

## **IMPACT OF PHYSICOCHEMICAL PARAMETERS OF DRINKING WATER ON CLINICAL MANIFESTATIONS OF DYSENTERY IN NORTHERN INDIA**

**Rakesh B. Sharma and Ramesh C. Sharma**

Department of Environmental Sciences, HNB Garhwal University, Srinagar Garhwal -246174, India  
e-mail: rakeshbhooshansharma@yahoo.co.in

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**ABSTRACT:**– The present study was undertaken to investigate the possible impact of physico-chemical parameters of drinking water in enhancing the disease intensity in northern India. Thus, in this paper, an attempt has been made to assess the physico-chemical parameters of drinking water obtained from plain area district Ghaziabad, UP and hill area of Srinagar Garhwal, Uttarakhand of northern India. The study was carried out by collecting drinking water samples from hand pumps (four sites from plain area district Ghaziabad and three sites from Srinagar Garhwal, Uttarakhand of northern India), during January, 2005 – December 2005. The results were compared with standards prescribed by WHO (1997) for drinking water. Physico-chemical parameters were analysed by the methods outlined in Wezel and Likens (1991) and APHA (1998). The impact of variations in physico-chemical parameters of drinking water such as temperature, turbidity, conductivity, hardness, alkalinity, pH value, chlorides, fluorides, sulphates, nitrates, nitrites and phosphates on dysenteric patients was studied, which was found to have no direct impact in causing dysenteric infection but enhanced the intensity of dysentery consequently exhibiting the variations in clinical manifestations.

**Key words :** Physico-chemical parameters, dysentery epidemiology, clinical manifestations, drinking water.