We excluded yeast and dimorphic fungi, hair and nail specimens, and cystic fibrosis patients. Potential cases underwent chart review and were classified by 2 physicians as proven, probable, or non-case according to MSG criteria. Cases that partially met MSG probable criteria and included antifungal treatment were classified as surveillance cases; definitions were mutually exclusive (Fig 1).

Results. Of 120 potential IMI cases, 46 (38%) met an IMI case definition: 8 proven, 9 probable, and 29 surveillance cases (Fig 2). Of cases, 14 (30%) involved transplant or cancer in the previous year; 8 of these were proven or probable cases. IMI presented primarily as sinusitis among proven cases (50%), and pulmonary infections among probable (56%) and surveillance (45%) cases. Most surveillance cases were caused by Aspergillus spp. (72%) and accounted for all 5 cutaneous IMI (Fig 3). Over 80% of cases vs. 10% of non-cases had antifungal treatment.

Conclusion. Of IMI cases identified, nearly two thirds had evidence of infection but did not meet an MSG case definition. MSG captured over half of transplant and cancer-associated cases, but these were uncommon overall, revealing most IMI lack classical risk factors. A more sensitive surveillance case definition can capture a broader spectrum of IMI patients receiving antifungal treatment to help guide clinical and public health interventions.

Disclosures. All Authors: No reported disclosures
915. Global 2018 Surveillance of Eravacycline Against Gram-Positive Pathogens, Including Resistant Isolates

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Session: P-43: HAI Surveillance

Background. Eravacycline (ERV) is a fully-synthetic, fluorocycline antibacterial approved by the FDA and EMA for the treatment of complicated intra-abdominal infections (cIAI) in patients ≥18 years of age. The purpose of this study was to further monitor the in vitro activity of ERV against Gram-positive pathogens, such as Staphylococcus aureus (including methicillin-resistant S. aureus, MRSA), Enterococcus spp (including vancomycin-resistant Enterococcus, VRE) and Streptococcus spp.

Methods. Isolates were collected globally during 2018 from various body sites. Minimum inhibitory concentration (MIC) values were determined by CLSI broth microdilution. Antibiotic susceptibility was determined using the most recent CLSI breakpoints (30th edition), except for ERV and tigecycline (TG) where FDA breakpoints from 2018 and 2005, respectively, were applied.

Results. Summary MIC data for ERV and select comparators are shown in the Table. ERV MIC<sub>50</sub> for Enterococcus spp were 0.06/0.12 μg/mL and were not affected by the presence of vancomycin resistant mechanisms. The MIC<sub>50</sub> of ERV against VRE was 2-fold lower than TG, at a value of 0.12 μg/mL. ERV MIC<sub>50</sub> values for methicillin-resistant S. aureus (MSSA) was 0.12 μg/mL and for MRSA was 0.25 μg/mL. Generally, for all pathogens, ERV MIC<sub>50</sub> values were 2- to 4-fold lower than TG.

Table

| Organisms (N) | MIC<sub>50</sub> (μg/mL) | MIC<sub>90</sub> (μg/mL) | MIC<sub>50</sub> (μg/mL) | MIC<sub>90</sub> (μg/mL) | MIC<sub>50</sub> (μg/mL) | MIC<sub>90</sub> (μg/mL) |
|--------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Enterococcus spp (896) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| E. faecalis (502) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| E. faecium (483) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| VRE (190) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| S. aureus (320) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| MSSA (308) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| MRSA (312) | 0.06/0.12 | 0.25/2.5 | 1/16 | 2/2 |
| Streptococcus anginosus group (48) | 0.015/0.03 | 0.03/0.06 | 0.5/0.5 | 0.5/0.5 |

Note: Units in μg/mL, MIC<sub>50</sub> = minimum inhibitory concentration required to inhibit growth of 50% of isolates, MIC<sub>90</sub> = minimum inhibitory concentration required to inhibit growth of 90% of isolates.

Conclusion. ERV in vitro activity was demonstrated for clinically important Gram-positive pathogens, including resistant isolates. Overall, ERV demonstrated lower MIC<sub>50</sub> values than comparators for all organisms. This 2018 global surveillance highlights ERV’s utility against Gram-positive organisms and further underscores its role in cIAI, where these pathogens play a causative role.

Disclosures. Steven Morgan, PharmD, Tetraphase Pharmaceuticals (Employee) Sara Hwang, PharmD, Tetraphase Pharmaceuticals (Employee) Ekaterina Efimova, PharmD, Tetraphase Pharmaceuticals (Employee) Stephen Hawser, PhD, Tetraphase Pharmaceuticals (Scientific Research Study Investigator) Virgil Lijfrock, PharmD, Tetraphase (Employee)