OBJECTIVES: Intraabdominal infections, with their high morbidity and mortality, represent an immense treatment challenge because multiple microorganisms are involved. The addition of cefepime to metronidazole has been shown to be effective but the cost of the drug is high. Therefore, the objective of this study was to assess the cost-effectiveness of this combination compared to cefotaxime-metronidazole from the perspective of the third-party payer. METHODS: Data were obtained on the resources consumed by 60 adults with intraabdominal infection enrolled in a randomized trial carried out in the Intensive Care Unit, Hospital of Specialties “La Raza”, Mexico City comparing cefepime to cefotaxime, both in addition to metronidazole. Clinical cure, improvement or failure, was determined according to presence of symptoms while bacteriological cure depended on absence of the initial microorganisms. For the economic study, data on length of stay (LOS); use of special care units, laboratory tests, radiology, nuclear medicine or other special studies; number and type of surgeries as well as duration of antimicrobial treatment were collected. Information was extracted from patient charts and case report forms. Unit costs were obtained from the hospital’s Finance Department and are reported in 2001 US dollars (1 USD = 10 MEX). RESULTS: There were no statistically significant differences between groups in age, gender, number and type of diagnoses or severity of disease. Staphylococcus aureus, Streptococcus spp, Escherichia coli, Enterococcus spp and Pseudomonas aeruginosa were most frequently isolated. There were no statistically significant differences in the number and type of tests. Clinical and bacteriologic efficacy were similar between groups. However, patients receiving cefepime-metronidazole had shorter LOS than patients receiving cefotaxime-metronidazole (mean 21 days versus 27 days, respectively) and thus lower total hospitalization costs (mean $18,974 for cefepime-metronidazole vs. $20,092 for cefotaxime-metronidazole). Including the cost of the drugs, the difference is reduced to $503 in favor of cefepime-metronidazole. CONCLUSIONS: The combination of cefepime with metronidazole reduces average total costs resulting in economic dominance over cefotaxime.
HOSPITALIZATION EXPENDITURE OF STREPTOCOCCUS PYOGENES-ASSOCIATED CELLULITIS IN THE UNITED STATES

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OBJECTIVE: To determine the impact of Streptococcus pyogenes (group A streptococcus, GAS) associated cellulitis on hospital expenditure in the United States. METHODS: This study analyzed data from the Healthcare Cost and Utilization Project (2000) funded by the Agency for Healthcare Research and Quality. Hospitalizations due to cellulitis were identified using ICD-9 codes 681–682 as principal diagnoses. We assumed that 30–50% of cellulitis-related hospitalizations were caused by GAS. RESULTS: In 2000, there were approximately 110,000–183,000 hospitalizations due to GAS-associated cellulitis. Adults aged 18–64 years accounted for 56% of the hospitalizations, followed by the elderly (65 years and older, 36%) and children (<18 years, 8%). The most common comorbid conditions associated with cellulitis were hypertension (28%), diabetes mellitus (13%) and congestive heart failure (10%). The mean and median length of hospital stay for cellulitis were about five and four days, respectively. Total annual hospitalization charges for GAS-associated cellulitis were estimated at $1.2–2.0 billion in year 2002 US dollars. Average charge per hospital stay was about $10,500. CONCLUSIONS: GAS-associated cellulitis represents a significant economic burden in the US. Total annual hospitalization charges estimated for GAS-associated cellulitis are significantly higher than the recent estimate by the Institute of Medicine (Vaccines for the 21st Century, A Tool for Decisionmaking, 2000) for all GAS-associated hospitalizations (<$100 million).

THE COST-EFFECTIVENESS OF PEGINTERFERON ALFA-2A (40KD) (PEGASYS) PLUS RIBAVIRIN (COPEGUS) VS. INTERFERON ALFA-2B PLUS RIBAVIRIN FOR CHRONIC HEPATITIS C (CHC)

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OBJECTIVES: Peginterferon alfa-2a (40KD)/ribavirin (PEG) has been shown to produce a higher rate of sustained virological response (SVR) than non pegylated combination therapy (non-PEG) in CHC, but the cost-effectiveness of this improved efficacy has not been assessed. METHODS: We used a Markov model of disease progression in which the cohorts of hepatitis C virus (HCV) patients received PEG or non-PEG for either 48 or 24 weeks depending on genotype and liver histology and were followed for their expected lifetime. The reference patient was a 45-year-old male with CHC without cirrhosis. The SVRs to PEG and non-PEG were 46% and 36% for HCV genotype 1 and 76% and 61% for non-1, respectively. Quality of life and costs for each health state were based on literature and on Italian treatment patterns. Costs in 2002 Euros and benefits were discounted at 3%. RESULTS: In HCV genotype 1, PEG increases life expectancy (LY) by 0.78 years and quality-adjusted life expectancy (QALY) by 0.67 years compared to non-PEG. The incremental cost per QALY gained is €12,026. In HCV non-1 genotype patients, PEG increases LY by 1.17 and QALY by 1.01 years in com-