CLINICAL AND ECONOMIC OUTCOMES OF INVASIVE ASPERGILLOSIS (IA) IN THE CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) NON-TRADITIONAL HOST: A HOSPITAL DATABASE ANALYSIS

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OBJECTIVES: To describe the clinical and economic burden of COPD patients with IA (COPD + IA), antifungal treatment patterns, and the impact of index antifungal on total costs, LOS, and mortality. RESULTS: We identified 473 COPD + IA patients (mean age 65 years, 60% male). The most commonly used antifungals were voriconazole, caspofungin, and caspofungin. Treatment with an agent active against Aspergillus increased survival and reduced economic burden, thus this potential etiology should be considered when contemplating antifungal therapy in COPD patients.

DETECTION OF CHRONIC HEPATITIS C VIRUS (HCV) INFECTIONS IN THE U.S.

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OBJECTIVES: To estimate the incremental impact of HCV on health care costs and events using claims data from a large U.S. health insurance provider. METHODS: A retrospective cohort study used 2005-2008 data from the Premier Perspective database of >5,000,000 patients. HCV + IA patients were identified based on ICD-9 codes for HCV + Aspergillosis + Pneumonia. Patients were excluded if ICD-9 codes were present for malignancies, HIV, or conditions that increase risk for IA aside from COPD. Demographics, hospital characteristics, and antifungal treatment patterns were examined. Excess resource utilization was analyzed by matching cases (COPD + IA) and controls (COPD patients without Aspergillus) on demographic and clinical variables. Regression analyses were conducted on the impact of the index antifungal on total costs, LOS and mortality controlling for patient demographics, hospital characteristics, co-morbidities, and disease severity. RESULTS: We identified 473 COPD + IA patients (mean age 65 years, 50% male, 76% Caucasian). COPD + IA cases had significantly higher costs ($48,163 vs $30,210), LOS (23.2 vs 13.6 days), ICU stay (13.8 vs 7.2 days), and mortality (29% vs 23%) compared to COPD controls (all p < 0.01). Antifungal therapy was initiated on day 6, with length of therapy of 15 days. The most commonly used antifungals were voriconazole, fluconazole, and caspofungin. After controlling for covariates, patients receiving fluconazole as the index antifungal had greater mortality (OR = 0.023, p = 0.003), 4 additional hospital days (p = 0.007), and 24% greater costs ($13,216 vs $10,660) compared to patients receiving voriconazole first-line. Findings were consistent in sub-analyses (eg, ICU patients). CONCLUSIONS: COPD + IA patients had significantly higher mortality, resource utilization, and costs versus controls. Treatment with an agent active against Aspergillus increased survival and reduced economic burden, thus this potential etiology should be considered when contemplating antifungal therapy in COPD patients.