

Research Paper

FORMULATION AND BIOPHARMACEUTICAL EVALUATION OF FUROSEMIDE LOADED GASTRO RETENTIVE TABLET

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The current work was carried out to design the floating drug delivery system to reduce side effects, boost action prolongation, decrease the frequency of administration, and cost-effective. The floating drug delivery (FDD) as furosemide-containing non-effervescent tablets (Furosemide) prepared by the direct compression method by using the different polymers like HPMC K4M, K15M and K100M and effervescing agents sodium bicarbonate. The formulations were evaluated on different parameters like thickness, hardness, friability etc. The prepared tablets were determined floating parameters like swelling index and in-vitro buoyancy test and estimated the mechanism of the drug release rate kinetics of the dosage form, the data were supported with zero-order, first-order, Higuchi, and Korsmeyer-Peppas release model. The drug release from the floating tablets was found to be non fickian diffusion obeying zero-order kinetics.

Key Words: Floating Drug Delivery System, Gastro Retentive Tablet, HPMC K4M, Furosemide.

www.pharmaerudition.org Aug. 2021, 11(2), 49-61