terms of choice of treatment strategy for long-term treatment of gastroesophageal reflux disease and the associated costs.

**METHODS:** This study is a follow-up study to the Nexium One study and is an open observational study in a general practice setting with 1206 patients. This study was designed as a naturalistic study to emulate a real-life situation as closely as possible. The observational period was six-months. Three groups of patients were included in this study: 1) patients who participated in the Nexium One trial and were included by general practitioner (GPs), who participated in the Nexium One trial; 2) patients who did not participate in the Nexium One trial and were included by GPs, who participated in the Nexium One trial; and 3) patients who did not participate in the Nexium One trial and were included by GPs, who did not participate in the Nexium One trial. As to whether the randomised Nexium One study reflected real-life in terms of treatment and associated costs, this was investigated by comparing direct medical costs, total costs for the following patients: A) all patients from the Nexium One study and B) group three patients (see above).

**RESULTS/CONCLUSIONS:** A significant difference was found in total costs between group three and all the patients in the Nexium One study. However, there was no significant difference in direct medical costs. In other words, the Nexium One study reflects real-life costs as there is no difference in the costs of treatment between all patients in the Nexium One study and the patients, who did not participate in the Nexium One study and were included by GPs who did not participate in the Nexium One study.

**OBJECTIVES:**

To assess the validity and subject acceptability of electronic data capture (EDC) versions of Irritable Bowel Syndrome Quality of Life (IBS-QOL), EuroQol (EQ-5D) and Work Productivity and Activity Impairment (WPAI:IBS) questionnaires. METHODS: Comparability of EDC and paper questionnaires was evaluated in 72 subjects with IBS who completed a baseline EDC or paper questionnaire, a crossover questionnaire 24 hours later, and a retest of the crossover version at week-one. The EDC version was presented on a hand-held device. Comparability was assessed using paired t-test statistics, intraclass correlation coefficients (ICC) and tests for internal consistency (Cronbach’s alpha).

**RESULTS:** No significant differences were found between scores obtained by paper questionnaire and EDC at the baseline and crossover assessments. ICCs between baseline and crossover assessments ranged from 0.83 to 0.96 for the IBS-QOL scores, 0.82 to 0.96 for the WPAI:IBS scores, and 0.77 to 0.82 for the EQ-5D. Internal consistency was comparable for the two data collection methods for the IBS-QOL overall score (0.96) and subscales and the EQ-5D Index (0.70 vs. 0.74). Retest statistics (ICC) were generally comparable between the EDC and paper versions for all scores, as was the relationship between scores and levels of IBS symptom severity. Ease of use was comparable for the two modes of administration, but more patients preferred EDC (47.2%) than the paper questionnaire (23.6%).

**CONCLUSIONS:** EDC versions of the IBS-QOL, EQ-5D, and WPAI:IBS are comparable to paper questionnaires in terms of internal consistency, test-retest reliability, and discriminant validity and have greater patient acceptability.

**HEALTH RELATED QUALITY OF LIFE CHANGES IN LAMIVUDINE REFRACTORY CHRONIC HEPATITIS B (CHB) PATIENTS AFTER ENTECAVIR (ETV) OR LAMIVUDINE (LAM) TREATMENT; v BMS STUDY 026**

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The impact of treatment on health related quality of life (HRQoL) in CHB patients is unclear. **OBJECTIVE:** The objective of this study was to compare the changes in HRQoL from baseline, as measured by changes in health status using the EuroQol 5 Dimensions (EQ-5D) questionnaire, in patients receiving ETV or LAM treatment. Utility scores are anchored between full health (1) and death (0). **METHODS:** This was a randomized double blind, double dummy, active controlled trial. Questionnaires were administered prior to the physician visit at baseline, Weeks 24 and 48. Mean changes in health index score (HIS) and visual analog scale (VAS) score from baseline were calculated in all treated patients. Proportions of patients who had improvement or no change in health dimensions were compared between the two treatment groups, and patients with missing Week-48 data were considered failures (NC = F). **RESULTS:** A total of 116 of 141 (82%) ETV and 114 of 145 (79%) LAM patients completed the questionnaires at baseline. Though ETV patients demonstrated a clinically meaningful improvement in HIS (0.03) and LAM patients did not (0.01), the difference (0.02) was not statistically significant (p = 0.12). ETV patients had a trend towards better change in VAS at Week-48 (ETV = 4.13; LAM = 0.91; mean difference estimate ETV-LAM = 2.11; p = 0.21). A larger proportion of ETV patients had improvement or no change in all five health dimensions at Week-48. ETV treatment was superior to LAM in the following dimensions: mobility; self care; pain or discomfort (94% vs. 82%, p = 0.007; 94% vs. 85%, p = 0.03; and 90% vs. 77%, p = 0.01, respectively).

**CONCLUSION:** ETV therapy was associated with greater proportions of patients with improvement or no change in mobility, self care, and pain or discomfort after 48-weeks of treatment. ETV patients demonstrated a clinically meaningful improvement in HIS, and greater improvement in VAS from baseline compared to LAM.

**TEGASEROD SIGNIFICANTLY IMPROVES QUALITY OF LIFE IN PATIENTS WITH IRITRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C)**

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**OBJECTIVES:** To evaluate the impact of tegaserod 6 mg b.i.d. on the quality of life (QoL) of men and women with IBS-C, as defined by Rome II criteria. **METHODS:** A multicenter, open-label, prospective, single-cohort study was conducted in Spain. Patients entered a one-month, treatment-free, baseline period followed by three months’ treatment with tegaserod 6 mg b.i.d. and subsequently, a one-month withdrawal period (no treatment). QoL was assessed at the end of baseline, treatment and withdrawal periods using the IBS-QOL; a validated modified disease-specific instrument and the SF-36; a validated generic instrument. Patients recorded their level of IBS symptom relief in a weekly diary. Patients were considered responders (R) if ≥two-weeks’ satisfactory relief of global IBS-C symptoms was experienced.
during the last month of treatment. RESULTS: Of 167 patients (20 men, 147 women; mean age 43.5 years) included in the analysis, 72% responded to tegaserod. At baseline, SF-36 scores from IBS-C patients were lower than those from the general population, but increased in all dimensions with treatment (p = 0.0068 for General Health), reaching values similar to those of the general population. An increase in all SF-36 dimensions was observed in responders (R), whereas a decrease occurred in non-responders (NR, General Health dimension p = 0.004). IBS-QOL scores (from baseline to treatment) significantly increased in all dimensions (p < 0.0001 for overall assessment). The mean increment in IBS-QOL was greater for R than NR (Overall dimension, p < 0.05). Upon treatment withdrawal, some dimensions of SF-36 and IBS-QOL scores decreased but did not return to pretreatment levels. CONCLUSIONS: QoL is impaired in IBS-C patients. Treatment with tegaserod 6 mg b.i.d. improves QoL in patients with IBS-C to a level almost equivalent to that of the general population, and deterioration in QoL occurs upon treatment discontinuation.

METHODS & CONCEPTS

USE OF_THRESHOLDS FOR SAFETY REPORTING IN CLINICAL TRIALS
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OBJECTIVE: To assess completeness of safety reporting in published clinical trials, including use of incidence, severity, and relationship to drug thresholds for listing of specific adverse events (AEs). METHODS: We used data from previously conducted systematic reviews in three areas: treatment of rheumatoid arthritis (RA) with disease-modifying anti-rheumatic drugs (168 studies, 1969–2001); treatment of migraine with 5HT-1 agonists (38 studies, 1991–2003); and anti-neoplastic treatment of relapsed or refractory non-Hodgkin’s lymphoma (NHL) (27 studies, 1991–2003). The type of safety reporting for each study was appraised by two reviewers. RESULTS: Only a minority of studies in each of the clinical areas presented a complete listing of all AEs occurring during the trial (RA 17%, migraine 8%, NHL 30%); a substantial number (10–25%) had no safety data extractable. Among studies with partial AE reporting the thresholds used varied by clinical setting: two-thirds of RA and NHL studies with a reporting threshold used the author- or investigator-attributed relationship to drug to determine which AEs would be listed in published reports, while 71% of migraine studies with a threshold used incidence (e.g. only AEs occurring in more than 5% of patients were listed). The severity threshold (reporting of only serious AEs or only grade 3–4 AEs) was the least common in all three clinical areas examined. No consistent relationship was found between complete AE reporting and study sponsorship (industry vs. non-industry/not reported) or year published (pre vs. post 1995). Smaller studies (<100 patients) were more likely to contain complete AE reporting, perhaps due to the difficulty of providing a comprehensive listing of all events in larger studies. CONCLUSIONS: Incidence and relationship to drug remain common thresholds for AE reporting in published clinical trials. Early detection of rare or unanticipated events by meta-analysis of published trial data is thus made more challenging.

A SYSTEMATIC REVIEW OF ECONOMIC ASSESSMENTS OF GENETIC TESTING TECHNOLOGIES
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Genetic test technologies offer hope for early diagnosis and identification of persons at risk for serious diseases. Because many of these tests are costly and applicable to large populations, evaluations of the cost-effectiveness of these technologies are important. OBJECTIVES: To conduct a systematic search for and review of economic evaluations of genetic testing technologies. METHODS: PubMed, Proquest, LexisNexis, Expanded Academic Index, The Harvard Review of Economic Analyses, PsycINFO, NICE and CCOHTA databases were searched for original cost-effectiveness articles published from 1990 to present. MESH terms included: economic(s) and/or cost(s), genetic, gene, and/or genotype. Selection criteria included genetic tests for genetic conditions, defined as analysis of human DNA, RNA, chromosomes, proteins, and certain metabolites in order to detect heritable disease-related genotypes, mutations, phenotypes or karyotypes for clinical purposes. Articles were categorized by clinical category and type of economic study (e.g., cost-utility, cost-benefit), then graded independently by the authors using CEA study quality system developed by Chiou et al (Med Care, 2003;41:32). RESULTS: A total of 149 abstracts were retrieved using the search terms; 63 met selection criteria. Types of economic studies were as follows, cost-utility (25%); cost-benefit (19%); cost-minimization (6%); cost-effectiveness (59%). Clinical testing categories were as follows: preconception carrier (8%); prenatal diagnosis (40%); adult (57%). The studies involved 26 different medical conditions. Study quality ranged from 43–100 (average 82). Cost-utility studies were of highest quality (mean 91); cost-minimization studies were of lowest quality (mean 63). Adult studies had the highest rating (mean 86); preconception testing studies were lowest in quality (mean 74). Intraclass correlation among raters was 0.82 (CI 0.70–0.89). CONCLUSIONS: A number of economic analyses have been published in human genetics across a wide range of conditions. Study quality varied widely. Priority areas for the field include increasing quality and uniformity of measures of outcome.

INTRODUCTION OF BIAS WHEN USING THE SMEARING RE-TRANSFORMATION METHOD IN THE PRESENCE OF POSITIVELY SKEWED ANTI-LOGGED RESIDUALS
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OBJECTIVES: The purpose of this study was to evaluate the effects of using Duan’s mean anti-logged residuals (mean smearing estimator) or a median smearing estimator with positively skewed distributions on predicting costs. METHODS: Data for this study came from managed care pharmacy and medical records containing drug-drug interactions (DDIs) from January 1, 1997 to December 31, 1999. Two matched cohort groups were studied. DDI cases were identified as receiving medications involving monoamine oxidase inhibitor (MAOIs) or anti-coagulant DDIs. Controls were age and sex matched to cases. Costs were positively skewed and were then natural log transformed as the dependent variable in regression models. The retransformed costs employing the mean and median smearing estimators, respectively, were compared. Model fit was assessed using mean squared error (MSE) for both mean and median smearing estimators. RESULTS: A total of 156 and 5754 subjects were identified as MAOI and anti-coagulant groups, respec-