compared to infliximab was $3.5 million/QALY. Certolizumab pegol and vedolizumab were eliminated by extended dominance. In comparison between infliximab and active control, the model was robust to all variables in one-way sensitivity analysis. Results comparing adalimumab and infliximab were sensitive to utility values. In the PSA, infliximab was 99.6% cost-effective compared to active control; however, adalimumab was only 2.6% cost-effective. **CONCLUSIONS:** Infliximab is cost-effective relative to active control, whereas, adalimumab is not when compared to infliximab. Other studies have reported varying results which highlights the importance for further work in this area.

PGI19

HEALTHCARE COSTS OF A CONSECUTIVE COHORT OF PATIENTS WITH ULCERATIVE COLITIS AND CROHN'S DISEASE TREATED AT A TERTIARY MEDICAL CENTER IN ISRAEL

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OBJECTIVES: Up-to-date estimation of healthcare costs in Ulcerative Colitis (UC) and Crohn's Disease (CD) patients is crucial to inform budgeting and resource allocation decisions. Recent introduction of biologic therapies rendered previous cost studies with standard therapy obsolete. We sought to determine healthcare costs in a consecutive sample of real-world UC and CD patients managed in a specialized facility in a tertiary referral center in Israel. **METHODS:** Data-bases of patients enrolled in an ongoing socio-economic study were mined to determine healthcare resource utilization during the years 2012 and 2013. This included direct charges for in-patients and out-patients, hospitalizations, investigations and medical and surgical treatments. Prices were obtained from the Ministry of Health Tariff (12/2014) and expressed as US $. Data express costs related to UC and CD patients, excluding any treatments for co-morbidities. **RESULTS:** This adult cohort had a mean age of 45.1 ± 17.2 years, with M:F ratio 1.04. The mean [median] healthcare cost/patient was: UC, 2012 (n=273): $1,710 [$847], 2013 (n=280): $1,983 [$916]; CD, 2012 (n=263): $4,231 [$1,450], 2013 (n=280): $4,568 [$1,169]. Between-year differences in costs were not statistically significant. Over the two-year period, the major cost drivers in UC were procedures (37.3% of costs), consultations (20.4%), biologic medication (17.8%), standard medication (13.5%) and hospitalization (9.4%). In CD, the cost drivers were biologic medication (47.4%), surgery (13.8%), procedures (12.1%), consultations (11.21%), hospitalization (10.7%) and standard medication (4.8%). Mean biologic medication cost/patient in UC increased from $293 in 2012 to $352 in 2013; and for CD from $1882 to $2289 respectively. This paralleled an increase in the number of patients receiving biologic medication from 65 in 2012 to 76 in 2013; of these, 81% had CD. **CONCLUSIONS:** CD patients engender much higher healthcare costs that those with UC. Expensive biologic medication now becomes the major cost driver in CD, but not UC, patients in the current era.

PGI20

PREDICTORS OF HIGH HEALTHCARE RESOURCE UTILIZATION AND LIVER DISEASE PROGRESSION AMONG PATIENTS WITH CHRONIC HEPATITIS C

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OBJECTIVES: Although the high cost burden of chronic hepatitis C (CHC) has been described in the literature, there is a lack of data on the assessment of characteristics associated with high healthcare utilizers. The purpose of this study was to identify demographics and clinical characteristics associated with high healthcare utilizers and liver disease progression among CHC patients. **METHODS:** Health insurance claims from 60 self-insured US companies were analyzed (01/2001-03/2013). Adult patients with ≥2 CHC claims (ICD-9-CM: 070.44 or 070.54), ≥6 months of continuous insurance coverage before the first CHC diagnosis and ≥36 months after were included. Patients with HIV were excluded. Demographics and baseline comorbidities including CHC- and non-CHC-related conditions were described. Generalized estimating equations with logit link for binary outcomes were used to identify the most predictive demographics and clinical characteristics of being in the 20% of patients with the highest healthcare resource utilization (HRU). Predictive factors of liver disease progression were also identified. **RESULTS:** The mean age of the study population (N=4,898) was 52.4 years and 39.4% were female. Compensated cirrhosis, ESLD and both CHC- and non CHC-related comorbidities were strong predictors of high healthcare costs, with odds ratios (ORs; 95%CI) for ESLD, ≥2 CHC-related, and ≥2 non CHC-related comorbidities of 3.31 (2.80-3.92), 2.78 (2.47-3.12), and 2.18 (1.75-2.71), respectively. CHC- and non CHC-related comorbidities were also strong predictors of liver disease progression with ORs (95%CI) for ≥2 CHC-related and ≥2 non CHC-related comorbidities of 2.18 (1.83-2.60) and 1.50 (1.14-1.97), respectively. **CONCLUSIONS:** This real-world study suggests that CHC patients with the highest HRU and costs had a high level of comorbidity at baseline and that non-CHC conditions are strong predictors of high healthcare costs. Liver disease severity alone does not fully predict high consumption of HRU, although when present it is a predictor of high HRU.

PGI21

COST-EFFECTIVENESS OF TREATING HEPATITIS C VIRUS (HCV) GENOTYPE 1 (GT1) PATIENTS WITH ABBVIE 3D (PARITAPREVIR/RITONAVIR/OMBITASVIR AND DASABUVIR) +/- RIBAVIRIN COMPARED TO HARVONI (SOFOSBUVIR/LEDIPASVIR) IN THE UNITED STATES

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OBJECTIVES: Interferon (INF)-free therapies for the treatment of hepatitis C virus (HCV) offer better viral clearance rates and safety profiles than older therapies but are priced higher. These therapies have also been shown to have favorable cost-effectiveness profiles compared with older therapies; however, the cost-effectiveness of INF-free regimens relative to each other is unclear. The objective of this study was to assess the cost-effectiveness of treating genotype 1 (GT1) HCV patients with AbbVie 3D (paritaprevir [developed by AbbVie and Enanta] /ritonavir/ombitasvir/dasabuvir) +/- ribavirin compared with Harvoni® (sofosbuvir/ledipasvir) in the United States. **METHODS:** A cost-effectiveness Markov model, based on previous HCV models, had 13 health states: 8 disease progression states (F0-F4, decompensated cirrhosis, hepatocellular carcinoma, and liver transplant), 3 sustained virologic response states, and 2 mortality states (liver-related and non-liver-related death). Transition rates were obtained from previous models. Adverse events, treatment-related disutility, and efficacy rates were based on phase 3 clinical trials. Baseline patient characteristics were derived from AbbVie 3D phase 3 clinical trials. Treatment durations were 24 weeks for GT1a experienced cirrhotic patients with AbbVie 3D and 8 weeks for 26% of GT1 treatment naïve patients with Harvoni. Direct medical costs were based on a systematic literature review and drug costs were based on December 2014 Red Book. The model was run over a lifetime horizon, discounting at 3% annually. Outcomes were measured in quality-adjusted life-years (QALYs). Probabilistic simulation analysis (PSA) was conducted by varying all parameters simultaneously. **RESULTS:** AbbVie 3D resulted in discounted lifetime costs per patient of $99,753 and 16.20 QALYs. Harvoni resulted in lifetime costs of $108,430 and 16.18 QALYs. With lower costs (-$8,677) and higher QALYs (0.02), AbbVie 3D dominated Harvoni. AbbVie 3D was superior in 98.4% of PSA simulations when QALYs were valued at $100,000 each. **CONCLUSIONS:** With higher QALYs and lower costs, AbbVie 3D dominated Harvoni in GT1-HCV-infected patients.

PGI22

ASSESSING THE COST-EFFECTIVENESS OF A UNIVERSAL ROTAVIRUS VACCINATION PROGRAM FOR THE PHILIPPINES USING A DYNAMIC TRANSMISSION MODEL

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OBJECTIVES: Evaluate the cost-effectiveness of universal rotavirus vaccination of children below age of five years old in the Philippine setting **METHODS:** We developed an age-stratified dynamic transmission model which compared four settings (baseline of no vaccine with 34% exclusive breastfeeding rate (EBR), two-dose monovalent vaccine (RV1), three-dose pentavalent vaccine (RV5), and no vaccine with 80% EBR) in the Philippine population over a 5-year time horizon. Model parameters such as cost and vital statistics were Philippine specific and other parameters such as vaccine efficacy and utility were extrapolated from literature. Univariate one-way and multivariate probabilities sensitivity analyses were conducted. **RESULTS:** Compared to baseline, the model showed that vaccination could lead to significant reduction in rotaviral morbidity and mortality in the 0 to <5 age group as well as inducing herd immunity in the older groups. The incremental cost-effectiveness ratios (ICER) of vaccination versus baseline from a societal perspective were US$ 13,184/DALY for RV1 and US$ 11,836/DALY for RV5; these are higher than the the current government cost-effectiveness threshold equal to the Philippine GNI per capita of US$ 3,134. Comparing 80% EBR to baseline, ICER is US$ 256,417/DALY. ICERs were sensitive to changes in case fatality, proportion of diarrhea cases due to rotavirus, and vaccine efficacy. The vaccine was cost-effective in less than 10% of 5000 Monte Carlo simulations. We estimated cost-effective prices of US$ 2.85/dose RV1 and US$ 1.96/dose RV5 which were lower than the current price of US$ 9.85/dose RV1 and US$ 6.43/dose RV5. **CONCLUSIONS:** Despite herd immunity benefits, universal vaccination using either RV1 or RV5 is unlikely to be cost-effective, at current tendered prices, for the Philippine setting, despite the herd immunity benefits. It might be due to comparatively low case-fatality rates. Current prices need to be decreased around 70% to achieve cost-effectiveness.

PGI23

COST EFFECTIVENESS OF DACLATASVIR/ASUNAPREVIR VERSUS PEGINTERFERON/RIBAVIRIN AND PROTEASE INHIBITORS FOR THE TREATMENT OF HEPATITIS C GENOTYPE 1B IN CHILE

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OBJECTIVES: To assess the cost-effectiveness of daclatasvir plus asunaprevir (DCV/ASV) versus peginterferon plus ribavirin (PR) and first generation protease inhibitors (PIs) for the treatment of patients with hepatitis C genotype 1b, from the perspective of the Chilean public healthcare system. **METHODS:** A Markov cohort model (MONARCH) was built to estimate the expected costs in Chilean pesos (CL$) and benefits in quality adjusted life years (QALYs) from aggregated data. Efficacy was obtained from a mixed-treatment comparison study and costs were estimated from local sources. Utilities were estimated from the literature. A time horizon of 46 years and a 3% discount rate was considered for costs and outcomes. Three groups of patients were examined: untreated (naïve), partial responders and non-responders. The ICER in naive patients is presented for a range of DCV/ASV prices. Deterministic and probabilistic sensitivity analyses were performed. **RESULTS:** PIs were extendedly dominated by DCV/ASV. In naïve patients the ICER of DCV/ASV compared to PR was CL$ 15,696,479/QALY (US$26,160/QALY) at a treatment price of CL$48,000,000 (US$79,200); CL$10,751,318/QALY (US$17,918/QALY) at a price of CL$36,000,000 (US$60,000); CL$5,950,954/QALY (US$9,918/QALY) at a price of CL$24,000,000 (US$40,000); and CL$1,278,270/QALY (US$2,130/QALY) at a price of CL$12,000,000 (US$20,000). Whilst the probability of cost-effectiveness at a price of CL$36,000,000 was 59%, there is a 45% probability that DCV/ASV dominates PR if the price was CL$12,000,000. The ICER for partial responders was CL$6,082,698/QALY (US$10,137/QALY) and for non-responders CL$6,603,023/QALY (US$11,005/QALY) at a DCV/ASV price of CL$36,000,000. The ICER was more sensitive to the discount rate, efficacy of DCV/ASV and the utility of the sustained viral response state in cirrhotic patients **CONCLUSIONS:** DCV/ASV can be considered cost-effective at some particular price range. These results provide decision makers useful information about the value of incorporating these drugs into the public Chilean healthcare system.