PIN25

REDUCTION IN COSTS OVER TWO YEARS WHEN TREATING WITH DARUNAVIR/ RITONAVIR COMPARED TO ATAZANAVIR/RITONAVIR IN THE UK

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OBJECTIVES: For the past 10 years, HIV patients with resistance to darunavir/ritonavir (DRV/r) have been treated with the only protease inhibitors (PIs) recommended by the British HIV Association (BHIVA) treatment guidelines. The Office of AIDS Research Advisory Council (OARAC) reviewed the US HIV guidelines in April 2015 and delisted atazanavir/ritonavir (ATV/r) from the preferred PI options as a result of better tolerability (primarily due to discontinuations caused by adverse events (AEs)) of darunavir/ritonavir (DRV/r) compared to ATV/r based on findings from the ARDENT trial. The objective of this analysis was to quantify the economic impact of treating patients with darunavir/ritonavir (DRV/r) compared to atazanavir/ritonavir (ATV/r) in the UK based on drug costs, AEs and discontinuation due to AEs.

METHODS: A simple Markov model was built in MS Excel with two health states and 6-month cycles (4 cycles in total); on treatment with DRV/r or ATV/r and on subsequent treatment. All patients start on DRV/r or ATV/r and some discontinue and move to a subsequent therapy (weighted average of 3rd agents in treatment experienced patients, £11.10/day at list price). Discontinuation rates from ARDENT were converted to 6-month rates (4.60% for DRV/r to ATV/r) using the method from Miller et al. Patients were assumed to attend 6 further consultant appointments (C2/3/visit) in the first three months after switching as advised in the BHIVA guidelines for monitoring. AEs from ARDENT were also included. RESULTS: Using a list price of £10.55/day for DRV/r and £10.76/day for ATV/r, treatment with DRV/r saved £16 per patient in 6 months, £219 in one year and £393 over two years. Drivers of savings were the cost of consultant appointments and of subsequent treatment. Sensitivity analyses showed how DRV/r was cost saving even when the drug cost of DRV/r and ATV/r was assumed equal. CONCLUSIONS: In conclusion DRV/r has proven to be a highly tolerable and cost saving PI.

PIN30

BUDGET IMPACT ANALYSIS AND LONG-TERM DISEASE IMPLICATIONS OF HEPATITIS C TREATMENTS IN SWEDEN

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OBJECTIVES: Treatment of chronic hepatitis C is changing fast given the amount of new drugs coming to the market. Little is known about the budget impact and long-term implications of the different treatment options. The objective of this study was to estimate the budget impact of different treatment options on national or regional level and to evaluate the short-term as well as long-term implications of different hepatitis C treatments.

METHODS: A model flexible for regional and national Swedish cohorts of hepatitis C patients was developed. Cost and effect inputs were taken from published sources and clinical trial data. Using the model, total budget impact as well as cost per cured patient was estimated for different direct (ambulatory treatment and hospitalization) and indirect costs (GDP losses). The model was also used to estimate the increased burden of morbidity and treatment cost for patients.

RESULTS: Resistance is a growing phenomenon and the resistance to Carbapenems can lead to increased burden of morbidity and treatment costs all over the world. Methicillin resistant Staphylococcus aureus is one of the most important gram positive bacteria which causes serious community acquired as well as hospital acquired infections. The objective of this study is to evaluate the direct costs and indirect costs associated with carbapenem resistant Staphylococcus aureus infections among in-patients of the hospital. METHODS: A cross sectional study was carried out from Jan-Dec 2013 and the hospitalization cost was collected for the patients with MRSA and MSSA infections from the medicine ICU and the microbiology department for 63 patients. The data was analyzed for the type of infection and the average hospitalization cost. The median hospitalization cost was calculated for both the group of patients. RESULTS: Out of the 63 patients observed, 44 (69.4%) patients were infected with MRSA and 19 (30.55%) were infected with MSSA. The median length of stay was 10 days in MRSA group as compared to 7 days in MSSA group. The median hospitalization cost for MRSA infection was INR 16,383 and for MSSA it was INR 11,461. CONCLUSIONS: Methicillin resistance in Staphylococcus aureus is associated with increased length of stay and Hospitalization costs. Increased length of stay leads to further increase in the treatment costs and morbidity of the patients as it may lead to nosocomial infections.

PIN34

PHARMACOECONOMIC ANALYSIS OF THE USE OF VORICONAZOLE, POSAConazole AND MIFCinAFUNGI IN THE PRIMARY PROPHYLAXIS OF FUNGAL INFECTIONS IN ALLOGENEIC HEMATOPOietIC STEM CELL TRANSPLANTATION (HSCt) IN Hospitals of the National Health System (NHs) IN Spain

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OBJECTIVES: To compare the cost of the primary prophylaxis of invasive fungal infections (IFI) with voriconazole, posaconazole, and micafungin in patients undergoing allogeneic hematopoietic stem cell transplantation (HSCT) in hospitals of the National Health System (NHs) in Spain. METHODS: A cost analysis was made for 100 days and 180 days of prophylaxis and a decision tree model was developed. The efficacy rate of IFI prophylaxis, mortality rate from all causes in patients with/without IFI and survival rate with liposomal amphotericin B treatment of prophylaxis failures were obtained from randomized trials and a mixed treatment comparisons meta-analysis. The model simulation was interrupted with IFI treatment (prophylaxis failures). The costs of medication and its intravenous administration in the hospital (in the case of micafungin) were considered.

RESULTS: In the non-modelled analysis, the savings per patient of prophylaxis with voriconazole ranged from INR 1,709 to INR 6,655 compared with posaconazole oral solution, from INR 8,911 to INR 7,976 compared with posaconazole gastro-resistant tablets and from INR 3,376 to INR 7,713 compared with micafungin. In the modelled analysis, the mean cost per patient of the prophylaxis and treatment of failures was INR 6,987 to INR 7,619 with voriconazole, INR 7,749 with posaconazole, and INR 72,444 with micafungin. Therefore, the savings per patient of prophylaxis with voriconazole was INR 130 to INR 3,664 and INR 11,132 to INR 30,374 compared with posaconazole and micafungin, respectively. The results remained stable after modification of the number of patients and the duration of prophylactic treatment of failures.

CONCLUSIONS: According to the model, alfungiyal prophylaxis with voriconazole in recipients of hematopoietic progenitor transplanted patients, with posaconazole or micafungin, may represent savings for NHS hospitals in Spain.

PIN35

DIRECT MEDICAL COST ASSOCIATED WITH THE DIAGNOSIS AND TREATMENT OF CHRONIC HEPATITIS B IN THREE LARGE METROPOLITAN CITIES IN INDIA – A PILOT STUDY

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