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COST-EFFECTIVENESS ANALYSIS OF DIFFERENT THERAPEUTIC REGIMENS IN TREATMENT OF COMMUNITY-ACQUIRED PNEUMONIA IN CHINA
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OBJECTIVES: To compare the cost-effectiveness of commonly used antimicrobial regimens in treatment of community-acquired Pneumonia (CAP) in China. METHODS: This was a retrospective study of CAP patients who received different antibiotic drugs during their hospitalization in a 1st Class, Grade A hospital in Shenyang, Liaoning between January 2011 and June 2012. Cost-effectiveness analysis was performed for the common therapeutic regimens based on both clinical practice and the main recommended antibacterial treatment of CAP from the perspective of society as a whole. For the sensitivity analysis, we used a relative measurement method and an absolute measurement method to test the strength of the study’s conclusions over a range of assumptions. RESULTS: 203 clinical cases met study criteria, divided into three groups of treatment regimens: (a) 7D of fucidilidal ammonium (n=60); ceftamandole (n=32), moxifloxacin hydrochloride (n=28), erythromycin (n=28), ceftazidime and erythromycin (n=29). The treatment success rate for the 6 groups were 42.31%, 51.67%, 6.25%, 25.0%, 60.71% and 65.52%, respectively, total direct medical costs /747, 4501, 21, 1024, 43, 404, 14, 455, 8, respectively, among them, the incremental cost-effectiveness ratio (ICER) of erythromycin group and a combination regimen (ceftazidime plus erythromycin) was 31.54, indicating that erythromycin and combination of ceftazidime and erythromycin had a positive effect on treatment success and a lower total cost. Sensitivity analysis supported the dominance of the 2 groups in nearly all scenarios but the variation of treatment success rate. CONCLUSIONS: Erythromycin monotherapy and a combination of ceftazidime and erythromycin were more cost-effective than other regimens in the treatment of Community-acquired Pneumonia. Nevertheless, since there was no cost-effective threshold in China to compare the cost-effectiveness of the 2 options, it remains to be further researched and discussed.

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COST-EFFECTIVENESS OF FIDAXOMICIN THERAPY FOR CLOSTRIDIUM DIFFICILE INFECTION IN HUNGARY Brodsky V.*, Sbirbak B., Baji P., Pitek M., Gulacsi L.
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OBJECTIVES: To evaluate the leading cause of antibiotic associated nosocomial diarrhoea. The two main treatments for these patients are fidaxomicin and vancomycin. In two phase III randomized controlled trials fidaxomicin was found to be non inferior to vancomycin in initial clinical cure of C. difficile and superior in preventing recurrences. The main goal of this economic analysis was to evaluate the cost-effectiveness of fidaxomicin versus vancomycin, for the treatment of C. difficile infection in Hungary. METHODS: A decision tree model was developed to capture the clinical course of C. difficile infection associated with treatment and advanced liver disease. The model reported two clinical outcomes: clinical cure and recurrent CDI episodes. Treatment efficacy was estimated through a meta-analysis in a Bayesian framework. The model took the third party payer perspective. The incremental cost-effectiveness ratio was calculated as the ratio between costs and number of recurrent episodes. Uncertainty around model parameters was assessed through probabilistic sensitivity analysis. RESULTS: Total average costs for fidaxomicin and vancomycin therapies were €13,529 and €15,757 per patient. In Hungary, the average number of recurrent episodes per patient was lower with fidaxomicin therapy (0.13 recurrent episodes/patient) than with vancomycin therapy (0.40 recurrent episodes/patient). Incremental cost-effectiveness ratio (fidaxomicin vs. vancomycin) was €5,520 per avoided recurrent episode. CONCLUSIONS: In conclusion, this study found that fidaxomicin has favourable cost-effectiveness ratio compared to vancomycin.

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COST-EFFECTIVENESS ANALYSIS OF Raltegravir in HIV-INFECTED TREATMENT-NAIVE PATIENTS IN GREECE Athanasakis K.*, Roubouchaipirapoulou N., Retta MP., Maiese EM*, Elbashir EH*, Kyriopoulos I*
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OBJECTIVES: Despite the success of current antiretroviral therapies for human immunodeficiency virus (HIV) infection, the development of drug resistance remains a critical issue. Raltegravir is an inhibitor of HIV-1 integrase approved for treatment experienced and naive patients. The present study aimed at conducting an economic evaluation of raltegravir vs protease inhibitor (PI) regimen in treatment-naïve patients in Greece. METHODS: A three-stage continuous-time Markov model was developed using differential equations, for the cost-effectiveness analysis of initiating raltegravir-based therapy as first-line treatment vs initiating protease inhibitor (PI) -based therapy as first-line therapy, over a lifetime horizon. Stages of the model included progression through successive treatment stages. Patients entered the model with a given CD4 cell count and HIV-1 viral load. After they failed or discontinued the current therapy, patients transitioned between eighteen health states and had a 5% death rate. The model was based on a diverse set of experts and decision makers in Europe through a survey. METHODS: Qualitative structured phone-interviews were conducted among experts and decision makers in eleven European countries over a 2 week period and adapted to the local healthcare system. RESULTS: The long-term outcomes of CD4 cell count and viral load were contacted with a 15% participation rate (25 experts participated). In countries where CE is formally used like Belgium, the Netherlands, and the UK and Nordic countries, the additional cost-unrelated and forecast use of local experts to value vaccines: Ril (61%), MCDa (62%), QPC (54%), BOM (54%) and MEA (61%). They initiating therapy could be a cost-effective option compared to a PI based initiating therapy in the Greek health care setting.

PIN62

LONG-TERM OUTCOMES OF LEDIPASVIR/SOFOSBUVIR (LDV/ SOF) FOR THE TREATMENT OF CHRONIC HEPATITIS C INFECTED (HCV) GENOTYPE 1 PATIENTS IN THE UK Guerra P1, Marie L1, Cure S1
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OBJECTIVES: Sofosbuvir (SOF) is a uridine analogue polymerase inhibitor. Ledipasvir (LDV) is an inhibitor of the hepatitis C virus (HCV) NS5A protein. Efficacy and safety have been demonstrated in three phase III clinical trials of LDV/SOF administered with or without ribavirin. This analysis evaluated the long-term outcomes of LDV/ SOF in GT1 treatment-naive (TN) and treatment-experienced protease inhibitor failure patients (TE) HCV patients. METHODS: A Markov-model followed 10,000 patients initiating treatment at compensated cirrhosis (CC) stage. In GT1 TN, LDV/SOF for 8 weeks for non-cirrhotic (NC) patients and 12 weeks for CC patients was compared against SOF with pegylated interferon 2a and ribavirin (SOF/PR), SOF with RBV (SOF/RBV) and simprevir with PR (SM/RBV). In GT1 TE, the additional methods were considered as relevant by most experts to support the cost-effectiveness of LDV/SOF. RESULTS: A societal perspective was adopted by sensitivity analysis. The main goal of this analysis was to show that 21 of 100 patients compared with SM/RBV, PR/RV and SOF/RBV avoided the additional costs of treatment and advanced liver disease. SVR rates have been shown as 94% for GT1 TN NC and CC patients, 95% and 86% for GT1 TE NC and CC respectively. SOF/LDV was also well tolerated without any reported grade 3/4 adverse events. RESULTS: SOF/LDV was shown to be highly effective in preventing advanced liver disease (ALD) and mortality due to HCV. In GT1 TN, LDV/SOF prevented more than 800, 200 and 1600 cases of ALD than SMV/ PR, SOF/PR and SOF/RBV. In GT1 TE over 5000 cases of ALD were avoided compared with SOF/RBV treatment, and over 1000 compared with SMV/PR, SOF/PR and SOF/RBV. LDV/SOF was also shown to save more than 10 lives compared with SMV/PR, SOF/PR and SOF/ RVB and avoid the death of 50 TE PI failure patients with no available treatment options. CONCLUSIONS: LDV/SOF was shown to be highly effective in preventing progression to ALD and reducing HCV-related mortality with a well-tolerated single tablet regimen. This is particular important for protease inhibitor failure patients since there are currently no alternative treatment options.

PIN61

COST-EFFECTIVENESS OF SOVALDI (SOFOSBUVIR) FOR THE TREATMENT OF CHRONIC HEPATITIS C INFECTED (HCV) PATIENTS FROM A SWEDISH SOCIETAL PERSPECTIVE Cure S, Guerra I
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OBJECTIVES: Sovaldi (sofosbuvir) is the first nucleotide polymerase inhibitor with pan-genotypic activity and a high barrier to resistance. Efficacy of sofosbuvir-based regimens demonstrated >90% SVR across genotype (GT) 1-6 in five phase III trials. GT1 SVR rates and a favourable safety profile. A societal perspective was adopted by sensitivity analysis. RESULTS: Cost-effectiveness analysis based on a Swedish societal perspective (i.e. including productivity losses due to treatment and ALD) shows sofosbuvir-based treatments to be cost-saving across all genotypes and against all current treatment alternatives in Sweden. In GT1, this novel therapy incurs approximately 42%, 31% and 25% lower costs than PR, SOF/PR and SOF/RBV. Additionally, LDV/SOF also reduces the burden of HCV. In 10,000 patients, we estimated that on average 1697, 1417, 607 and 204 cases of compensated cirrhosis, decompensated cirrhosis, hepatic cellular carcinoma and liver transplantation, respectively, and 92 deaths will be avoided with sofosbuvir-based regimens compared with telaprevir, boceprevir, PR and no treatment. CONCLUSIONS: Cost-effectiveness analysis based on a Swedish societal perspective (i.e. including productivity losses due to treatment and ALD) shows sofosbuvir-based treatments to be cost-saving across all genotypes and against all current treatment alternatives. In order to optimally allocate scarce societal resources, arguably all costs related to HCV treatment need to be included in the cost-effectiveness analysis.

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HOW DO DECISION MAKERS IN EUROPE VALUE OTHER ECONOMIC EVALUATION TOOLS THAN COST-EFFECTIVENESS ANALYSIS FOR VACCINES? Hübner JM1, Demartess N2, Saka O3, Standaert B1, Kleijnen J1
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OBJECTIVES: Other economic evaluation tools than the classical cost-effectiveness (CE) analysis exist but the acceptance of these by decision makers is unknown. We assessed the preferences of decision makers and adopted to the local healthcare system. METHODS: Qualitative structured phone-interviews were conducted among experts and decision makers in eleven European countries over a 2 week period and adapted to the local healthcare system. RESULTS: The long-term outcomes of CD4 cell count and viral load were contacted with a 15% participation rate (25 experts participated). In countries where CE is formally used like Belgium, the Netherlands, the UK and the Nordic countries, the additional cost-unrelated and forecast use of local experts to value vaccines: Ril (61%), MCDa (62%), QPC (54%), BOM (54%) and MEA (61%). They...