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## AN EFFICIENT TREATMENT STRATEGY FOR HCV PATIENTS USING OPTIMAL CONTROL

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## Abstract

Optimal control theory is applied to a system of ordinary differential equations modeling the Hepatitic C Virus (HCV) infection. The optimal controls represent the efficiency of drug therapy in inhibiting viral prouction and preventing new infection are characterized in terms of the optimality system, which is solved numerically.

Key Words : Optimal control, Hepatitis C Virus infection, Pontryagin's maxi- mum principle