city from Western of São Paulo

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**ABSTRACT:**

The appearance of multiresistant bacteria (MRB) in the hospital environment has been frequent in the last decades. However, the presence of antibiotic-resistant bacteria may not be restricted to the hospital environment. Buses on the hospital route can be a point of bacterial transference from the hospital to the community since employees, patients and patients' families transit in this environment. The objective of this study was to perform a microbiological analysis of critical points of contamination in interhospital public transport of a city from Western of São Paulo, as well as to verify the presence of antimicrobial resistant microorganisms. Samples were collected in February 2017 and June 2017 with the aid of sterile swab. The samples were transported to the microbiology laboratory and then the analysis was performed to identify *Escherichia coli* and *Staphylococcus aureus*. The isolates were analyzed for antimicrobial resistance by the disk diffusion technique. From a total of 120 samples analyzed, 20 of them were positive for the presence of *S. aureus* and two were positive for *E. coli*. Isolation of microorganisms was more frequent in the warmer and wetter collection period, with an average temperature of 31 °C. A higher percentage (approximately 17.85%) of resistance of *S. aureus* isolated in bus lines with hospital routes was observed. The isolates showed resistance mainly to the antimicrobials Penicillin and Erythromycin. Thus, it was demonstrated that preventive measures such as education regarding the rational use of antimicrobials is extremely important to obtain the reduction of resistant strains, in addition to preserving the effectiveness of the available antimicrobials

**Key-words:** Microbiota. Microorganisms. Hospitalar. Bus. Collect. Analyze. Antimicrobial. *Escherichia coli*. *Staphylococcus aureus*.

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