

[DOI: 10.20472/IAC.2018.042.027](https://doi.org/10.20472/IAC.2018.042.027)

SAGAR KADAM

Hon. Shri Babanrao Pachpute Vichardhara Trust, GOI, College of Pharmacy, India

SHASHIKANT DHOLE

S.N. Dhole Savitribai Phule Pune University (P.E.S., Modern College of Pharmacy (For Ladies, Moshi, Pune), India

SOHAM CHITLANGE

Dr. D. Y. Patil Institute of Pharmaceutical Sciences & Research, Pune, India

“FORMULATION AND EVALUATION OF CHRONOTHERAPEUTIC PULSATLE DRUG DELIVERY SYSTEM”

Abstract:

The aim of present investigation was to develop press coated tablet for pulsatile drug delivery of Salbutamol sulphate using hydrophilic and hydrophobic polymers. The drug delivery system was designed to deliver the drug at such a time when it could be most needful to patient of rheumatoid arthritis. The press coated tablets containing Salbutamol sulphate in the inner core was formulated with an outer shell by different weight ratio of hydrophobic polymer (micronized ethyl cellulose powder) and hydrophilic polymers (Glycinemax Husk or sodium alginate). The release profile of press coated tablet exhibited a lag time followed by burst release, in which outer shell ruptured into two halves. Authors also investigated factors influencing on lag time such as particle size and viscosity of ethyl cellulose, outer coating weight and paddle rpm. The surface morphology of the tablet was examined by a scanning electron microscopy. Differential scanning calorimeter and Fourier transformed infrared spectroscopy study showed compatibility between Salbutamol sulphate and coating material.

Keywords:

Press coated tablet, Salbutamol sulphate, lag time.

JEL Classification: P46, I00