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.

**OBJECTIVE:** In addition to information about efficacy and safety, decision-makers are interested in information about the impact of new drug treatments on health care costs. The objective is to determine the impact of using gatifloxacin versus levofloxacin on total costs among outpatient adults with community-acquired pneumonia (CAP). METHODS: Patients were randomized to receive either gatifloxacin (GAT) or levofloxacin (LEV) once daily. Data were collected on efficacy, safety, and medical care resource use from 163 GAT and 176 LEV clinically evaluable patients. Medical care resource use information included the dose and duration of the study and concomitant medications, duration of intensive care unit (ICU) and non-ICU hospital stay, and number of outpatient physician visits. We used a multivariate regression analysis to determine the impact of treatment on total costs. The dependent variable was the logarithm of total costs to adjust for the left skewness found in the cost data. The regression analysis controlled for disease severity, admission to the hospital on the day of (or before) randomization, and prognostic factors (including age, presence of comorbidities, and a previous CAP episode within the last 12 months). RESULTS: GAT achieved a cure rate of 96% compared to 94% for LEV. Based on results from the multivariate regression analysis, patients in the GAT arm could expect total costs that were approximately 8% lower (on average) than the total costs incurred by patients in the LEV arm. Patients admitted to the hospital on the day of (or before) randomization could expect total costs that were nearly 51 times higher. Hospital admission on the day of (or before) randomization was the only statistically significant driver of expected total cost. CONCLUSION: GAT shows a trend to be less costly and have a higher cure rate than LEV for outpatients with CAP.

**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, grepafloxacin, 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...
250 mg twice daily would be preferable for bronchitis, pharyngitis and sinusitis. The studied fluoroquinolones and clarithromycin at a dose of 500 mg twice daily were dominated strategies for each of the studied RTI. CONCLUSION: From a cost-efficacy standpoint clarithromycin and azithromycin would be preferable to fluoroquinolones when an alternate strategy to amoxicillin or erythromycin is needed.

PHARMACOECONOMIC EVALUATION OF CEFUROXIME IN ABDOMINAL HYSTERECTOMY
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OBJECTIVES: The prophylaxis of infection in hysterectomy is necessary because it decreases the amount of postoperative complications. It has been shown that cefuroxime is an effective antibiotic for prevention of infectious complications after abdominal hysterectomy. It has a bactericidal activity against most pathogens which can lead to wound failure and prolonged the duration of hospitalization. But pharmacoeconomic evaluation is not performed in the numerous investigations. METHODS: 40 women were randomized in equal groups to receive cefuroxime 1.5 g i.v. before start of hysterectomy (group I) and combination of ampicillin 4.0 g/day i.m. and gentamicin 5 mg/kg/day i.m. during 5 days after hysterectomy (group II). The last method is commonly used in city gynecological departments. General condition, temperature, pulse, condition of postoperative wounds, vaginal discharges were evaluated every day by means of a score scale. The sum of scores was performed as total clinical score (TCS). Cost-minimization analysis was performed for evaluation of economic outcomes of the treatment. RESULTS: Clinical efficacy of the studied regimens was equal because the dynamic of TCS coincided in both groups (100% and 95% accordingly). Condition of wounds was excellent and pathogenic microorganisms were not performed. But in group II we detected skin rash (3 cases) and infectious infiltrate in the place of injection (1 case). Duration of hospitalization was similar in both groups. But total cost in group I was less by 17.7% than in group II (p < 0.05) because acquisition cost was more in group II. CONCLUSIONS: Prophylaxis of infectious complications in hysterectomy by cefuroxime is as effective as combination postoperative treatment with ampicillin plus gentamicin. Cefuroxime has an economic advantage and less danger for patients. This simple method of prophylaxis indicates more compliance and less cost and may be recommended for most cases of hysterectomy.

DOES A DAY STILL MAKE A DIFFERENCE?: A DECISION ANALYSIS OF ADULT STREPTOCOCCAL PHARYNGITIS
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OBJECTIVES: Adults presenting with acute sore throats is one of the most common complaints encountered by primary care clinicians, yet the proper management of adult patients with pharyngitis is still somewhat controversial. This study proposes to identify the appropriate clinical management of adult pharyngitis using both cost-benefit analysis and cost-effectiveness analysis METHODS: Cost-Benefit Analysis and Cost-Effectiveness Analysis. Six management strategies were considered in these analyses; empiric treatment, performing a rapid test, obtaining a bacterial culture, empiric treatment with a confirmatory bacterial culture, or a combination of the rapid test with a bacterial culture of negative rapid tests. In addition, the study incorporates differing probabilities of streptococcal disease based upon previously published symptomatically derived logistic regression scores. Using an internet-based survey, information is collected on undergraduate and graduate students’ willingness-to-pay and time trade-off of presented health states. RESULTS: Preliminary results indicate that patients presenting with 3 or more indicative symptoms (3 days of fever >39°C, tender anterior cervical nodes, enlarged tonsils with purulent exudates, and lack of cough) should be treated empirically. Those adult patients that complain of only two symptoms should be managed by a combination of a rapid diagnostic test with a bacterial culture on those rapid tests with negative results. CONCLUSIONS: This study presents findings that should provide clinicians with a better guide in the treatment of adult patients with pharyngitis. Performing normative analyses of currently accepted clinical management, the study employs adult’s preferences as well as variation in severity of symptoms.

COMPARING DIFFERENCES IN CLINICAL EFFECTIVENESS, NEPHROTOXICITY, AND COST-EFFECTIVENESS OF AMINOGLYCOSIDE THERAPY BETWEEN ALTERNATIVE DOSING PROTOCOLS
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OBJECTIVE: The objective of this study was to develop a pharmacoeconomic model which compared the difference in cost-effectiveness (CE) between a Multiple-daily-dosing (MDD) protocol of aminoglycosides (AG) managed by a Clinical Pharmacokinetic Dosing Service (CPS) and a protocol for Once-daily-dosing (ODD), from the perspective of a Managed Care Organization. METHOD: Event rates for both clinical effectiveness and aminogly-