surgical procedures among younger patients for the management of DD. METHODS: Using a nationwide commercial claims database, a retrospective cohort was identified who had undergone LC (n = 2095) or OC (n = 5971) between 4th quarter, 2003 through 1st quarter, 2009. 2000 U.S. Census data was used to calculate age-adjusted trends in overall surgical procedure and logistic regression models to determine the time trends in each surgical procedure, adjusting for age, gender, and the type of benefit plan. RESULTS: A total of 8,066 surgical procedures were performed during the study period (mean age = 53 ± 11, 53.7% Male). Quarterly mean number of surgeries performed(LC+OC) for DD was 776 (SD = 39) and the mean number of LC+OC from 2006 to 2008 was 2297 (SD = 107). Quarterly age- standardized surgical procedures(LC+OC) for DD declined by 9.26% for patients younger than 45, whereas overall surgical rate increased by 3.2% for older patients. Thalidomide LC over OC declined by 9.5% (95% CI, 0.91, 0.93) while controlling for other covariates. CONCLUSIONS: Data suggest that there was a slight decline over time in surgical procedures for younger patients. The reasons for the decline in surgical procedures for younger patients may be due to recent studies suggesting that DD is not more aggressive in younger patients as initially thought. There was a slight decline over time in surgical procedures for younger patients. The reasons for the decline in surgical procedures for younger patients may be due to recent studies suggesting that DD is not more aggressive in younger patients as initially thought.

GASTROINTESTINAL DISORDERS – Cost Studies

PG19 A BUDGET IMPACT MODEL TO EVALUATE MEDICATION PERSISTENCE AND ASSOCIATED HEALTH CARE COSTS

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OBJECTIVES: Low persistence for oral 5-ASA drugs is associated with increased risk of relapse of ulcerative colitis(UC) and subsequent costs. We constructed a one-year budget impact model to compare annual all-cause direct incremental costs of treatment for the health plan(HP) per mid-to-moderate UC patient using oral 5-ASA drugs and associated persistency rates(PRs). METHODS: Assuming a budget holder’s perspective for a one-year horizon, the model analyzed the impact of PR on total UC related all-cause direct IC. PRs for 5-ASA drugs(mesalamine CR[CRM] 250mg 7%, 500mg 10%, balsalazide disodium[BD] 10%, olsalazine[OLS] 10%, mesalamine DR[DRM] 9%), multi matrix system mesalamine(MMX) 20%) were derived from published literature. UC patients within the HP were distributed to drugs based on September 2009 market share data and classified as persistent if they refillled by a timeframe of up to twice the duration of their prescription. Annual UC-related pharma- macy costs were calculated using net wholesale acquisition cost, and additional all- cause direct ICs for patients with/without relapse were cited from published literature. Sensitivity analyses varying net drug costs and PRs were performed to determine the impact on health care costs. RESULTS: Average annual all-cause UC costs per patient were: $13,135 CRM-250; $13,065 CRM-500; $12,914 BD; $12,804 OLS, $12,688 DRM; $12,235 MMX. Inpatient costs were lower for MMX,$5,667) as compared to market leader(DRM,$6,216) and lowest priced drug alternative(OLS,$6,343). Sensitivity analyses indicated higher savings/patient for MMX than DRM,$462 vs. $30, respectively). The primary driver for inpatient cost differences was the frequency of relapse reduced by persistency. A health plan with 1 million covered lives,2,300 UC patients saved $401,000,$40,000 per membership month by switching 50% of UC patients to MMX. CONCLUSIONS: This analysis illustrates the impact of medication persistency on reduction of UC relapse and associated health care costs. Health plans may achieve savings by including drugs with high PRs in their formulary.

FUNCTIONAL DYSPEPSIA DECREASE PRODUCTIVITY AND INCREASED MEDICAL COSTS

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OBJECTIVE: Functional dyspepsia is a common, morbid condition but data are limited on the indirect and direct costs for employees with functional dyspepsia or on its impact on productivity. Few data on absenteeism no objective information are available. This study aimed to assess functional dyspepsia’s incremental health benefit costs and effects on absenteeism and work output (productivity). METHODS: We performed a retrospective analysis of payroll data and adjudicated health insurance

PG10 PATIENT FINANCIAL BURDEN, SURGICAL COSTS AND REIMBURSEMENTS FOR OPEN AND LAPAROSCOPIC COLORECTAL PROCEDURES IN DIVERTICULAR DISEASE

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OBJECTIVES: Colectomy is a standard procedure in complicated colonic diverticular disease (DID) including diverticulitis and diverticulosis. Although laparoscopic colorec- tomy (LC) has demonstrated some clinical advantages over open colectomy (OC), the true financial burden, cost and reimbursement structures between the two surgical procedures remain unclear. The purpose of this study was to compare patient financial burden, direct surgical costs and reimbursements for OC and LC procedures in DID. METHODS: Nationwide commercial claims database from 2003 through 2007 was used to identify 1,614 patients who had undergone LC (n = 1,327) or OC (n = 287) for DD. Patient financial burden (defined by out-of-pocket [OOP] costs including co-pay, deductible and coinsurance), direct surgical costs, reimbursements and costs-to-charge ratios for OC and LC were compared using the Student’s t-test and chi- square test where appropriate. RESULTS: OC and LC groups differed with respect to mean age (60 and 64 years, respectively; p < 0.001) but did not differ in male/ female ratio. OOP costs were significantly greater for OC ($410 vs. $350 for LC; p < 0.001) and mean reimbursements per case were significantly less for OC ($423$ vs. $412.81 and $180$ 80 respectively; both p < 0.001). Cost-to-charge ratios were the same for both surgical procedures (0.38). CONCLUSIONS: This analysis demonstrated that patient financial burden, direct surgical costs and reimbursements of OC were significantly higher than LC. However, low surgical costs may be offset by potential increases in length of hospital stay due to longer recovery time for OC. Understanding differences in cost structures may be helpful in further investigations of the cost-effectiveness of these two surgical procedures in diverticular disease.
TREATED HCV COHORTS
DIRECT AND INDIRECT COSTS OF HEPATITIS C VIRUS (HCV): making for IBS.
likely to underestimate due to using claim data and strict definition of patient.
work due to illness.
1.30 million with 753,688 (57.79%) for female. The results showed that the
USA
$21,752; p
$7,654. After adjusting for demographic and clinical characteristics, including HIV
costs were $2,181, and ER costs were $184; indirect costs were
compared to patients with HCV. Total costs among matched non-HCV costs were
0.05). Non-HCV controls had significantly lower costs in all categories
disability rates (33% vs. 30%; p
patients had similar absenteeism rates (93% vs. 88%; p
higher outpatient pharmacy costs. Indirect cost differences are driven by greater
patients cost more than untreated patients; the cost differential is primarily driven by
The disease burden of IBS appears to be high because of the high morbidity although not a significant cause of death. The result is likely to underestimate due to using claim data and strict definition of patient. However, this data might be useful and necessary to support evidence-based decision making for IBS.

THE DISEASE BURDEN OF IRritable BOWEL SYNDROME IN KOREA

OBJECTIVES: The aim of this study was to estimate the annual societal disease burden of irritable bowel syndrome (IBS) in Korea for the year of 2008. METHODS: The claim data with IBS were extracted from the Health Insurance Review & Assessment Service (HIRA) database in 2008 of Korea. After definition of patient with inclusions and exclusions, the prevalence and medical costs were calculated. The number of outpatient visits and length of hospital stay also were calculated to estimate transportation cost and productivity loss. RESULTS: The annual national patients with IBS were estimated to 1.30 million with 753,688 (57.79%) for female. The results showed that the crude prevalence of IBS was 2.68% (95% CI: 2.66%-2.71%), 2.25% for male and 3.12% for female) in 2008. The total cost due to IBS was 14.9 billion won ($1 = 1047.30 won, 2008) including 348 million won for direct medical cost (2.33%), 88 million won for direct medical cost (5.34%), and 14.5 billion won for indirect cost work due to illness. CONCLUSIONS: The disease burden of IBS appears to be high because of the high morbidity although not a significant cause of death. The result is likely to underestimate due to using claim data and strict definition of patient. However, this data might be useful and necessary to support evidence-based decision making for IBS.

DIRECT AND INDIRECT COSTS OF HEPATITIS C VIRUS (HCV): COMPARISON OF NON-HCV, UNTREATED HCV, AND PEG-RBV TREATED HCV COHORTS

OBJECTIVES: To compare direct and indirect costs between HCV patients on pegylated interferon with ribavirin (PEG-RBV), untreated HCV, and non-HCV controls. METHODS: We identified three cohorts using the MarketScan Commercial Claims and Encounters Database® from 2002-2007. HCV patients on PEG-RBV, untreated HCV, and non-HCV controls. We used propensity scores to match treated patients with untreated patients and may be the prevalence and medical costs were calculated. The number of outpatient visits and length of hospital stay also were calculated to estimate transportation cost and productivity loss. The annual national patients with IBS were estimated to 1.30 million with 753,688 (57.79%) for female. The results showed that the crude prevalence of IBS was 2.68% (95% CI: 2.66%-2.71%), 2.25% for male and 3.12% for female) in 2008. The total cost due to IBS was 14.9 billion won ($1 = 1047.30 won, 2008) including 348 million won for direct medical cost (2.33%), 88 million won for direct medical cost (5.34%), and 14.5 billion won for indirect cost work due to illness. CONCLUSIONS: The disease burden of IBS appears to be high because of the high morbidity although not a significant cause of death. The result is likely to underestimate due to using claim data and strict definition of patient. However, this data might be useful and necessary to support evidence-based decision making for IBS.

PATIENTS WITH CHRONIC HEPATITIS C VIRUS SUSTAINED VIRAL RESPONSE, AND GENOTYPE IN EUROPEAN MEDICAL SERVICE UTILIZATION AND COSTS BY DISEASE SEVERITY, OBJECTIVES: To document variations in resource utilization and costs by disease severity, sustained viral response (SVR), and genotype in a European population with chronic hepatitis C virus (C-HCV). METHODS: Patient charts from the UK, France, Germany, Spain, and Italy were retrospectively reviewed. Inclusion criteria were: C-HCV diagnosis within past 5 years; age ≥ 21 years; no diagnoses of hepatitis B or HIV at enrollment; no follow-up study end point, no clinical trials; and no his- tory of HCV treatment (cost utilization and $9.074 for hospitalizations, emergency room (ER) and office visits, and specialty referrals were aggregated within patients over 1 year post-diag- nosis. C-HCV severity was assessed via Metavir score. Among patients receiving C-HCV-directed pharmacotherapy, SVR was defined by viral RNA < 10 IU/mL at ≥ 12 months post-treatment. Utilization and cost differences across clinical factors were assessed with multivariate modeling. RESULTS: In total, 1016 patients were identi- fied. Overall, 23% of severe patients were hospitalized versus 2.5% of mild. Hospi- talization was 5 times more severe in C-HCV compared to mild (odds ratio [OR] = 5.39; P = 0.008), while the hospitalization rate, measured by Possion incidence rate ratio (IRR), was 4 times higher (IRR = 3.98; P = 0.010). Hospital costs were $1380 higher in severe versus mild disease (P = 0.001). Hospitalization risk in SVR attainers was less than half that of non-attainers (OR = 0.22; P < 0.0001). ER, office, and specialist visit rates were significantly lower among SVR attainers. Genotype had little effect on utilization, but genotype 1 was associated with slightly lower ($90 per patient; P < 0.0001) hospital costs versus genotypes ≥2: CONCLUSIONS: Disease severity and SVR are important predictors of C-HCV costs. Awareness of these factors by payors may help reduce the high cost burden of C-HCV, may help promote strategies for earlier disease detection and increased treatment initiation before progression occurs, as well as formulary access for more convenient therapies that increase treatment persistence and thereby SVR rates.

PATTERNS OF LUBiprostone UTILIZATION AND COSTS IN MEMBERS OF A LARGE HEALTH BENEFITS COMPANY

OBJECTIVES: Assess patterns and costs trends in the use of lubiprostone in a large managed care population. METHODS: Patients included Humana members 18 years and older with medical claims for chronic constipation (CC) and/or irritable bowel syndrome (IBS) between April 1, 2006 and April 30, 2008. The index date was the first diagnosis of CC or IBS. Patients had at least 180-days of continuous enrollment pre-index and at least 30-days post-index. Users and non-users were compared. Users were pre-index and post-lubiprostone initiation. RESULTS: A total of 92,804 patients with a diagnosis of CC or IBS were identified during the study period; 1873 filled at least one 30-day prescription for lubiprostone. Seventy-five percent of users were female. Lubiprostone users were younger than non-users (61.6 vs. 66.2 yrs old) and more likely to be co-prescribed opioids (35.5 vs. 29.4%), anti- histamines (14.8 vs. 9.3%) and tricyclic antidepressants (8.1 vs. 4.7%), all statistically significant. Common co-medications in lubiprostone users were back problems (23.6%) and abdominal pain (21.9%). A total of 1605 users had both 6-months pre- and post-lubiprostone initiation data. A total of 42.2% of these patients filled more than one 30-day lubiprostone prescription; 6.42% filled 6 or more. Usage of other prescription laxatives decreased by 4.6% (p < 0.05) subsequent to lubiprostone initia- tion. Monthly health care costs per utilizing member increased by $67.10 (p < 0.0001). Pharmacy costs rose by $71.73 (p < 0.0001) and ER costs decreased by $8.12 (p < 0.05). Pre-post changes in outpatient and inpatient costs were not significant. Monthly inpatient and ER visits for these 1605 members decreased by 0.31 and 0.08 per utiliz- ing member respectively (p < 0.05) in the 6-months after starting lubiprostone. Changes in outpatient visits were not significant. CONCLUSIONS: Lubiprostone users were younger females who were co-prescribed opiates and had back problems. Higher health care costs were offset by a decrease in ER costs.

COST-EFFECTIVENESS ANALYSIS OF TREATMENT WITH PEGIFerON-ALFA-2a VERSUS PEGIFerON-ALFA-2b FOR PATIENTS WITH GENOTYPES 2/3 CHRONIC HEPATITIS C UNDER THE PUBLIC PAYER PERSPECTIVE IN BRAZIL

Hepatitis C affects approximately 110 million people worldwide and is one of the main causes of chronic liver disease. HCV infection progresses to chronicity in approxi- mately 80% of infected individuals, from whom up to 20% will develop cirrhosis over 20 years, thus presenting high risk of complications related to hepatic insuffi- ciency and/or hepatocellular carcinoma. OBJECTIVES: To compare treatment costs and outcomes of pegferon-alfa-2a versus pegferon-alfa-2b, both associated