

Cost-effectiveness of peginterferon alfa-2a (40kDa) plus ribavirin in patients with HIV and hepatitis C virus co-infection.

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Abstract

BACKGROUND: A multinational trial (APRICOT) showed that peginterferon alfa-2a (40kDa) plus ribavirin is efficacious for treatment of HIV-HCV co-infection. The cost-effectiveness of treating these patients with peginterferon alfa-2a/ribavirin has yet to be explored from a US societal perspective.

OBJECTIVE: To predict the cost-effectiveness of peginterferon alfa-2a/ribavirin with interferon/ribavirin (IFN/RBV) or no treatment in HIV-HCV co-infected patients.

STUDY DESIGN: A Markov model was constructed with liver progression estimates based on published literature. Sustained virological response and baseline characteristics of the reference case were based on APRICOT. Quality of life and costs in 2004 US dollars (US\$) were based on literature estimates and discounted at 3%.

RESULTS: Peginterferon alfa-2a/ribavirin compared with IFN/RBV or no treatment is predicted to increase quality-adjusted life-years (QALYs) by 0.73 and 0.94 years, respectively, in HCV-genotype-1 patients. The incremental cost-effectiveness ratio of peginterferon alfa-2a/ribavirin compared with IFN/RBV and no treatment for all patients is respectively US\$ 2,082 and 5,187/QALY gained.

CONCLUSIONS: Anti-HCV treatment is predicted to decrease the risk of cirrhosis and increase quality-adjusted survival of HIV-HCV co-infected patients compared with IFN/RBV and no treatment. Peginterferon alfa-2a/ribavirin's cost per QALY gained relative to these options falls within the cost-effectiveness level of many health technologies commonly adopted in the US.

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