**Methods.** From January 2011 to December 2016, inclusive, 12 to 15 sentinel hospitals across Canada submitted clinical isolates from patients attending ERs, medical and surgical wards, hospital clinics, and ICUs (CANDARW). Each center was asked to annually submit clinical isolates (consecutive, one per patient/infection site) from blood (100), respiratory (100), urine (25), and wound (25) infections. Susceptibility testing was performed using broth microdilution described by CLSI. MICs were interpreted using CLSI breakpoints, where available.

**Results.** 349 *S. maltophilia* clinical isolates were obtained as a part of CANDARW (86% from a respiratory source). The susceptibility profile of these isolates is presented below:

| Antimicrobial  | MIC50 (µg/mL) | MIC90 (µg/mL) | Susceptibility | Breakpoint (µg/mL) | % Susceptible |
|---------------|---------------|---------------|----------------|-------------------|--------------|
|rowsing | 7 >16 | 16 | Not defined | No data | 49.2 |
| Ciprofloxacin | 2 | 16 | Not defined | No data | 96.2 |
| Doxycycline | 0.5 | 4 | Not defined | No data | 96.2 |
| Vancomycin | 1 | 4 | Not defined | No data | 96.2 |
| TMP-SMX | 0.5 | 2 | ≤2 | ≤2 | 96.2 |

CZA and C/T demonstrated poor in vitro activity vs. the isolates. The in vitro activity of MFX was approximately 4-fold more potent than ciprofloxacin. TGC was marginally more active in vitro than doxycycline.

**Conclusion.** TMP-SMX continues to demonstrate excellent in-vitro activity against *S. maltophilia* clinical isolates. MFX and TGC may also prove useful in the treatment of infections caused by this pathogen.

**Disclosures.** G. Zhanel, Achaogen: Research relationship, Research support Astellas: Research relationship, Research support Merck Canada: Research relationship, Research support Paratek Pharma: Research relationship, Research support Pharmacia: Research relationship, Research support Sunovion: Research relationship, Research support Tetraphase: Research relationship, Research support Zoetis: Research relationship, Research support. 

1204. The Novel β-Lactamase Inhibitor, ETX-2514, in Combination with Sublactum Effective against Acinetobacter baumannii

Melissa D. Barnes, PhD1; Christopher R. Bethel, MS1; Joseph D. Rutner, BS1; Focco van Dijk, MS1; Kristina M. Papp-Wallace, PhD1; and Robert A. Bonomo, MD1,2; Medicine, Case Western Reserve University, Cleveland, Ohio; 1Louis Stokes Cleveland VA Medical Center, Cleveland, Ohio; 2Medicine, Louis Stokes Cleveland VA Medical Center, Cleveland, Ohio

**Session:** 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing

**Background.** Multidrug resistant (MDR) Acinetobacter sp. were deemed a "serious" health threat by the Centers for Disease Control and Prevention with a daunting 63% of infections being nearly untreatable. Underlying this challenging pathogen is the presence of a chromosomal class C β-lactamase, Acinetobacter-derived cephalosporinase (ADC), as well as the abundant prevalence of class D OXA β-lactamases that hydrolyze carbapenems in conjunction with a lack of potent β-lactamase inhibitors. Based on the ability of ETX2514, a rationally designed novel diazabicyclooctane inhib

**Methods.** Susceptibility testing according to Clinical and Laboratory Standards Institute was performed for sulbactam ±4 mg/L ETX2514 using 72 A. baumannii strains. More than half of the isolates are MDR, have ≥ 8 resistant determinants, contain an ADC β-lactamase, and have OXA-23 and OXA-58-like β-lactamases in the carbapenem resistant isolates. ADC-7 and OXA-58-like β-lactamases were purified and characterized with ETX2514 by steady-state inhibition kinetics and Q-TOF mass spectrometry.

**Results.** The *A. baumannii* strains demonstrated an MIC≤ 32 mg/L for sublactam and 2 mg/L for the sublactam-ETX2514 combination. The addition of ETX2514 lowered the MIC, from 8 to 1 mg/L (Figure 1B). ETX2514 effectively inhibited purified OXA-58 (K_i = 2.5 ± 0.3 x 10^-3 M^-1) and K_i = 0.39 ± 0.01 µM) and ADC-7 (K_i = 1.0 ± 0.1 x 10^-6 M^-1 and K_i = 0.11 ± 0.04 µM). The two β-lactamases displayed similar dissociation constants (K_i = 0 ± 1 nM), but ADC-7 possessed a faster dissociation rate (k_0 = 87 ± 10/s for ADC-7 and 1.6 ± 0.3 x 10^-6 s^-1 for OXA-58).

**Conclusion.** ETX2514 is a new β-lactamase inhibitor that is strikingly effective at restoring susceptibility to highly drug-resistant *A. baumannii* isolates when combined with sublactam via inhibition of the ADC-7 and OXA-58 β-lactamases.

**Disclosures.** F. van Dijk, Entasis: Grant Investigator, Research grant Wockhardt: Grant Investigator, Research grant; K. M. Papp-Wallace, Entasis: Grant Investigator, Research grant Alere: Grant Investigator, Research grant; Merck: Grant Investigator, Research grant Roche: Grant Investigator, Research grant Allergan: Grant Investigator, Research grant; R. A. Bonomo, Entasis: Grant Investigator, Research grant Allegra: Grant Investigator, Research grant Merck: Grant Investigator, Research grant Rockhead: Grant Investigator, Research grant Merck: Grant Investigator, Research grant.

1205. Ceftriaxone Activity When Tested Against Contemporary Bacteria Causing Bloodstream Infections in the US (2016)

Robert K. Flamm, PhD1; Leonard R. Duncan, PhD2; Dee Sh朋友们对, PhD2; Jennifer I. Smart, Ph.D2; Kamal Hamed, MD, MPH2; Rodrigo E. Mendes, PhD2 and Michael A. Sader, MD, MD3; JME Laboratories, Inc. North Liberty, Iowa, 1Basilea Pharmaceutica International Ltd., Basel, Switzerland

**Session:** 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing

**Background.** Ceftriaxone (prodrug of cefepime) is an cephalosporin, approved for adults in multiple European countries for the treatment of hospital-acquired pneumonia (excluding ventilator-associated pneumonia) or community-acquired pneumonia. It is not approved in the US; however, it has achieved qualified infected disease product status and two phase 3 studies supported by BARDA are planned to begin in the US in 2017.

**Methods.** A total of 2,787 Gram-positive (GP) and -negative (GN) isolates from bloodstream infections (BSI) from 30 medical centers in the SENTRY Antimicrobial Surveillance Program were evaluated. Isolates were collected in the US during 2016. Susceptibility (S) testing was performed by reference broth microdilution method against ceftriaxone and comparators. Isolates included 693 *Staphylococcus aureus* (SA), 216 coagulase-negative staphylococci (CoNS), 244 enterococci, 63 Streptococcus pneumoniae spp. and 35 miscellaneous bacteria.

**Results.** Ceftriaxone-resistant S. aureus (MRSA) S rates were lower than for methicillin-susceptible S. aureus (MSSA) for most agents. For levofloxacin (LEV) and erythromycin (ERY), the S rates were LEV, MRSA, 23.2%; MSSA, 86.1%; ERY, MRSA, 9.0%; MSSA, 69.3%. All MSSA and 99.0% of MRSA were S to ceftriaxone, while all MRSA and 68.8% of MSSA were S to ceftriaxone. For CoNS, 98.1% of ceftriaxone MICs were ≤2 mg/L. Ceftriaxone was active against *Enterococcus faecalis* (96.1% ≤2 mg/L) and not against *E. faecium* (18.9% ≥2 mg/L). Against ENT, ceftriaxone (≥80 mg/L) was similar in activity to cefazidime (CAZ, 87.2%) and cepafibin (FEP, 88.9%). The MIC≤ 2 mg/L values for ceftriaxone, FEP, and CAZ against Pseudomonas aeruginosa were identical at 16 mg/L.

**Conclusion.** Ceftriaxone exhibited potent in vitro activity against GP and GN isolates from contemporary BSI in the US. These results support further clinical evaluation of ceftriaxone for the treatment of BSI.

Disclosures. R. K. Flamm, Basilea Pharmaceutica International Ltd.: Research Contractor, Research grant; L. R. Duncan, Basilea Pharmaceutica International Ltd.: Research Contractor, Research grant; D. Shortridge, Basilea Pharmaceutica International Ltd.: Research Contractor, Research grant; J. I. Smart, Basilea Pharmaceutica International Ltd.: Employee, Salary; K. Hamed, Basilea Pharmaceutica International Ltd.: Employee, Salary; M. A. Sader, JME Laboratories, Inc.: Center for Medical Mycology, Case Western Reserve University and University Hospitals Cleveland Medical Center, Cleveland, Ohio

**Session:** 147. Expanded Spectrum – New Antimicrobial Susceptibility Testing

**Background.** Global rates of candidemia caused by *C. parapsilosis* are increasing with differences detected between neonates and adult patients (50% vs. 12%, respectively) and across geographic regions (5% vs. 25% in Iceland and Spain, respectively). SCY-078 is a novel, oral and intravenous, triterpenoid glucan synthase inhibitor under development.