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Review Article on Targeted Drug Delivery System

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Abstract: *Drug targeting is a new drug delivery system that aims to deliver the drug to the target site of action or site of absorption without releasing the drug at any other non-target site. The delivery system is designed to retain the intact drug without any modification until reaching and releasing at the target site. The targeted drug delivery systems have several advantages over conventional ones as improvement of pharmaceutical activity, low side effects and reduction of the administered dose. The main purpose of the targeted drug delivery system is to obtain the pharmacological action of the therapeutic agent at diseased organs only without affecting the healthy one especially in the case of cancer treatment with chemotherapeutic agents. Drug targeting can be attained using different carriers that maintain and transport the intact drug to preselected organ or tissue. Different types of carriers can be used for drug targeting such as nanotubes and nanowires, nano shells, quantum dots, Nano-pores, gold nanoparticles, dendrimers, noisome, ufasomes, virosomes, unbosoms, nanobots and transferosomes. There are different mechanisms of drug targeting such as passive targeting, inverse targeting, active targeting, ligand-mediated targeting, physical targeting, dual targeting and double targeting. The drug targeting is a useful delivery system for delivering the therapeutic agent to a specific site without causing toxicity in other organs.*

Keywords: Drug targeting, Drug delivery system, Reservoir System

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