a 5 year-horizon budget impact analysis of SOF-based regimens for the management of HIV/HCV co-infected patients. METHODS: This prospective study involved 4 Italian Infectious Diseases Departments in the Liguria Region. A total of 1,005 co-infected patients (30% cirrhotics) in any stage of their hepatic disease stages was considered (HCV genotype1b, cirrhosis, transplanted, HCC). Disease stage costs per patient were calculated. Results: Costs per patient were reduced, considering the delay to target the population of HCV mono-infected patients with the absence of treatment and the rate of Sustained Virological Response (SVR) with SOF-based regimens. The success rate for SOF-based Regimens was estimated based on literature data, whilst the liver disease progression in a such short period was evaluated according to expert opinion. Drug prices used in the calculation were those paid by the Italian Health Service. Two scenarios were compared: “no treatment” versus b) SOF-based treatment. Data were analyzed from the Regional Health Service standpoint. RESULTS: Over the next 5 years, the total expense in the SOF-based scenario should approach 20 M€uros, i.e., more than 60% lower than in the “no-treatment” scenario. CONCLUSIONS: The results suggest that at the average price of 15,000 euros per patient over the next 5 years, the use of SOF should allow saving half of the economic resources needed to manage the HIV/HCV disease population.

PIN24 A DYNAMIC MODEL TO ESTIMATE THE BUDGET IMPACT OF A NEUMOCOCCAL VACCINATION PROGRAM IN SPAIN

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OBJECTIVES: The purpose of this study is to estimate the 5-year budget impact of a pneumococcal vaccination program of population aged 65-year-old in Spain. A cost-utility model was developed to assess the impact of pneumococcal vaccination in the conceptualization of the disease and the parameters were populated with the vaccine efficacy data coming from the CAPTIA clinical trial of the 13-valent pneumococcal conjugate vaccine (PCV13). If S stands for susceptible, I for infective, V for vaccinated, and t is the time variable and the parameters beta and gamma show the transmission and natural recovery coefficients respectively, the differential equation of the model is

\[ \frac{dS}{dt} = -beta \times S \times I + \gamma \times V - \mu \times S \]

\[ \frac{dI}{dt} = beta \times S \times I - (\gamma + \mu) \times I \]

\[ \frac{dV}{dt} = \gamma \times S - \mu \times V \]

RESULTS: We identified 126 papers, of which 19 met the inclusion criteria. These included 13 cost-effectiveness, four cost-consequence, one cost-minimization and 11 cost-utility analyses. Main outcomes were cost-per cure, cost-per patient treated, cost-per QALY and total cost saving. Economic models tend not to account for changes in prevalence of resistance, and additional potential benefits such as preventing transmission of resistance. CONCLUSIONS: Most identified economic evaluations were country specific, using cost-utility analysis through a simple decision tree, over short time-horizon, with payer perspective. This limits the flexibility of the evaluations to account for benefits of antibiotics in addressing burden of HCAIs and the potential global concerns, contributing to the difficulty of assessing economic benefit of antibiotics.

PIN25 BUDGET IMPACT ANALYSIS OF THE USE OF DACLATASVIR FOR THE TREATMENT OF HEPATITIS C VIRUS (HCV) GENOTYPES 3, IN THE ITALIAN SETTING

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OBJECTIVES: New HCV antiviral treatments showed higher effectiveness (sustained virologic response - SVR) compared with that of available drugs. Due to the high cost of such treatments and in absence of scientific evidence on their economic impact on the Italian National Health Service (NHS), it is crucial to investigate the sustainability of their use in the Italian setting. The study aimed at evaluating the budget impact on the Italian NHS of the use of Daclatasvir for HCV treatment. METHODS: An analytical decision model was implemented with a five year time horizon. Two scenarios were structured considering the market shares of HCV treatments (expert opinion) with or without the use of Daclatasvir. The target population (HCV genotype 3 infected patients) was estimated based on literature data. Patients enter the model in fibrosis stage 3 and 4 and may evolve in an SVR state (based on effectiveness data); decompensated cirrhosis, HCC, liver transplant or death. The costs considered in the analysis were those of antiviral treatment, adverse events management and health state costs. RESULTS: The use of Daclatasvir, in comparison with the scenario without Daclatasvir, would lead to an increase of costs for the Italian NHS of 21.31 million euros in year 1, 21.33 million euros in year 2, 21.36 million euros in year 3, 23.26 million euros in year 4 and 17.20 million euros in year 5. CONCLUSIONS: Daclatasvir would lead to an increase of healthcare costs for the treatment of genotype 3, although the number of infections is not very high, if compared with the other genotypes. Over the next three years, fifty-six of the 51.6% had a delay in their broad spectrum antibiotics therapy de-escalation despite getting the culture identification and susceptibility. The total delay of broad spectrum antibiotics per 3 months on surgical wards at our institution. Sixty four out 163 patient (39.2%) had identified organism and susceptibility for other antibiotics. Thirty one patients (48.4%) had de-escalation of antimicrobial therapy based on the cost impact of meropenem/tazobactam 267 days (3,920, USD); imipenem 5 days (230, USD); meropenem 110 days (9,925 USD). CONCLUSIONS: The delay of broad spectrum antibiotics de-escalation on surgical wards at our hospital has resulted in a cost impact of 14,075 USD over 3 months period. Pharmacy intervention program on surgical wards to enforce de-escalation process is needed.

PIN26 COST IMPACT OF THE DELAY OF BROAD-SPECTRUM ANTIBACTERIAL AGENTS DE-ESCALATION ON SURGICAL WARDS

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OBJECTIVES: To measure the cost impact of the delay of broad spectrum antibacterials de-escalation on surgical wards at a tertiary care center in Jeddah, Saudi Arabia

METHODS: Retrospective cohort study for patients admitted to surgical wards in Jeddah, Saudi Arabia over 6 months. Three broad spectrum antibiotics were targeted; piperacillin/tazobactam, imipenem, and meropenem. De-escalation delay was measured in days from the time of getting the culture identification and susceptibility until narrowing the antimicrobial therapy based on susceptibility. This delay was measured by multiplying the period that patients were on broad spectrum antibiotics after the final identification and susceptibility of microorganism by the cost of broad-spectrum antibacterials per 3 months on surgical wards at our institution. Sixty four out 163 patient (39.2%) had identified organism and susceptibility for other antibiotics. Thirty one patients (48.4%) had de-escalation of antimicrobial therapy based on the cost impact of meropenem/tazobactam 267 days (3,920 USD); imipenem 5 days (230 USD); meropenem 110 days (9,925 USD). CONCLUSIONS: The delay of broad spectrum antibiotics de-escalation on surgical wards at our hospital has resulted in a cost impact of 14,075 USD over 3 months period. Pharmacy intervention program on surgical wards to enforce de-escalation process is needed.