

SHORT COMMUNICATIONS

DESIGN AND DEVELOPMENT OF GASTRO-RETENTIVE FLOATING DRUG DELIVERY SYSTEM OF AMOXICILLIN

ABSTRACT

Amoxicillin, a widely used antibiotic, suffers from a short biological half-life and limited absorption in the lower gastrointestinal tract, necessitating frequent dosing which can lead to poor patient compliance and reduced therapeutic efficacy, particularly in treating *Helicobacter pylori* infections. This paper outlines the GRFDDS of amoxicillin, aimed at prolonging GRT and making it more bioavailable. The system leverages effervescence-generating excipients and swellable polymers to achieve sustained drug release in the stomach, thereby improving therapeutic outcomes and simplifying dosing regimens.