visits, hospitalization days and costs associated with adverse events, which included medical services and medications. **RESULTS:** The study included 1,081 patients who used at least one HCV medication (mean age of 46.4 years [SD=10.7], 64.8% men). Peg-Riba only, Peg-Riba+boceprevir and Peg-Riba+telaprevir was used by 1,029 (95.2%), 50 (4.6%) and 18 (1.7%) patients respectively. Fifty-seven patients (5.3%) required a subsequent HCV treatment during the study period. The mean duration of treatments was 30.4 weeks (SD=16.1). During HCV treatment, the average number of health care resources per patient was 13.2 physician's visits and procedures, 1.0 hospitalization day and 0.9 emergency visit. While receiving HCV treatment, 191 (17.7%) of patients required erythropoietin, 353 (32.7%) received rash treatments and 541 (50.0%) were treated for depression. Estimated costs associated with management of these three AE were CDN$10,834, CDN$78 and CDN$268 per patient respectively. **CONCLUSIONS:** HCV treatment is associated with significant health care resource utilization. A high proportion of patients experienced AE for which management was associated with substantial additional costs, especially the anemia treatment. Thus, the cost of AE should be considered in future treatment options.

PIN53

THE COSTS OF MANAGING GENITAL WARTS IN THE UK BY DEVOLVED NATION: ENGLAND, SCOTLAND, WALES AND NORTHERN IRELAND

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OBJECTIVES: Genital warts (GW), 90% of which are caused by human papillomavirus (HPV) types 6 and 11, are a significant problem in the UK. The cost of managing GW in 2010 was previously estimated at £52.4 million. The objective of this study was to estimate the cost of GW management up to 2012, and to determine the cost by UK jurisdiction. **METHODS:** Population statistics were obtained from the Office of National Statistics for the UK, England and Wales; the General Register Office and 2011 census data for Scotland; and the Northern Ireland (NI) Statistics and Research Agency. Numbers of GW cases in genito-urinary medicine (GUM) clinics were obtained from the Health Protection Agency for the UK and England; the Information Services Division for Scotland; the Communicable Disease Surveillance Centre for Wales; and the Public Health Agency for NI. The number of cases treated in primary care was estimated from The Health Improvement Network database. Population statistics and GW cases were extrapolated by jurisdiction to 2012. The number of visits and therapy required for GW management were estimated by GUM experts for standard and hard-to-treat patients. Costs were obtained from the most recent National Health Service (NHS) Payment by Results tariffs, Personal Social Services Research Unit and British National Formulary. **RESULTS:** The model estimated 220,779 GW cases in the UK, costing £58.42 million annually (£265 per patient). For England, 157,693 cases were estimated costing £41.72 million; for Scotland 7,461 cases costing £1.90 million; for Wales 7,091 cases costing £1.87 million; and for NI 3,619 cases costing £0.95 million. **CONCLUSIONS:** The full NHS costs for the management of GW have never before been estimated separately for each jurisdiction. The results of the model reveal a significant economic burden which is important to quantify when understanding the value of quadrivalent HPV vaccination.

PIN54

IMPACT OF TREATMENT FAILURE ON THE TOTAL COST OF TRIPLE THERAPY INCLUDING BOCEPREVIR OR TELAPREVIR BASED ON THE FRENCH EARLY ACCESS PROGRAM (ANRS CO20-CUPIC) STUDY

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OBJECTIVES: The ANRS CO20-CUPIC study was designed to evaluate triple therapy (TT) efficacy and safety in HCV-cirrhosis treatment-experienced patients in the French Early Access Programme. A 60-week interim analysis has been reported confirming better clinical outcomes than double therapy in a real clinical setting. However, independently of the protease inhibitor (PI) used, boceprevir (BOC) or telaprevir (TLV), treatment failure (TF) was reported in up to 60% of the patients. Little is known about these patients' treatment cost: that of successfully treated patients can be generally calculated from the full course of PI treatment, but the cost of those who failed highly depends on TF timing. Our objective is to estimate the average PI cost/patient who failed treatment based on CUPIC study reported data. **METHODS:** Using reported data on ITT virological response and TF, BOC and TLV on-treatment rates over time were estimated. Based on this curve, the average PI treatment duration and average PI cost/patient who failed treatment were calculated. When not enough information about time to treatment discontinuation was available, the same conservative approach was applied for both drugs, considering the midpoint of the treatment interval. Sensitivity analyses on the time to TF were performed to confirm the robustness of the results. **RESULTS:** A total of 472 patients (72%) were included in the 60-week interim analysis. Independently of the IP used, about 60% the patients who start treatment did not achieve viral cure and their estimated average PI treatment duration was 26 wks in BOC patients and 11 wks in TLV patients. The average PI cost/patient who failed treatment with TLV (23.012€) was 26% higher than that of treatment with BOC (18.253€). The sensitivity analysis confirmed the robustness of the base case estimation. **CONCLUSIONS:** In a scenario of comparable efficacy between both PIs, the resources wasted on TF acquire a great importance in selecting the least costly of the two alternatives. Based on CUPIC study reported data, the average PI cost/patient who failed treatment was significantly higher in TLV patients than in BOC patients.

PIN55

PREDICTORS OF COSTS OF ANTIRETROVIRALS FOR HIV INFECTION IN ITALY: A MULTICENTRIC RETROSPECTION IN 2012

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OBJECTIVES: Most industrialized countries strive to guarantee long term sustainability for HIV antiretroviral treatment . By assessing the most relevant current predictors of costs of antiretrovirals(HAART) might represent the first step to understand spending drivers and to plan cost reduction strategies. **METHODS:** A retrospective sample of HIV outpatients followed at 5 Italian Hospitals in 2012 was collected. Demographic features, current HIV viral load, current and Nadir CD4 T-celI counts, time from HIV diagnosis, AIDS-defining events, HAART line and HCV coinfection were taken into consideration. Individual ARV regimen-costs were based on local pharmacy datasets from December, 2011, and log-transformed in the final multivariate models. Univariate analyses were performed to identify potential predictors and stepwise multivariate regressions were used to identify independent predictors of higher individual costs, using Stata 10.1 package. **RESULTS:** We included 2044 patients, 69.0% males, mean age 47.2±10.0 years; 33.4% HCV-coinfected, mean time from HIV diagnosis 13.3±7.9 years, mean nadir CD4 T cell counts 239±169.3 cell/mm3; mean current CD4T-cell counts 590±302.6 cell/mm3, 30.8% AIDS classified. Patients on HAART were 1,902 (93.0%),among treated patients, 19.0% presented an HIV-viremia>50 c/mL. Mean annual individual HAART-costs were € 9,376±3,501 (782-29,852). At univariate analysis, a significant association was found between costs and age time from HIV diagnosis, previous AIDS diagnosis, HCV-coinfection current and Nadir CD4T-cell counts, HAART-line, HIV-viremia and site of care. In the final regression model, HAART costs showed independent and direct correlation with HAART lines (p<0.001), detectable viremia (p<0.001) and time from HIV diagnosis (p=0.009); inverse correlation with Nadir CD4 T-cell counts (p=0.01). Being treated at 2 of 5 centre was another predictor of higher costs.(P<0.001). **CONCLUSIONS:** Higher HAART-costs were strongly associated with previous treatment failures and detectable HIV-viremia; a more compromised immune status at clinical presentation and a longer duration of HIV infection showed independent contribution, focusing on timely diagnosis of HIV infection.

PIN56

ECONOMIC IMPLICATIONS OF ALTERNATIVE TREATMENTS AND CARE LOCATIONS FOR ACUTE BACTERIAL SKIN AND SKIN STRUCTURE INFECTIONS WITH SUSPECTED MRSA

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OBJECTIVES: Develop model simulating economic implications of alternative treatment strategies for acute bacterial skin and skin structure infections (ABSSSIs) with suspected Methicillin-Resistant *Staphylococcus aureus* (MRSA) that considers antibiotic switches, course duration, route of administration and location of care (LOC). **METHODS:** Discrete event simulation (DES) tracks patient pathways through various LOC (ED, inpatient, outpatient) during ABSSSI treatment for suspected MRSA. Model assumes 60% of patients hospitalized. Multiple pathways are allowed: patients responding can move to outpatient to finish treatment, switch treatment at discharge or receive 2nd line treatment if not responding. Patients accrue resource use, time in LOC and costs. Hospital days obtained from analysis of Premier Hospital Database. Three cohorts created; all assigned to receive vancomycin (VAN) 1st line therapy. Upon discharge, one cohort continued on VAN, one switched to oral linezolid (LIN), one to daptomycin (DAP) to complete treatment. Costs are from the Medicare perspective in 2012 USD. **RESULTS:** Hospital plus outpatient days range from 11.1 (VAN) to 14.5 (LIN); costs ranged from $6,983 (LIN) to $8,122 (VAN) with suspected MRSA. By comparison, reatment duration ranged from 9.97 (VAN) to 13.02 (LIN) and total costs ranged from $6,889 (LIN) to $9,354 (VAN) when MRSA is not always suspected. Despite longer LIN treatment, costs are lower because of avoided infusion costs. Outpatient costs account for 22% (LIN) to 33% (VAN) of total costs. Sensitivity analysis examined impact on cost when treatment duration varied per drug labeling. Total costs varied from $6,756 to $7,158 when duration of LIN ranges from 8 days to 12 days. **CONCLUSIONS:** Treatment choice and LOC have major impact on ABSSSI resource use and costs. Suspected MRSA increases treatment duration and cost. Economic implications for payers and providers should be evaluated using models that capture these elements in view of long-acting lipoglycopeptide IV antibiotics in development that avoid repeated infusions and may allow for less inpatient treatment.

PIN57

WHEN TREATMENT IS MITIGATED BY ADVERSE EVENTS: THE ECONOMIC IMPACT OF TREATMENT-ASSOCIATED ADVERSE EVENTS IN CIRRHOTIC NON-RESPONDERS TREATED WITH BOCEPREVIR OR TELAPREVIR AND PEGINTERFERON ALPHA/RIBAVIRIN

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OBJECTIVES: Adverse events (AEs) and premature treatment discontinuation of protease inhibitor (PI) therapy in the treatment of chronic hepatitis C (CHC) may mitigate the benefits of improved sustained virologic response. We use data from a recent study to estimate the economic impact of PI therapy in the cirrhotic non-responder population. **METHODS:** In the Compassionate Use of Protease Inhibitors in viral C cirrhosis (CUPIC) study, patients with compensated cirrhosis and genotype 1 CHC were treated with boceprevir (n=205) or telaprevir (n=292) in combination with peginterferon alpha and ribavirin. The investigators reported safety and tolerability in an interim 16-week analysis. Using CUPIC data and micro-costing technique, we estimate the costs of treatment-related hematologic and rash AEs by severity (Grades 2-4) and the cost of drug wastage using PI discontinuation rates due to serious AEs (SAEs) (7.3% boceprevir; 14.7% telaprevir). We surveyed 3 hepatologists to ascertain treatment patterns related to AEs and combined these estimates with cost data to compute mean costs per treatment group from the US payer perspective during the first 16 weeks of therapy. **RESULTS:** The AE-related costs were $1,980 and $2,161 for telaprevir and boceprevir treated patients, respectively, for the first 28 days of treatment. Medication-related costs of premature discontinuation due to SAEs were estimated at $8,463 for telaprevir and $1,575 for