and incremental costs of three different types of respiratory infections: acute sinusitis (AS), acute otitis media (AOM), and community-acquired pneumonia (CAP). **METHODS:** Data were from the Marketscan claims databases July–December 2004. Respiratory disease episodes were constructed via ICD9 codes on an index and surrounding claims. The antibiotics most frequently prescribed initially for each type of infection were identified. Logistic regression estimated a propensity score for each patient; which was the predicted probability of using a reference drug, telithromycin. Patients were matched according to this probability and exponential conditional means models (ECM) were specified, controlling significant variables after the propensity score matching (demographics and comorbidities). These models allowed incremental costs to be estimated for treatment with the reference drug, telithromycin, relative to other antibiotics. **RESULTS:** There were 86,232 AS, 71,884 AOM (10% were among patients under 18) and 5236 CAP episodes. The most commonly used antibiotic for initial treatment was amoxicillin for AOM, and AS and azithromycin for CAP. Total costs were $182 for AS, $192 for AOM and $897 for CAP. The highest incremental cost saving associated with telithromycin was relative to moxifloxacin in CAP ($484; $p < 0.001$). The highest incremental cost saving with another antibiotic relative to telithromycin was $23.43 ($p < 0.001$) in the AS episodes initiated with azithromycin. **CONCLUSION:** The multivariate results showed that after propensity matching and controlling for intra-episode differences, that direct costs did indeed vary by the initiating antibiotic. It is of interest to note that the results did not uniformly favor one agent over another. Although different antibiotics may be included in the same drug class, there are clearly differentials between these drugs to consider not only clinically, but also for financial implications as well.

PRS4

AN ECONOMIC EVALUATION OF FIRST LINE ANTIBIOTICS FOR THE INPATIENT TREATMENT OF ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN MEXICO

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OBJECTIVES: The purpose of the study was to evaluate economic and health consequences of first line antibiotics treatment for inpatient therapy in Mexican patients with acute exacerbations of chronic bronchitis (AECB) from the health care payer's perspective. **METHODS:** A cost—effectiveness assessment was performed employing two economic models. First, a three-month decision tree model was used to compare costs and effectiveness associated to acute exacerbations treatments. Second, a one-year Markov model was created to compare costs and effectiveness associated to AECB recurrences. Model comparators were: gemifloxacin 320 mg/day, moxifloxacin 400 mg/day, levofloxacin 500 mg/day, ceftriaxone 1 gr/day, gatifloxacin 400 mg/day, clarithromycin 1000 mg/day and cefuroxime 1000 mg/day. The effectiveness measures were the % of clinical success and the number of free months of recurrences/hospitalizations. Resource use data was obtained from hospital records inside the General Regional Hospital No. 1 "Gabriel Mancera" at the Social Security Mexican Institute (IMSS) in Mexico City (n = 117). All drug prices and resource use costs were taken from official institutional databases from the IMSS. One-way and probabilistic sensitivity analyses were performed and components analyses were elaborated. **RESULTS:** Gemifloxacin showed the lowest expected costs (US$2750.2); the highest % of clinical success among all alternatives (97.5%) and the shorter hospitalization stay length (approximately 6.1-days). The total days reduction generated by gemifloxacin could reduce total hospitalization costs in $US1269.5 per acute exacerbation. Markov model results for free months of recurrences showed that gemifloxacin first line therapy for AECB could give patients in average 11.1-free months of recurrences/hospitalizations followed of ceftriaxone (10.9-months) and moxifloxacin (10.5-months). The results were robust to first-order Monte Carlo simulations and acceptability curves. **CONCLUSION:** Gemifloxacin is the most cost effective first line treatment for inpatients with AEBC, because its high effectiveness, significant inpatients day's reduction and more free months of recurrences. These results could be used by Mexican decision-makers to generate future cost-containment strategies.

PRS5

COST—EFFECTIVENESS ANALYSIS OF FIRST LINE ANTIBIOTICS FOR THE INPATIENT TREATMENT OF PATIENTS WITH COMMUNITY ACQUIRE PNEUMONIA IN A PUBLIC MEXICAN HOSPITAL

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OBJECTIVES: The purpose of the study was to estimate the incremental cost-effectiveness ratios (ICER) among the first-line antibiotics for the inpatient treatment of Mexican patients with community acquired pneumonia (CAP) from the health care payer's perspective. **METHODS:** A cost—effectiveness analysis was performed with the aid of a decision tree model. The model had a two-month period to assess economic and clinical consequences of seven first-line antibiotics used in the study: Gemifloxacin 320 mg/day, Clarithromycin 1000 mg/day, Levofloxacin 500 mg/day, Gatifloxacin 400 mg/day, Ceftriaxone 1 gr/day, Cefuroxime 1500 mg/day and Moxifloxacin 400 mg/day. Adverse events of each therapy were considered (rash, diarrhea, dizziness, vomits, chill and head pain). Resource use data was obtained from hospital records from the General Regional Hospital No. 1 "Gabriel Mancera" at the Social Security Mexican Institute (IMSS) in Mexico City (n = 94). All drug prices and unit costs were taken from official institutional databases within the IMSS. Effectiveness measures used in the model was the % of therapeutic success among the multiple antibiotics. One-way and probabilistic sensitivity analyses were performed and acceptability curves were constructed. **RESULTS:** Gemifloxacin showed the lowest average health care costs in inpatient treatment (US$ 2389.8) due to a significant reduction in the hospitalization days (approximately 4.61 days in average per patient). The length of stay reduction was associated with the shorter treatment of gemifloxacin (five-days). Gemifloxacin showed the highest effectiveness (95.3%) followed by clarithromycin (94.3%); levofloxacin (94.0%); gatifloxacin (92.0%); ceftriazone (91.3%); cefuroxime (90.0%) and moxifloxacin (86.5%). The ICERxs for all treatments were dominated by gemifloxacin. First-order Monte Carlo simulations showed the same results. **CONCLUSION:** Gemifloxacin was the most cost effective first line treatment for hospitalized patients with CAP, especially, because it's high effectiveness and its significant inpatient-stay length reduction.

PRS6

EVALUATING THE COST-EFFECTIVENESS OF TIOTROPIUM IN THE TREATMENT OF MODERATE CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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