The aim of this study was to determine the inflection point in daily drug dose at which a switch to LC becomes cost-effective in dialysis patients on SH/SC with a high pill burden. METHODS: A Microsoft Excel-based pharmacy budget impact model was developed. A decision tree analysis was used to model the cost impact of LC versus SH/SC therapy from the standpoint of a US-based dialysis organization. Model assumptions were based on published literature, market research data, and prescription information. User inputs included drug cost, adherence, and number of patients, first- and second-line protocols, and serum phosphate target levels. RESULTS: The cost of an initial dose of SH/SC 4800 mg/day was lower than that of LC 1500 mg/day. After a first titration step, SH/SC 2250 mg/day vs LC 750 mg/day exhibited cost savings in favor of LC of $15/day vs SH and $8/day vs SC. The estimated potential cost savings of switching one patient to LC 3000 mg/day compared with up-titrating SH/SC or SC 960 mg/day for 951 days was $451 or $465, respectively. This equates to an estimated saving of $13.8 million/year for the 4096 patients who were modeled to switch to LC based on utilization data. CONCLUSIONS: BIM modeling that the inflection point at which LC becomes cost-effective is SH/SC 7200 mg/day. Substantial savings in PB costs can be realized by switching patients to LC instead of increasing the SH/SC dose above 7200 mg/day. This strategy has the potential to reduce the overall budgetary impact for US-based dialysis centers under the CMS bundle.

PHS12 ASSESSING THE IMPORTANCE OF FIBROSIS STAGE ON THE COST-EFFECTIVENESS OF RIBAVIRIN-COHORT VERSUS RIBAVIRIN-BASED SCREENING AND TREATMENT FOR HEPATITIS C VIRUS INFECTION
McKee E1, Ward T1, Yuan Y1, Italien G²
1HEOR Consulting, Monmouth, UK, ²HEOR Ltd, Monmouth, UK, ³Bristol-Myers Squibb, Fairfield, NJ, USA, ⁴Bristol-Myers Squibb and Yale University School of Medicine, Wallingford, CT, USA
OBJECTIVES: Recent studies have demonstrated that birth-cohort (BC) versus risk-based (RB) screening for hepatitis C virus (HCV) infection in the U.S. is cost-effective. The cost and logistical implications of widespread screening and treatment are important considerations from a policy perspective; therefore, the aim of this study was to evaluate the where the greatest potential for cost savings and intervention on unassisted life years (UALYs) gained exists, when comparing BC versus RB screening policies. METHODS: A published Markov model describing the natural history of HCV was adapted to a U.S. setting. The BC target population was subjects born from 1945-65. Eligible patients identified were treated with a direct-acting anti-viral (DAA) regimen with pegylated interferon, plus ribavirin, achieving SVR rates of 0.780.76 for genotype 1 (GT1) and 2/3 (GT2-3) respectively for fibrosis stages F0-F2; 0.62/0.67 (GT1/GT2-3) for F3 and 0.62/0.57 for F4. Published U.S. health care costs for BC screening and treatment were discounted at 3.0%. RESULTS: From a tested population of 66.2 million, 1,070,840 were identified and 551,800 were allocated treatment over a ten year period. The cost-effectiveness of BC compared to RB screening and treatment was $32,945; with treatment prioritized towards F3/F4 the CE decreases to $23,269 and with treatment prioritized towards F1/F2 increases to $44,721. Furthermore, prioritizing treatment in more advanced patients had the potential to further reduce direct costs by $159,998 and avoid an additional 31,636 HCV related complications compared to prioritizing treatment in less advanced patients. CONCLUSIONS: This study confirms that BC screening and treatment is cost point at which all fibrosis stages and demonstrates that a strategy prioritizing treatment in F3/F4 would minimize the