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**1599. Clinical Outcomes for Patients Treated with Fluoroquinolones for Bacteremia Caused by Enterobacteriaceae Reclassified as Not Susceptible by Updated CLSI Breakpoints**

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**Session:** P-71. Treatment of Antimicrobial Resistant Infections

**Background.** Antibiotic resistance remains a pressing public health challenge. Antibiotic susceptibility testing is crucial to identify resistance and predict which antibiotics are most likely to be effective. In vitro minimum inhibitory concentrations (MICs) are interpreted using MIC breakpoints set for the United States by The Clinical and Laboratory Standards Institute (CLSI). In 2019 CLSI updated fluoroquinolone (FQ) breakpoints for Enterobacteriaceae. Previously any isolate with an MIC ≤ 1 µg/mL of ciprofloxacin would be considered susceptible but based largely on pharmacokinetic/pharmacodynamic simulations the susceptibility breakpoint was revised to ≤ 0.25 µg/mL. However, the clinical relevance of this decision remains unclear.

**Methods.** All cases of Enterobacteriaceae bacteremia with isolates previously considered susceptible but reclassified as resistant (MIC = 1 µg/mL) in adults treated with FQs between 08/01/2018 and 07/31/2019 were identified. Demographics, clinical characteristics and outcomes were compared with an equal number of randomly selected isolates with an automated MIC reported as ≤ 0.5 µg/mL. Available stored isolates with a reported MIC of ≤ 0.5 µg/mL had manual E-testing performed to identify a more precise MIC.

**Results.** 29 cases with an MIC = 1 µg/mL were compared with 29 controls with a MIC of ≤ 0.5. Only 3 cases and 1 control received FQs as empiric therapy, the remaining patients in each group were transitioned to FQ after a median of 4 days of other antibiotics. No significant difference was found for predetermined outcomes including 30 day mortality, escalation after starting FQ, length of hospital stay, and readmission in 30 days (see Table). No primary outcome was thought to be related to antibiotic failure. E-testing found no isolates with an MIC = 0.5 µg/mL.

Table 1

	MIC = 1 (n = 29)	MIC ≤ 0.5 (n = 29)
30 day mortality	0	1 (3.4%)
Non-sterilization (w/FQ)	0	0
Escalation after starting FQ	1 (3.4%)	0
LOS	6.5 days	6.2 days
Readmission (30d)	6 (21%)	7 (24%)

**Conclusion.** Patients with Enterobacteriaceae bacteremia treated with FQs for isolates reclassified as resistant had similar outcomes to those with lower MICs. While FQs are generally not recommended as first line empiric antibiotics, FQs may still be safe to use as stepdown therapy for isolates with a ciprofloxacin MIC = 1 µg/mL, particularly if the only alternative may be IV antibiotics. A larger study is needed to confirm this.

**Disclosures.** Gregory Weston, MD MSCR, Allergan (Grant/Research Support)

**1600. Closing the gap on moxifloxacin breakpoints for *Stenotrophomonas maltophilia***

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**Session:** P-71. Treatment of Antimicrobial Resistant Infections

**Background.** Moxifloxacin (MOX) has *in vitro* activity against Enterobacteriales and *Stenotrophomonas maltophilia* (SM). Although MOX commonly displays lower minimum inhibitory concentration (MIC)<sub>50/90</sub> values against SM when compared to levofloxacin, there are currently no established MOX breakpoints for treatment of SM. The Clinical and Laboratory Standards Institute (CLSI) has established interpretive categories and MIC breakpoints for levofloxacin (S ≤ 2µg/ml) against SM. The US Food and Drug Administration and European Committee on Antimicrobial Susceptibility Testing provide MOX breakpoints for Enterobacteriales with susceptible MICs represented at ≤ 2 µg/mL and ≤ 0.25 µg/mL, respectively. The purpose of this study was to evaluate MOX MIC distribution against SM strains recovered from clinical specimens.

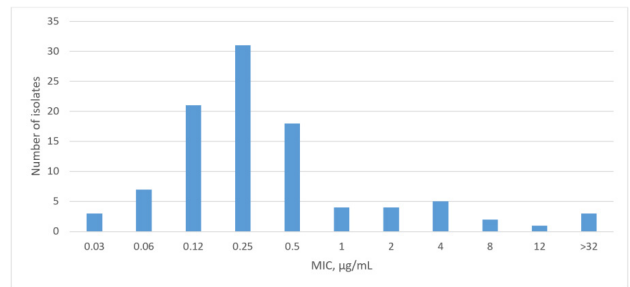
**Methods.** Clinical samples from patients with suspected infection during calendar year 2018 and 2019 were processed in the microbiology lab of Wake Forest Baptist Medical Center. After incubation, SM colonies were identified by MALDI-TOF system. MOX susceptibility testing was performed for these clinical isolates by gradient diffusion strip methodologies. Results were displayed as MIC (µg/mL) without interpretation. MIC<sub>50/90</sub> and susceptibility rates at potential breakpoints were calculated.

**Results.** A total of 211 isolates were tested, 112 from 2018 and 99 from 2019. MOX MIC<sub>50</sub> and MIC<sub>90</sub> for all isolates was 0.25 µg/mL and 2 µg/mL, respectively. The range of MIC distribution was ≤ 0.006 µg/mL to ≥ 64 µg/mL. Percent susceptibilities at incremental MICs, including established MOX breakpoints against Enterobacteriales and established levofloxacin breakpoints against SM, are represented in Table 1. MIC distribution was plotted in Figure 1.

Table 1. Susceptibility rates of *S. maltophilia* to moxifloxacin at theoretical breakpoints

Breakpoint (µg/mL)	Percent Susceptible		
	All (n=211)	2018 (n=112)	2019 (n=99)
≤ 0.25	69%	75%	63%
≤ 1	88%	90%	85%
≤ 2	93%	97%	89%

Figure 1. Moxifloxacin MIC Distribution against All *S. maltophilia* Isolates



**Conclusion:** With no established breakpoint, these data represent one of the largest samples of MOX MICs against SM in the United States. Using the CLSI breakpoint for levofloxacin in SM (MIC of ≤ 2µg/ml) the overall susceptibility rate is 93%. This finding highlights the importance of performing susceptibility testing to this agent by the microbiology laboratory and the critical need for MOX breakpoints in SM.

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**1601. Combination Therapy versus Monotherapy for Carbapenem-resistant Organisms: Is More Really Better?**

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**Session:** P-71. Treatment of Antimicrobial Resistant Infections

**Background.** Carbapenem-resistant organisms (CROs) represent an urgent public health threat and associated with mortality rates up to 60%. Pharmacotherapy for these infections remain challenging and historically included multiple agents. Meropenem/vaborbactam and ceftazidime/avibactam are options to treat CRO infections as monotherapy; however, combination therapy is still frequently utilized. Data