Proposed hazard functions for HIV-HCV co-infection model

Having HIV increases risk for HCV.

Updated hazard for HIV transmission

$\text{hazard} = \exp(a + bV^{-C} + d_1 P_{\text{HIV-infected}} + d_2 P_{\text{HIV-uninfected}} + Wf_1 \exp(f_2(A_{\text{woman}}(t_{\text{ry}}) - A_{\text{debut}})) + gM + hH)$

M = indicator for a person of being male

H = indicator for a person of being HCV infected

Updated hazard for HCV transmission

$\text{hazard} = \exp(a + b(t - t_{\text{infected}}) + c_1 P_{\text{HIV-infected}} + c_2 P_{\text{HIV-uninfected}}))$