population with a mean age of 42, 52% male, 58% actively working, 52% undergoing surgery, and average Body-Mass-Index (BMI) of 26.00 ± 4.00 kg/m², but not in mild/moderate CD (≥ 58.000 to 92.000 QALY). CONCLUSIONS: The results of the analysis, based on simulation models and real product data, are consistent with evidence from other countries and thus biological drugs can be considered a cost-effective health care investment in severe cases of CD.

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COMPARATIVE ECONOMIC ANALYSIS OF RETREATMENT STRATEGIES FOR HCV GENOTYPE 1 PATIENTS IN RUSSIA

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OBJECTIVES: To assess the cost-effectiveness of retreatment with pegylated interferon and ribavirin in combination with boceprevir of HCV genotype 1 patients, who failed to respond to previous treatment, in comparison with absence of retreatment.

METHODS: We performed a model with 3 treatment strategies: 1) “no retreatment” (NT), “peginterferon + ribavirin” (PR) and “peginterferon + ribavirin + boceprevir” (PRB). We have evaluated direct medical costs for a short-term (only cost of HCV retreatment) and for a long-term (costs of medical care for adverse outcomes) periods for all strategies. Costs were estimated on the basis of average price for the drugs and reimbursement rates for medical services in the compulsory medical insurance system. Incremental cost-effectiveness ratio (ICER) for PR and PRB strategies vs NT were calculated as additional cost per unfavorable outcome avoided. RESULTS: It is expected that in hypothetic cohort of 10000 HCV genotype 1 patients 58.1% would fail to respond to the treatment. The estimated costs of retreatment for this group were EURO 69.07 in case of PR strategy and EURO 235.58 in case for PRB. The cumulative number of unfavorable outcomes of HCV during 25-year period would be 5075 cases for NT strategy, 4622 for PR and 2012 for PRB. The long-term costs of NT strategy were EURO 205.35, min, EURO 168.37 in case of PR strategy and EURO 81.44 in min for PRB. ICER for PR strategy was EURO 44632 and for PRB - EURO 36379 per unfavorable outcome avoided. CONCLUSIONS: The use of PRB strategy is efficient as it allows reducing the number of unfavorable outcomes of HCV at a lesser cost.

PG133

COST-UTILITY ANALYSIS OF LINACOLITODE IN THE TREATMENT OF IRRITABLE BOWEL SYNDROME WITH CONSTIPATION IN BELGIUM

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OBJECTIVES: Linacolitode is the first drug that received EMA approval in the management of irritable bowel syndrome in its constipation form (IBS-C). We aimed at estimating the cost-utility of linacolitode, compared to standard of care (SoC) in Belgium. METHODS: The analysis was conducted using data from a 6-month randomized trial of linacolitode 290µg once daily (N=403) versus placebo (N=403), which provided monthly EQ-SD measures, treatment duration, adverse events (diarrhea and abdominal pain/discomfort) and baseline demographics. Belgian EQ-SD tariffs were used to estimate utilities and trapezoidal rule to estimate QALYs. A Delphi panel including 6 general practitioners and 5 gastro-enterologists provided the resource use for IBS-C patients in different treatment phases controlled with 2 line or new drug else non-responders. Patient-level costs were applied using first-order Monte Carlo simulation (gamma distribution function, per treatment arm and responder status; health care payer perspective). A 5% and a 5% discount rate were implemented at 4 weeks for linacolitode non-responders. A non-parametric bootstrap with 1000 replications was performed. The 2012 Belgian GDP per capita ($43,000) was used as willingness-to-pay threshold. RESULTS: The responder rate at 4 weeks was 54.6% with linacolitode vs. 35.5% with SoC. There was a significant (p<0.0129) QALY gain with linacolitode in comparison with SoC (0.108 vs. 0.237), with an incremental cost of $95 ($1,376 vs. $1,280). The incremental cost-effectiveness ratio of was $7,364/QALY. The diarrhoea costs were higher with linacolitode (54.6%) while a similar pattern was observed in clinical management (132.2) compared to SoC. Using a willingness-to-pay of threshold of $43,000/QALY, 66% of the simulations were cost-effective. CONCLUSIONS: Due to improvements in abdominal pain/discomfort complaints in patients receiving linacolitode, savings were generated compared to SoC. Using the GDP per capita as willingness-to-pay threshold, linacolitode seems a cost-effective alternative to today SoC of IBS-C in Belgium.

PG134

COST-EFFECTIVENESS OF CAPSULE ENDOSCOPY (PILLCAM®) IN THE DIAGNOSIS OF SMALL BOWEL CHRONIC DISEASE (CDS) - A Decision Modelling Approach

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OBJECTIVES: Capsule endoscopy (CE) is a minimally invasive endoscopic technology that provides a simultaneous monitor of symptoms and diagnostic disorders of the gastrointestinal tract such as CDS and obscure gastrointestinal bleeding. This study examines cost-effectiveness of CE PillCam® diagnostic technology in the Australian health care system.

METHODS: A modelled cost-utility analysis of CE vs. no CE followed by empiric treatment is performed. The population under consideration consists of patients with a clinical suspicion of CDS disease despite non-confirmatory results from standard tests. Due to a lack of alternative diagnostic options, many of these patients currently receive empiric treatment, whereby a diagnosis is achieved based on long-term response to therapy for CDS's disease. CE increases the proportion of patients who receive a confirmed diagnosis for CDS's disease or for other bowel conditions (represented by irritable bowel syndrome model in the final model), thereby allowing more patients to promptly receive a correct treatment and thus improving the downstream treatment effectiveness and cost-effectiveness. The current model suggests CDS is cost-saving. Importantly, the target patient population currently experience a unique and special unmet clinical need because the currently funded endoscopic/radiologic technologies are unable to provide a confirmed diagnosis. The evidence for cost-effectiveness clearly supports that CE represents good value for money.

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THE COST-UTILITY OF FIDAXOMICIN AS COMPARED TO CURRENT STANDARD TREATMENT IN THE MANAGEMENT OF CLOSTRIDIUM DIFFICILE INFECTIONS IN BELGIUM

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OBJECTIVES: Clostridium difficile infection (CDI) is one of the most common hospital-acquired infections in industrialised countries. CDI is responsible for severe morbidity, partly driven by the high proportion of patients experiencing a recurrence after an initial successful response to treatment. In Belgium, CDI incidence and mortality has more than doubled between 1998 and 2007. The aim of this study was to assess the cost-utility of fidaxomicin as compared to current standard treatment for managing CDI in Belgium. METHODS: A Markov model with a 1-year time horizon and 10-day cycles was developed to compare fidaxomicin, metronidazole and vancomycin in patients with all CDI and two subpopulations (severe CDI and first recurrence of CDI). Clinical data from two pooled published phase-3 trials (fidaxomicin vs. vancomycin) were used along a mixed treatment comparison of fidaxomicin vs. metronidazole. Treatment costs and effectiveness were obtained using an advisory board. Costs of first episode and recurrent CDI hospitalizations were taken from the IMS Hospital Disease Database. Cost per quality-adjusted life year (QALY) was calculated based on a willingness to pay threshold of €30,000 per QALY. The model showed cost savings and QALY gained versus vancomycin and metronidazole. Fidaxomicin versus an average of these comparators delivered benefits for all outcomes considered, with a QALY gain of 0.109 (1,100 ≥ 1,100) and an ICER of €7,364/QALY. One-way sensitivity analyses revealed that time horizon and the odds ratio of recurrence with fidaxomicin had most affect on the results. Applying a cost-effectiveness threshold of €30,000 per QALY gained, modified willingness to pay acceptance would cover for all of the CDI cases. CONCLUSIONS: Based on the available clinical data the model showed that fidaxomicin dominates vancomycin and metronidazole generating additional QALY’s with cost savings not only in patients with all CDI, but also in subpopulations with severe CDI or a first recurrence.