Original Article

Common Microbial Indicators in the Pools and Jacuzzis of Goleatan Province, Iran

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Abstract

Background and Objective: Swimming pools, which are recreational places, can cause transmission of bacterial diseases, fungal and parasitic infections due to direct contact with various groups of people. We aimed to determine and compare the common microbial indicators in the water of pools and Jacuzzis in Golestan province.

Material and Methods: the samples were obtained from eight indoor pool and Jacuzzi in Golestan province from July to December 2010, to evaluate the biological and physiochemical parameters.

Results: The residual chlorine in the pool and Jacuzzis was 74.3 % and the 41.1 %, respectively, and the difference was significant; the pH level was 70.4 % and 78.1 %, respectively; the mean of turbidity was 17.8 %, and 9.8 % and the difference was not significant. The samples contaminated with total coliform in the pool and Jacuzzi, respectively, were 4.3 % and 15.2 % and with E. coli were 1.3 % and 11.2 %.

Conclusions: The higher contamination of Jacuzzi is related to the higher temperature and turbidity of water, and more exposure of swimmer with water and less recirculation of Jacuzzi water. The high turbidity, lack of desired residual chlorine and choliform contamination are the main problems of swimming pools and Jacuzzi in Golestan province.

Keywords: Biological indicators, Microbial, Pool, Golestan Province.

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