

TITLE: TOTAL COLIFORMS AND *Escherichia coli* DETECTION IN DRINKING WATER, WEST REGION OF SÃO PAULO STATE, BRAZIL.

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ABSTRACT:

The drinking water must be potable and can be collected from surface water and groundwater and must comply with the parameters established by Ministry of Health Ordinance No. 2914 of 2011. Since 1992, the Sanitary Surveillance Center has been coordinating the Water Quality Surveillance Program - PROÁGUA, aiming to collaborate in the promotion and protection of the health of the population through the guarantee of potability of water intended for human consumption in the State of São Paulo. The aim was to evaluate the microbiological quality of drinking water in the region of the western part of the State of São Paulo, Brazil, during 2015 to 2016. This is a retrospective study with survey data of microbiology results (total coliforms and *E. coli*) in samples from PROAGUA. The search were determined by the chromogenic substrate technique Ortho-nitrophenyl- β -D-galactopyranoside - (ONPG) - Coliilert® (Idexx) according to Standard Methods for Examination of Water and Wastewater, 9223 B, 22nd., 2012. We analyzed 5,544 samples, in which 250 (4.51%) with presence total coliforms and 13 (0.23%) samples *Escherichia coli*, and unsatisfactory according to the current legislation. Among the positive for the *Escherichia coli* bacteria, 11 (84.6%) samples were obtained from the standalone service municipal water and sewer systems and 2 (15.4%) samples of the water supply system of the SABESP. The cities with positive samples for *E. coli* were in 2015: João Ramalho (3 samples), Nantes (3 samples), Taciba (1 sample) and Dracena (1 sample), in 2016: Martinópolis (1 sample), Panorama (1 sample), Piquerobi (1 sample) and Presidente Venceslau (2 samples). Despite the low percentage of samples with the presence of *E.coli*, the results demonstrate the importance of the work of Sanitary Surveillance, together with the Public Health Laboratories, in the implementation of the PROAGUA Program to provide quality water to the population.

Keywords: total coliforms, water quality, water supply

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