IPK/PD/VD modeling for multi-drug treatment on HCV infection

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ABSTRACT

Direct-acting antivirals (DAAs) treat hepatitis C virus (HCV) by targeting its intracellular viral replication. DAAs are effective and deliver high clinical performance against HCV infection, but optimization of the DAA treatment regimen is ongoing. Different classes of DAAs are currently under development, and HCV treatments that combine two or three DAAs with different action mechanisms are being improved. To accurately understand the antiviral effect of these DAA treatments and optimize multi-drug combinations, we need to consider virus dynamics (VD) coupling with Pharmacokinetics (PK) and Pharmacodynamics (PD). Here we intoduced PK/PD/VD model and discuss how our approach optimize current gold-standard HCV treatments.

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