

examining aminosaliclates (n=23), corticosteroids (n=10), immunosuppressants (n=15), biologics (n=16) and kinase inhibitors (n=1). Baseline patient characteristics, study design and outcomes were extracted, including: adverse events (AE) (reported in n=24 studies), serious AE (n=25), deaths (n=23), clinical remission (n=49), clinical response (n=33) and mucosal healing (n=11). Eleven different disease activity scales and four different endoscopic scales were used. The mean age of included patients ranged from 27 to 51, and the percentage of males from 28.6% to 87.5%. Due to large differences and different scales used for reporting efficacy it is not feasible to report the range across different scales. Safety endpoints were also reported inconsistently. The results per outcome are presented in a narrative way per treatment class. **CONCLUSIONS:** A comprehensive SLR performed which identified 65 RCT reporting on the efficacy and safety of pharmacological treatments in moderate to severe UC patients. Differences in patient population, disease severity, disease activity scales and trial duration are explored and presented.

## PGI47

#### HOW THE PRICING STRATEGY OF 2ND GENERATION HCV DIRECT ANTIVIRAL AGENTS CAN AFFECT THE NUMBER OF TREATED PATIENTS IN ITALY AND THE NATIONAL DRUG BUDGET

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**OBJECTIVES:** To assess the impact of new HCV drugs pricing strategy on the number of potential treated/cured patients and on the Italian Healthcare Service budget, using a simplistic model to design different scenarios for second generation direct antiviral agents (DAAs). **METHODS:** We calculated the HCV drugs budget and the number of patients for setting a base case by summing a) AIFA values for HCV dual therapy drugs to assess the number of patients currently treated; b) triple therapy number of patients estimated from AIFA budget (210.000.000€ in total). We performed budget scenarios on two variables: 1) pricing strategy of more effective DAAs; 2) total HCV drugs budget. We calculated the number of treated and responder patients, considering only genotype 1 HCV to maintain a comparability between base case and future scenarios with new DAAs. **RESULTS:** The number of patients to be cured with stable budget vs base case are: 1) 9.000 (+56% vs. base case) with parity price vs. triple therapy; 2) 7.500 (+30% vs. base case) in case of a 20% premium price that would allow 8.300 patients to be treated. Assuming to double the allocated budget from payers (420.000.000€) and to reduce the new DAAs price by a 20%, 25.000 patients will be treated and 22.500 (+291% vs. base case) will be cured. **CONCLUSIONS:** This simplified analysis shows that more effective drugs can significantly increase the number of patients who could be treated and cured. In order to support these results, efforts from both payers (higher budget) and pharma companies (lower prices) are needed.

## PGI48

#### EXPLAINING THE INCREASED HEALTH CARE EXPENDITURES AMONG INDIVIDUALS WITH CO-OCCURRING CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND GASTROESOPHAGEAL REFLUX DISEASE: A COST-DECOMPOSITION ANALYSIS

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**OBJECTIVES:** The objective of this study is to examine health care expenditures associated with Gastro-esophageal Reflux Disease (GERD) among elderly with Chronic Obstructive Pulmonary Disease (COPD) and understand the explanatory factors associated with incremental expenditures associated with (GERD). **METHODS:** The study utilized retrospective cross-sectional design. Data were extracted from multiple years (2006-2009) of the Medicare Current Beneficiaries Survey (MCBS). The analytical sample consisted of community dwelling elderly individuals with COPD (n = 3,821) identified using appropriate international Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes. The key independent variable was defined as presence or absence of GERD. T-tests and ordinary least squares regressions (OLS) on log-transformed total health care expenditures were performed to analyze the association between health care expenditures with GERD among individuals with COPD. Blinder-Oaxaca decomposition analysis was performed to estimate contribution of factors towards explaining the excess health care expenditures. **RESULTS:** Among elderly individuals with COPD, the annual average health care expenditures were higher for those with GERD (\$36,793 ± \$1,387) as compared to those without GERD (\$24,722 ± \$800). Individuals with GERD had poorer health status, low physical activity profile, and higher rates of obesity. Furthermore, the rates of depression and anxiety were significantly higher among individuals with GERD compared to those without GERD. A decomposition technique revealed that nearly 30.9% of the incremental health care spending associated with GERD was due to the differences in characteristics such as Charlson's comorbidity score (17.5%), perceived health status (7.13%) and depression (5.85%). **CONCLUSIONS:** Our findings highlight the burden of comorbid conditions among those with COPD and GERD. This study reinforces the need to modify the care-delivery model from single-disease care approach to integrated/ multiple diseases care approach to manage the complex comorbid diseases, which may ultimately reduce the excess health care expenditures.

## PGI49

#### DISPENSATION CHANNELS OF ANTI-TNFS IN INFLAMMATORY BOWEL DISEASE

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**OBJECTIVES:** In The Netherlands, the funding for some high cost drugs and particularly biologics was transferred in 2012 to hospital pharmacy dispensation channel. A European study forecast (2012-2016) shown hospital dispensation as a very effective policy to reduce budget impact of branded biologics and increase savings related to biosimilars. Two biologics (anti-TNFS) are indicated for Inflammatory Bowel Disease (IBD) in EU with different mode of administration: infliximab (Intravenous

and adalimumab (Subcutaneous). The objective of this study was to compare the dispensation channel of anti-TNFS used in IBD across European (EU) top 5 countries. **METHODS:** We analyzed dispensation conditions using IMS data from 2011 and official local official websites, France (Haute Autorité de Santé and Health insurance drugs database), Italy (Agenzia Italiana del Farmaco), Spain (Ministerio de Sanidad Servicios Sociales e Igualdad), Germany (Gemeinsamer Bundesausschuss), United Kingdom (Department of Health). **RESULTS:** In UK, Spain, Italy, both infliximab and adalimumab dispensation were restricted to hospital channel. In Germany, both infliximab and adalimumab can either be dispensed through retail and hospital channels. In France, adalimumab was available either in hospital and retail channels under exceptional status, and infliximab was dispensed through hospital channels only. The differences across countries could not be related to products labels as they are all approved under European Medicines Agency (EMA) centralized procedure. **CONCLUSIONS:** It is unlikely that the gaps observed are only related to differences in health care services organization but rather budget constraint like in UK, Italy and Spain. In Germany and France, the two leading EU pharmaceuticals markets this is not yet the case. Hospital dispensation channel of biologics and biosimilars is a new way to generate savings mainly through tenders.

## PGI50

#### PAEDIATRIC GASTROENTERITIS: DISEASE BURDEN, COST AND LOSS OF PRODUCTIVITY OF MALAYSIAN AND VIETNAMESE PARENTS

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**OBJECTIVES:** The cost of paediatric gastroenteritis is poorly documented in Asia. This analysis reports findings of a survey on disease burden, cost and productivity loss caused by paediatric gastroenteritis in Malaysia and Viet Nam. **METHODS:** A survey was conducted between August 2012 and April 2013 targeting respondents in public spaces in Hanoi and Bac Giang, Viet Nam and Klang Valley, Malaysia. The surveys were self-administered and collected information on demographics, disease burden, cost and productivity loss. Descriptive analysis was conducted to report the overall findings using STATA SE 11.2. **RESULTS:** Survey questionnaires were completed by 245 and 307 respondents from Malaysia and Viet Nam, respectively. Over 90% of the respondents were parents of children below 10. Overall, 69% reported that their children experienced gastroenteritis requiring physician visits and 28% reported episodes requiring hospital admissions. Differences were noted in the treatment seeking patterns between the two countries. These differences influenced cost and productivity loss to the families of affected children. In Malaysia, a large proportion of parents (41.2%) reported hospitalisation cost to be more than USD 350 whereas in Viet Nam, a majority (74.6%) reported hospitalisation cost less than USD 34. Among these, 52.9% and 30.5% of Malaysian and Vietnamese parents paid out-of-pocket for hospital admission, respectively. The majority reported days off work of 2 to 5 days, however more parents in Viet Nam (23.7%) required greater than 6 days off work to care for their affected child compared to Malaysia (3.9%). **CONCLUSIONS:** Gastroenteritis has an impact on cost and productivity loss to parents of affected children in Malaysia and Viet Nam. However, there were several differences noted likely due to differences in GDP, health system and cultural factors.

## PGI51

#### INFLAMMATORY BOWEL DISEASES IN ITALY: INCIDENCE TRENDS AND PATIENTS' CHARACTERISTICS

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**OBJECTIVES:** To assess the impact of inflammatory bowel diseases (IBD) in the Italian general population: incidence and time trends from 2003 to 2009, as well as population characteristics. **METHODS:** A retrospective observational study was conducted in Lombardy, an Italian region with about 10 million of inhabitants, using health care administrative databases of the national health care system (HS) which provides universal coverage. The main administrative databases were integrated in a data warehouse called DENALI using probabilistic record linkage. New cases of Crohn's Disease (CD) and Ulcerative Colitis (UC) were identified in the adult population between January 1, 2003 and December 31, 2009. Annual age-standardized incidence rates were computed separately for CD and UC using the population living in Lombardy at 2001 census. Moreover we evaluated patients' baseline main characteristics, coexisting chronic conditions and survival at December 31, 2009. **RESULTS:** The annual incidence rate per 100,000 person-years of IBD was 15.6 (95%CI 15.2-15.9); UC and CD incidences were 9.7 (9.4-10.0) and 5.9 (5.7-6.1) respectively. Incidence rates of both diseases were higher in men than in women. CD incidence was highest in subjects aged 20-24 (9.2, 95%CI 8.1-10.2) and decreased with age, while UC incidence was stable in the 20-65 year-old population. No time trends in UC and CD incidences were observed from 2003 to 2009, both in the whole study population and in gender and age-specific subgroups. The mean age at CD diagnosis was 44 years (±16.6 sd), which was lower than that at UC diagnosis (46 ± 16.6, p<0.0001). During a mean follow-up time of 3.4 years (± 2.0) 2.2% of IBD patients died. **CONCLUSIONS:** Our study provides updated estimates on current epidemiology of IBD in Italy. IBD incidence in Lombardy is lower than in northern Europe and the data confirm that UC incidence is higher than that of CD.

## SENSORY SYSTEMS DISORDERS – Clinical Outcomes Studies

## PSS1

#### INDIRECT COMPARISON OF THE EFFECT OF BIOLOGICS IN PATIENTS WITH PSORIASIS: A META-ANALYSIS OF RANDOMIZED, DOUBLE BLIND CLINICAL TRIALS IN BAYESIAN FRAMEWORK

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