COST-UTILITY ANALYSIS OF NEW PNEUMOCOCCAL CONJUGATE VACCINES IN THE REGIONAL IMMUNIZATION PROGRAM OF THE AUTONOMOUS REGION OF MADRID—IMPACT ON INVASIVE PNEUMOCOCCAL DISEASE
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OBJECTIVES: The inclusion of conjugate pneumococcal vaccines to the Regional Immunization Program avoids cases, among others, of invasive pneumococcal diseases caused by serotypes of Streptococcus pneumoniae contained in the vaccines. Research objective was to assess efficiency of conjugate pneumococcal vaccine—13 valent (PCV13) versus 10 valent (PCV10), under National Health System perspective.
METHODS: A cost-utility model was developed to estimate cost per quality adjusted life-year (QALY) associated to primary bacteremic, empyema, meningitis and bactere- riemic pneumonia with vaccine administration in the Autonomous Region of Madrid. The estimation of cases to avoid and serotype coverage was based on epidemiologic information available at regional level. Additionally to direct protection, the model considers the potential indirect effect on the general population. One-way sensitivity analyses were performed, including parameters with most uncertainty. RESULTS: PCV13 yields 224 QALYs versus 70 QALYs with PCV10. The incremental ratio is €160,52 QALY gained. Deterministic sensitivity analyses showed that model results are robust, parameter that most influence on the results was vaccine indirect effect. Reducing PCV13 vaccine schedule from 4 to 3 doses was a dominant strategy.
CONCLUSIONS: The inclusion of PCV13 is a cost-effective strategy versus PCV10. A 3 doses schedule of PCV13 is a dominant option, being a cost-saving measure for the National Healthcare System.

COST-EFFECTIVENESS ANALYSES (CEA) OF LOPINAVIR/RTINONAVIR (LPV/IR) AND ATAZANAVIR PLUS RITONAVIR (ATV + RTV) REGIMENS FOR ANTIRETROVIRAL (ARV) NAIVE HIV-1 INFECTED PATIENTS BASED ON CASTLE 48-WEEK STUDY: APPLICATION TO SWEDEN
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No differences in viral load (VL) or CD4+ 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/IR, respectively. These measures can predict outcomes which affect the future cost of HIV in the Swedish health system. OBJECTIVES: To compare the incremental cost-effectiveness (ICE) and budget impacts for a population similar to those enrolled in the CASTLE study for Sweden. METHODS: Using a previously published Markov model of HIV disease and 2009 cost data from Sweden, we compared the cost/QALY and budget impact of the two ARV regimens. Daily drug costs were 160,52 SEK for ATV + RTV and 147,87 SEK for LPV/IR. Costs for other health care resources used a health systems perspective with 2009 inputs from www.fass.se and published literature. Costs and QALYs were discounted by 3%. The estimation of cases to avoid and serotype coverage was based on epidemiologic information available at regional level. Additionally to direct protection, the model considers the potential indirect effect on the general population. One-way sensitivity analyses were performed, including parameters with most uncertainty. RESULTS: The inclusion of conjugate pneumococcal vaccines to the Regional Immunization Program avoids cases, among others, of invasive pneumococcal diseases caused by serotypes of Streptococcus pneumoniae contained in the vaccines. Research objective was to assess efficiency of conjugate pneumococcal vaccine—13 valent (PCV13) versus 10 valent (PCV10), under National Health System perspective.
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CONCLUSIONS: The inclusion of PCV13 is a cost-effective strategy versus PCV10. A 3 doses schedule of PCV13 is a dominant option, being a cost-saving measure for the National Healthcare System.

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REFILL-BASED ADHERENCE RATES OF ANTIRETROVIRAL MEDICATION USING RETROSPECTIVE MEDICATION CLAIMS DATA: A COST ANALYSIS
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OBJECTIVES: To determine the refill-based adherence rates and to compare the costs associated with an under- or over-supply of antiretroviral medication. METHODS: A non-experimental, quantitative retrospective drug utilization review was performed on medicine claims data from one pharmacy benefit management company. The study population comprised patients who met the following criteria: (1) patients who had an inpatient stay of 60 days or longer in 2005 and (2) patients who had been prescribed a prescription for antiretroviral medication during a 36 consecutive month period (1 January 2005 to December 2007). An overall refill-based adherence rate was calculated by using the following equation: Refill-based adherence rate = (total days of antiretroviral items supplied—days supplied at the last refill/date last claimed—date first claimed) / (RSA Rand) RUS$ = 6.8595 on 31 December 2007). RESULTS: Refill-based adherence rates were calculated for 41,967 antiretroviral drugs. Less than 50% (n = 17,267; 41.15%) of all antiretroviral drugs had acceptable adherence rates (between 90% and 110%). Antiretroviral drugs with adherence rates below 90% (possibly under-supplied) (n = 7,243; 17.26%), accounted for 14.30% (n = 15,829; 38.76-53) of the total cost of all antiretroviral drugs (N = R110 728, 214.00) while those that were possibly over-supplied (n = 17,454; 41.5%) accounted for 25.60% (R28 347 266.48). CONCLUSIONS: The calculated refill adherence rates indicated that most antiretroviral drugs were either possibly over- or under-supplied for the specific treatment period.

EVALUATION OF MEDICATION ADHERENCE IN PATIENTS RECEIVING ANTIRETROVIRAL THERAPY (ART) IN MAITAMA DISTRICT HOSPITAL, ABUJA NIGERIA
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OBJECTIVES: ART has dramatically increased the life expectancy of HIV-infected patients and its adherence has been strongly correlated with viral suppression, reduced rates of resistance, an increase in survival, and improved quality of life. The study evaluated medication adherence, the association of medication adherence with occupa- tional and educational status and identified possible causes of non-adherence in HIV-infected patients after 6 months on ART. METHODS: A cross-sectional survey, medication adherence of 118 HIV-infected patients was evaluated using a self-administered study-specific 16-items questionnaire after 6 months on ART. Patients’ self-report adherence assessment method was used. Chi square statistics was used to test the association of adherence with occupation and education at 95% CI. RESULTS: The mean age of the 118 HIV-infected ART patients was 33.89 (95% CI, 29.63–38.15) years; and majority (82.2%) were between the ages of 26–45 years; 60.2% were females, 80.3% attained secondary education at the least, while 77.1% employed. All participants reported being counselled on the benefits of ART and medication adher- ence at ART initiation. On assessment of participants’ knowledge of the benefits of ART and medication adherence, 92.2% reported correctly, 2.9% reported wrongly that ART is a cure for HIV while 4.5% did not respond. Medication adherence level among participants was 85.9% (n=101), and educational status was associated with adherence (p > 0.05) unlike the occupational status which was associated with adher- ence (p = 0.05). The major reasons reported for non-adherence were busy at work or school (33.1%), forgetfulness (15.5%), fasting (12.0%), and travelled or moved away from home (10.6%). CONCLUSIONS: The medication adherence level among par- ticipants was somewhat poor compared to the desired value of ≥95%; occupational status was associated with adherence unlike the educational status. Consequently, busy at work or school was a major reason for non-adherence to medication. Routine evaluation of medication adherence and intervention in clinical practice is recommended.