TITLE: DETECTION OF TOTAL COLIFORM AND E*scherichia coli* IN DRINKING WATER FROM SHALLOW WELLS IN LONDRINA-PR FROM 2016 TO 2017.

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ABSTRACT:

Diarrheal diseases represent one of the most latent public health problems in underdeveloped countries. In Brazil, almost all diarrheal illness are caused by infectious agents, in which health and socioeconomic factors are the most significant. Water may be an important vehicle for the transmission of several pathogens of the gastrointestinal origin, such as *Escherichia coli.* Thus, the study of water quality for human consumption becomes an essential factor for the resolution of these problems. The water that comes from shallow wells is more subject to contamination because of the origin in the shallow underground sheets. Therefore, this study aimed to verify the bacteriological quality of water used for human consumption from 101 samples of shallow well, located in the city of Londrina/Paraná, in the years 2016 and 2017, through research in reports of Bacteriology Laboratory, in State University of Londrina, analyzing the presence of total coliforms and *E. coli* as indicator of faecal contamination. The methodology for total coliforms and *E. coli* research was the chromogenic substrate Colilert®. Of the 101 samples tested, 93 (92.07%) were contaminated. Of these 93 samples, 66 (70.96%) had total coliforms and *E. coli* and 27 (29.03%) remaining were contaminated by only total coliforms. However, of the 101 samples, 96 (95%) were not treated with chlorine, and of these, 92 (95.03%) presented contamination. Of the 8 (7.92%) samples that were not contaminated, 4 (50%) were treated. The bacteriological parameters of the 93 samples tested are in disagreement with the limits established by ordinance 2914/2011 from Ministry of Health. The contamination of wells from fecal origin indicates a probable presence of pathogens, which is due to a poor quality sanitation of the wells and their environment, representing a potential risk to the health of the population that uses subterranean water for consumption.

Keywords: water, shallow wells, *Escherichia coli*, total coliforms

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