was conducted from the National Public Health System (SUS) perspective. A Markov model was used to simulate the clinical course of HCV patients that had null or partial response to previous double antiviral therapy and underwent liver transplantation, with 10 years of historical time in the model. The expected cost and effectiveness were compared between EVR + TAC versus TAC. In both treatment strategies, there were the possibilities of rejection, graft loss, renal failure, and liver transplant-related death. The model was developed using a multicenter clinical randomized study that followed the patients for 2 years after liver transplantation using TAC or EVR + TAC. The chosen endpoints were rejection, graft loss and renal dysfunction (creatinine clearance <60, MDRD, mL/min/1.73m²). The estimative of 525 patients that will need a liver transplantation at SUS per year was used in Monte Carlo microsimulation, based on 2014 data. RESULTS: EVR + TAC strategy preserved 26.2% of renal function, decreased 7.2% of rejections, avoided 1.9% of renal transplantation and 7.8% of liver re-transplantation. TAC + EVR + TAC increased the annual public costs in $172.78 (the first year) and $361.08 (the first two years) per patient. The simulation of EVR + TAC only in patient who will have to undergo liver transplantation using TAC will result in an additional cost of $251.02 per patient per complication avoided, 37% less than when all patients used TAC ($1,312.32). The Monte Carlo microsimulation for 525 potential patients resulted in a cost of $1,072.51 per patient per year free of complications treated with EVR + TAC, 18% less than when all patients were treated with TAC.

PG17 EARLIER DETECTION AND TREATMENT OF NON-ALCOHOLIC FATTY LIVER DISEASE. A ECONOMIC EVALUATION TO APPRAISE AN INNOVATIVE DIAGNOSTIC PATHWAY TO DETECT AND INTERVENE WHERE THERE ARE KNOWN RISK FACTORS

Tanajewski L1, Harris R2, Harman D3, Guha N4, Gkountounas G5, Berdanov V6, Elliott R7
1University of Nottingham, England, UK, 2University of Nottingham, Nottingham, UK, 3University of Nottingham, Nottingham, UK
OBJECTIVES: The prevalence of liver disease is increasing and often remains undetected until the late stage. The study estimated the cost-effectiveness of a novel diagnostic pathway (IDP) targeting adults with risk factors of non-alcoholic fatty liver disease (NAFLD) from an NHS England perspective. METHODS: Economic evaluation compared IDP (algorithm applied in a general practice to identify adults with risk factors for liver disease and NAFLD, stratifying disease severity using a Fibroscan to test liver stiffness, followed by hepatologist-led treatment appropriate to disease stage) with standard care (SC, hepato-cellular carcinoma, liver transplant and death). Transition probability, utility and resource use data were based on upstate UK sources, or – if not possible - on expert panel responses to indicate early disease management and its estimated effectiveness. Lifetime Markov cohort modelling with starting age of 68, annual cycle, and costs and utilities discounted at 3.5%-rate, was applied. Cost-effectiveness planes and cost-effectiveness acceptability curves, based on 5000-sample Monte Carlo simulation, were constructed. RESULTS: IDP yielded increased QALYs (2005) (~0.24, 0.18, 0.63) and reduced costs (~0.24, 0.18, 0.63) compared with SC from age 70 (2005).

PG18 COST-EFFECTIVENESS OF SIMEPREVIR VS. TELAPREVIR FOR THE TRIPLE THERAPY OF HEPATITIS C IN KAZAKHSTAN

Bektur C1, Nurgozhin T1, Abdukhakimova D2
1Nazarebayev University, National Laboratory Astana, Astana, Kazakhstan, 2Nazarbayev University, School of Science and Technology, Astana, Kazakhstan

OBJECTIVES: Hepatitis C Virus(HCV) is a growing health problem in the world. The aim of this study is to estimate a cost-effectiveness of a triple-therapy(TT) with simeprevir compared to a TT with telaprevir for the previously treated with double-therapy HCV patients in Kazakhstan. METHODS: Markov model built in TreeAge Software that simulate the clinical course of HCV patients that had null or partial response to previous double antiviral therapy seems to be a cost-effective option in Kazakhstan from the perspective of Ministry of Health compared to current telaprevir. These findings may better inform decision makers regarding formulary inclusion and reimbursement.

PG19 ECONOMIC EVALUATIONS OF TREATMENTS FOR INF LAMMATORY BOWEL DISEASES

Lachaine J, Miron A, Naft Lapidem J
University of Montreal, Montreal, QC, Canada

OBJECTIVES: The last decade witnessed great advances in the treatment of inflammatory bowel diseases (IBD) with the introduction of biological therapies. Several economic evaluations have been run to evaluate these treatments. The goal of this study was to analyze the existing evidences and key parameters included in IBD cost-effectiveness studies. METHODS: A systematic literature review was conducted to identify economic evaluations of IBD therapy. Electronic databases (Embase and Medline) were used to identify full economic evaluations published from 2004 to 2016. Cost-effectiveness (CEs) analyses and gray literature search were also performed to find additional publications. The health outcomes, costs, incremental cost-effectiveness (ICEs) and cost-utility ratios (ICUs) were analyzed. RESULTS: The sample includes 28 published RCTs, 63 systematic reviews, 5 RCTs + SIME, and 1 meta-analysis. The most frequent CEs analysis were health utilities (73%), quality-adjusted life years (QALYs) (55%), and quality-adjusted life months (QALMs) (16%). The most frequent utility measure was EQ-5D (88%). Some other studies estimated health utilities from IBD indicators, generic indicators and patient’s surveys. CONCLUSIONS: Several economic evaluations especially involving biologics were conducted in the past decade. This study showed that there are significant trends in key parameters, such as model development, utility measurements and costs included, which will be helpful in the feasibility of further cost-effectiveness analyses.

PG20 SHOULD SOFOFOSUBIR-V BASED ALL-ORAL TREATMENT BE CONSIDERED IN ELDERLY CHRONIC HEPATITIS C PATIENTS?

Cortesi P1, Giacco A2, Belli G2, Rota M2, Rota M2, Coni S1, Mantovan L2, Annoni G2, Strazzabosco M2
1University of Milano-Bicocca, Monza, Italy, 2University of Milano-Bicocca, Monza, Italy, 3University of Milano-Bicocca, Monza, Italy, 4University of Milano - Bicocca, Monza, Italy, 5York University School of Medicine, New Haven, CT, USA

OBJECTIVES: A relevant proportion of patients affected by Chronic Hepatitis C (CHC) is older than 65 years. These patients have been understudied in the past two decades and their care is particularly challenging. A published economic model of biological therapies for moderate to severe CHC natural history was built. The model focuses on CHC patients older than 65 years and assessed the impact of liver fibrosis (METAVIR F3 and F4), age and frailty phenotype, defined by Fried’s (not frail, pre-frail and frail), on the cost-effectiveness of SOF/VEL versus SOF/LDV. The model estimated costs, Life Years and Quality-Adjusted Life Years (QALY) using the lifetime time horizon and the National Health System perspective. Results were presented as incremental cost-effectiveness ratios (ICEs) and cost-utility ratios (ICUs) from a societal perspective. A sensitivity analysis was performed to the model. The treatment regimen in CHC elderly patients is influenced by all three parameters assessed in our simulation. ICEc is higher in lower fibrosis stages and increased with age and frailty phenotype. In F3 and F4 patients ICEc was higher than £30,000/QALY and to prioritize the access to the treatment.

PG21 KEY DRIVERS OF COST EFFECTIVENESS IN CROHN’S DISEASE

Sly IE1, Worbes-Cerezo M2, Cramner H1, Thompson G2, Almond C1
1BresMed, Sheffield, UK, 2Janssen-Cilag UK, High Wycombe, UK

OBJECTIVES: A published economic model of biological therapies for moderate to severe Crohn’s disease was used recently in the National Institute for Health and Care Excellence (NICE) technology appraisal for vedolizumab. The objective of this study was to identify key drivers of cost effectiveness in Crohn’s disease. METHODS: The published economic model was reconstructed using data from Ibrahim et al. (2009), supplemented by the vedolizumab NICE submission. Costs were updated to 2013/14, and efficacy data were taken from the submission as this used a recent network meta-analysis (NMA). Sensitivity analysis was run for the ICER of the vedolizumab submission that were heavily criticised by the Evidence Review Group (ERG). The deterministic incremental cost-effectiveness ratios (ICEc) from the re-construction model were compared with the NICE submission. A one-way sensitivity analysis of vedolizumab versus standard care was performed using the same assumptions as the submission base case, and the outputs of both models were compared. RESULTS: For the base case results, Boger et al. reported ICEc at £42,800/QALY for induction and £7,190/QALY for adalimumab. In contrast, the reconstructed model reported ICEc of £54,077 and £33,121. These are similar to the results from the vedolizumab submission model, indicating that the drivers are principally due to the use of NMA data from the submission. The key drivers were broadly similar between the reconstructed model and submission.