Abstracts

resistant to the antiretroviral (ARV) drugs available.

METHODS: A Markov model was developed to simulate the clinical progression of the population analyzed in the clinical trial with a 48 weeks treatment period. A cost-effectiveness analysis of ENF in terms of incremental cost per life year gained (LYG) was obtained. The model was designed over a time horizon of 10 years with monthly cycles and taking into account the perspective of the Spanish National Health Service. The primary clinical outcome was time until death. Efficacy rates and transition probabilities were obtained from reported clinical and epidemiological trials. Resource use data was retrieved from published literature in the Spanish setting and a panel of clinical opinion leaders. Unit costs were converted to euros and adjusted for the year 2003. RESULTS: Adding ENF to OT increases patient’s life expectancy by 1.6 years. Total costs are €117,375 for OT and €159,121 with ENF + OT, mainly due to the fact that increasing life expectancy for a given cohort of patients, increases resource use and costs. Incremental cost per life year gained with ENF is €23,687, which is similar to the value previously reported when considering results with only 24 weeks of treatment (€24,780). CONCLUSIONS: ENF used in combination with an OT regimen increases life expectancy for HIV-1 treated patients who are highly ARV-experienced and delays transition with an OT regimen increases life expectancy for HIV-1 treatment (previously reported when considering results with only 24 weeks of treatment).

PATIENTS LIVING WITH HIV/AIDS

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OBJECTIVES: To estimate health care costs in ambulatory patients living with HIV/AIDS in Spain. To identify significant variables associated to health care costs.

METHODS: This is a retrospective cohort study in which patients were followed up one year, stratified by CDC-disease stage (asymptomatic-HIV, symptomatic-HIV and AIDS). 572 patients agreed to join the study during an outpatient visit. Data on health care services use and costs were obtained from clinical records. Direct costs were divided into hospitalisations, ambulatory care and drug costs. Quality of life data from patients were obtained through EQ-5D questionnaire.

RESULTS: The mean (SD) annual health care costs per patient in 2003 were € 8308 (4660). The main contribution came from drugs (82.2% of direct costs), while hospitalisations only represented a 4.6% of health care costs. We identified significant associations between health care costs (dependent variable) and the way of contagious, the stage of disease, health-related quality of life (HRQOL) and level of defense in the previous year (independent variable). For instance, a patient with a low level of defenses in the period t-1 (CD4 cell < 200, in t-1) would have an incremental cost of 3240–4000 euros in the period t. We repeat the analysis considering pharmaceutical costs and inpatient costs as dependent variables.

CONCLUSIONS: A high proportion of total direct costs for people living with HIV/AIDS is due to highly active antiretroviral therapy (HAART). The current trend in Spain seems to be shifting resources utilization from hospital admission towards antiretroviral therapy and outpatients services. We identify significant associations between costs, clinical and HRQOL variables. This information can be useful in the development of economic evaluation models and for the health care decisors in the optimal allocation of resources.

STUDY VALIDATION OF QUALITY OF LIFE QUESTIONNAIRE MINI-HIV

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OBJECTIVES: To evaluate the psychometric properties of MINI-HIV in HIV patients in Spanish population. METHODS: Validity, reliability and responsiveness of MINI-HIV were assessed throughout observational, longitudinal and multicentric study with 3 months of follow up. The 206 patients with HIV included in the study were divided into two groups: 50 patients within the reliability group (patients who were not foreseen any clinical change in the following 15 days) and 156 patients within the responsiveness group (patients that started a treatment or had a treatment). Thus, 46 blood donor subjects were to include within the control group. The main variable in the study was MINI-HIV (17 items). Other variables analysed on the study were; diagnosis date, disease symptoms, stage, previous HAART and actual HAART, MOS-HIV and general health status. RESULTS: The mean (SD) age of the participants was 37 (10.2), with a predominance of men (83.5 %). A total of 27.6% of the responsiveness group were “naive” patients. 53.8% of the responsiveness group and 68% reliability group patients took only one HAART in the last year. 90% of patients answered all questionnaire items. The mean time(SD) of questionnaire filling by the patients was 12 (15.3) minutes. Regarding validity, MINI-
HIV scoring showed a significant relationship with scoring assessed through MOS-HIV (R = -0.71; P < 0.01), and through general health status (p < 0.01). MINI-HIV scoring showed a significant relationship with CD4 (p < 0.01), viral load and symptoms (p < 0.001). Regarding responsiveness to change, a high effect size in MINI-HIV was observed between those patients whose general health status had improved during the follow up visits (ES = 0.694 IC 95% 0.134–1.254). The internal consistency of the questionnaire was assessed through the a Cronbach (a = 0.93). The ICC (test—retest reliability) was 0.86.

CONCLUSIONS: The MINI-HIV has good psychometric properties and correlated with clinical markers of the disease.

PIN21
SELF ASSESSED HEALTH-RELATED QUALITY OF LIFE AMONG HIV PATIENT IN UK
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OBJECTIVES: This study aimed to assess the cross cultural validity and reliability of Health Utility Index (HUI3) in UK HIV population. METHODS: The study was approved by local research ethics committee. All adult patients receiving HIV care in Cardiff were approached in the outpatient clinic and recruited into the study after giving written informed consent. Participants were required to complete the HUI3. Variables analyzed include QOL score, CD4+ category, HIV stage, antiretroviral (ARV) usage and viral load using Spearman’s rank test, Kruskal-Wallis and Mann-Whitney U test. RESULTS: In total, 103 (98%) of participants completed the questionnaire. The average age of the participant was 40.8 years (±10.7 SD) and 81 were male. HUI3’s was found to be reliable in most attributes (Cronbach’s alpha 0.68), except in vision, hearing and ambulation. Four attributes (ambulation, emotion, cognition and pain) correlated significantly with QOL score (p < 0.002) after controlling for antiretroviral use, clinical, and CD4+ categories. Findings also revealed no significant difference and correlation between QOL score and CD4+ count, viral load count and HIV clinical categories. There appears to be a stronger correlation (r = -0.19) and mean difference (P = 0.08) between QOL score and antiretroviral use but this did not reach statistical significance. An interesting pattern was observed whereby asymptomatic patients and those not using antiretroviral (ARV) therapy had a lower QOL score than AIDS patients. Class of ARV also appeared to affect QOL score but was not significant statistically (P = 0.2). CONCLUSION: The findings of this study support validity and reliability of HUI3 in UK HIV population and therefore could be used with confidence in comparative study of HIV treatment. The results also suggest benefit of ARV use in improving patient QOL and also the different effect of ARV regimen had on the score; however this requires further investigation in a controlled study.

PIN22
COST UTILITY ANALYSIS OF A HYPOTHETICAL VACCINATION PROGRAM AMONG THE CURRENTLY TARGETED POPULATION IN THE NETHERLANDS IN CASE OF AN INFLUENZA PANDEMIC
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OBJECTIVES: A modeling study was conducted to assess the balance between costs and effects of a hypothetical influenza vaccination programme in case of an influenza pandemic in The Netherlands. METHODS: An existing decision model was expanded to comprise the entire population at risk and pandemic attack rate. Dutch estimates regarding costs, frequency of GP visits, hospitalization and mortality associated with influenza and influenza related complications were used. The impact in terms of (dis-)utility of influenza and the various influenza related complications were retrieved and added. A societal perspective was used to account for direct medical costs and costs associated with sick leave. Monte-Carlo simulation was used to conduct multivariable sensitivity analyses. RESULTS: In the absence of vaccination the model predicted 517,567 GP visits, 41,766 hospitalizations and 72,513 deaths in case of a pandemic. Vaccination of the population at risk would result in a reduction of influenza infections (21%), GP visits (20%), hospitalizations (34%) and deaths (30%). Net savings for society of €126 million may be expected. Per person of the Dutch population the vaccination program would lead to incremental costs of €48.00 (99% CI €24.00 to €88.00). If only direct medical costs were taken into account costs to society would be €658 million. Benefits in terms of QALY gain are positive but very small due to the short time horizon of the analysis. The most important QALY losses are observed in those individuals that die and those that experience stroke or heart failure. Vaccination may prevent the death of 21,615 persons. The total number of life years gained is 16,627, resulting in 12,790 QALYs gained. CONCLUSION: A vaccination programme in which high risk individuals are vaccinated in accordance with the current influenza prevention program is cost saving and generates extra (quality adjusted) life years.

PIN23
COST-EFFECTIVENESS MODEL OF PALIVIZUMAB IN THE UK
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OBJECTIVES: To assess the cost-effectiveness of Palivizumab, a prevention against respiratory syncytial virus (RSV) infections in infants at high risk, such as premature babies, infants with bronchopulmonary dysplasia (BPD), and children with congenital heart disease (CHD). METHODS: A decision tree model was used to estimate the cost-effectiveness of Palivizumab in high-risk children. The data sources included published literature, the Palivizumab clinical trials, official price/tariff lists and national population statistics. The primary perspective of the study was that of the health care purchaser (National Health Service), which included the cost of administration and hospital care for RSV infections. RESULTS: The use of Palivizumab results in an ICER of £7042/QALY without discounting, which increases to £16,720/QALY after discounting in the prophylaxis in premature infants and such with BPD. In the prophylaxis in babies with CHD the use of Palivizumab results in an ICER of £2427/QALY without discounting and £6664/QALY after discounting. Sensitivity analyses confirmed the robustness of the model. A scenario analysis showed that the inclusion of indirect costs leads to further improvement in the cost-effectiveness outcomes for Palivizumab. CONCLUSION: This study showed that Palivizumab is a cost-effective prophylaxis against RSV infections in infants at high risk: the use of Palivizumab results in positive short and long-term health economic benefits to the health care purchaser.