ACUTE EXACERBATION OF CHRONIC BRONCHITIS (AECB) TREATMENT EFFECTIVENESS: COMPARISON OF MACROLIDES TO FLUOROQUINOLONES
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OBJECTIVES: The purpose of this study is to compare the effectiveness of fluoroquinolones versus macrolides in treating AECB. METHODS: The study sample was identified from a large employer claims database covering the period 1999–2002. Patients age 18–65 years with at least one diagnosis of AECB were included in the study sample. The sample was further restricted to AECB patients who had 13 months pre-index date continuous eligibility. The index date was defined as the date of the first prescription of either a macrolide or a fluoroquinolone during the period between 14 days before an AECB diagnosis and 30 days following the diagnosis. The effectiveness, measured by treatment failure rate, of fluoroquinolones and macrolides, were compared using multivariate logistic regression adjusting for gender, age, season of the year, additional oxygen therapy, and patient COPD severity as measured by a severity score developed by Wu, et al. Treatment failure rate was defined as occurrence of hospitalization, ER visit, switching of antibiotics, filling of a second prescription of antibiotic, or use of oral corticosteroids within one-month following the index date, and was compared using odds ratio (OR). Patients were categorized into severe COPD (top 25% of severity distribution) and non-severe (moderate/mild) COPD patients. RESULTS: When treated with macrolides, severe COPD patients had significantly lower failure rates compared with patients on fluoroquinolones (OR = 2.01, p = 0.03). There are no differences in failure rate between macrolides and fluoroquinolones in treating moderate and mild COPD patients. CONCLUSIONS: Macrolides are more effective first line therapies compared to fluoroquinolones when treating flare-ups of severe COPD patients.

ESTIMATING THE NUMBER OF CASES OF DIAGNOSED CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD): USE OF MEDICAL CLAIMS DATA VERSUS ALTERNATIVE METHODOLOGIES
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OBJECTIVES: To estimate the prevalence and annual incidence of diagnosed COPD from medical claims data and to compare results with those derived through alternative methodologies. METHODS: Claims data were acquired from a US managed care organization database with records for approximately ten million members in 20 states. The COPD cohort comprised patients aged 25+ years with one or more medical claims with a COPD diagnosis in 2002. For prevalence, patients were required to be eligible for coverage during 2002, while patients in the incidence estimation were required to be eligible for medical coverage in both 2001 and 2002 but without any COPD diagnoses in 2001. Claims-based estimates of prevalence and incidence (overall and by age group) were compared to corresponding published data from other sources. RESULTS: We identified 64,141 patients with a diagnosis of COPD (an overall prevalence of 3.7%). Prevalence progressively increased from 0.3% in patients aged 25–34 years to 11.8% in patients aged 75+ years. These estimates are generally lower than other sources. For example, National Health Interview Survey estimates, based on respon-