International Journal of ChemTech Research
CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.11 No.09, pp 383-392, 2018

Formulation and Evaluation of Floating Tablets of Cimetidine

Harshvinder Singh*, Shilpa Pahwa, Kaushal Dhamija, Vandana Arora

Department of Pharmacy, Lloyd Institute of Management & Technology
Greater Noida - 201306, U.P., India

Abstract : The aim of present work was to develop and evaluate the floating tablets of cimetidine. The effect of polymer concentration and type of polymer were examined. The floating drug delivery system (tablets) were prepared by direct compression method using HPMC (K4M & K15M) as polymer and sodium bicarbonates as gas generating agent. All formulations were evaluated for the pre compression and post compression, *In vitro* buoyancy, *In vitro* dissolution studies, and short term stability study. Pre-compression studies revealed that there was no sign of any interaction between drug and polymers and all formulation showed good flow properties. Results of post compression parameters were found within the limits for all formulations. Among all the formulation F3 showed better buoyancy and drug release profile. The release of drug from the prepared formulations (F3) was found to follow zero order and mechanism was non-fickian. Stability studies showed that there were no significant changes in the buoyancy, drug release rate and physical appearance. It was concluded that drug release rate was increased as the concentration of polymer decreased. HPMC K4M showed greater drug release rate as compared to HPMC K15M.

Keywords: cimetidine, floating drug delivery system, HPMC, buoyancy, in-vitro evaluation, stability.

Harshvinder Singh *et al* /International Journal of ChemTech Research**,** 2018,11(09): 383-392.

DOI= http://dx.doi.org/10.20902/IJCTR.2018.110944

*****