Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. Zidebactam (ZID), a bicyclo-acyl hydrazide, is a β-lactam enhancer with a dual mechanism of action involving selective and high binding affinity to Gram-negative (GN) PBP2 and β-lactamase inhibition. We evaluated the *in vitro* activity of cefepime (FEP) combined with ZID against GN organisms causing bloodstream infections (BSI) in hospitals worldwide.

Methods. A total of 2,094 isolates from 105 medical centers were evaluated. Isolates were collected from Europe (1,050), USA (331), Latin America (LA; 200) and the Asia-Pacific region (AP; 393) in 2015, and China (120) in 2013 by the SENTRY Program. Susceptibility (S) testing was performed by reference broth microdilution method against FEP-ZID (1:1 ratio) and comparators. The collection included 1,809 Enterobacteriaceae (ENT), 170 *P. aeruginosa* (PSA) and 115 *Acinetobacter* spp. (ASP).

Results. FEP-ZID was very active against ENT ($MIC_{50/90}$ of ≤0.03/0.12 µg/mL) with 99.9 and 100.0% of isolates inhibited at ≤4/4 and ≤8/8 µg/mL, respectively, and retained potent activity against carbapenem-resistant (CRE; n = 44; $MIC_{50/90}$, 1/4 µg/mL), multidrug-resistant (MDR), and extensively drug-resistant (XDR) isolates (Table). Amikacin (AMK; $MIC_{50/90}$, 2/4 µg/mL; 97.7% S) was also very active against ENT, and colistin (COL; $MIC_{50/90}$, 0.12/>8 µg/mL) inhibited only 87.3% of isolates at ≤2 µg/mL. FEP-ZID was highly active against PSA, including isolates resistant to other antipseudomonal β-lactams, MDR ($MIC_{50/90}$, 4/8 µg/mL) and XDR ($MIC_{50/90}$, 4/8 µg/mL) isolates. Among the comparators, COL ($MIC_{50/90}$ of ≤0.5/1 µg/mL; 100.0% S) and AMK ($MIC_{50/90}$, 4/16 µg/mL; 91.2% S) were the most active agents against PSA. FEP-ZID ($MIC_{50/90}$, 16/32 µg/mL) was 4-fold more active than FEP against ASP.

Conclusion. FEP-ZID (WCK 5222) exhibited potent *in vitro* activity against a large worldwide collection of GN isolates from BSI, including MDR and XDR isolates. These results support further clinical development of WCK 5222 for treating BSI.

	$MIC_{50/90}$ (% at ≤8 µg/mL)	$MIC_{50/90}$ in µg/mL (%S)			
Organism	FEP-ZID	FEP	CAZ	P/T	MEM
ENT (1,809)	≤0.03/0.12 (100.0)	0.06/32 (82.4)	0.25/32 (81.1)	2/32 (89.0)	0.03/0.06 (97.3)
MDR (216)	0.12/1 (100.0)	32/>64 (17.6)	>32/>32 (19.0)	32/>64 (39.8)	0.06/>32 (77.8)
XDR (37)	1/4 (100.0)	>64/>64 (5.4)	>32/>32 (0.0)	>64/>64 (0.0)	32/>32 (5.4)
PSA (170)	2/4 (98.8)	4/32 (80.6)	2/32 (78.2)	4/64 (79.4)	1/16 (69.4)
CAZ-NS (37)	4/8 (94.6)	16/>64 (18.9)	32/>32 (0.0)	64/>64 (16.2)	16/>32 (18.9)
P/T-NS (35)	4/8 (94.3)	16/>64 (25.7)	32/>32 (11.4)	64/>64 (0.0)	16/>32 (20.0)
MEM-NS (52)	4/8 (96.2)	8/>64 (50.0)	16/>32 (42.3)	32/>64 (46.2)	16/>32 (0.0)
ASP (115)	16/32 (49.6)	64/>64 (34.8)	>32/>32 (33.0)	>64/>64 (33.3)	32/>32 (42.6)
CAZ=ceftazidime, P/T=piperacillin/tazobactam, MEM=meropenem, and NS = non-susceptible.					

Disclosures. **H. S. Sader**, Wockhardt Bio Ag: Research Contractor, Research grant; **M. Castanheira**, Wockhardt Bio Ag: Research Contractor, Research grant; **J. M. Streit**, Wockhardt Bio Ag: Research Contractor, Research grant; **L. R. Duncan**, Wockhardt Bio Ag: Research Contractor, Research grant; **R. K. Flamm**, Wock: Research Contractor, Research support

1227. Ceftazidime-avibactam and Meropenem Double Disk Diffusion Test for Identifying Carbapanem-Resistant Enterobacteriaceae and Distinguishing Between Serine and Metallo-β-Lactamase Producing Organisms

Lynn-Yao Lin, MD; Ian Critchley, PhD and David Melnick, MD; Allergan plc, Irvine, California

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. Early detection of carbapenem-resistant Enterobacteriaceae(CRE) is crucial for selection of effective treatment. While KPC is the most prevalent carbapenemase in the US, phenotypic screening methods, such as the carbapenemase inactivation method (CIM) and CarbaNP, cannot easily distinguish between serine and metallo-β-lactamases (MBL). The aim of this study was to evaluate a simple double disk diffusion (DD) test to confirm carbapenem (meropenem) resistance (MER disk) and that resistance was due to a serine carbapenemase as indicated by susceptibility to ceftazidime-avibactam (CAZ-AVI disk). MBL-producing organisms are likely to be resistant to both MER and CAZ-AVI.

Methods. In total, 83 clinical isolates of Enterobacteriaceae were selected for the validation: 54 *Klebsiella pneumoniae* (KP), 16 *Enterobacter cloacae* (ECL) and 13 *Escherichia coli* (EC). All isolates were screened for specific β-lactamase genes (Checkpoints, Wageningen, Netherlands) and included KPC, OXA, IMP, VIM, NDM as well as strains with KPC and alterations on OmpK35 and OmpK36. Isolates were tested for susceptibility to MER and CAZ-AVI by disk diffusion and broth microdilution (BMD) per CLSI guidelines. **Results** were analyzed to evaluate suitability of the DD test to distinguish between serine and MBL-producing organisms.

Results. Overall correlation between disk and BMD was 97–100% for CAZ-AVI and 94–100% for MER. Among the 50 CRE that were susceptible to CAZ-AVI were strains positive for KPC, or OXA, or in combination with ESBLs. Among the 16 isolates that were resistant to both CAZ-AVI and MER were strains that produced MBLs such as IMP, VIM and NDM and included strains with alteration in OmpK35 and OmpK36. Among the 17 carbapenem-susceptible control strains all were susceptible to both agents and were positive for AmpC or ESBLs.

Conclusion. The CAZ-AVI and MER DD test was successful in confirming CRE phenotype and in distinguishing between serine carbapenemase-producing and MBL-producing organisms. The test will be useful in screening patients in future trials to evaluate the efficacy of CAZ-AVI in global CRE studies where MBL's are more prevalent in other geographic regions. Both disks are commercially available and can be performed in most clinical laboratories.

Disclosures. **L. Y. Lin**, Allergan plc: Employee, Salary; **I. Critchley**, Allergan plc: Employee, Salary; **D. Melnick**, Allergan plc: Employee, Salary

1228. AAI101, a Novel β-Lactamase Inhibitor: Microbiological and Enzymatic Profiling

Krisztina M. Papp-Wallace, PhD[1,2]; Christopher R. Bethel, MS[1]; Melissa D. Barnes, PhD[1,2]; Joseph D. Rutter, BS[1]; Magdalena A. Taracila, MS[1,2]; Saralee Bajaksouzian, BS[3,4]; Michael R. Jacobs, MD/PhD[3,4] and Robert A. Bonomo, MD[1,5]; [1]Louis Stokes Cleveland VAMC, Cleveland, Ohio, [2]Medicine, Case Western Reserve University, Cleveland, Ohio, [3]Pathology, Case Western Reserve University, Cleveland, Ohio, [4]Microbiology, University Hospitals Cleveland Medical Center, Cleveland, Ohio, [5]Medicine, Louis Stokes Cleveland VA Medical Center, Cleveland, Ohio

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. AAI101 is a novel β-lactamase inhibitor (BLI), active against ESBLs and other β-lactamases. AAI101 combined with cefepime (FEP) is in Phase 2 clinical trials. The objective of this study was to determine differences between AAI101 and tazobactam in their inhibition of selected β-lactamases of clinical relevance.

Methods. Isogenic *E. coli* strains expressing single clinically relevant β-lactamases were tested for susceptibility (broth microdilution MIC) to FEP, FEP/AAI101 and piperacillin-tazobactam (P/T). Periplasmic β-lactamase extracts from selected strains then were used to determine IC_{50}s for AAI101 and for tazobactam. β-Lactamases with low IC_{50}s for AAI101 were purified, and steady-state inactivation kinetics determined for AAI101 and for tazobactam.

Results. AAI101 restored activity of FEP against *E. coli* strains producing defined β-lactamases, and FEP/AAI101 was more potent than P/T (Table).

Table. MIC values [mg/L]

β-Lactamase	FEP	FEP/ AAI101	P/T
E. coli DH10B (host)	≤0.06	≤0.06	4
SHV-1	2	0.25	>256
SHV-5	8	≤0.06	256
SHV-7 (I8F, R43S, G238S, E240K)	8	≤0.06	32
SHV-26 (A187T)	0.25	≤0.06	>256
SHV-30 (I8F, R43S, G238S)	2	0.12	32
SHV-102 (G238A)	16	0.12	>256
SHV-106 (I8F, G238S)	4	≤0.06	16
SHV-129 (G238S, E240K, R275L, N276D)	16	≤0.06	128
SHV-161 (R43S)	0.5	≤0.06	>256
TEM-10 (R164S, E240K)	4	≤0.06	4
TEM-26 (E104K, R164S)	0.5	≤0.06	2
TEM-30 (R244S)	≤0.06	≤0.06	256
CTX-M-14	8	0.06	2
CTX-M-15	32	0.06	2
KPC-2	4	0.12	256
KPC-3	4	≤0.06	256
OXA-1	2	0.12	256
OXA-48	0.12	0.12	256
CMY-2	0.25	≤0.06	4

AAI101 had low IC_{50}s (≤0.52 µ*M*) towards periplasmic extracts of class A β-lactamases tested. Linear inhibition of SHV-1 (original spectrum β-lactamase, OSBL) by AAI101 was observed, whereas inhibition of SHV-1 by tazobactam plateaued at lower BLI concentrations. Similar inhibitory patterns were observed for KPC-2, accompanied by a marked increase in potency of AAI101 *vs.* tazobactam (Figure).

Conclusion. Addition of AAI101 enhances cefepime activity *vs.* a selected array of β-lactamases expressed in *E. coli* in an isogenic Background. The inhibitory kinetics of β-lactamases by AAI101 compared with those of tazobactam indicate different mechanisms of β-lactamase inhibition.

Disclosures. **K. M. Papp-Wallace**, Entasis: Grant Investigator, Research grant Allecra: Grant Investigator, Research grant Merck: Grant Investigator, Research grant; Roche: Grant Investigator, Research grant Allergan: Grant Investigator, Research grant **M. R. Jacobs**, Allecra: Grant Investigator, Research grant Roche: Grant Investigator, Research grant Shionogi: Grant Investigator, Research grant; **R. A. Bonomo**, Entasis: Grant Investigator, Research grant Allecra: Grant Investigator, Research grant Wockhardt: Grant Investigator, Research grant Merck: Grant Investigator, Research grant Roche: Grant Investigator, Research grant GSK: Grant Investigator, Research grant Allergan: Grant Investigator, Research grant Shionogi: Grant Investigator, Research grant

1229. *In vitro* Activity of Cefiderocol Against Gram-Negative Clinical Isolates Collected from Urinary Track Source: SIDERO-WT-2014/SIDERO-WT-2015

Masakatsu Tsuji, Ph.D[1]; Meredith Hackel, PhD, MPH[2]; Roger Echols, MD, FIDSA[3]; Yoshinori Yamano, Ph.D[1] and Dan Sahm, PhD[2]; [1]SHIONOGI & CO., LTD., Osaka, Japan, [2]International Health Management Associates, Inc., Schaumburg, Illinois, [3]ID3C, Easton, Connecticut

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. The global rise of carbapenem resistant Gram-negative bacteria such as carbapenem-resistant *Enterobacteriaceae* (CRE) and carbapenem-resistant non-fermenting bacteria is alarming and become threats to patient as only a few drugs remain active (e.g. colistin). Cefiderocol (S-649266) is a novel parenteral siderophore cephalosporin with potent activity against a wide variety of Gram-negative pathogens including carbapenem-resistant strains. This study evaluated the *in vitro* activity of cefiderocol and comparator agents against clinical isolates collected from urinary track source from North America.

Methods. A total of 3,323 *Enterobacteriaceae*, 263 *Acinetobacter* spp, 509 *Pseudomonas aeruginosa*, and 38 *Stenotrophomonas maltophilia* collected from the USA and Canada in 2014–2016 were tested. MIC was determined for cefiderocol, cefepime (FEP), ceftazidime-avibactam (CZA), ceftolozane-tazobactam (C/T), ciprofloxacin (CIP), colistin (CST), and meropenem (MEM) by broth microdilution and interpreted according to CLSI 2016 guidelines. All testing was done at IHMA, Inc. As recommended by CLSI, cefiderocol was tested in iron-depleted cation-adjusted Mueller Hinton broth. Based upon CLSI breakpoints, carbapenem-non-susceptible (CarbNS) strains were defined as follows: MEM: MIC ≥2 μg/mL for *Enterobacteriaceae*, ≥4 μg/mL for non-fermenters. Quality control testing was performed on each day of testing by using *E. coli* ATCC25922 and *P. aeruginosa* ATCC27853.

Results. Cefiderocol exhibited *in vitro* activity against 4,133 strains of Gram-negative bacteria with an overall MIC_{90} of 0.5 μg/mL. At 4 μg/mL cefiderocol inhibited the growth of 99.9% of the all isolates. MIC_{90} of cefiderocol against CarbNS *Enterobacteriaceae* was 4 μg/mL although MIC_{90} of other comparators were >64 or >8 (CST) μg/mL. The cefiderocol MIC_{90}value was 1 μg/mL for CarbNS non-fermeneters.

Conclusion. Cefiderocol demonstrated potent *in vitro* activity against *Enterobacteriaceae*, *A. baumannii*, *P. aeruginosa*, and *S. maltophilia* isolates collected from a UTI source, with greater than 99.9% of isolates having MIC values ≤4 μg/mL. These findings indicate that this agent has high potential for treating cUTI infections caused by these problematic organisms, including isolates resistant to colistin.

Disclosures. **M. Tsuji**, Shionogi & Co.: Employee, Salary; **M. Hackel**, IHMA: Employee, Salary; **R. Echols**, Shionogi & CO., LTD: Consultant, Consulting fee; **Y. Yamano**, Shionogi & Co.: Employee, Salary

1230. In Vitro Activity of Cefiderocol against Multi-Drug Resistant Carbapenemase-Producing Gram-Negative Pathogens

Sandra Boyd, BS[1]; Karen Anderson, BS MT(ASCP)[2]; Valerie Albrecht, MPH[3]; Davina Campbell, MPH[3]; Maria S. Karlsson, PhD[3] and J. Kamile Rasheed, PhD[3]; [1]Divsion of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia, [2]Divsion of Healthcare Quality Promotion, CDC, Atlanta, Georgia, [3]Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. Few options remain for treatment of infections caused by multi-drug resistant (MDR), carbapenemase-producing gram-negative pathogens. Cefiderocol (CFDC; Shionogi & Co. Ltd), is a novel parenteral siderophore cephalosporin that enters the bacterial cell through the iron–siderophore uptake system. Here we report on the *in vitro* activity of CFDC against a set of well-characterized MDR gram-negative isolates collected by the Centers for Disease Control and Prevention.

Methods. Minimum inhibitory concentrations (MIC) values for CFDC in iron-depleted cation-adjusted Mueller Hinton broth were determined using reference broth microdilution. Study isolates (n = 315) included Enterobacteriaceae (59%), *Pseudomonas aeruginosa* (19%), *Acinetobacter baumannii* (17%), *Stenotrophomonas maltophilia* (4%), and *Burkholderia cepacia* complex (1%). Of these, 229 (73%) were carbapenemase-producers including Ambler Class A- (37%), Class B- (29%) and Class D- type (29%) enzymes. The remaining isolates included 51 β-lactam-resistant isolates that were non-carbapenemase-producers, and 35 β-lactam-susceptible isolates. **Results** were interpreted using suggested CFDC breakpoints of Sensitive ≤4 μg/mL and Resistant ≥16 μg/mL.

Results. The majority of the isolates (90.8%) were categorized as CFDC susceptible; the percentage of isolates with a CFDC MIC ≤4 μg/mL among Enterobacteriaceae, *P. aeruginosa*, and *A. baumannii* was 87.5%, 100%, and 89%, respectively. Percentage of isolates with a CFDC MIC ≤4 μg/mL that harbored a carbapenemase of the Class A-, Class B-, and Class D-type was 91.8%, 74.8%, 98.0%, respectively. By applying suggested breakpoints, 12 isolates were categorized as intermediate and 17 as resistant. The resistant isolates included 11 NDM-, 2 OXA-23- and 4 KPC-positive organisms.

Conclusion. Cefiderocol showed potent activity against MDR gram-negative pathogens including Class A, B, and D carbapenemase-producing isolates. Of note, all *P. aeruginosa*, including Class B metallo-β-lactamase producers, were susceptible to CFDC.

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

1231. Activity of Ceftolozane/tazobactam (C/T) and Ceftazidime/avibactam (CZA) against Extended-spectrum B-lactamase (ESBL)-producing *Enterobacteriaceae* and Multidrug-resistant (MDR) *Pseudomonas aeruginosa* Isolates

Elizabeth B. Hirsch, PharmD, BCPS[1,2]; Paola Zucchi, Ph.D[1]; Nicole Cheung, PharmD student[1]; Kyle Krevolin, MT[3]; Christopher Emery, MD, D.(ABMM)[4] and Tiffany Bias, PharmD, BCPS, AAHIVP[3,5]; [1]Northeastern University, Boston, Massachusetts, [2]Beth Israel Deaconess Med. Ctr., Boston, Massachusetts, [3]Hahnemann University Hosp., Philadelphia, Pennsylvania, [4]Indiana University Sch. of Med., Indianapolis, Indiana, [5]Drexel University Coll. of Med., Philadelphia, Pennsylvania

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. Antibiotic resistance among Gram-negative bacterial pathogens is a serious public health threat underscored by a diminishing antibiotic development pipeline. This study evaluated the *in vitro* activity of two new β-lactam/β-lactamase inhibitors, C/T and CZA, against the problematic pathogens ESBL-producing *Enterobacteriaceae* and MDR *P. aeruginosa*.

Methods. A convenience sample of 74 ESBL-producing *Enterobacteriaceae* and 32 MDR *P. aeruginosa* clinical isolates (1 per patient episode), collected between 2012 and 2017 from 2 academic medical centers in Boston and Philadelphia, was used. MDR was defined as non-susceptibility to ≥1 agent in at least 3 antibiotic classes. Phenotypic confirmation of ESBL isolates was conducted via double disk testing. MICs were determined by broth microdilution in at least duplicate, on separate days, as recommended by CLSI. *Klebsiella pneumoniae* ATCC 700603 was used as a quality control strain with each experiment. Interpretive criteria for C/T per CLSI were: ≤2 (susceptible) / 4 (intermediate) / ≥8 (resistant) mg/L (*Enterobacteriaceae*) and ≤4 (susceptible) / 8 (intermediate) / ≥16 (resistant) mg/L (*P. aeruginosa*). Interpretive criteria for CZA per FDA were: ≤8 (susceptible) / ≥16 mg/L (resistant) (all organisms).

Results. Culture sites for the total isolate collection consisted of urine (n = 62), sputum (n = 30), wounds (n = 9), blood (n = 3), and bone (n = 2). ESBL-producing *Enterobacteriaceae* included *Escherichia coli* (n = 60), *Klebsiella* spp. (n = 12), *Enterobacter cloacae* (n = 1), and *Citrobacter freundii* (n = 1). ESBL *Enterobacteriaceae* isolates were 97.3% and 100% susceptible to C/T and CZA, respectively. The corresponding $MIC_{50/90}$ values were 0.5/2 mg/L for C/T and 0.25/0.5 mg/L for CZA. MDR *P. aeruginosa* isolates were 90.6% and 96.9% susceptible to C/T and CZA, respectively. The corresponding $MIC_{50/90}$ values were 1/4 mg/L for C/T and 2/8 mg/L for CZA.

Conclusion. C/T and CZA, two recently approved β-lactam/β-lactamase inhibitor combinations, maintained reliable activity against a collection of 106 MDR isolates from 2 geographically diverse medical centers.

Disclosures. **E. B. Hirsch**, Merck: Grant Investigator, Research grant The Medicines Company: Speaker's Bureau, Speaker honorarium; **T. Bias**, Merck: Grant Investigator, Research grant The Medicines Company: Speaker's Bureau, Speaker honorarium

1232. Antimicrobial Activity of Ceftazidime-Avibactam Tested against Multidrug-Resistant *Enterobacteriaceae* and *Pseudomonas aeruginosa* Isolates from United States (US) Medical Centers (2013–2016)

Helio S. Sader, MD, PhD; Mariana Castanheira, PhD; Dee Shortridge, PhD; Rodrigo E. Mendes, PhD and Robert K. Flamm, PhD; JMI Laboratories, Inc., North Liberty, Iowa

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. The *in vitro* activity of ceftazidime-avibactam (CAZ-AVI) and many comparator agents were tested against various resistant subsets of organisms selected among 36,380 *Enterobacteriaceae* and 7,868 *P. aeruginosa* isolates.

Methods. Isolates were consecutively collected from 94 US hospitals in 2013–2016 and tested for susceptibility by reference broth microdilution methods in a central monitoring laboratory (JMI Laboratories) as part of the International Network for Optimal Resistance Monitoring (INFORM) program. *Enterobacteriaceae* strains with elevated CAZ-AVI MIC values (≥16 μg/mL) were evaluated for the presence of genes encoding extended-spectrum β-lactamases, KPC, NDM, and transferable AmpC enzymes.

Results. CAZ-AVI inhibited >99.9% of all *Enterobacteriaceae* at the susceptible (S) breakpoint of ≤8 μg/mL and was active against multidrug-resistant (MDR; n = 2,953; $MIC_{50/90}$, 0.25/1 μg/mL; 99.2%S, extensively drug-resistant (XDR; n = 448; $MIC_{50/90}$, 0.5/2 μg/mL; 97.8%S), and carbapenem-resistant isolates (CRE; n = 513; $MIC_{50/90}$, 0.5/2 μg/mL; 97.5%S). Only 82.2% of MDR *Enterobacteriaceae* and 64.2% of ceftriaxone-nonsusceptible (NS) *Klebsiella pneumoniae* (n = 1,063) were meropenem-S. Among *Enterobacter cloacae* (n = 3,740; 22.2% ceftazidime-NS), 99.8% of isolates, including 99.3% of ceftazidime-NS isolates, were CAZ-AVI-S. Only 22 of 36,380 *Enterobacteriaceae* (0.06%) isolates were CAZ-AVI-NS, including 8 MBL-producers (0.02%) and 2 KPC-producing strains with porin alteration; the remaining 12 strains showed negative results for all β-lactamases tested. CAZ-AVI showed potent activity against *P. aeruginosa* (n = 7,868; $MIC_{50/90}$, 2/4 μg/mL; 97.1% S), including meropenem-NS (n = 1,471; $MIC_{50/90}$, 4/16 μg/mL; 87.2%S) and MDR (n = 1,562; $MIC_{50/90}$, 4/16 μg/mL; 86.5%S) isolates, and inhibited 71.8% of isolates NS to meropenem, piperacillin-tazobactam, and ceftazidime (n = 628).

Conclusion. CAZ-AVI demonstrated potent activity against a large US collection (n = 44,248) of contemporary gram-negative bacilli, including organisms resistant to most currently available agents, such as CRE and meropenem-NS *P. aeruginosa*.

Disclosures. **H. S. Sader**, Allergan: Research Contractor, Research grant; **M. Castanheira**, Allergan: Research Contractor, Research grant; **D. Shortridge**, Allergan: Research Contractor, Research grant; **R. E. Mendes**, Allergan: Research Contractor, Research grant; **R. K. Flamm**, Allergan: Research Contractor, Research grant

1233. Antimicrobial Activity of Aztreonam-Avibactam and Comparator Agents Tested against Contemporary (2016) Clinical *Enterobacteriaceae* Isolates

Helio S. Sader, MD, PhD; Rodrigo E. Mendes, PhD; Dee Shortridge, PhD; Robert K. Flamm, PhD and Mariana Castanheira, PhD; JMI Laboratories, Inc., North Liberty, Iowa

Session: 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing
Friday, October 6, 2017: 12:30 PM

Background. Avibactam (AVI) is a non-β-lactam β-lactamase (BL) inhibitor that inhibits Ambler class A, C, and some class D enzymes (eg, ESBL, KPC,