

versus placebo. Significant improvements were evident at Week-4 and maintained through Week-12.

#### PGI28

##### GASTROESOPHAGEAL REFLUX DISEASE: IMPACT ON WORK PRODUCTIVITY AND DAILY LIFE ACTIVITIES OF DAYTIME WORKERS. A FRENCH CROSS SECTIONAL STUDY (ACTA)

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**OBJECTIVES:** Few studies have evaluated the impact of GERD-symptoms on work productivity and no French data are available. The aim of this study was to evaluate the impact of GERD typical symptoms on work productivity and daily activities in patients with nocturnal compared to diurnal symptoms. **METHODS:** A prospective, multicenter, observational study was carried out in French primary care setting. Each physician had to include the first two consecutive adult patients on full-time job who had experienced GERD typical symptoms at least once during the 7 days/nights preceding the inclusion visit: 1 with exclusively diurnal symptoms and 1 with nocturnal symptoms. Data collected by physicians were: patients' characteristics, symptomatology and treatments. Work productivity loss was assessed using the validated self-administered Work Productivity and Activity Impairment questionnaire specific to GERD (WPAI-GERD). Predictors of work productivity loss were identified by multivariate regression models and its cost estimated. **RESULTS:** A total of 407 physicians included 716 eligible patients: 50.8% with nocturnal and 49.2% with exclusive diurnal symptoms (EDS). The mean age was 46.3 years (SD 8.7), 62.8% were men, and 58.3% of patients diagnosed before inclusion were treated for GERD. Work productivity and daily activities decreased by 31.4% and 32.6%, respectively. Decrease rates were higher in EDS-patients ( $p < 0.001$  each). Work productivity impairment was mostly due to impairment while working (presenteeism) rather than absenteeism. The symptoms intensity and composite intensity index, reflecting disease severity, were identified as the main predictors of decreased work productivity. The mean cost of work productivity loss per patient was estimated as €313/week, also higher in EDS-patients ( $p < 0.001$ ). **CONCLUSIONS:** GERD incurs high work productivity loss which yields a substantial burden. Improving patients' outcomes, especially in those with moderate or severe disease, with most effective tailored treatments and care management could be expected to reduce work productivity loss and associated costs.

#### PGI29

##### COST OF CHRONIC HEPATITIS C (HCV) IN POLAND - HEALTH CARE PROFESSIONALS SURVEY

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**OBJECTIVES:** To assess average direct medical costs of treatment of consecutive stages of HCV in Poland. **METHODS:** A questionnaire study in 7 medical centres among experienced clinicians (1200 patients managed annually in total) was performed. Six separate questionnaires were prepared and initially validated for defined HCV health states: mild hepatitis-MiH, moderate hepatitis-MoH, compensated cirrhosis-CoC, decompensated cirrhosis-DeC, hepatocellular carcinoma-HCC and post liver transplant phase-1<sup>st</sup> (PLT1) and 2<sup>nd</sup>(PLT2) year of follow-up. Each professional was asked for describing a typical procedures set conducted in an theoretical average patient in specified chronic hepatitis C health state. The procedures sets consisted of a few main categories: hospitalisation, ambulatory care, diagnostic procedures, pharmacotherapy, rehabilitation, adequately to disease phase and in accordance with official procedures lists published by National Health Fund for 2011. Antiviral treatment was excluded from the analysis. **RESULTS:** Five questionnaires for each of mild hepatitis, moderate hepatitis, compensated cirrhosis, decompensated cirrhosis, and two for HCC and post liver transplant health states, were obtained. Calculated mean annual costs of defined health states and their relation to the cost of liver transplantation in Poland (200000PLN = 48000€ in 2010) are as follow: MiH with SVR-422PLN (99€), 0,2%; MoH with SVR-800PLN (188€), 0,4%; CoC with SVR-2018PLN (475€), 1,0%; MiH no SVR-2384PLN (561€), 1,2%; MoH no SVR-3097PLN (729€), 1,5%; CoC no SVR-4995PLN (1175 €), 2,4%; DeC-14860PLN (3496€), 7,3%; HCC-38927PLN (9159€), 19,0%; PLT1-30626PLN (7206€), 15,0%; PLT2-19973PLN (4699€), 9,8%. **CONCLUSIONS:** There is a marked increase of mean annual costs of standard treatment of HCV patients along with disease stage. Assuming that in Poland about 700000 individuals can be infected with HCV, most of them being unaware of the disease, high costs of complications of chronic hepatitis-C are serious social and economic burden. National screening programme with effective antiviral treatment at early stages of disease can reduce this negative impact on society.

#### PGI30

##### ASSESSMENT OF PRACTICE PATTERNS AND TREATMENT-FAILURE COSTS AMONG PATIENTS WITH IRRITABLE BOWEL SYNDROME WITH CONSTIPATION: FINDINGS FROM A PHYSICIAN SURVEY STUDY

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**OBJECTIVES:** To understand resource utilization and costs associated with referrals and testing for patients with irritable bowel syndrome with constipation (IBS-C) based on treatment response. **METHODS:** A web-based survey was con-

ducted for a sample of primary care physicians (PCPs) and gastroenterologists (GEs) across different US regions. The survey captured data on referral patterns (to/from gastroenterologists), test/procedure ordering, and follow-up physician visits for typical patients who did and did not achieve a satisfactory relief of symptoms to a recent treatment for IBS-C ("response"). Survey items included questions regarding the proportion of patients who would receive tests/procedures and follow-up physician visits. Health care costs were estimated by applying associated unit costs (derived from the 2012 Medicare physician payment schedule) to the corresponding utilization. All patients were assumed to begin treatment with PCPs. The cost of treatment failure was defined as the cost difference between physician-deemed non-responders and responders, incorporating both PCP work-up costs and the costs of referrals to GEs. **RESULTS:** Twenty PCPs and 21 GEs completed the survey. Mean monthly number of adults treated by the physicians was 61. Most non-responders (median: 80%; mean: 72%) would be referred to a GE by PCPs. Non-responders would be more likely to receive a test/procedure compared to responders (median: 75 vs. 0% for PCPs; 50 vs. 0% for GEs; mean: 65 vs. 10% for PCPs; 56 vs. 33% for GEs). Thyroid function tests, complete blood count, and colonoscopy were the most common tests/procedures that would be ordered, by both PCPs and GEs. The median (mean) expected cost of treatment failure was estimated to be \$825 (\$613). **CONCLUSIONS:** Not responding to treatment may result in referral to a specialist and/or additional testing and procedures, which may lead to higher health care resource use and costs among patients with IBS-C, a finding of potential interest to payers.

#### GASTROINTESTINAL DISORDERS - Patient-Reported Outcomes & Patient Preference Studies

#### PGI31

##### IMPACT OF TREATMENT RESPONSE ON HEALTH UTILITIES AND WORK PRODUCTIVITY AMONG PATIENTS WITH IRRITABLE BOWEL SYNDROME WITH CONSTIPATION: POOLED RESULTS FROM PHASE III CLINICAL TRIALS

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**OBJECTIVES:** To assess the impact of treatment response on quality of life (QOL) and work productivity for patients with irritable bowel syndrome with constipation (IBS-C). **METHODS:** Irritable Bowel Syndrome - QOL (IBS-QOL) score, EQ-5D index score, work productivity, and IBS symptom relief were collected in two phase III randomized placebo-controlled clinical trials of linaclotide, an investigational treatment for IBS-C. Treatment response for IBS-C was defined as (1) a  $\geq 14$ -point increase at Week 12 from baseline on the overall IBS-QOL score or (2) moderately or significantly relieved on a seven-point Likert scale on global symptom relief for  $\geq 2$  out of 3 months. Hours of work missed due to IBS-C were collected using the Work Productivity and Activity Impairment (WPAI) Questionnaire. Data from the intent-to-treat populations were pooled for linaclotide and placebo across two trials. EQ-5D index score and work productivity were evaluated among responders and non-responders. **RESULTS:** Patients were analyzed with available EQ-5D and IBS-QOL data ( $n=1,487$ ) and available EQ-5D and IBS symptom relief data ( $n=1,558$ ), with response rates of 46% and 14% respectively. Patients were analyzed with available WPAI and IBS-QOL data ( $n=1,056$ ) and WPAI and IBS symptom relief data ( $n=1,103$ ), with response rates of 47% and 15%, respectively. Responders had statistically significantly higher EQ-5D scores at Week 12 than non-responders, for both definitions (IBS-QOL: 0.85 vs. 0.81, IBS symptom relief: 0.91 vs. 0.81, both  $P < 0.05$ ). Responders were statistically significantly less likely to miss  $\geq 1$  hour of work during 12 weeks for IBS-C (IBS-QOL: 16.0% vs. 21.7%, IBS symptom relief: 9.6% vs. 20.8%, both  $P < 0.05$ ). **CONCLUSIONS:** Improvements in disease-specific measures correlate with improvements in health utilities and reduced work absenteeism among patients with IBS-C.

#### PGI32

##### NEW ANTIVIRAL DRUGS FOR HEPATITIS C IN ITALY: WILL IT BE A TREASURE HUNT?

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**OBJECTIVES:** Despite Italy has a large HCV infected pool (1.500.000 estimated) novel Direct Antiviral Agents (DAAs) against HCV genotype 1 have not yet been approved. As the estimated budget to cover all eligible patients could be ten-fold higher, limitations or patient selections could be applied. The study purpose is to obtain the patients' point of view about associated costs, sustainability, possible scenarios related to the lack of economic resources. **METHODS:** Epac is the most important Italian NGO for HCV patients. An anonymous web-based questionnaire was published on the association website www.epac.it. It was composed of multiple choice questions and was preceded by a scenario reporting a mean drug cost per patient per course of 25.000-35.000 €, the availability of interferon-free monotherapy DAAs drugs in the nearest future, different reimbursement possibilities (payment-by-results, expenditure thresholds . . .). **RESULTS:** A total of 763 patients participated the survey and 727 questionnaires were considered validly compiled. The profile of the participants was assessed concerning sex, age, geographical provenience, health condition, fibrosis stage, eligibility for triple treatment. 83% of patients claimed equity of access independently of disease severity, 55% is not inclined to postpone the treatment despite 62% of these has low/medium fibrosis, 77% of participants does not tolerate the lack of resources that could lead to patient selection, 40% is disposed to travel anywhere to get the most appropriate therapy. **CONCLUSIONS:** This was a unique and the largest survey on Italian patients about