

## Formulation development of Metformin HCl and Repaglinide: A novel approach to improve therapeutic efficacy

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Many antidiabetic drugs including sulfonyl ureas, Rosiglitazone and even Insulin have been suspected to have adverse cardiovascular effects. Lactic acidosis is the feared adverse effect of the biguanide drugs with high doses. We suggest that the mean plasma concentrations of Metformin over a dosage interval be maintained below 2.5 mg/L in order to minimize the development of this adverse effect. The present research work was an attempt to design a novel formulation to improve the oral therapeutic efficacy with optimal control of plasma drug level which contains two antidiabetic drugs Metformin HCl and Repaglinide. Bilayer tablet formulation has been developed consisting of two drug containing layers which comprises Metformin sustained mucoadhesive release layer and an immediate release layer of Repaglinide was optimised separately and constituted in bilayer tablet, a common analytical method for quantitative combined drug estimation was employed and evaluated by HPLC.

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