

Cost-effectiveness of enfuvirtide for treatment-experienced patients with HIV in Italy.

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Abstract

BACKGROUND: Enfuvirtide (ENF) plus an optimized background (OB) antiretroviral regimen delays virological failure (VF), reduces HIV-1 viral load, and increases CD4 count compared with OB only in pretreated patients.

PURPOSE: To forecast long-term outcomes, costs, and cost-effectiveness of ENF+OB vs. OB in the Italian health care system.

METHOD: A Markov model was developed and clinical trial results on viral suppression and CD4 count were linked with data from HAART-era studies of the risk of AIDS-defining events (ADEs) and death. Resource data were obtained from Italian sources on direct medical costs. Cost-effectiveness was computed as the incremental cost per quality-adjusted life year (QALY) saved.

RESULTS: Patients receiving ENF+OB were projected to experience a mean time to virological failure of 1.0 years vs. 0.5 years for OB and mean time to immunological failure of 3.1 years vs. 1.3 years for OB. Life expectancy and QALYs were greater for ENF+OB than OB by 1.8 and 1.5 years, respectively. Total lifetime medical cost was euro 126,487 for ENF+OB and euro 84,416 for OB, a difference of euro 42,071 due to the cost of ENF itself (euro 18,400) and the medical costs associated with additional life expectancy (euro 23,671). The incremental cost-effectiveness of ENF+OB was euro 23,721 per life year (euro 28,669 per QALY).

CONCLUSION: ENF+OB is predicted to increase life expectancy at a cost per life year that is comparable to many well-accepted therapies in Europe.

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