A Mini Review on Antibiotic-Resistant in Drinking Water and its Chronic Effects on Human Health

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**Abstract.** The evolution of Antibiotic Resistance (AR) is a worldwide threat to the health of both humans and animals. Research on the presence of antibiotic-resistant bacteria (ARB) and antibiotic-resistant genes (ARGs) in both treated and non-treated water supplies has increased in recent years. When transferred to human pathogens, ARB and ARGs increase the risk to the general population by making the microbes resistant to antibiotics [1,2]. The current review discusses the prevalence of AR in different water sources like groundwater, treated distribution, surface water as well as its classification, sources and environmental hazards. This provided a renewed viewpoint on the threats that AR possess in drinking water to human health. Multiple environmental factors including sorption, physicochemical characteristics, biodegradation, hydrochemical and hydrogeological factors influence the transportation and distribution of antibiotics and ARGs in water [3]. Some of the remediation techniques that are used to mitigate AR like biological, chemical, and physical methods are reviewed in this article. The paper also focuses on some of the chronic health effects caused by AR such as Oxytetracycline.

**References:**

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[3] Zhuang M, Achmon Y, Cao Y, Liang X, Chen L, Wang H, Siame B A and Leung K Y 2021 Distribution of antibiotic resistance genes in the environment *Environmental Pollution* **285** 117402