



LEVELS OF SELECTED PHYSICOCHEMICAL INDICES IN SOME TAP WATER COMMONLY ACCESSED BY RESIDENTS IN WUKARI METROPOLIS, NIGERIA

Chinedu Imo and Bwayi Bello Mbwa

Department of Biochemistry, Federal University Wukari, Nigeria.

Presenting author's name: Prof. Chinedu Imo

BACKGROUND

This study evaluated the levels of selected physicochemical indices of water quality in selected tap water commonly accessed by residents in Wukari metropolis, Nigeria.

The chemical, physical, and biological properties of water are referred to as its quality. Water supply is greatly impacted by water quality.

Water contamination or unsafe water is a threat to human health. This study is significant because it will provide the consumers and general public with the results of levels of selected physicochemical indices of water quality in the selected borehole water in different areas of Wukari metropolis, Nigeria.

METHODOLOGY

Two water samples each from Central Mosque Wukari, FUW Teaching Hospital, Veterinary Hospital Wukari, New Site Area and Elim-Top Suites were tested for the selected physicochemical indices.

RESULTS AND DISCUSSION

Iron, copper, lead, nitrite, fluoride, cyanuric acid and chlorine dioxide were not detected. Nitrate was only present in tap water collected at Central Mosque Wukari and Elim-Top Suites. Carbonate was higher in the tap water collected at Central Mosque Wukari and FUW Teaching Hospital than in others. Total hardness was higher in the tap water collected at Central Mosque Wukari, followed by FUW Teaching Hospital. The level of total alkalinity was higher in tap water collected at Central Mosque Wukari. The pH values of the samples ranged from 7.20 to 8.20. The TDS values of all the tap water samples ranged from 112.00 to 261.50 mg/L. All the tap water samples were colourless, odourless and tasteless.

CONCLUSION

All the water samples collected are safe for drinking since the levels of most of the selected water quality indices estimated are within the WHO, SON and EPA approved limits.