

### **Supplemental text**

In 2013 there were 591 providers in the Premier database, 135 of which reported microbiology data. Of those, their provider characteristics were not significantly different from the American Hospital Association's report on hospital characteristics (except in bed capacity, which is more balanced in this dataset compared to AHA's). All regions of the US are represented, including 40 states and Washington, DC. Geographic distribution of providers is as follows (%): Midwest: 22%, Northeast: 15%, South: 42%, West 21%.

To identify MAC cases, we reviewed all patients for whom an acid-fast bacilli (AFB)-specific test was ordered at any time, excluding patients with no AFB tests. Laboratory tests conducted in these patients that were not specific for respiratory pathogens (e.g. blood culture, stool culture), were also excluded, as were patients who had an ICD-9 code for disseminated NTM (031.2) or HIV (042).

Overall, 12,209 laboratory tests were performed for respiratory pathogens (AFB culture/smear, AFB direct test MTD, bronchial lavage/culture, fungal culture, mycobacterium avium complex Genprobe, pneumonia culture, respiratory culture, sputum culture/screen) across 3,213 hospital encounters, with 20% positive for MAC; among AFB cultures, 44% were positive for MAC. Ninety-six percent of patients tested positive for MAC at their first encounter.

"Treatment Regimens for Mycobacterium avium complex, United States, 2009-2013"

Table S1. Table of all comorbidities and their associated ICD-9 code(s).

Comorbidity	ICD-9 Code(s)	Number of patients N=1,326 (%)
Pulmonary mycobacteria	031.0	272 (21)
Alveolitis/pneumonitis	495.9	3 (0.2)
Bronchiectasis	494.0, 494.1	215 (16)
Chronic Obstructive Pulmonary Disease	496, 491.20, 491.21, 491.22, 492.0, 492.8, 493.20, 493.21, 493.22	427 (32)
Coccidioidomycosis	114.0, 114.5, 114.9	1 (0.1)
Cystic Fibrosis	277.00, 277.02, 277.03, 277.09	9 (0.7)
Histoplasmosis	115.05, 115.90, 115.95, 115.99	2 (0.2)
Idiopathic pulmonary fibrosis	516.3, 516.31	4 (0.3)
Neoplasm of trachea, bronchus, or lung	162.0, 162.2, 162.3, 162.4, 162.5, 162.8, 162.9	56 (4)
Non-HIV Immunodeficiency	279.00, 279.01, 279.2, 279.02, 279.3, 279.03, 279.06, 279.8, 279.9, 279.12, 279.49, 279.50, 279.52	10 (0.8)
Sarcoidosis	135	16 (1)
Tuberculosis	011.02, 011.03, 011.06, 011.20, 011.21, 011.22, 011.23, 011.24, 011.25, 011.26, 011.30, 011.33, 011.34, 011.40, 011.42, 011.44, 011.46, 011.50, 011.52, 011.53, 011.54, 011.56, 011.60, 011.60, 011.63, 011.64, 011.66, 011.80, 011.83, 011.85, 011.86, 011.90, 011.91, 011.92, 011.93, 011.94, 011.96, 012.03, 012.04, 012.06, 012.15, 012.84	54 (4)

"Treatment Regimens for Mycobacterium avium complex, United States, 2009-2013"

Table S2. Non-defined drug regimens containing a macrolide but not meeting first-line ATS/IDSA guidelines.

Drug 1	Drug 2	Drug 3	Drug 4	Drug 5
macrolides	ethambutol	fluoroquinolones		
macrolides	ethambutol			
macrolides	fluoroquinolones	linezolid	rifamycin	
macrolides	fluoroquinolones	linezolid		
macrolides	fluoroquinolones	rifamycin		

Table S3. Isolation of concomitant pathogens

Concomitant pathogen	Number of encounters in which coinfection ever isolated N=846 (%)	Number of people in which coinfection ever isolated N=539 (%)
<i>Acinetobacter</i> spp	9 (1)	6 (1)
<i>Aspergillus</i> spp	228 (27)	176 (33)
<i>Enterobacter</i> spp	20 (2)	19 (4)
<i>Haemophilus influenzae</i>	34 (4)	30 (6)
<i>Klebsiella</i> spp	47 (6)	40 (7)
<i>Pseudomonas</i> spp	304 (36)	173 (32)
<i>Streptococcus pneumoniae</i>	23 (3)	22 (4)
<i>Staphylococcus aureus</i>	143 (17)	113 (21)
Other species*	249 (29)	197 (37)
Multipathogen**	183 (22)	179 (33)

\*Other species contains pathogenic species that have been differentiated (i.e. undifferentiated organisms like “gram negative rods”, “mold”, and concomitant organisms such as *Candida* spp. were excluded).

\*\*Multipathogen was any hospitalization where two or more pathogenic organisms were isolated.

"Treatment Regimens for Mycobacterium avium complex, United States, 2009-2013"

Table S4. Attending physician specialties.

Attending Physician Specialty	Number of encounters	Proportion
Allergy & Immunology (AI)	8	0.3
Cardiovascular Diseases (CD)	27	0.9
Cardiovascular Surgery (CDS)	11	0.4
Critical Care Medicine (CCM)	157	5.5
Emergency Medicine (EM)	45	1.6
Endocrinology & Metabolism (END)	1	0.0
Family Practice (FP)	108	3.8
Gastroenterology (GE)	8	0.3
General Practice (GP)	2	0.1
General Surgery (GS)	24	0.8
Geriatric Medicine - Family Practice (FPG)	2	0.1
Geriatrics - Internal Medicine (IMG)*	23	0.8
Hand Surgery (HSS)	2	0.1
Hematology (HEM)	5	0.2
Hematology (HMP)	3	0.1
Hematology/Oncology (HO)	37	1.3
Hospitalist (HOS)	337	11.8
Infectious Diseases (ID)	228	8.0
Intensivist (INT)	58	2.0
Internal Medicine (IM)*	597	20.9
Medical Oncology (ON)	10	0.3
Nephrology (NEP)	16	0.6
Neurological Surgery (NS)	2	0.1
Neurology (N)	2	0.1
Nuclear Medicine (NM)	1	0.0
Nurse Practitioner (ARNP)	26	0.9

"Treatment Regimens for Mycobacterium avium complex, United States, 2009-2013"

Ophthalmology (OPH)	1	0.0
Orthopedic Surgery (ORS)	27	0.9
Other Specialty (OS)	68	2.4
Otolaryngology (OTO)	11	0.4
Pain Management (APM)	1	0.0
Pediatric Cardiology (PDC)	1	0.0
Pediatric Hematology/Oncology (PHO)	6	0.2
Pediatric Pulmonology (PDP)	5	0.2
Pediatrics (PD)	18	0.6
Physical Medicine & Rehabilitation (PM)	4	0.1
Physician Assistant (DRA)	4	0.1
Psychiatry (P)	1	0.0
Pulmonary Critical Care Medicine (PCC)†	121	4.2
Pulmonary Diseases (PUD) †	761	26.6
Radiology - Diagnostic (DR)	9	0.3
Rheumatology (RHU)	1	0.0
Surgical Oncology (SO)	1	0.0
Thoracic Surgery (TS)	61	2.1
Transplant Surgery (TTS)	5	0.2
Trauma Surgery (TRS)	1	0.0
Unspecified (US)	9	0.3
Urology (U)	4	0.1
Vascular Surgery (VS)	2	0.1

\*Internal medicine; †Pulmonology