

Abstract

Drinking water supplies can become contaminated with sewage or other excreted matter and consequently cause intestinal infections such as typhoid fever, and other water borne diseases that may include viral illnesses. A reliable monitoring system is therefore required to safeguard public health water supplies. Bacteriological examination offers the most sensitive test for the detection of recent and therefore, potentially dangerous faecal pollution, thereby providing a hygienic assessment of water quality with a sensitivity and specificity that is absent from routine chemical analysis. Pathogenic bacteria are usually scanty in water and present a technical difficulty in their isolation for practical purpose of water analysis. Analysis relies on commensal organisms that are of intestinal origin such as coliforms; *Escherichia coli*, *Streptococcus faecalis* and *Clostridium welchii* (*perfringens*). These organisms are not always hazardous but indicate the contamination of water supplies possibly with more dangerous organisms. This study investigated the presence of *Clostridium perfringens* in treated and untreated water. The aim was to show the existence of *Clostridium* in untreated water and its persistence in treated water unlike other organism of the coliform group. Out of the 30 samples of untreated water processed, *Clostridium perfringens* was found in 12 samples but non was identified in treated 30 water samples. The prevalence *Clostridium perfringens* in untreated water was 40% of the water processed. In the 12 samples of untreated water that showed positive reaction, almost all had spores. The research findings serves to show that *Clostridium perfringens* should be used more routinely as faecal pollution indicator bacteria and this will enhance evaluation status related to water use.

Key Words: Identification of *Clostridium perfringens* in drinking water.