THE COST-EFFECTIVENESS ANALYSIS OF LAMIVUDINE IN THE TREATMENT OF CHRONIC HEPATITIS B IN POLAND
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OBJECTIVES: To estimate the C/E of lamivudine in the treatment of chronic hepatitis B (CHB) in Poland. METHODS: Model for the Polish health-care context was developed, based on the use of clinical data from literature and local data on health-care resource utilisation and unit cost. Costs and effects of a population of CHB patients were modelled using 4 scenarios, which attempt to reflect real-life practice, in which patients may receive any of the treatment options available and a proportion of patients may still receive no treatment because therapy is not suitable. Scenario A and B assumed the availability of both treatment options: the first choice of treatment is A-lamivudine and in B-INFα. In scenario C the only approved treatment is INFα, in scenario D patient received no antiviral treatment. The measure of outcomes were: HBeAg seroconversion and nonprogression to cirrhosis. Only direct medical costs were analysed. The perspective of health-care payers and time horizon of 1 year were taken. The one-way sensitivity analysis and extreme scenario analysis were performed. RESULTS: The best results in terms of seroconversion and nonprogression to cirrhosis were achieved in scenario A, costs were lowest in scenario D. Mean cost/HBeAg seroconversion and mean cost/cirrhosis avoided were (in PLN, 1 USD = 4 PLN): for A—35238 and 6480, for B—72654 and 16289, for C—49370 and 8689, for D—20985 and 1474. The incremental analysis vs scenario D indicated, a more cost-effective alternative than B and C. Changing in value of key drivers for sensitivity analysis did not have any significant effect on the ICER. CONCLUSIONS: Lamivudine as the first choice treatment of CHB (scenario A) allows to receive the best results in terms of seroconversion and nonprogression to cirrhosis. This is the most cost-effective alternative to “no treatment” (scenario D).

AN APPRAISAL OF HEALTH-RELATED QUALITY OF LIFE INSTRUMENTS FOR USE IN PATIENTS DIAGNOSED WITH HUMAN IMMUNODEFICIENCY VIRUS (HIV) DISEASE
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OBJECTIVES: The increasing effectiveness of medical treatments for HIV (Human Immunodeficiency Virus) has increased survival time of patients infected with the virus. Because of the high incidence of side effects and the burden of complex medication regimens, an increased emphasis has been placed on the assessment of health-related quality of life (HRQL) in HIV patients. The purpose of this study is to review and compare instruments used for measuring HRQL in HIV patients. METHODS: Clinical trials involving HIV patients were identified through the use of MEDLINE and AIDSLINE. The HRQL instruments used in these trials included: 1) generic instruments such as the Medical Outcomes Study (MOS) Short-Form (SF-36), Sickness Impact Profile, Nottingham Health Profile; 2) utility-based measures such as the Quality of Life-Being Scale and the Q-TWIST (Quality adjusted Time Without Symptoms of disease and Toxicity); and 3) disease-specific instruments such as the Multidimensional Quality of Life questionnaire for HIV (MQoL-HIV), Functional Assessment of HIV Infection (FAHI) scale, HIV/AIDS-Targeted Quality of Life Instrument (HAT-QoL), HIV Overview of Problem/Evaluation System (HOPES) instrument, HIV Patient Reported Status and Experience (HIV-PARSE) scale, and the MOS-HIV scale. Criteria for evaluating the instruments included: comprehensiveness, respondent burden, internal consistency of scales, test-retest reliability, clinical validity, and responsiveness to change. RESULTS: No instrument was found to be completely devoid of ceiling effects. Although none of the instruments demonstrated perfect psychometric properties, overall, the MOS-HIV instrument fared better than all its counterparts. The instrument has minimal respondent burden and has shown evidence of internal consistency, test-retest reliability, validity, and is responsive to changes over time. The instrument has been widely used in clinical trials and has been translated into 14 other languages, and translated forms have been validated. CONCLUSIONS: The MOS-HIV scale appears to be most optimal for HRQL measurement in clinical trials involving HIV patients.

PATTERNS OF ANTIBIOTIC USE AND COSTS ASSOCIATED WITH EPISODES OF TREATMENT FOR COMMON OUTPATIENT RESPIRATORY-TRACT INFECTIONS: AN ANALYSIS OF MANAGED-CARE DATA
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OBJECTIVE: The objective of this study was to understand the prescribing patterns and economic burden of several common respiratory tract infections (RTIs) treated in primary care. METHODS: Using eligibility and claims data from the Lovelace Health Systems of Albuquerque, New Mexico, we selected all outpatients treated with a single antibiotic within 3 days of diagnosis between December 1997 and March 1999 for one of the following 4 RTIs: sinusitis, otitis media (OM), pharyngitis, and bronchitis. The patient’s index episode, the focus of this anal-
analysis, was defined as the first infection identified following a gap of at least 30 days in antibiotic use. The treatment episode ended when there were no additional antibiotics prescribed or infection-related outpatient medical visits for 21 consecutive days. The costs of antibiotics, visits, and tests were documented over the course of the episode. RESULTS: A total of 30,562 patients (11,798 with sinusitis, 5,636 with otitis media, 7,310 with pharyngitis, and 5,818 with bronchitis) met the study inclusion criteria. For sinusitis, OM, and pharyngitis, penicillins were the most widely prescribed antibiotics, followed by macrolides, sulfonamides, cephalosporins, penicillin/B-lactamase inhibitors, tetracyclines and fluoroquinolones. Macrolides were the most commonly used antibiotic for bronchitis (48% of patients). For patients requiring a switch to a different antibiotic, macrolides were the most frequent choice. The overall costs per episode were $97 for pharyngitis, $114 for both OM and sinusitis, and $133 for bronchitis. The proportion of total costs related to follow-up treatment ranged from 19% for pharyngitis to 32% for OM. Antibiotics accounted for 19% (for pharyngitis) to 29% (for sinusitis) of overall costs. CONCLUSIONS: The costs of treatment episodes for RTIs are fairly substantial and vary by condition. While the initial encounter accounts for the majority of the costs, the expenses associated with the need for additional treatment are important to consider.

**ECONOMIC EVALUATION OF MACROLIDES AND FLUOROQUINOLONES FOR THE TREATMENT OF RESPIRATORY TRACT INFECTIONS**

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BACKGROUND: In the field of respiratory tract infections (RTI), concern about the efficiency of various treatments has increased with the introduction of newer antibiotics often associated with higher acquisition costs. These include second-generation macrolides and fluoroquinolones, which constitute alternative strategies to amoxicillin and erythromycin. OBJECTIVES: To evaluate, from a cost-efficacy standpoint, how these newer agents compare with each other in the treatment of community acquired RTI in adults. METHODS: Cost-efficacy analyses were done using decision-analysis techniques based on efficacy and safety data of published clinical trials. The analyses were performed from the perspective of a provincial third-party payer. Costs considered were those of antibiotics, physicians and pharmacists services and diagnostic procedures. RTI for which analyses were performed are: bronchitis, community acquired pneumonia, otitis media, pharyngitis and sinusitis. Specific antibiotics compared were: azithromycin, ciprofloxacin, clarithromycin, gregapaxloxacin, levofloxacin and ofloxacin. RESULTS: Following a review of the literature using Medline and Current Contents, 98 articles published between January 1986 and December 1999 met the inclusion criteria and provided efficacy and safety data for the analyses. Efficacy rates for each antibiotic did not differ strikingly and various dosages did not necessarily have an impact on efficacy rates. Cost-efficacy analyses indicate that, among the antibiotics studied, the lowest cost-efficacy ratios were associated with either azithromycin or clarithromycin at a dose of 250mg twice daily. Azithromycin represented the preferred strategy for the ambulatory treatment of community-acquired pneumonia and otitis media, while clarithromycin at a dose of...