genital ulcer disease (GUD). The second questionnaire targeted pharmacists working in both public and private health care facilities to elicit information on prescribing and dispensing practices.

RESULTS: The availability of acyclovir in the public sector was a function of funding and prioritisation by policy makers. In Zimbabwe and Zambia for example, acyclovir was unavailable in the public sector because of a paucity of funds, while in Kenya, Tanzania and South Africa, accessibility to acyclovir in the public sector was poor because of low prioritisation by policy makers. Acyclovir was available in the private sector, albeit at higher prices than the private sector. Despite the availability of generic formulations and the presence of competitive markets, acyclovir was described as “poorly affordable” in the private sectors of all countries except Botswana, South Africa and Zambia. Moreover, private sector pharmacies used information asymmetry to inflate the price of acyclovir generics from European countries as a signal of quality. CONCLUSION: On-going clinical trials may determine acyclovir to be effective in preventing the transmission of human immunodeficiency virus (HIV) to susceptible patients. However, for this research to transition into policy, certain fundamental issues will need to be addressed. These include: information dissemination on the importance of acyclovir in GUD and HIV to policy makers and the general public; and the need for government intervention into competitive markets because of inequalities to access and information asymmetry.

**INPATIENT COSTS AND OUTCOMES ASSOCIATED WITH CHRONIC HEPATITIS C RELATED COMPLICATIONS IN THE UNITED STATES**

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OBJECTIVE: Hepatitis C virus (HCV) is a common blood-borne infection in the US. Over time, patients with chronic HCV can encounter serious complications that impose a significant cost burden to third party payers. In this study, we generated national estimates of inpatient costs, length of stay (LOS), and probability of death associated with four major chronic HCV-related complications. METHODS: Discharge data for patients with chronic HCV (ICD-9 070.44, 070.54, 070.70, or 070.71) were analyzed using the 2005 HCUP Nationwide Inpatient Sample. Discharges related to ascites, variceal bleeding, hepatic encephalopathy, and hepatocellular carcinoma (hepatoma) were identified using relevant ICD-9 diagnosis codes. Weighted estimates of costs, LOS, and probability of death were calculated for stays related to these complications. RESULTS: We identified a weighted total of 275,737 chronic HCV-related discharges. Approximately 11.5% of these discharges were for ascites and 5.6% were for hepatic encephalopathy. Admissions for variceal bleeding and hepatoma were less common at 0.3% and 2.8%, respectively. Hepatoma, however, was associated with the highest total inpatient costs ($17,609) and LOS (6.3 days). The probability of death from hepatoma was 11%. Patients with hepatoma had a 3.7% inpatient days on average for ascites with a cost per day of $2125 and total inpatient cost of $14,858. The probability of death from ascites was 9%. The average number of inpatient days for hepatic encephalopathy was 7 days with a cost per day of $1936, total inpatient cost of $13,380, and probability of death of 11%. Patients with variceal bleeding had the lowest inpatient costs ($12,128) and LOS (5.4 days). The probability of death from variceal bleeding (8%) was lower compared to the other complications. CONCLUSION: Advanced chronic HCV can lead to serious and costly complications. Efforts to improve HCV treatment may help slow disease progression and thus result in cost savings from avoided complications.


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OBJECTIVE: Nosocomial infections are increasing. This study focuses on soft tissue infections, S aureus infections and MRSA nosocomial infections. Trends are quantified and analyzed for hospital and patient characteristics. METHODS: Data from the HCUP National Inpatient Sample (NIS) of US hospital discharges for 1998 through 2004 were used to estimate national trends in hospitalizations for three infectious conditions. Discharges where ICD9-CMs were recorded for soft tissue infections (680.xx, 681.xx, and 682.xx), S aureus infections (038.11, 041.11, and 482.41), and MRSA (V09.0) were included in the study. NIS discharge weights were used to generate nationally representative estimates of discharges for each infection and for their combinations with MRSA. Logistic regression was used to obtain odds ratios (ORs) for each infection and MRSA combination in 1998 revealed that being white, and older increased the odds of this infection (ORs = 1.160 and 1.020 respectively) while being female reduced the odds (OR = 0.692). Larger hospitals had a lower odds (OR = 0.918) as did teaching hospitals (OR = 0.681). However urban hospitals odds were higher (OR = 1.384) and being a Medicare or Medicaid patient also was associated with an increased odds of the infection (ORs = 1.486 and 1.743 respectively). Only patient income was not significant (p < 0.001 for all other variables). Results for 2004 were similar but not the same. CONCLUSION: Nosocomial infections continue to increase as a percent of hospital stays, and the odds of infection are not equal across patient and hospital types.

**SPREAD PATTERN FORMATION OF H5N1-AVIAN INFLUENZA AND ITS IMPLICATIONS FOR CONTROL STRATEGIES**

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To develop deterministic models for comparing the relative effectiveness of various control measures, estimation of the spread speed of the virus in the environment and the interactions between spatial diffusion of birds and virus. Deterministic models were developed based on the H5N1 transmission cycle by partitioning the birds into three classes based on their epidemiological characteristics for the disease under consideration: poultry (c), wild birds—susceptible and die after H5N1 infection (w), and wild birds—susceptible but survive after H5N1 infection without apparent disease symptoms (d). Model parameters were obtained from existing literatures. Ordinary differential equations (ODE) and partial differential equations (PDE) analogues were utilized for the construction of models as described below. ODE was used to access the effects of control measures, one-dimensional PDE to study the spread speed of the disease,
NON-FLUOROQUINOLONE ANTIBIOTIC-STEROID COMBINATION DRUGS (N = 1396), ORAL ANTIBIOTICS (N = 881), TOPOICAL FLUOROQUINOLONE (N = 2290), NON-FLUOROQUINOLONE ANTIBIOTIC-STEROID COMBINA TION DRUGS (N = 881).

RESULTS: Patients received topical fluoroquinolone or non-fluoroquinolone antibiotic-steroid combinations more frequently. These were followed by oral antibiotics (19%), otic antibiotics (12%), and other otic preparations including acidiﬁying agents, numbing agents, and combinations (n = 881). CONCLUSION: Topical fluoroquinolone or non-ﬂuoroquinolone antibiotic-steroid combinations were the most frequently prescribed medications, together representing 53% of the initial therapy choices for AOE. These were followed by oral antibiotics (19%), otic antibiotics (17%), and other otic preparations (11%). Pediatricians prescribed fluoroquinolone containing combinations more frequently than general practitioners, who tended to prescribe non-ﬂuoroquinolone containing combinations most frequently.

ABSTRACTS

A PICTURE OF DEMOGRAPHIC DISPARITIES IN THE RECEIPT OF ANTIRETROVIRAL THERAPY AMONG HIV PATIENTS IN THE 2000-2005 NATIONAL AMBULATORY MEDICAL CARE SURVEYS (NAMCS)

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OBJECTIVE: Despite numerous advances in antiretroviral therapy (ART) for HIV patients over the past decade, many patients fail to receive appropriate ART. This study sought to identify demographic factors associated with failure to receive guideline-concordant ART. METHODS: Data was extracted from the 2000–2005 NAMCS. HIV patients were defined as those that received at least one antiretroviral during an ambulatory care visit. Data collected included patient age, gender, race, ethnicity, geographic region, insurance status, and medications. Antiretroviral regimens were evaluated for appropriateness according to antiretroviral guidelines published by the Department of Health and Human Services. Appropriate and inappropriate regimens were compared using the Chi-square or Fisher’s Exact test. RESULTS: Antiretroviral therapy was mentioned in 107 of 156,627 visits. These patients had a median (25th–75th percentile) age of 45 (38–54) years, 66% were male, 64% were white, and 42% had Medicaid/SCHIP. Only 58% of patient visits documented appropriate ART. These consisted of two nucleoside reverse transcriptase inhibitors (NRTIs) plus one non-nucleoside reverse transcriptase inhibitor (NNRTI) (36%), two NRTIs plus two protease inhibitors (PIs) (26%), or two NNRTIs plus PI (11%). Inappropriate monotherapy was commonly reported: NRTI (30%), PI (16%), or NNRTI (12%) monotherapy. Patients were less likely to receive appropriate therapy if they were ≥50 years of age (23% vs. 49%, p = 0.003) or had Medicare (5% vs. 23%, p = 0.005). All Asian patients in the surveys received inappropriate ART (p = 0.007 vs. non-Asians). Comparisons of appropriate ART use among females vs. males (30% vs. 47%, p = 0.08) and whites vs. non-whites (63% vs. 67%, p = 0.6) failed to achieve statistical signiﬁcance. However, the post-hoc power for these statistics was only 42% and 6%, respectively. CONCLUSION: Nearly half of patients in the 2000–2005 NAMCS received suboptimal HIV therapy. Asian patients, Medicare patients, and those patients over the age of 50 years were signiﬁcantly less likely to receive guideline-endorsed therapies.

PRESCRIBING TRENDS IN ANTIVIRAL PRESCRIPTIONS AMONG PATIENTS WITH INFLUENZA IN THE UNITED STATES FROM 1999–2005

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OBJECTIVE: To analyze the trend in antiviral prescriptions for patients with influenza from 1999–2005. METHODS: This is a cross-sectional database analysis using data from the NAMCS (National ambulatory medical care survey) and NHAMCS (National hospital ambulatory medical care survey) for the years 1999–2005. Records were extracted for office and hospital based physician-patient encounters having a diagnosis of influenza (ICD-9-CM codes 487.0, 487.1, 487.8). The rate of neuraminidase inhibitors (NI) and adamantanes prescribed per 1000 patients with inﬂuenza was determined. The association between the type of antiviral drug and the physician specialty, region, patient sex, and patient age was evaluated by adjusted odds ratios. Data were analyzed with Proc logistic regression with adjusted odds ratios by years using SAS® 9.1.3. RESULTS: The prescrib-