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Pharmaceutical Contamination in Wastewater: Remediation and Regulatory Perspectives †

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Abstract: The presence of pharmaceuticals in wastewater is a wide potential factor that affects human health as well as the environment. Pharmaceutical drugs which are used in hospitals, medical stores, They were using the most traumatic dose and different types of drugs, which can be found in wastewater through drainages that can be transferred to the many other water supply areas. The wide range of drugs that can be detected from the wastewater includes pharmaceuticals, illicit drugs, and personal care substances. The sources of drugs in wastewater include human excretion, agricultural runoff, and pharmaceutical waste. It is possible for medications to cause endocrine disruption, bioaccumulation, biomagnification, and antibiotic-resistant bacteria in aquatic creatures when they wind up in wastewater. Once hazardous drugs enter the flowing water, they can be transported into the surface water, groundwater, and soil. This treatment of wastewater is done using basic technologies like physical, biological, and chemical methods. This review paper discusses the potential risk of wastewater in the environment and the different hospital plants that treat wastewater that is employed in the disposal and treatment of pharmaceutical-containing wastewater at trophic levels.

Keywords: drug; wastewater; aquatic; toxicity.

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Conflicts of Interest

The authors declare no conflict of interest.