

ciated with each health state, followed by micro-costing of the results. Costs were calculated according to Portuguese official databases. Only direct health costs were applied. The annual discount rate for costs and outcomes was considered to be 3%, according to Portuguese guidelines. A deterministic and probabilistic sensitive analysis was performed. **RESULTS:** Assuming a lifetime horizon, each patient gained 0.43, 0.55 and 0.63 life years and 0.17, 0.21 and 0.24 quality-adjusted life years with pegIFN alfa-2a plus RBV versus pegIFN alfa-2b plus RBV for all CHC genotypes, genotypes 1/4 and genotypes 2/3 respectively. The savings per patient treated with pegIFN alfa-2a plus RBV were 44€, 259€ and 1.647€ for all genotypes, genotypes 1/4 and genotypes 2/3, respectively. **CONCLUSIONS:** According to the present model, the treatment of patients with CHC with pegIFN alfa-2a plus RBV is a dominant strategy in comparison to pegIFN alfa-2b plus RBV for all genotypes, from the Portuguese NHS perspective.

PGI19

STRESS ULCER BLEEDING PROPHYLAXIS WITH PROTON PUMP INHIBITORS, H2 RECEPTOR ANTAGONISTS OR SUCRALFATE: A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: Proton pump inhibitors (PPI), H2-receptor antagonists (H2RA) and sucralfate present varying pharmacological efficacy in preventing stress ulcer bleeding (SUB) in intensive care units. The literature also reports disparate rates of ventilator assisted pneumonia (VAP) as side-effects of these treatments. We compared the cost-effectiveness of these 3 pharmaco-prophylaxis options. **METHODS:** We constructed a decision tree for patients at high-risk for developing SUB (diagnoses of major trauma, hypovolemic shock, sepsis, septicaemia, acute respiratory failure, extensive burns, acute renal failure, shock, acute pancreatitis, coronary artery bypass graft surgery). Probabilities were obtained from a broad literature search. Costs were estimated using the Nationwide Inpatient Sample 2008, a representative US country-wide database and were expressed in 2010 US\$. In each of the 3 treatment branches (PPI, H2RA and sucralfate), patients could be in one of three states of health: no complication (NC), SUB or VAP. A third-party payer perspective was adopted. Cost-effectiveness and sensitivity analyses were performed. A 60-day time horizon was adopted. **RESULTS:** PPI, H2RA and sucralfate treatments were associated with SUB and VAP probabilities of 5.9% and 17.2%, 5.1% and 17.7%, and 1.4% and 10.3%, respectively. Lengths of stay and per diem costs were 14 days and \$2,993 for NC, 24 days and \$2,764 for SUB, and 42 days and \$3,310 for VAP. Average costs per no-rebleeding patient were \$58,734 for PPI, \$77,543 for H2RA, and \$77,366 for sucralfate. H2RA and Sucralfate were dominated by PPI. These findings were robust on sensitivity and threshold analyses. Probability of complications would need to increase to 20% in the PPI group or drop to 1% in either of the other two treatment groups in order for PPI to cease being the dominant strategy. **CONCLUSIONS:** PPI prophylaxis is the dominant prophylactic strategy in patients at high-risk of developing SUB when compared to using H2RA or sucralfate.

PGI20

PHARMACOECONOMIC STUDY OF GLUTAMINE DIPEPTIDE USAGE DURING TOTAL PARENTERAL NUTRITION (TPN)

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OBJECTIVES: To undertake a comparative analysis of 2 schemes of TPN: isolated standard scheme of TPN (2 types: "all in one bag" and "1+1+1") and scheme of TPN, which includes expenses for purchasing and usage of glutamine dipeptide. **METHODS:** Pharmacoeconomic analysis "cost-effectiveness" was provided. The study estimated direct costs, because appraisal from the stand point of the Russian healthcare system was chosen: expenses for drug therapy, hospitalization (intensive care unit and medical division) and late complications (pneumonia and sepsis) treatment. Effectiveness data was taken from clinical trial: Eandi M., Pradelli S., Lanazzo S.. Alanlyl-glutamine Dipeptide (Dipeptiven) in Total Parenteral Nutrition (TPN) Therapy in Critically Ill Italian Patients: A Pharmacoeconomic Simulation Model. AdRes Health Economics and Outcomes Research - Torino (Italy), 2010. Survival rate of patients was the main effectiveness criterion. Three types of TPN were compared: "3 in 1" and "1+1+1" without glutamine dipeptide usage and "3 in 1" system with glutamine dipeptide. Two-factor sensitivity analysis was carried out, which showed that results of our pharmacoeconomic study were stable. **RESULTS:** In the course of analysis the following results were obtained: direct medical expenses for 1 patient treatment with TPN system "3 in 1" were 1561,92 €; "1+1+1" - 1651,25 €; "3 in 1" + glutamine dipeptide - 1652,66 €. Taking into account the value of effectiveness rate of 3 compared TPN systems ("3 in 1" and "1+1+1" - 0,6554 and "3 in 1" + glutamine dipeptide - 0,7624) the results of Cost-Effectiveness Ratio (CER) were the following: "3 in 1" - 2383,15 €; "1+1+1" - 2519,45 € and "3 in 1" + glutamine dipeptide - 2167,71 €. **CONCLUSIONS:** According to the results of our research TPN system "3 in 1" + glutamine dipeptide is a dominant alternative as at the greatest effectiveness rate, CER result is the least of all compared systems.

PGI21

COST-EFFECTIVENESS OF PEGINTERFERON AND RIBAVIRIN FOR ELDERLY PATIENTS WITH CHRONIC HEPATITIS C: RESULTS BASED ON THE NATIONWIDE HEPATITIS REGISTRATION IN JAPAN

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OBJECTIVES: The cost-effectiveness of peginterferon and ribavirin (PEG_IFN+RBV) for elderly patients with chronic hepatitis C (CHC) was investigated. A nationwide registration of interferon-treated hepatitis patients has been conducted in Japan since 2009. This study was based on individual patient data from the registration

for investigation in a real-world setting. **METHODS:** PEG_IFN+RBV-treated CHC patients 65-years or older were analyzed. All registered patients received antiviral treatment, and were assumed to suffer if not treated. The incremental cost and effectiveness of treatment was estimated as the difference between actual events and the assumed longstanding disease status. The individual patient data regarding age, gender, and duration of and response to treatment was used to estimate cost of PEG_IFN+RBV, cost of following CHC, and quality-adjusted life-year (QALY). Incremental cost effectiveness ratio (ICER) and 95% bootstrap confidence interval (CI) were calculated, and probabilistic sensitivity analysis (PSA) was done for assumptions on the distribution of uncertain data. Conservative assumptions were used throughout the analysis. **RESULTS:** There were a total of 1378 patients (median age 68 y; range 65 - 80 y). 1005 patients had hepatitis C virus type 1 (72.9%), and 1269 had a high viral load (92.1%). A platelet count of <100,000/mm³ was found in 152 patients (11.0%), 100,000 - 150,000/mm³ in 541 patients (39.3%), and ³150,000/mm³ in 655 patients (47.5%). 1106 patients completed the planned treatment (80.3%). Sustained viral response was observed in 650 cases (47.2%), relapse in 404 cases (29.3%), and no response in 324 cases (23.5%). Incremental cost was calculated to be 1.885 million yen (approximately 16,390 euros) for a patient, and effectiveness was 0.657 QALY. ICER was 2.869 million yen (approximately 24,950 euros)/QALY (95% CI: 2.665 - 3.089 million yen /QALY). PSA showed that most trials had ICER of less than 4.00 million yen/QALY. **CONCLUSIONS:** The ICER of PEG_IFN+RBV for elderly patients with CHC seemed acceptable.

PGI22

THE EXTRA HEALTH CARE COSTS ASSOCIATED WITH ANTIMICROBIAL PROPHYLAXIS IN COLORECTAL SURGICAL PATIENTS: AN EXPLORATION OF PROFILING DATA FROM A UNIVERSITY HOSPITAL IN JAPAN

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OBJECTIVES: Postoperative infections bring about an expansion of length of hospital stay (LOS) and extra medical costs. **METHODS:** We analyze the relationship between variations in antimicrobial prophylaxis (AMP) and extra medical costs in surgical patients with colorectal malignancies. Utilizing profiling administrative data, we analyzed 161 admitted patients between 2007 and 2009 to a university hospital. We classified the patients into two classes based on AMP duration: the control group (112) and the case group (49). Most patients from both groups were appropriately given AMP agents consistent with the guidelines of infection-related associations. **RESULTS:** The LOS of the control group (24.6 ± 12.1 days) was shorter than that of the case (49.4 ± 35.2) (p<0.05). Hospitalization charge of the control group (15130 ± 3930 USD) was lower than that of the case (23130 ± 1212) (p<0.05), but hospitalization charge per day of the control group (670 ± 160 USD) was higher than that of the case (530 ± 130) (p<0.05). Furthermore, 73 cases of the control group were given on the day of surgery till the first postoperative day, and 39 cases were given to the second and third postoperative days. LOS of the former (22.7 ± 9.5 days) was shorter than that of the latter (28.3 ± 15.5) (p<0.05). **CONCLUSIONS:** AMP agents in our hospital were found to generally give according to the recommended guidelines. It is important for the hospital administrators to quantify the additional costs on top of the primary diagnosis in order to properly deal with infection control and hospital management.

Gastrointestinal Disorders - Patient-Reported Outcomes & Preference-Based Studies

PGI23

ECONOMIC IMPACT OF MEDICATION ADHERENCE AND PERSISTENCE IN THE TREATMENT OF ULCERATIVE COLITIS IN CANADA: ANALYSES WITH THE RAMQ DATABASE

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OBJECTIVES: The aim of this study was to assess adherence and persistence to mesalazine treatment in ulcerative colitis (UC), and to evaluate the impact on health care resource utilization and cost from a Canadian health care system perspective. **METHODS:** A retrospective prescription and medical claims analysis was conducted using a random sample of UC patients with no diagnosis of Crohn's disease who were initiated on an oral mesalazine formulation from January 2005 to December 2009. Treatment adherence (medication possession ratio [MPR]) and persistence were calculated over a 1-year period after index prescription. To evaluate the economic impact of non-adherence and non-persistence, the number and all-cause costs of physician visits, emergency visits, and hospitalizations were estimated. Statistical comparisons, based on adherence and persistence, were made using the chi-square test for proportions and Student's t-test or the F-test from one-way ANOVA for means. Statistical significance was p<0.05. **RESULTS:** A sample of 1681 patients was obtained. The mean age of new oral mesalazine users was 55.3 years (SD=17.8), with a similar proportion of males and females. At month 12, 27.7% of patients had a MPR ≥80%, and 45.5% of patients were persistent on treatment. Over the 12-month period, there was a statistically significant difference in overall health care resource utilization and all-cause costs in non-persistent (\$4973.57) versus persistent (\$3256.23) patients to UC medications (p<0.001, unadjusted), with hospitalizations as the major cost driver. Similar numeric differences were observed for overall health care costs associated with non-adherence versus adherence (\$4357.70 versus \$3758.81, p=0.277, unadjusted). **CONCLUSIONS:** Adherence and persistence to oral mesalazine for the treatment of UC was relatively poor in this patient cohort. Furthermore, patients who were non-persistent