

Review on Gastroretentive Drug Delivery System

Shubhangi S. Pawar, Sanjay K. Bais, Dipak A. Alatekar

Fabtech College of Pharmacy, Sangola, Solapur, Maharashtra, India

dipakalatekar27@gmail.com

Abstract: GRDDSs are an innovative tactic in this area (Gastro Retentive Drug Delivery System). GRDDSs can improve the regulated administration of drugs with an absorption window by continuously releasing the drug for a long period before it reaches its absorption site. The aim of this study was to investigate, compile, and succinctly summarise both recent and older literatures, with a focus on methods being applied right now to prolong gastric residency duration. They include of high density systems, floating systems, swelling and expanding systems, bio/mucoadhesive systems, and various delayed gastric emptying devices. The current study briefly discusses the categorization, formulation concerns for gastroretentive drug delivery systems, variables affecting stomach retention, advantages, limitations, and applications. To understand the many physiological hurdles involved in establishing stomach retention, we have highlighted important factors impacting it. Then, we assessed the various gastroretentive techniques that have been devised and developed up to this point, including high density (sinking), floating, bio- or mucoadhesive, expandable, unfoldable, ultra porous hydrogel, and magnetic systems. Additionally, the advantages of gastroretentive medicine administration systems were thoroughly covered.

Keywords: GRDDS

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