
Abstract: According to Polish Ministry of Health regulations, in case Clostridium perfringens spores are identified in treated water samples, Cryptosporidium and Giardia protozoan parasites detection should be part of drinking water quality supervision procedure, both for surface and mixed water intake sites. The study assessed effectiveness in removing of protozoan parasite cysts and oocysts as well as sulfite-reducing clostridia in surface water treatment processes in Podkarpackie region waterworks. Presence of Cryptosporidium sp. oocysts was detected in 83% of surface intake water samples but the contamination was low. The number of protozoa was a mean of 0.06 oocysts in 1 dm³. Giardia sp. cysts were detected in all raw water samples and their number was a mean of 0.18 cysts in 1 dm³. Spores of sulfite-reducing clostridia were also detected in all water samples (>10² cfu/100 cm³). Parasitic protozoa were not present in samples of treated (coagulation/filtration) and disinfected water. This study demonstrated that the water treatment technologies applied in Podkarpackie region waterworks constitute an effective barrier against protozoan parasites, but are not always sufficient against spores of anaerobic Clostridium sp. present in the raw water.

Keywords: Parasites, Cryptosporidium oocysts, Giardia cysts, surface intake, drinking water, water treatment.