OBJECTIVES: To determine the focus of research on economic burden in gastrointestinal disorders from studies published in 2014. **METHODS:** An evidence surveillance process was established based on a systematic search of PubMed, incorporating all studies published from 2010 and updated weekly, with a final search on 1 June 2015. Abstracts identified by the search for costs or resource use outcomes in gastrointestinal disorders were identified. Articles were included if they reported results from a primary research study, systematic review or economic model. Economic outcomes were identified, where possible, from the abstract alone. **RESULTS:** The economic burden search identified 1,870 articles published in 2014, with 968 meeting the inclusion criteria for any disease. Of these, 88 (9%) were in gastrointestinal disorders, based on ICD-10 classifications. Almost half (41 articles) were observational studies, 32 were RCTs or comparative studies, 11 were economic evaluations and 4 were literature reviews. Most of the studies were relevant to surgical procedures for colorectal surgery (13 articles), gall stones or cholecystitis (11), appendicitis (7) or hernia repair (7), with 12 articles reporting dental procedures. Only eleven articles reported costs or resource use associated with medical treatment, mainly for inflammatory bowel disease (6 articles) or peptic ulcer (2). The USA was the most common setting, based on abstract text or author affiliations (27 articles), followed by the UK (7), Italy and China (6 each) and Spain (4). Indirect costs were reported in only 9 articles, of which 3 reported productivity losses. No abstract reported caregiver or social care costs. Direct costs were evaluated in 60 articles and healthcare resource use in 69 articles. **CONCLUSIONS:** Recent research on economic burden in gastrointestinal disorders has focused disproportionately on direct costs and resource use associated with surgical procedures. Up-to-date data on indirect costs, and direct costs of non-surgical interventions, remains sparse.

PGI16

PERSISTENCE OF REMISSION AMONG PATIENTS WITH INFLAMMATORY BOWEL DISEASE AFTER ADALIMUMAB THERAPY IS STOPPED: ECONOMIC IMPLICATIONS

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OBJECTIVES: The aim of this study is determine the persistence and economic impact of Adalimumab (ADA) discontinuation in inflammatory bowel disease (IBD) patients with at least 6 months in Sustained Clinical Remission (SCR). **METHODS:** We conducted an observational and retrospective study to assess the persistence and economic impact of ADA discontinuation treatment after achieving SCR in IBD patients between Jan2009-May 2015. Eligible IBD patients were >18 years in SCR on ADA by maintenance treatment of 40 mg/14days for a minimum of 6 months. We collected age, sex, indication, persistence (years) of ADA treatment, ADA discontinuation period (years) and if there was an IBD relapse after the ADA discontinuation. We determined the real cost of ADA treatment for each patient from invidualized drug dispensations and correlated dates during the study period. The cost savings obtained during the patients ADA discontinuation was calculated using the ADA cost per day for each patient by the days of each patient in complete remission. **RESULTS:** From Jan 2009 to May 2015, 18 patients (83% women; age 39±10 years; 15 Crohn Disease and 3 Ulcerative Colitis) discontinued ADA therapy. These patients were on ADA therapy for 2.1±1.2 years towards achieve SCR and stopped ADA therapy. The persistence of these patients in SCR (discontinued ADA therapy) was 2.3±0.9 years; range 1.1-3.8 years. 6 (33%) patients had an IBD relapsed and restarted ADA therapy. During the study period, the total associated ADA costs for all IBD patients included was 477.313€ with an ADA patient daily cost of 37.7±12.5€. The implementation of the strategy of ADA discontinuation in IBD patients in SCR for at least 6 months produced a cost savings of 520.522,7€ thorough the study period. **CONCLUSIONS:** Discontinuation ADA treatment in IBD patients in SCR for at least 6 months could make treatment more cost-effective and allow gastroenterologists to treat more patients with a fixed budget.

PGI17

EVALUATION OF COST OF MANAGING HEPATITIS C IN GREECE ACROSS ALL DISEASE STAGES AND THE POTENTIAL VALUE OF SIMEPREVIR TRIPLE REGIMEN AS A TREATMENT OPTION IN THE EARLY STAGES

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OBJECTIVES: To map resource use and associated costs of managing chronic hepatitis C (CHC) in Greece across all disease stages and discuss simeprevir (SMV) in combination with pegylated-interferon + ribavirin (PR) as a potential treatment option in the early stages. **METHODS:** An expert panel of 8 leading hepatologists determined local resource use for CHC. Unit costs were obtained from officially published sources. Direct costs (medical, hospital, lab and imaging tests, and pharmaceutical care excluding anti-viral treatment) were estimated for each of the following health states of the disease: non-cirrhotic CHC, compensated cirrhosis, decompensated cirrhosis, hepatocellular carcinoma (HCC) and liver transplantation. Productivity losses were also included in the analysis. The perspective was that of the Social Insurance Fund (SIF) and the cost base year was 2014. **RESULTS:** The costs associated with non-cirrhotic CHC and compensated cirrhosis were estimated at €84.65 and €128.85, respectively, consisting mainly of lab and imaging tests. Medical follow up for CHC patients across all stages is performed through public hospital outpatient units, without entailing costs for SIFs. The annual per patient costs for decompensated cirrhosis, HCC and liver transplant were estimated at €3,170.20, €8,513.22 and €129,412, respectively and consisted mainly of hospitalization costs. Indirect costs were estimated at €1,009 for both non-cirrhotic and compensated cirrhosis stages, and at €4,539 for decompensated cirrhosis. **CONCLUSIONS:** Costs of managing CHC increase dramatically with disease severity. A recent publication from the UK supports the cost-effectiveness of SMV+PR against PR, with an ICER of £9,725/ QALY for treatment-naïve and £7,819/ QALY for treatment-experienced patients. Therefore and under the current cost containment environment in Greece, SMV+PR could be a cost-effective treatment option for treating patients earlier to prevent high costs at later stages.

PGI18

THE COST-EFFECTIVENESS OF REFERRING PATIENTS WITH IRRITABLE BOWEL SYNDROME TO A GASTROENTEROLOGIST IN THE UK

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OBJECTIVES: Irritable bowel syndrome (IBS) can be diagnosed clinically and managed within primary care, yet around 25% of patients are referred to gastroenterology. The objective of this study was to estimate the cost-effectiveness of a gastroenterology outpatient appointment for IBS from the perspective of the health service payer (UK NHS) over a three year time horizon. **METHODS:** Individual level healthcare utilization data were extracted for 2076 IBS patients within the UK Clinical Practice Research Dataset with linked Hospital Episode Statistics data who first visited a gastroenterologist in 2008 or 2009. Individual costs of total healthcare utilization were calculated for three years before and after gastroenterology attendance in 2012 UK£. Quality Adjusted Life Years (QALYs) were modeled from utility values reported in a questionnaire study of 69 patients with IBS attending a gastroenterology outpatient clinic for the first time. Costs and QALYs before the appointment were used to represent costs in the absence of seeing a gastroenterologist. Mean cost per QALY of a gastroenterology appointment compared to no referral over three years produced the incremental cost effectiveness ratio (ICER). Bootstrapping generated a 95% confidence interval (CI). Net-benefit analysis generated a Cost Effectiveness Acceptability Curve (CEAC). Scenario and probabilistic sensitivity analyses assessed structural and parameter uncertainty. **RESULTS:** The expected QALY gain for a gastroenterology appointment for IBS compared to no appointment was 0.14. The expected extra total healthcare costs were £3002. The ICER was £21767.08/QALY (95% CI £17078/QALY to £26495/QALY). Likelihood of cost-effectiveness at a threshold of £20000/QALY was 25% and 100% at £30000/ QALY. Lower expected QALYs following appointment increases the ICER to £34550/ QALY. **CONCLUSIONS:** Depending on the level of the cost-effectiveness threshold, referral to a secondary care gastroenterologist for IBS could be cost-effective for the NHS but more robust data on potential QALY gains are needed.

PGI19

MODELING THE COST-EFFECTIVENESS OF ILAPRAZOLE VS. OMEPRAZOLE FOR THE TREATMENT OF NEWLY DIAGNOSED DUODENAL ULCER PATIENTS IN CHINA

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OBJECTIVES: To evaluate the cost-effectiveness of 10mg ilaprazole once daily vs. 20 mg omeprazole once daily to treat newly diagnosed duodenal ulcer patients in China. **METHODS:** A decision tree model was constructed and the treatment impact was projected up to one year. The CYP2C19 polymorphism distribution in the Chinese population, the respective cure rates in the CYP2C19 genotype subgroups, the impact of duodenal ulcer on utility, and drug related side effects data were obtained from literature. The total cost of medications were calculated to estimate treatment costs based on current drug retail prices in China. Expert survey was conducted when published data were not available to populate the model such as costs of the side effects. The main summary measure in this evaluation was incremental cost per quality-adjusted life-years (QALY) gained. Probabilistic sensitivity analysis was performed to determine the robustness of the results. **RESULTS:** Ilaprazole achieved a better overall efficacy, because it is less impacted by CYP2C19 genotype subgroups. Compared with omeprazole, ilaprazole achieved an incremental cost effectiveness ratio of ¥138,941 per QALY gained which is less than the 3 times of China average GDP per capital (2014). A subgroup analysis suggests Ilaprazole is most cost-effective in the CYP2C19 subpopulation of heterogeneous extensive metabolizer, which had the incremental cost effectiveness ratio of ¥60,824 per QALY gained. Probabilistic sensitivity analysis suggests that the results are robust with 95% probability that ilaprozole is consider cost effective when 3 times China average GDP per capital threshold is used. **CONCLUSIONS:** The cost-effectiveness analysis results demonstrated that ilaprazole would be considered cost-effective compared with omeprazole to treat newly diagnosed duodenal ulcer patient in China. When treating the duodenal ulcer patients who are CYP2C19 subpopulation of heterogeneous extensive metabolizer, ilaprazole is highly cost-effective, compared with omeprazole.

PGI20

COST-EFFECTIVENESS OF ESOMEPRAZOLE COMPARED WITH OTHER PPIS CURRENTLY REIMBURSED IN POLAND IN THE TREATMENT OF GERD

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OBJECTIVES: The aim of the study was to compare the cost-effectiveness of esomeprazole with other PPIs currently reimbursed in Poland in the acute treatment of gastroesophageal reflux disease (GERD). **METHODS:** A decision analysis model simulating the treatment of GERD over the course of 8 weeks was developed. The duration of treatment is in line with the one recommended by the general guidelines. Healing rates were pooled from the existing clinical trials comparing esomeprazole with other PPIs. All patients were initially treated with PPI at high-dose for 4 weeks. Subsequently, healing was verified by the gastroenterologist and upper gastrointestinal endoscopy. Patients with treatment success at 4 weeks started maintenance treatment with a low-dose PPI and were assumed to remain healed for the duration of the model. Patients unhealed at 4 weeks were prescribed a further 4-week treatment course with the same high-dose of PPI, followed by a second visit with endoscopy was carried out. The analysis was conducted from a public payer perspective. Cost of PPIs was derived from the publicly available Ministry of Health (MoH) price list. Gastroenterologist visit and endoscopy were estimated on the basis of National Health Fund (NHF) data. Data are presented in EUR (1 EUR = 4.00 PLN). **RESULTS:** Over the course of 8 weeks, treatment with esomeprazole was projected to have slightly better net clinical benefits over treatment with lansopra-