tions. Seven state Markov model (chronic HCV, sustained virological response, compensated cirrhosis, hepatocellulare carcinoma, liver transplantation and death) was used to estimate clinical effects and costs in lifetime horizon, from Polish public payer perspective. Direct medical costs were considered. Separate analysis was done for genotypes 1,4 (48-week treatment) and genotypes 2,3 (24-week treatment). Clinical practice and cost data were gathered from clinical experts or based on the National Health Fund and Ministry of Health published price lists. Sensitivity analysis was conducted in order to assess the robustness of the results. **RESULTS:** Genotypes 1 and 4: total costs were 92 036 PLN (1 Euro=3.96 PLN) for PegIFNα2a and 87 793 PLN for PegIFNα2b. Average survival of HCV patient treated with PegIFNα2a was 27.9 life years (LY) and 14.83 quality adjusted life years (QALY) and treated with PegIFNα2b was 27.63 LYs and 14.61 QALYs. The incremental cost-effectiveness ratio was 15 878 PLN/LYG and incremental cost-utility ratio was 19 763 PLN/QALY. Values of both ratios fall below the cost-effectiveness threshold assumed in Poland (100 000 PLN/LYG or QALY). Genotypes 2 and 3: Total costs were 32 849 PLN for PegIFNα2a and 38 071 PLN for PegIFNα2b. Average survival of HCV patient treated with PegIFNα2a was 30.79 LYs and 17.15 QALYs and treated with PegIFNα2b was 30.20 LYs and 16.68 QALYs. The PegIFNα2a dominated PegIFNα2b. The results were confirmed in sensitivity analysis. **CONCLUSIONS:** PegIFNα2a is a clinically effective and safe treatment for HCV patients and is highly cost-effective (or dominant) from Polish public payer perspective.

PIN54

COST-EFFECTIVENESS OF 2+1 DOSING OF 13-VALENT PNEUMOCOCCAL CONJUGATE VACCINE COMPARED WITH 2+1 DOSING OF 10-VALENT CONJUGATE VACCINE IN PREVENTING PNEUMOCOCCAL DISEASE IN CANADA

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OBJECTIVES: Thirteen-valent pneumococcal conjugate vaccine (PCV13) and 10-valent pneumococcal conjugate vaccine (PCV10) are two approved vaccines for the active immunization against *Streptococcus pneumoniae*, causing invasive pneumococcal disease in infants and children. PCV13 offers broader protection against *Streptococcus pneumoniae*; however, PCV10 offers potential additional protection against non-typeable *Haemophilus influenzae*. We examined public health and economic impacts of a PCV10 and PCV13 pediatric national immunization programs (NIPs) in Canada. **METHODS:** A decision-analytic model was developed to examine the costs and outcomes associated with a 2+1 dosing of PCV10 and 2+1 dosing of PCV13 pediatric NIP. The model followed patients over the remainder of their lifetime. Recent disease incidence, serotype coverage, population data, percent vaccinated, costs, and utilities were obtained from the published literature. Direct and indirect effects were derived from 7-valent pneumococcal vaccine. Additional direct effect of 4% was attributed to PCV10 for moderate to severe AOM to account for potential non-typeable *Haemophilus influenzae* benefit. Annual number of disease cases and costs (2010 CAN$) were presented. **RESULTS:** In Canada, PCV13 prevented more cases of disease (7,465 when considering direct effects only and 49,340 when considering both direct and indirect effects) than PCV10. This translated to population gains of 80,565 to 94,134 more quality-adjusted life years when vaccinating with PCV13 versus PCV10. Use of PCV13 in children also reduced annual direct medical costs (including the cost of vaccination) by $5.8 to $132.8 million. Thus, PCV13 was found to dominate PCV10. One-way sensitivity analyses showed PCV13 to always be dominant or cost-effective versus PCV10. **CONCLUSIONS:** Considering the epidemiology of pneumococcal disease in Canada, 2+1 dosing of PCV13 is shown to be a cost saving immunization program as it provides substantial public health and economic benefits relative to 2+1 dosing of PCV10.

PIN55

COST-EFFECTIVENESS ANALYSIS OF PEGINTERFERON ALFA-2A (40KD) IN HBEAG-POSITIVE CHRONIC HEPATITIS B IN POLAND

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OBJECTIVES: The analysis aimed to evaluate the cost-effectiveness of 48-week therapy with peginterferon alpha-2a (PegIFNα-2a) in HBeAg-positive chronic hepatitis B (CHB) patients versus 48-week (short-term analysis) or 4-year (long-term analysis) therapy with adefovir, entecavir or lamivudine from the public payer perspective in Poland. **METHODS:** A life-time Markov model based on previously published analysis was used. States encompassed treatment response (HBeAg seroconversion), relapse, complications (compensated/decompensated cirrhosis, hepatocellular carcinoma, liver transplantation) and death. Quality-adjusted life years (QALYs) were the measure of effectiveness. Short-term efficacy assessment was based on the results of randomized clinical trials (RCTs). Long-term efficacy data for nucleos(t)ide analogues (NAs) were derived from published models and RCTs extensions. Utilities and transition probabilities (spontaneous response, relapse, complications, death) were taken from published literature. Direct medical costs, i.e. costs of drugs and procedures used in the treatment of CHB and its complications were obtained using a survey conducted among Polish clinicians. In the base case analysis costs and benefits were discounted at a 5% and 3.5% annual rate, respectively. The robustness of the results was assessed using one-way, scenario and probabilistic sensitivity analyses. **RESULTS:** In both the short and long-term analysis PegIFNα-2a increased number of QALYs and life years gained (LYGs) compared to all investigated NAs. In the short-term model PegIFNα-2a decreased the costs of complications' treatment and increased the overall costs due to drug acquisition cost. ICER for PegIFNα-2a vs. lamivudine, adefovir and entecavir amounted to 50,809, 11,442 and 39,588 PLN/QALY, respectively (1€≈4 PLN). In the long-term model costs of NAs were higher. PegIFNα-2a was cost-saving and dominated adefovir and entecavir, while ICER versus lamivudine amounted to 27,431 PLN/QALY. Sensitivity analysis proved these results to be robust. **CONCLUSIONS:** Peginterferon alfa-2a is cost-effective when compared to adefovir, entecavir and lamivudine in Poland.

PIN56

COST-EFFECTIVENESS MODEL TO EVALUATE 200-DAY VS 100-DAY TREATMENT WITH VALGANCICLOVIR PROPHYLAXIS TO REDUCE CYTOMEGALOVIRUS DISEASE IN HIGH-RISK (D+/R-) KIDNEY TRANSPLANT RECIPIENT IN SPAIN

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OBJECTIVES: IMPACT trial showed that prolonged prophylaxis of 200 days with valganciclovir (VGC 200) compared with 100 days (VGC 100) significantly decreases the incidence of cytomegalovirus (CMV) disease. Therefore, a cost-effectiveness model was developed to evaluate prolonged prophylaxis of 200 days with valganciclovir and its long term economic impact . **METHODS:** A Markov model was designed to simulate the CMV disease progression; costs and outcomes associated with the use of VGC 200 vs VGC 100 in a cohort of 10,000 patients over 10 years was examined. Data of the disease evolution were obtained from the IMPACT (Humar, Am J Transplant 2010) for year 1 and the available scientific evidence for years 2-10. The analysis was conducted from the perspective of the Spanish National Healthcare System (SNHS), considering direct medical costs. Unitary costs (€, 2010) were obtained from a Spanish database. Utility values were obtained from literature. The annual discount rate was 3% for costs and outcomes. **RESULTS:** Treatment with VGC 200 provides better results in health than VGC 100 (50,020.30 vs. 47,639.90 QALY/patient). The average overall cost per patient is €1,121,327 with VGC 200 and €1,131,187 with VGC 100. The savings per patient treated with VGC 200 in 10 years is €986. Sensitivity analysis confirms the stability of the results. **CONCLUSIONS:** Treatment of patients with prolonged prophylaxis valganciclovir reduces the incidence in high risk kidney transplant recipients and is a cost-saving strategy in CMV disease management from the perspective of the SNHS.

PIN57

COST-EFFECTIVENESS OF THE NEW GUIDELINES FOR THE PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV IN UGANDA

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OBJECTIVES: In Uganda, 91,000 children are born annually to HIV-positive mothers, approximately 25,000 of which become HIV-infected. New guidelines recommend the use of combination antiretroviral therapy (cART) to prevent vertical transmission. We evaluate the cost-effectiveness of more costly cART relative to other or no preventative therapies. **METHODS:** Currently, about 48.4% of HIV-positive pregnant women do not receive any preventive therapies and therefore have a 40% risk of transmitting HIV to their child during pregnancy or breastfeeding. This risk can be reduced to 25.8% by single dose nevirapine (sdNVP; Cost: US$0.06), to 17.4% by dual therapy (3TC/AZT; Cost: US$16 for 7 weeks) and to 3.8% by cART (Cost: US$470 for 18 months). At CD4 counts below 350 cells/μl, lifetime cART is indicated for the mother (Cost: US$ 6,883), which reduces future transmission risk in an additional 3.49 pregnancies. The model calculates disability adjusted life years (DALY's) between therapies based on differences in HIV-transmission to children, which results in shortened life-expectancy. All costs and benefits are discounted at 3% annually. **RESULTS:** Replacing sdNVP and 3TC/AZT with cART could reduce annual HIV transmissions by 7,500 cases. Preventing one infection averts 23.7 DALY's. Hence, DALY's averted using 18 months cART versus sdNVP, 3TC/AZT, and no therapies are 5.21, 3.22, and 8.58, and yield a cost/DALY averted of US$46, US$99, and US$34, respectively. The corresponding figures for lifetime cART are 19.20, 11.87, and 31.60, resulting in a cost/DALY averted of US$205, US$354 and US$172, respectively. **CONCLUSIONS:** Using the 1 time per capita GDP threshold (US$460), cART as proposed in the new Ugandan guidelines is highly cost-effective relative to other drugs and would generate additional value if treatment could reach greater numbers of women. It remains highly cost-effective even if treatment is continued over the patients' lifetimes. It is imperative that these guidelines are rapidly implemented.

PIN58

COST-EFFECTIVENESS ANALYSIS OF PNEUMOCOCCAL 13-VALENTE CONJUGATE VACCINE VERSUS PNEUMOCOCCAL 10-VALENTE CONJUGATE VACCINE IN THE PEDIATRIC IMMUNIZATION ROUTINE, FROM THE SÃO PAULO STATE PUBLIC HEALTH CARE SYSTEM (BRAZIL)

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OBJECTIVES: It is estimated that pneumococcal disease is responsible for more than a million deaths per year in children less than five years of age worldwide. This study aim to perform a cost-effectiveness analysis comparing pneumococcal 13-valent conjugate vaccine (PCV13) against pneumococcal 10-valent conjugate vaccine in prevention of invasive pneumococcal diseases (IPD), acute otitis media (AOM) and pneumonia, from the São Paulo Public Healthcare System perspective. **METHODS:** The type of study was cost-effectiveness analysis based on a decision tree model to estimate costs and consequences of prophylaxis. Epidemiological and efficacy data was collected from a critical appraisal of the scientific literature,