Abstracts

Pegasys, Peg-Intron, and CIFN respectively. For pegylated-IFN non-responders, the cost per SVR obtained is $287,516, $325,515, and $68,880 for Pegasys, Peg-Intron, and CIFN respectively. CONCLUSION: Treatment of chronic HCV infection with CIFN is the most cost-effective approach in terms of minimizing both drug costs and the cost per SVR obtained. This economic modeling tool helps demonstrate the value of using evidence-based data to link costs to outcomes and how the available IFNs vary significantly in their cost per SVR obtained.

**PG16**

**COST-EFFECTIVENESS OF SCREENING PRISON POPULATION OF MARYLAND CORRECTIONAL FACILITIES FOR HEPATITIS C**

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**OBJECTIVES:** It is estimated that up to 1.4 million prison inmates are infected with hepatitis C each year. The study objective is to assess the cost-effectiveness of screening in the incarcerated population of Maryland's correctional facilities, from a societal perspective. **METHODS:** We used a Markov model with a 1-year cycle length, to simulate hepatitis C disease progression in a hypothetical cohort of prisoners, mean age 30 years old, and largely (90%) males, whose estimated incarceration time is at least 15 months. The screening strategy included a preliminary test by ELISA followed by confirmatory qualitative PCR. The treatment consisted of combination therapy (pegylated interferon and ribavirin) for 48 and 24 weeks in patients with genotype 1 and genotype 2 or 3 respectively. Costs (2004, US dollars) and effectiveness measures (Quality Adjusted Life Years—QALYs) were discounted at 3%. Costs, specificity, and sensitivity of tests were obtained from published studies. Age and gender specific mortality rates were obtained from U.S. life tables. Estimates of disease progression rates were obtained from previously published cost-effectiveness studies of combination treatment. Treatment efficacy rates were obtained from pooled studies of randomized controlled clinical trials. Detailed resources utilization costs in each of the clinical states (hospitalizations, medical interventions, admissions, interventions, and outpatient visits) were obtained from a previously published study. QALYs for each clinical state were obtained from a previously published estimations using a panel of hepatologists. Univariate sensitivity analyses were performed to control for uncertainty. **RESULTS:** The incremental cost-effectiveness of screening relative to no screening was $952 per QALY gained. The model was robust to the changes in the plausible values of the parameters. **CONCLUSIONS:** Our model indicates that it is cost-effective to screen prison populations.

**PG17**

**COST-EFFECTIVENESS (C-E) OF TEGASEROD VS. PLACEBO FOR TREATMENT OF IRRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C)**

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**OBJECTIVES:** The economic evaluation of Tegaserod was performed using data from a randomised, double-blind, placebo-controlled, parallel group, multinational, multi-centre study to assess the efficacy of treatment with Tegaserod 6mg bid and Placebo in women with IBS-C. The study consisted of a screening period, a 2-week baseline period without medication, and a 4-week placebo-controlled treatment period. **METHODS:** A total of 2660 patients were randomized, to receive either Tegaserod (n = 2135) or Placebo (n = 525). Patients' utility were obtained using the EQ-5D at baseline, 2 and 4 weeks, and used to construct a quality-adjusted life year (QALY) for each patient. The EQ-5D was completed by a subpopulation of 2,777 patients (235 Tegaserod: 42 Placebo). The economic perspective was that of a third party pharmacy payer, based only on the cost of Tegaserod. Other costs were not included. It was assumed that patients receiving Placebo represent untreated patients and the cost of drugs in this arm was set at zero. The gain in QALYs for each patient was calculated as the area under the utility curve from baseline to four week follow-up. **RESULTS:** The utility data suggests that patients in the Tegaserod group have a significantly higher, 0.074 (95% CI: 0.009 to 0.139; p = 0.027), EQ-5D score at follow-up than Placebo treated patients after adjusting for baseline utility score. **CONCLUSIONS:** These utilities convert to an estimated QALY of 0.052 for Tegaserod patients vs. 0.048 for Placebo: difference 0.004 QALYs. At an assumed drug cost of $5.00 per day, the estimated difference in costs, over the 4-week treatment period between the Tegaserod and Placebo treated patients is $140, which leads to an ICER of $33,004/QALY which is under the recommended threshold of $50,000/QALY for the C-E of new treatments.

**PG18**

**A COST-EFFECTIVENESS ANALYSIS OF SCREENING FOR ESOPHAGEAL VARICES: HOW GOOD DOES A CLINICAL DECISION AID HAVE TO BE?**

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**OBJECTIVE:** To use a decision model to determine the conditions under which using a clinical decision aid (CDA) for estimating the presence of large esophageal varices (LEVs) in patients with cirrhosis would be cost-effective compared with the current standard of screening all patients (ALL). **METHODS:** Based on previous Markov decision model results we incorporated hemodynamic monitoring to assess response following beta-blocker therapy in both strategies. Variceal bleeding is treated with ligation and with transjugular intrahepatic portal-systemic shunt (TIPS) for refractory bleeding. Probabilities of treatment responses, risks of bleeding and mortality, and test characteristics of the CDA were based on published literature. Only direct costs discounted at 3% were considered during the 5-year time horizon. Outcomes included costs, life-years, QALYs, and percentages of patients bleeding, receiving TIPS, and dying from any cause. Sensitivity analysis was performed on CDA sensitivity, specificity, and LEV prevalence (base 75%, 13%, and 24% respectively). **RESULTS:** The ALL strategy cost $406 more than the CDA strategy, but resulted in the most life-years, and had an incremental cost-effectiveness ratio of $34,637/LY compared with the CDA strategy. The CDA strategy was more cost-effective for certain values of sensitivity, specificity, and prevalence. With a willingness to pay of $50/KLY and 70% specificity, the ALL strategy was not cost-effective when the CDA sensitivity was >81%, or when LEV prevalence was <18%. For 90% specificity, corresponding thresholds were >76% sensitivity and <24% prevalence. For 53% specificity, thresholds were >87% and <13%, respectively. Use of QALYs increased thresholds for sensitivity and reduced those for prevalence of LEV for all specificity values. **CONCLUSIONS:** The model indicates that although screening all cirrhotic patients for LEV is cost-effective compared with the base-case CDA strategy, a CDA strategy may be preferred under conditions of lower LEV prevalence or better CDA sensitivity.