PAN-GENOTYPIC COST-EFFECTIVENESS OF SOFOSBUVIR IN HEPATITIS C VIRUS IN THE NETHERLANDS
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INTRODUCTION

- The prevalence of hepatitis C infection (HCV) in The Netherlands is estimated at 0.6% with 50% of patients having HCV genotype 1 (GT1), 10% GT2, 30% GT3 and 10% GT4.
- Treatment of HCV aims at eradicating the virus and consequently preventing cirrhosis and its complications, reducing extra-hepatic manifestations, and preventing disease and cancer morbidity.
- Current standard of care (SoC), regardless of genotype consists of weekly subcutaneous pegylated interferon-alpha (pegIFN) plus daily oral ribavirin (RBV). In GT1, the protease inhibitors telaprevir (TVR) or boceprevir (BOC) are added.
- Sofosbuvir (SOF), a novel Direct Antiviral Agent (DAA), has consistently demonstrated high rate of sustained virological response (SVR) when given with RBV/pegIFN in all genotypes.

OBJECTIVE

This study assesses the PAN-genotypic cost-effectiveness of SOF compared with standard care (SoC) in the Netherlands with specific attention for subgroups for whom no treatment alternatives are available (ineligible for pegIFN).

METHODS

A health state transition model was used, reflecting efficacy and safety data from published RCTs with SOF/pegIFN/RBV, pegIFN/RBV, TVR/pegIFN/RBV and BOC/pegIFN/TVR (1-7). The model structure is shown in Figure 1.

- Sustained virologic response (cure) is defined as undetectable HCV RNA, 12 weeks following treatment completion. Patients without an SVR face an annual probability of progressing to more advanced stages of the disease: compensated cirrhosis, decompensated cirrhosis, hepatocellular carcinoma, liver transplant, death (Figure 1).
- The model has a lifetime horizon, a cycle length of three months for the first two years and a year thereafter and costs are discounted with 4% and 8% outcomes with 1.5%.

RESULTS

- Figure 2 shows the incremental costs and QALYs for SOF-based treatment compared to SoC for all patient subgroups studied in a cost-effectiveness plane and cost-effectiveness acceptability curve for patients with GT1 ineligible for pegIFN.
- In general ICERs were lower in pegIFN eligible patients, patients with GT 2 and treatment experienced patients.

CONCLUSION

- PAN-genotypic cost-effectiveness is demonstrated for sofosbuvir in the treatment of HCV in the Netherlands.
- Although the ICER in patients who are non-eligible for pegIFN is higher, this represents a subgroup with a high medical need and high H/LG Yanks.

DISCLOSURE

This study was funded by Gilead Sciences Netherlands BV, Amsterdam. AN is currently, directs a have a financial interest in current treatment, and serve for Patient Focus. HR and RD serve for Boehringer Ingelheim, Lilly and have had a financial interest in current treatment and serve for Patient Focus. BV serves for Roche, and has had a financial interest in current treatment and serve for Patient Focus.