

ABSTRACT

Study of In Vitro Drug Release in Intravaginal Drug Delivery Systems Using Multiple Mucoadhesive Polymers Literature Review

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Infections in female reproduction system becomes disease that affects many women at productive ages every years. Treatment for infection uses peroral drug delivery system that has many disadvantages. Researcher developed mucoadhesive preparations for intravaginal drug delivery system using mucoadhesive polymer. Mucoadhesive polymers interact with vaginal mucosa and can swell to modify the drug release. The aim of this research is to investigate the effect of the use of mucoadhesive polymer for drug release in intravaginal drug preparation and to determine mucoadhesive polymers that can be recommended for the development of intravaginal drug delivery system. This research is a scoping review, by reviewing published articles in online search engine, PubMed. Chitosan, Carbopol, HPMC, and *k*-carrageenan are mucoadhesive used in intravaginal drug delivery systems. Based on the results of reviewing published articles, HPMC can prolong the drug release. Use of HPMC and *k*-carrageenan combination can also prolong the drug release.

Keywords: Mucoadhesive Polymer, Intravaginal Drug Delivery System, Drug Release