cancer (9.9% vs. ±12%, P < 0.001), and more likely to adhere to their medications (MPR = 0.8; 24.1% vs. ±8%, P = 0.0001) than those on other medications. Major predictors of nonadherence included inadequate insurance vs MMX (balsalazine disodium: HR = 1.18, mesalamine delayed release: HR = 1.23, sulfasalazine: HR = 1.44), preferred provider organization (PPO vs health maintenance organization (HMO) = 1.10), and no prior use of immunosuppressive agents (HR = 1.26). Significant factors associated with nonadherence included not switching medication (OR = 2.03), residing in South versus Midwest region (OR = 1.42), never receiving specialist care (OR = 1.34), and Medicaid/Medicare versus commercial plan (OR = 1.44).

CONCLUSIONS: Patients on once-daily MMX had the lowest risk of discontinuation and the highest risk for adherence rate. Multiple factors including not using immunosuppressive agents, residing in South region, PPO plan, and non-commercial payer were associated with nonpersistence/nonadherence with 5-ASAs.

PG30  HOSPITALIZATION BURDEN OF GASTRO-INTESTINAL STROMAL TUMORS

Gyorgy H, Khania R

OBJECTIVES: Gastrointestinal Stromal Tumors (GISTs) arising from interstitial cells of Cajal are known to result in significant healthcare utilization and costs. The objective of this study was to determine hospitalization burden of GISTs, and assess the factors predicting length of stay (LOS), total costs, and mortality among individuals with GIST.

METHODS: Data from the 2009 Nationwide Inpatient Sample were analyzed for the purpose of this study. Inpatient burden among individuals with GIST (cases) were compared to those without any diagnosis of cancer (controls) matched 1:4 ratio. Multiple linear regression analysis was used to determine the factors predicting LOS and total charges, and logistic regression was used to determine predictors of mortality.

RESULTS: In 2009, there were a total of 14,562 hospitalizations among individuals with GIST in the United States. Individuals with GIST had higher income, private insurance, identified from teaching hospitals, LOS, higher total costs and higher number of diagnoses as compared to controls. Individuals having income of $39,000–49,999 ($–9,089,222; p < 0.005), individuals in rural hospitals (HR = 13.43, p < 0.0001) and in number of diagnoses (28.35; p < 0.003) were associated with higher LOS. Total charges were associated with HR = 12.40 (p = 0.04), 50–65 years (HR = 1.12, p < 0.03), 65–79 years (HR = 0.76, p < 0.03) and increase in number of diagnoses (HR = 0.48, p < 0.0001) were associated with longer LOS among individuals with GIST. Rural hospitals (HR = 1.01; p < 0.03) and patients who had a routine discharge (HR = 0.26, p < 0.0001) were associated with shorter LOS. Low income (Odds Ratio [OR] = 2.96, p = 0.015), location of hospital in Midwest (HR = 0.27, p < 0.0001) and increase in number of diagnoses (OR = 1.14; p < 0.0001) were associated with higher odds of mortality among patients with GIST.

CONCLUSIONS: The study highlights the inpatient burden in cases diagnosed with GIST. Policy makers and health care professionals could use these results to make appropriate health care decisions aimed at improving outcomes in individuals with GIST.

PG31  HEALTH CARE INDICATORS TO MEASURE QUALITY OF CARE IN PATIENTS WITH LIVER DISEASE

Kostas PA, Scalone L1, Dikicissiany S, Rota M, Ciaccio A, Iode G2, Valsecchi MG3

OBJECTIVES: Liver Diseases (LDs) are prevalent and generate high human and economic costs to the society. Efficient strategies of diagnosis and treatment are necessary to improve patients’ health and reduce costs. Our aim is to identify healthcare quality indicators (HCQIs) that are measurable in patients with LDs and comparable across hospitals and locations. The objective of this study was to analyze HCQIs and identify quality indicators that are applicable to LD patients.

METHODS: This work was conducted using a modified Delphi methodology based on a two-stage rating process. We organized 7 expert panels, involving 252 physicians [74 gastroenterologists (GEs), 178 primary care physicians (PCPs), 8 endocrinologists, 3 hepatologists in all conditions].

RESULTS: The Royal Victoria Infirmary, Newcastle upon Tyne, Tyne and Wear, UK

NEUROLOGICAL DISORDERS – Clinical Outcomes Studies

PND1  A RISK-BENEFIT ANALYSIS OF NATALIZUMAB ACROSS PML RISK SUB-GROUPS IN PATIENTS WITH RELAPSING-REMITTING MULTIPLE SCLEROSIS

Walker AB4, Dema S3, Alexopoulos St1, Arnold K, Bates D5

1Heron Student Development, Ltd., Luton, Bedfordshire, UK, 2Rogen Idec, Weston, MA, USA,
3The Royal Victoria Infirmary, Newcastle upon Tyne, Tyne and Wear, UK
OBJECTIVES: Progressive multifocal leukoencephalopathy (PML) is an infrequent but severe adverse event associated with natalizumab in the treatment of patients with relapsing-remitting multiple sclerosis (RRMS). The objective is to evaluate the risks and benefits of natalizumab treatment across three PML risk sub-groups compared to interferon-β1a treatment.

RESULTS: Over a 20-year time horizon, treating anti-JCV antibody negative patients with natalizumab resulted in a total of 6.69 quality-adjusted-life-years (QALYs) per patient compared to interferon-β1a 0.14 QALYs per patient. Combining antibody positive patients and with previous anti-JCV history resulted in a QALY deficit of 0.47 compared to PML and post-PML states, as well as disease states defined by EDSS scores. RESULTS: The risk of PML associated with natalizumab had to be more than 10.43 times higher in order to result in equivalent short-term incidence of dyskinesia in Parkinson’s disease patients treated with RTG compared to treatment with ROP or PPX.

CONCLUSIONS: While 36% were prescribed by more than two specialties, the top 4 prescribers of Z-drugs should be warrant about its long-term use and risks of dependence.

NEUROLOGICAL DISORDERS – Cost Studies

PND5

BUDGET IMPACT ANALYSIS OF FINGOLIMOD FOR THE TREATMENT OF MULTIPLE SCLEROSIS IN COLOMBIA

Resselli O1, Ariza Lozano J2, Acosta T4, Rueda J3, Lin HW8, Liu Ch2, Chou CH2, Wu MP2, Wu MY2, Chen CH2, Tai CH2, Taichung, Taiwan, 2China Medical University Hospital, Taichung, Taiwan, 3China Medical University, Taichung, Taiwan, 4Northern University, Boston, MA, USA

OBJECTIVES: To develop a budget impact model to compare costs of illness with and without the introduction of fingolimod for patients with RRMS. Clinical data and prevalence scenarios for whole year, especially among the elderly.

Method: The use of the Colombian health system, we designed a budget impact model to compare costs of illness with and without the introduction of fingolimod for patients with RRMS. Clinical data and prevalence were obtained from literature, costs were collected from local sources. Monte Carlo simulation was performed as part of the sensitivity analysis. Exchange rate used was 1.786 Colombian pesos per US dollar (fun 2011). No discount rate was used.

RESULTS: Total annual net costs (from 2012 to 2016) for the scenario without fingolimod were, in million USD, $11.44, $12.16, $12.75, $13.47, and $14.18. In the fingolimod scenario net costs were $12.37, $12.83, $13.58 and $14.43. On the other hand, fingolimod was associated with 91 relapses averted in this five year period. Monte Carlo simulation did not show significant differences in costs between both scenarios. CONCLUSIONS: Under these assumptions, the introduction of fingolimod in the Colombian health care system does not imply a significant budget impact but represents an important reduction in the number of relapses.

PND6

BUDGET IMPACT ANALYSIS OF ANTIETIOPLEPTIC DRUGS IN THE TREATMENT OF LENNOX-GASTAUT SYNDROME

Skornicki M, Clements KM, O’Sullivan AK

OBJECTIVES: Lennox-Gastaut syndrome (LGS) is a neurodegenerative disease associated with long-term disability and significant social economic impact. Available first-line disease modifying treatments for MS (interferons and glatiramer acetate) have moderate efficacy and must be administered in daily or weekly injections. The introduction of fingolimod, a new molecule which superior efficacy in reducing MS relapses is associated with lower social economic impact and long-term disability and significant social economic impact.