by the FDA for the treatment of cSSSIs. This study investigated the economic implications of treating cSSSIs with ceftobiprole, compared to vancomycin or ceftazidime. **METHODS:** A discrete event simulation of acute anti-infective treatment in patients with cSSSI was developed. Three copies of patients were created. Each copy was assigned one of the treatments (ceftobiprole, vancomycin or ceftazidime). Patients' clinical course was simulated using data from clinical trials of ceftobiprole (patient and infection characteristics, cure rates, treatment duration, length of hospital stay, adverse event rates, treatment discontinuation, use of subsequent treatments). Pathogen coverage status was determined based on the extent to which the treatment can cover the pathogens causing the infection (MRSA only, Gram-positive non-MRSA, Gram-negative, and other possible combinations). Costs in 2007 USD were taken from published sources. Various events (relapse, treatment adjustment, and death) and the associated direct medical costs were estimated for a treatment episode (49 days). Results are based on 100 simulations of 1,000 patients each. **RESULTS:** The mean cost per patient was estimated to be $19,247 treated with ceftobiprole vs. $19,884 for vancomycin and $19,721 for ceftazidime. The frequencies of cure, relapse, and death were similar across the groups. Less than 1% of patients started on ceftobiprole required treatment escalation compared to 23% for vancomycin and ceftazidime, indicating that ceftobiprole provided broader coverage against the causing pathogens of cSSSIs, thus patients received adequate coverage more promptly. **CONCLUSIONS:** Using ceftobiprole for treatment of cSSSIs is expected to provide similar cure rates without increasing costs compared to vancomycin and ceftazidime in the US.

PIN36

THE IMPACT OF AGE DEPENDENT UTILITY ON THE COST EFFECTIVENESS OF PEGYLATED INTERFERON AND RIBAVIRIN VERSUS INTERFERON AND RIBAVIRIN AS THERAPY FOR GENOTYPE 1 PATIENTS WITH CHRONIC HEPATITIS C

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OBJECTIVES: It is common for published models describing the treatment effectiveness of managing chronic hepatitis C (CHC) to assume those subjects achieving a sustained virologic response (SVR) attain a health utility of one; equivalent to perfect health. Our objective was to evaluate the impact of utilising age dependent utility weights on the cost effectiveness obtained in a CHC model. **METHODS:** A Markov model describing the natural history of CHC in patients with genotype 1 was developed to estimate the cost effectiveness of treatment with peginterferon α-2a plus ribavarin (PEG) versus interferon α-2b plus ribavarin (IFN). The model was populated with data and validated using a previously published cost effectiveness model. The model was re-calibrated using age dependent utility weights for patients achieving SVR and run over a lifetime taking a payer perspective, with both costs and benefits discounted at 3.5%. **RESULTS:** The cost per quality adjusted life years (QALYs) of PEG versus IFN obtained using age independent SVR disease state utility value of one (base case) were: $1713 for those aged 40 years, $3935 for those aged 50 years, $8612 for those aged 60 years, and $18,485 for those aged 70 years. The same analysis performed using age dependent utility values were: $2,373 for those aged 40 years, $5,931 for those aged 50 years, $14,924 for those aged 60 years, and $46,123 for those aged 70 years. **CONCLUSIONS:** Health utility is an important driver of cost effectiveness in CHC economic models. Compared to the base case, age dependent utility weights substantially increase the cost effectiveness ratios, particularly in patients aged 60 years or over. The assumption that patients attaining SVR have perfect health has the potential to bias decision making and there is, therefore, a need for future research that better describes the utility profile associated with subjects achieving SVR.

PIN37

COST EFFECTIVENESS ANALYSES (CEA) OF LOPINAVIR/RITONAVIR (LPV/R) AND ATAZANAVIR PLUS RITONAVIR (ATV + RTV) REGIMENS FOR ANTIRETROVIRAL (ARV) NAÏVE HIV-1 INFECTED PATIENTS BASED ON CASTLE 48-WEEK STUDY: APPLICATION TO GERMANY, ITALY, SPAIN, AND THE UNITED KINGDOM

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OBJECTIVES: No differences in viral load (VL) or CD4 + T-cell count at 48 weeks were reported for the CASTLE study. However, total cholesterol (TC) levels were elevated in 7% and 18% of subjects receiving ATV + RTV and LPV/r, respectively. These measures can predict outcomes which affect the future cost of HIV in European health systems. Our objective was to examine expected CEA and budget impact of LPV/r vs. ATV + RTV for patients similar to the CASTLE population, for Germany, Italy, Spain, and UK. **METHODS:** Using a previously published Markov model of HIV disease and newly developed cost data, we compared the cost/QALY and budget impact of the two ARV regimens. This model used TC levels at 48 weeks and the Framingham equation to include effects of heart disease in the model. Costing used 2009 health services perspective. **RESULTS:** The CHD risk favored ATV + RTV, resulting in a life expectancy increase of 0.031 QALYs (11 days). Cost effectiveness ratios for ATV + RTV were: Germany €239,700; Italy €178,856; Spain €200,531; UK £125,139 per QALY. Five year per-patient savings were estimated for LPV/r: Germany €4057; Italy €2681; Spain €3275; UK £1644. If all subjects were assumed to be smokers on anti-hypertensive medication, life expectancy improved by 0.088 QALYs (32 days) favoring ATV + RTV. However, the ICERs produced under this scenario were €96,812/QALY and £65,279/QALY in Germany and UK, respectively. **CONCLUSIONS:** Based on these cost effectiveness ratios, selecting an ATV + RTV based regimen in ARV naïve populations with a CHD risk similar to subjects in the CASTLE study does not appear to be a cost effective use of scarce resources in any of the countries evaluated. Furthermore, costs associated with the very small added CHD risk incurred by LPV/r treatment are more than offset by its short and long term cost savings.

PIN38

COSTS OF RECRUITING PATIENTS WITH HIV INTO A RANDOMIZED CLINICAL TRIAL OF BEHAVIORAL INTERVENTIONS FOR ANTIRETROVIRAL MEDICATION ADHERENCE

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OBJECTIVES: Analyze and identify total time and cost of recruiting patients into a randomized clinical trials(RCT) of Motivational Interviewing-based behavioral interventions to enhance antiretroviral therapy(ART) adherence. Despite numerous federally funded RCTs, little literature describes the cost of recruiting patients into behavioral interventions to enhance ART adherence. **METHODS:** A secondary data analysis of recruitment data collected for Project MOTIV8(R01 MH68197) was conducted. Data from 204 HIV+ patients recruited from the Kansas City metro area between June of 2004 and August of 2008 were examined for this cost analysis. Direct labor costs for all recruitment staff were collected. Microsoft® Excel spreadsheet was used to determine number of attempted recruits, average time spent to recruit/enroll a patient, number of successful enrollments, and project resources spent on recruitment. Discounting and sensitivity analysis was done to determine the robustness of this cost analysis. **RESULTS:** Over four years Project MOTIV8 screened 1710 patients and successfully enrolled 204 participants (11.9%) into the study. The ratio of patients approached to successfully enroll was 8.38:1. Ten minutes was the average time spent to recruit a patient, however it required 1.4 hours of effort to enroll an eligible patient in the study. All costs are reported in 2008 dollar value. The total cost associated with four staff members working on the recruitment effort came to $245,626.70(285 hours) over the study period. The cost for attempted recruitment was $143.64(10 minute average) and the cost for successful enrollment was $1204.05(1.4 hours) for patients with HIV. **CONCLUSIONS:** The costs associated with recruiting participants into a study are often overlooked and underestimated. This economic analysis can serve as a guide to determine the budget for actively enrolling patients with specific risk behaviors. This data provides information for understanding ancillary costs and will help to shed light on unique challenges in the HIV business environment.

INFECTION – Patient-Reported Outcomes Studies

PIN39

A RETROSPECTIVE EVALUATION OF PATIENT ADHERENCE TO ANTIRETROVIRAL THERAPY: PROPORTION OF DAYS COVERED VERSUS MEDICATION POSSESSION RATIO

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OBJECTIVES: The primary purpose of this study was to determine the relationship between psychotropic medication use and adherence to combination antiretroviral therapy. As a secondary analysis, adherence to combination antiretroviral therapy as measured by proportion of days covered (PDC) was compared to adherence based on the medication possession ratio (MPR) in order to facilitate comparison between the results of this study and those of previous studies evaluating antiretroviral adherence. **METHODS:** Data were extracted from Texas Medicaid files. Included subjects were adults with prescription claims for at least three antiretroviral medications indicated for treatment of HIV infection within a 3-month period between 1/1/2004 and 12/31/2004. PDC was defined as the total number of days during the 12-month follow-up period for which all index antiretroviral medications were available divided by 365 days, while MPR was defined as the average number of days supplied for all antiretroviral medications divided by 365 days (truncated at 100%). Data were analyzed using descriptive statistics. **RESULTS:** When measured by PDC, the mean adherence to combination antiretroviral therapy across the entire sample (N = 1,321) was 39.1% ± 34.6%. Mean adherence was markedly greater when measured by MPR at 70.4% ± 33.5%, with a mean difference between the two measures of 31.4% ± 36.8%. **CONCLUSIONS:** PDC provides a more conservative estimate of adherence to combination antiretroviral therapy than MPR. MPR results indicate that adherence in this study was similar to that found in previous studies using prescription claims data to evaluate adherence to combination antiretroviral therapy using modified versions of the MPR (72–81%). Use of PDC to calculate adherence to combination antiretroviral therapy may provide more clinically relevant information than other measures since concomitant use of all medications in the regimen is theoretically required for synergistic viral suppression and optimal HIV outcomes.