For patients who had at least 1 year of follow up after stopping antibiotics (pulmonary $n = 21$, non-pulmonary $n = 14$), 43% of patients with pulmonary infections achieved clinical cure and 79% of patients with non-pulmonary infections achieved clinical cure. Within 1 year of follow-up 19% of pulmonary infection patients and none of the non-pulmonary patients had died.

Conclusion. As a part of multidrug therapy, CFZ is useful in the in the treatment of drug-resistant RGM infections, particularly skin infections, and offers a better tolerated option compared with other available antibiotics.

Disclosures. **All authors:** No reported disclosures.

2272. Healthcare Resource Utilization and Costs Following Diagnosis of Nontuberculous Mycobacterial Lung Disease in the USA

Theodore Marras, MD[1]; Mehdi Mirsaeidi, MD, MPH[2]; Engels Chou, MS[3]; Gina Eagle, MD[3]; Raymond Zhang, MBA[4]; Ping Wang, PhD[3] and Quanwu Zhang, PhD[3]; [1]Toronto Western Hospital, Toronto, ON, Canada, [2]University of Miami, Miami, Florida, [3]Insmed Incorporated, Bridgewater, New Jersey, [4]Orbis Data Solutions, Woburn, Massachusetts

Session: 249. Non-Tuberculous Mycobacteria - Epidemiology and Management
Saturday, October 7, 2017: 12:30 PM

Background. Despite increasing awareness of nontuberculous mycobacterial lung disease (NTMLD), reports on the economic impact of healthcare resource utilization (HCRU) and costs are limited.

Methods. The national managed care insurance database was searched for physician claims for NTMLD (ICD9 031.0 or ICD10 A31.0) on ≥2 separate occasions ≥30 days apart between 2007 and 2016. A patient cohort (n = 1039) was selected by including those who were insured continuously over 36 months. A control group (n = 2078) was randomly selected from the plan members without NTMLD and matched 2:1 to the NTMLD sample by age and sex. The diagnosis date of NTMLD patient was assigned to the matched controls as the index date. HCRU and standardized costs were summarized over 12 months (baseline) before NTMLD diagnosis and 2 subsequent years.

Results. Mean age was 68 years with 67% women. Charlson comorbidity score was 2.0 (±2.2) in NTMLD vs 0.5 (±1.3) in control. NTMLD patients had substantially more respiratory and other disorders compared with the control group (20.6% vs 3.5% asthma, 36.7% vs 0.3% bronchiectasis, 50% vs 6% ColoradoPD, 2% vs 0% cystic fibrosis, 41.6% vs 1.4% pneumonia, 7.8% vs 0% tuberculosis) and had greater immunosuppressant use (43.8% vs 11.9%). NTMLD vs control group had a 30.5% vs 6.0% rate of hospitalization at baseline, 35.1% vs 6.9% at year 1, and 23% vs 7.3% at year 2. Mean (median) total annual healthcare costs in NTMLD vs control were $35,145 ($15,493) vs $5,660 ($587) at baseline, $47,248 ($18,626) vs $6,692 ($745) at year 1, and $28,959 ($11,385) vs $7,184 ($819) at year 2. Medical costs were $26,626 ($11,701) vs $4,370 ($209) at baseline, $35,508 ($12,416) vs $5,248 (288) at year 1, and $20,036 ($6,715) vs $5,488 ($400) at year 2; pharmacy spending was $8,519 ($2,209) vs $1,290 ($21) at baseline, $11,739 ($3,957) vs $1,444 ($45) at year 1, and $8,923 ($2,418) vs $1,696 ($55) at year 2.

Conclusion. Observed HCRU and costs are substantially higher in NTMLD vs control group and increase from baseline to year 1 then decrease to year 2 in NTMLD but continue to rise in control group. The reversed U-shape of total costs in patients with NTMLD may reflect joint economic outcomes of disease, comorbidity, and management.

Disclosures. **E. Chou**, Insmed Incorporated: Employee, Salary; **G. Eagle**, Insmed Incorporated: Employee, Salary; **R. Zhang**, Insmed Incorporated: Consultant, Consulting fee; **P. Wang**, Insmed Incorporated: Employee, Salary; **Q. Zhang**, Insmed Incorporated: Employee, Salary

2273. Major Risk Factors for Leprosy in a Nonendemic Area of the USA

Jellyana Peraza, MD[1]; Andrew Mekaiel, MD[2]; Manuel Castro-Borobio, MD[3]; Beata Casanas, DO[4] and Sadaf Aslam, MD[5]; [1]Central University of Venezuela, Caracas, Venezuela (Bolivarian Republic of), [2]Ain Shams University, Cairo, Egypt, [3]University of South Florida, Tampa, Florida, [4]Infectious Disease, University of South Florida, Tampa, Florida, [5]Division of Infectious Diseases and International Medicine, University of South Florida, Morsani College of Medicine, Tampa, Florida

Session: 249. Non-Tuberculous Mycobacteria - Epidemiology and Management
Saturday, October 7, 2017: 12:30 PM

Background. 178 new cases of leprosy were reported in 2015 with Florida being one of six states and contributing a large number (72%) of registered cases. It was also the only state showing an increasing occurrence compared with the previous years. Studies from other southern U.S. states in armadillos and leprosy patients demonstrate infection with the same strain of *Mycobacterium leprae,* confirming human armadillo exposure as the main risk factor for leprosy. In contrast, cases from Florida show no clear risk factor. We present three cases of leprosy from Hillsborough county (Florida) with no previous armadillo exposure but a different risk factor in common: being foreign-born.

Methods. We report three cases of leprosy presenting in a non-endemic area of Florida during the past five years and highlight the absence of direct armadillo exposure as a risk factor for developing the disease.

Results. Case 1: A 35-year-old male from Mexico presented with multiple erythematous non-tender cutaneous lesions and numbness in both hands. He had a history of leprosy exposure from a Haitian inmate during incarceration in Florida. Biopsy confirmed borderline lepromatous leprosy.

Case 2: A 67-year-old female from Cuba presented with disseminated circular ulcerative lesions and severe hypesthesia of lower extremities. She denied leprosy or armadillo exposure. Diagnosis of borderline lepromatous leprosy was made through biopsy.

Case 3: A 38-year-old female from Puerto Rico presented with disseminated painless plaques, edema of the hands with numbness and paresthesias. She worked as a nurse but denied leprosy or armadillo exposure. A biopsy confirmed borderline lepromatous leprosy with erythema nodosum leprosum.

Conclusion. Our case series demonstrates that a history of armadillo exposure is not always present. Other risk factors need to be considered when leprosy is a possible diagnosis in a patient. Place of birth is a very important factor due to the diverse and increasing foreign-born population in the United States.

Disclosures. **All authors:** No reported disclosures.

2274. Rate of All-cause Hospitalization at Year 2 Between Treatment Groups Following Diagnosis of Nontuberculous Mycobacterial Lung Disease in the USA

Theodore Marras, MD[1]; Mehdi Mirsaeidi, MD, MPH[2]; Engels Chou, MS[3]; Gina Eagle, MD[3]; Raymond Zhang, MBA[4]; Ping Wang, PhD[3] and Quanwu Zhang, PhD[3]; [1]Toronto Western Hospital, Toronto, ON, Canada, [2]University of Miami, Miami, Florida, [3]Insmed Incorporated, Bridgewater, New Jersey, [4]Orbis Data Solutions, Woburn, Massachusetts

Session: 249. Non-Tuberculous Mycobacteria - Epidemiology and Management
Saturday, October 7, 2017: 12:30 PM

Background. The study compared rates of hospitalization between treatment groups in patients with nontuberculous mycobacterial lung disease (NTMLD) in a US national managed care claims database.

Methods. Patient (N = 1039) pharmacy claims at year 1 following NTMLD diagnosis were classified into 3 treatment groups including triple combo (macrolide + ethambutol + rifamycin ± other drugs) (G1), other antibiotics used by physicians for NTMLD (G2), and no treatment (G3). Hospitalization rates at year 2 were compared between treatment groups using mixed effects logistic regression to adjust for patient characteristics and comorbidities measured by Charlson Comorbidity Index (CCI) during the 12 months prior to NTMLD diagnosis (baseline).

Results. Mean age was 66, 66 and 73 years with 65%, 70% and 66% women in G1 (n = 353), G2 (n = 388) and G3 (n = 298) respectively. At baseline, there was no difference on CCI (CCI≈2) between treatment groups. However, comorbidity distribution differed prominently in asthma (22.1%, 26.3% and 11.4%), arrhythmia (19.3%, 19.3% and 27.2%), cystic fibrosis (0.8%, 4.6% and 0%), immune disorder (7.6%, 9% and 2.7%), pneumonia (49.0%, 41.8% and 32.6%), and tuberculosis (9.3%, 8.2% and 5.4%), and in immunosuppressant use (51%, 51.5% and 25.2%). Baseline hospitalization was 31.7% in G1, 33.0% in G2, and 25.8% in G3. At year 2, CCI stayed almost unchanged from the baseline scores (1.9 in G1, 2.0 in G2, and 1.9 in G3). Unadjusted hospitalization rates were 19.6%, 27.8% vs 20.8%, and adjusted rates were 44.5%, 56.1% and 47.8% in 3 groups respectively (Figure). G2 had a 60% increase in risk of hospitalization after adjustment (odds ratio (OR)=1.60, 95% CI: 1.11–2.29, P = 0.01) compared with G1 but no statistically significant difference compared with G3 (OR=1.40, P = 0.08). Cerebrovascular disease (OR=1.8, $P < 0.02$), COPD (OR=1.60, $P < 0.01$), cystic fibrosis (OR=5.85, $P < 0.01$), depression (OR=1.64, $P < 0.05$), and other lung disease (OR=1.42, $P < 0.05$) were associated with a higher risk of hospitalization at year 2 after NTMLD diagnosis.

Conclusion. We observed a lower hospitalization rate in NTMLD patients receiving antibiotics that were concordant with first line ATS/IDSA guidelines recommendations in comparison with those who used other antibiotic regimens.

Disclosures. **E. Chou**, Insmed Incorporated: Employee, Salary; **G. Eagle**, Insmed Incorporated: Employee, Salary; **R. Zhang**, Insmed Incorporated: Consultant, Consulting fee; **P. Wang**, Insmed Incorporated: Employee, Salary; **Q. Zhang**, Insmed Incorporated: Employee, Salary

2275. Reduction in Nontuberculous Mycobacteria at a Tuberculosis Hospital Following a Quality Assurance Intervention

Quratulain Kizilbash, MD, MPH1; Kenneth Jost, PhD[2]; Lisa Armitige, MD, PhD[3]; David E. Griffith, MD[4]; Denise Dunbar, PhD[2] and Barbara Seaworth, MD, FIDSA[5] [1]Heartland National TB Center, San Antonio, Texas, [2]Texas Department of State Health Services, Austin, Texas, [3]Heartland National Tuberculosis Center, San Antonio, Texas, [4]University of Texas Health Sciences Center at Tyler, Tyler, Texas, [5]Internal Medicine, University of Texas Health Northeast, San Antonio, Texas

Session: 249. Non-Tuberculous Mycobacteria - Epidemiology and Management
Saturday, October 7, 2017: 12:30 PM

Background. Non tuberculous mycobacteria (NTM) are widely distributed in soil and water. NTM/*Mycobacterium tuberculosis* complex (MTBC) mixes may yield positive AFB smears falsely attributed to tuberculosis (TB) and false-resistance profiles for TB due to contaminated diagnostic samples. This as well as isolation of NTM may pose diagnostic and management problems. Texas Center for Infectious Disease (TCID) is a hospital for patients with confirmed TB. After a cluster of isolates of *Mycobacterium gordonae* was identified, a quality assurance review found inadequate protocols which included eating and drinking prior to collection. Changes made to the sputum collection protocol included reeducation of respiratory therapists and a sterile saline rinse intervention prior to sputum collection.

Methods. All sputa collected for AFB culture from diagnosed TB patients at TCID from January 1st, 2014 to December 31st, 2014 prior to the intervention and