



Controlled Release Society Indian Chapter

One Day National Seminar on

Translational Research: From Bench to Bedside

Sunday, 17th November, 2019

SOUVENIR & ABSTRACT BOOK

Organized by -

All Pharmacy Colleges

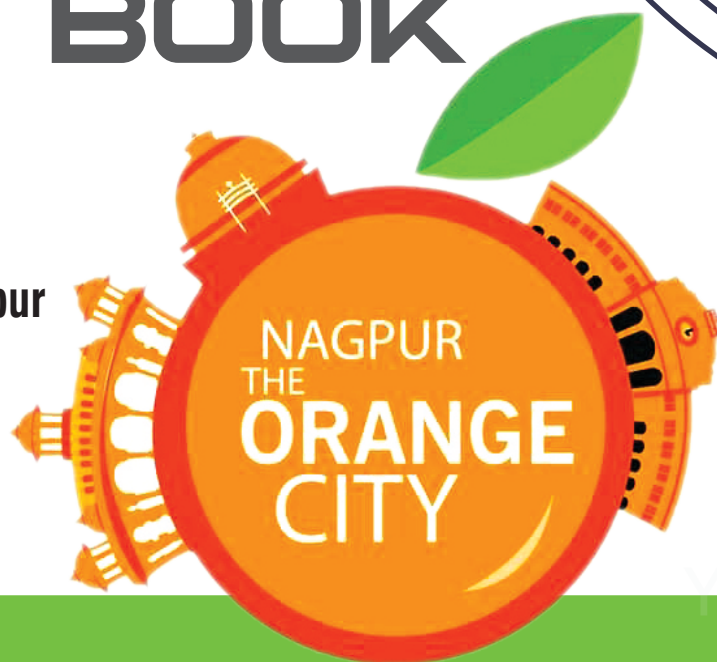
Affiliated to R.T.M. Nagpur University, Nagpur

Venue :

Hotel Tuli Imperial

Ramdaspath,

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SOUVENIR

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FORMULATION DEVELOPMENT AND EVALUATION OF FAST RELEASE BUFFERED TABLET OF Eesomeprazole

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Abstract:

Aim: The aim of the study was to develop fast release buffered tablet of proton pump inhibitors esomeprazole which is fast degraded into the gastric acid in stomach. **Objective:** To protect Proton pump inhibitors (esomeprazole) from gastric degradation for oral administration using buffering agent. **Methodology:** Modified Fuchs model was used for selection of buffer combination. The fast release compressed tablet containing buffer combination selected on the basis of how much alkalizing agent required for producing 0.1M solution and the normal amount of gastric acid present in it. The formulation contains combination of sodium bicarbonate and magnesium hydroxide, sodium carbonate and magnesium hydroxide. Calcium carbonate and sodium bicarbonate as a buffering agent and sodium starch glycolate 2%, 4% and 6% as disintegrates. The tablets manufactured on a rotary tablet machine were evaluated for friability, hardness, disintegration, dissolution and drug content. **Result and Discussion:** The formulation containing sodium bicarbonate and magnesium hydroxide and 6% sodium starch glycolate was optimize on the basis of result as this formulation maintain pH of stomach more than 5 and simultaneously release drug within 80 minutes. **Conclusion:** It was concluded that formulation has obtained the pH 5.8 after 60 min and disintegrated within 75 sec, the optimized formulation due to its fast disintegration time and ability to maintain the pH more than 5. It can be concluded that buffered esomeprazole tablet can be effectively use as an ideal drug release formulation for treatment of peptic ulcer diseases.

Keywords

Esomeprazole, Proton pump inhibitors, buffered tablet, Fast release tablet

