individual born in 2005 returns a lifetime positive NPV to the government of £160,069 with a break-even point (ie. where the NPV becomes positive) at age 31. A child with similar characteristics, but conceived using IVF, has a lifetime NPV of £144,000 with a break-even point at age 33. Sensitivity analysis indicated that these results are sensitive to assumptions about the working age interval, inflation rate, discount rate, and increasing age related health costs. CONCLUSION: Despite modelling limitations, we conclude that under reasonable assumptions IVF costs are relatively insignificant vis-a-vis other costs and benefits to government. While the model does not forecast the full economic benefits associated with investment in IVF, it does demonstrate the potential long-term financial returns of improved access to IVF services.

COST-EFFECTIVENESS OF DARUNAVIR/R IN HIGHLY TREATMENT-EXPERIENCED HIV/AIDS PATIENTS IN DIFFERENT EUROPEAN HEALTH CARE SETTINGS
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OBJECTIVES: To determine whether the protease inhibitor (PI) darunavir boosted with low dose ritonavir (DRV/r) is cost-effective, compared to currently available PIs, as part of highly active anti-retroviral therapies (HAART), in highly pre-treated HIV-1-infected adults who failed >1 PI-containing regimen in European healthcare settings. This analysis included Belgium, Italy and Sweden and focused on the payer perspective.

METHODS: A Markov model was adapted which contains 6 health states defined by CD4+ T-cell count range (<50, 51–100, 101–200, 201–350, 351–500 and >500 cells/mm³) and a state “death” (Mauskopf et al, 2006). Clinical trial (POWER1&2) data were used to model the composition of HAART regimens, patient characteristics and transition probabilities during DRV/r or comparator PI(r) treatment, both combined with optimised background regimen (OBR). After treatment failure, patients were assumed to switch to tipranavir/ritonavir-containing regimens ((TPV/r)+OBR). Transition probabilities during TPV/r treatment were obtained from published clinical trials. Utility values and HIV-related mortality were obtained from published literature. Published relative risks of non-HIV mortality in HIV patients were applied to country-specific all-cause mortality statistics. Non-HAART-related costs in each model state were derived from observational studies in each country. Costs and effects were discounted according to local guidelines. The quality-adjusted lifetime incremental cost-effectiveness ratio (ICER) was calculated for the base-case. Univariate and probabilistic sensitivity analyses were applied. RESULTS: For Sweden, Italy and Belgium respectively, quality-adjusted life year (QALY) gains of 1.142, 1.171 and 1.397 were predicted for patients treated with DRV/r in the base-case analysis. The base-case ICER for DRV/r was €12,211/QALY, €16,668/QALY and €12,584/QALY respectively. The DRV/r ICER remained consistently below the often quoted threshold of €30,000/QALY throughout extensive sensitivity analyses. The probability of an ICER below €30,000/QALY was above 92% in all countries. CONCLUSION: DRV/r is predicted to be cost-effective versus currently available PIs in highly pre-treated HIV-1-infected adults in different European health care settings.

MODELING THE COST-EFFECTIVENESS OF A NEW TREATMENT FOR MS (NATALIZUMAB) COMPARED TO CURRENT STANDARD PRACTICE IN SWEDEN
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OBJECTIVES: To estimate the cost-effectiveness of a new treatment (natalizumab) for multiple sclerosis (MS) compared to current standard therapy with disease-modifying drugs (DMDs) in Sweden. METHODS: A Markov model was constructed to illustrate disease progression based on functional disability (EDSS). Disease progression while on treatment with natalizumab was based on a two-year placebo-controlled clinical trial in 942 patients (AFFIRM). Progression while on treatment with current DMDs was estimated from a matched sample of 312...