was 13.5 d (range 5–61). One patient died from causes unrelated to infection; all other patients achieved clinical cure and TOL/TAZ was well tolerated. One patient experienced a slight increase in liver function tests that required dose reduction. 3 children received multiple courses (range: 2–8) for CF exacerbations. TOL/TAZ-resistant PA was detected in 1 patient after 2 months of therapy for OM. TOL/TAZ intermediately susceptible PA was detected in 1 patient after 7 courses of therapy for CF exacerbation, though subsequent cultures grew TOL/TAZ susceptible PA.

Conclusion. TOL/TAZ was effective in treating various CR-PA infections. Therapy was well tolerated with no significant adverse events. Reduced TOL/TAZ susceptibility after prolonged or repeated courses was observed and presents potential opportunities for dose optimization and antimicrobial stewardship.

Pt #	Age, years	Indication	CrCl, mL/minute	Dose, TOL mg/kg (g) per dose every 8 hours	Duration, days	LOS, days	# of courses	30 days readmit (Y/N)
1	14	cIAI/cUTI	139	13.8 (1.5)	19	142	1	N
2	16	OM	155	16.2 (1.5)	61	221	1	N
3	19	CF	95	34.8 (3)	9	14	2	Y
4	17	VAP	223	32.3 (3)	17	65	1	N
5	14	CF	142	30 (1.5)	15	36	7	N
6	11	CF	148	21.3 (1.5)	5	11	3	Y
7	0.25	VAP	198	20 (0.08)	12	98	1	N
8	3	Tracheitis	145	18.8 (0.25)	10	81	1	N

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

2424. Review of Antimicrobial Susceptibility Profile of Different *Nocardia* Species, a Tertiary Center Experience

Ahmed Hamdi, MD[1]; Omar Abu Saleh, MD[2]; Madiha Fida, MD[1]; Alexandra Bryson, PhD[3] and Nancy L. Wengenack, PhD, FIDSA[4]; [1]Infectious Disease, Mayo Clinic, Rochester, Minnesota, [2]Division of Infectious Diseases, Mayo Clinic, Rochester, Minnesota, [3]Mayo Clinic, Rochester, Minnesota, [4]Division of Clinical Microbiology, Mayo Clinic, Rochester, Minnesota

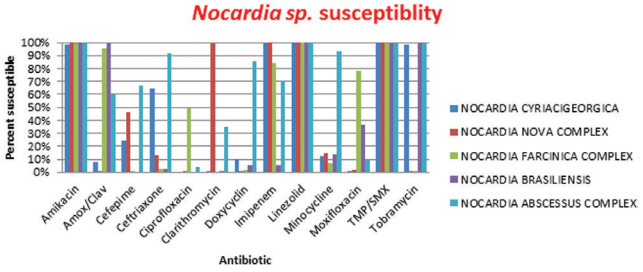
Session: 250. Treatment of AMR Infections
Saturday, October 6, 2018: 12:30 PM

Background. *Nocardia* spp. are ubiquitous Gram-positive weakly acid-fast environmental microorganisms. Although considered an opportunistic infection, approximately 1/3 of the reported infections are in immunocompetent patients. Treatment is usually challenging, prolonged and involves multiple agents depending on the site of infection, clinical syndrome and the immune status of the patient.

Methods. We conducted a retrospective review of clinical samples with positive cultures for *Nocardia* spp. from 2011 to 2017. Specimens were cultured in MGIT broth or on Middlebrook agar biplates and isolated colony growth was then identified using MALDI-TOF MS or 16S rDNA gene sequencing. Antimicrobial susceptibility testing was performed using the TREK Sensititre Rapid Growing Mycobacteria Plate.

Results. We reviewed total of 1,840 samples positive for *Nocardia* spp. Most commonly isolated species included *N. cyriacigeorgica* (16.9%), *N. nova* complex (15.7%), *N. farcinica* complex (14.8%), *N. brasiliensis* (11.5%) and N. abscessus complex (8.2%). Susceptibilities of the more common *Nocardia* species are shown in the graph. Source of the positive cultures was variable with majority (>60%) from pulmonary source (sputum, BAL and lung tissue), blood in 5.7% and brain in 3.6%. Most common *Nocardia* species isolated from brain specimens were *N. farcinica* complex (24/59) followed by N. abscessus complex (17/59). Most common *Nocardia* species isolated from blood were *N. farcinica* complex (38/99) followed by *N. nova* complex (22/99) and *N. cyriacigeorgica* (15/99).

Conclusion. The antimicrobials that continue to show high activity against most *Nocardia* species (>95%) are: amikacin, linezolid and TMP/SMX. *N. pseudobrasiliensis* was noted to have high rates of resistance to TMP/SMX (87%). *N. farcinia, N. brasiliensis* and *N. transvalensis/wallacei* complex were >90% susceptible to amoxicillin/clavulanate. Clarithromycin had >99% activity against *N. nova* complex while both ceftriaxone and doxycycline had> 90% activity against N. *abscessus* complex. It is crucial to identify *Nocardia* species and obtain susceptibilities to help better choose the regimen with the best clinical outcome.



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

2425. Clinical and Microbiologic Outcomes Among Patients With Monomicrobial *Stenotrophomonas maltophilia* Infections

Kenneth Klinker, PharmD[1]; Cara Nys, Doctor of Pharmacy Student[2]; Veena Venugopalan, PharmD[1] and Kartikeya Cherabuddi, MD[3]; [1]UF Health Shands Hospital, University of Florida College of Pharmacy, Gainesville, Florida, [2]University of Florida College of Pharmacy, Gainesville, Florida, [3]University of Florida College of Medicine, Gainesville, Florida

Session: 250. Treatment of AMR Infections
Saturday, October 6, 2018: 12:30 PM

Background. *Stenotrophomonas maltophilia* is an opportunistic pathogen observed in nosocomial infections. Due to biofilm production and intrinsic resistance to numerous antimicrobials, organism eradication is difficult and morbidity and mortality remain high. Unfortunately, study outcomes are often confounded by co-infecting organisms. Therefore, clinical and microbiologic outcome data for monomicrobial infections is warranted.

Methods. Single-center, retrospective chart review of adult patients receiving treatment for *S. maltophilia* between January 2012 and October 2016. Polymicrobial infections and cystic fibrosis patients were excluded. Primary endpoint was clinical cure (CC) at end of therapy. Secondary endpoints included microbiological eradication (ME), 28-day mortality, and resistance selection. An exploratory analysis was performed in patients receiving trimethoprim-sulfamethoxazole (TMP/SMX) or levofloxacin (LVX).

Results. Seventy-six patients were included in the analysis. The population was 60 years of age, predominantly female (62%) with median APACHE score of 16. Infection onset occurred 6 days after admission with 71% located in the ICU. Approximately 2/third of ICU patients were intubated. Primary site of infection was the lung (92%). Treatment strategies included TMP/SMX (45 patients) or LVX (31 patients). Overall, CC, ME, and 28-day mortality was observed in 79%, 82%, and 14%, respectively. Adverse events were uncommon with three patients receiving TMP/SMX requiring alternate therapy. Comparative analysis revealed similar baseline characteristics except higher APACHE scores (18 vs. 14; $P = 0.03$) and frequency of mechanical ventilation in the TMP/SMX group (64% vs. 30%; $P = 0.007$). CC was similar between TMP/SMX and LVX (82% vs. 74%, respectively ($P = 0.4$)). ME was observed in 84% and 77%, respectively ($P = 0.5$). Resistance selection to primary treatment was observed in 29% (2/7) and 86% (6/7), respectively ($P = 0.1$).

Conclusion. Use of TMP/SMX or LVX for *S. maltophilia* infections resulted in high CC rates. No differences in primary or secondary outcomes were observed; however, a trend toward resistance selection with LVX was identified. Larger studies assessing outcomes and resistance selection are warranted to further delineate treatment.

Disclosures. **K. Klinker**, Melinta Therapeutics: Consultant, Speaker honorarium. Nabriva Therapeutics: Scientific Advisor, Consulting fee.

2426. Ceftaroline-Associated Neutropenia: Retrospective Study and Systematic Review of Incidence, Risk Factors, and Outcomes

Eva Sullivan, PharmD[1]; Hollis O'neal, MD, MSc[2]; R. Brigg Turner, PharmD[3] and Nancy Crum-Cianflone, MD, MPH[1]; [1]Scripps Mercy Hospital, San Diego, California, [2]Pulmonary and Critical Care Medicine, Louisiana State University Health Sciences Center, Baton Rouge, Louisiana, [3]School of Pharmacy, Pacific University, Hillsboro, Oregon

Session: 250. Treatment of AMR Infections
Saturday, October 6, 2018: 12:30 PM

Background. Ceftaroline-associated neutropenia has been reported, but clinical data are limited.

Methods. We performed a retrospective study of ceftaroline-associated neutropenia within a large healthcare system and a comprehensive systematic review of the English literature (2010–2017) of published cases containing individualized case data to describe the incidence, risk factors, and outcomes associated with ceftaroline-associated neutropenia. Neutropenia was defined as an absolute neutrophil count (ANC) of <1,500 cells/mm^3. Cases with pre-existing neutropenia or other potential reason for the development neutropenia while on ceftaroline were excluded.

Results. A total of 37 cases of ceftaroline-associated neutropenia have been published. The median patient age was 44 years (range 20–90), 22 (59%) were female, and most were receiving ceftaroline for invasive *Staphylococcus aureus* infections. The median time from ceftaroline initiation to development of neutropenia was at 25 days (range 8–125 days). Agranulocytosis (ANC nadir <100 cells/mm^3) developed in 49% of cases ($n = 18$) and an ANC nadir of 0 in 27% ($n = 10$). The median duration of neutropenia was an average of 4 days (range 1–16 days). Eleven (30%) received granulocyte-colony stimulating factor (G-CSF) treatment and ceftaroline was discontinued in all cases. The outcome was favorable in all cases, and only one case developed a secondary infection during neutropenia. Literature review of studies containing cases and controls (patients receiving drug but did not develop neutropenia) found an incidence of neutropenia of 12% (range 7–18% per individual study) when ceftaroline was utilized for ≥7–14 days, higher than for comparator antibiotics in the literature. Risk factors for the development of neutropenia during ceftaroline varied between studies and remains undefined.

Conclusion. Neutropenia is common when ceftaroline is utilized for ≥14 days and close hematologic monitoring is warranted. Further research is needed to determine the mechanism and risk factors for the high incidence of neutropenia associated with long-term ceftaroline use.

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