QUANTITATIVE ANALYSIS OF MICROBIAL COMMUNITIES IN A TYPICAL PHARMACEUTICAL WATER SYSTEM ON BASIS OF CONVENTIONAL CULTURE METHOD

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Abstract: Bacterial contamination of the water supply of newly installed water system unit was investigated. Water samples were collected at different sites from water supply lines to the final utility area. Within hours following connection and continuing for up to several months of the study, water samples were obtained from the air-water syringe of the Unit. The samples were plated on culture media for quantitative analysis. The Total Viable Count procedure involved incubation of sampled water in aerobic conditions and does not allow estimation of anaerobic microbes. Direct pour plate method and subsequently membrane filtration technique was followed to estimate the microbial load. Finally a comparative analysis of microbial load on different steps was made. However the system was found to be useful monitoring the microbial load.

Key words: Microbial load, Total Viable Count, Water system.

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