Table 1.

Total Number Patients		N=217	
Groups by DAP Dose		**Group 1** (≤6mg/kg)	**Group 2** (≥8mg/kg)
Number of patients		192 (88%)	25 (12%)
Mean Age		58	58
Sex:	Male	113 (58%)	15(60)
	Female	79 (41%)	10 (40%)
DAP Toxicity:	CPK Elevation	2	0
	Rash	1	0

Disclosures. **S. S. Richter**, bioMerieux: Grant Investigator, Research grant. BD Diagnostics: Grant Investigator, Research grant. Roche: Grant Investigator, Research grant. Hologic: Grant Investigator, Research grant. Diasorin: Grant Investigator, Research grant. Accelerate: Grant Investigator, Research grant. Biofire: Grant Investigator, Research grant.

2445. Efficacy and Tolerability of Linezolid for Treatment of Infectious Spondylitis

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Background. Infectious spondylitis requires long-term antibiotic treatment for 6 weeks or more, and the use of intravenous antibiotics during this period causes social loss and costs due to hospitalization. Linezolid has high oral bioavailability and is not affected by changes in renal or hepatic function. We investigated the clinical and microbiological effects of linezolid in infectious spondylitis caused by β-lactam resistant Gram-positive bacteria.

Methods. Clinical data about patients who were diagnosed infectious spondylitis and treated with linezolid for more than 4 weeks were collected by electronic medical record retrospectively at 3 tertiary hospitals from 2006 to 2016. Clinical and microbiological success after treatment were determined using medical record or bacterial culture results identified in blood or tissue.

Results. Twenty Korean cases were treated with linezolid more than 4 weeks during the study period. Median duration of linezolid treatment was 40.5 days. Major causative organism was methicillin-resistant *Staphylococcus aureus* (n = 15), followed by methicillin-resistant coagulase-negative *Staphylococcus* (n = 3). In 10 of 20 patients treated with linezolid, antibiotics were changed for side effects or de-escalation of antibiotics. The most common reason for discontinuation of linezolid was thrombocytopenia (n = 6). Fourteen patients were cured, 4 failed and 2 cases of mortality occurred due to other causes than infectious spondylitis. Nine of 13 patients who were assessed as vancomycin treatment failure were cured. Cytopenia was most common drug adverse reaction, and severe cytopenia (grade II or more of NCI criteria) was 11.11% in neutropenia, 12.96% in anemia and 20.37% in thrombocytopenia.

Conclusion. Linezolid can be used as an effective antibiotic agent in patients with infectious spondylitis, especially when treatment failure of the first-line treatment is expected. Linezolid can be administered orally in outpatient clinic, reducing healthcare cost. Since cytopenia (especially thrombocytopenia) are common, a regular follow-up of complete blood cell count is needed.

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

2446. Clinical Spectrum and Outcomes of Colistin-Resistant Carbapenem-Resistant Enterobacteriaceae

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Background. Colistin is considered as one of the last resort of antibiotics against carbapenem-resistant enterobacteriaceae. During the last decade, increased use of colistin or polymyxins due to the increasing prevalence of carbapenem-resistant Gram-negative bacteria has unfortunately led to the emergence of colistin-resistant strains. There are no defined antibiotic regimens for colistin-resistant strains which makes the treatment of these organisms extremely challenging. We therefore report the clinical spectrum and outcomes of infections due to colistin-resistant carbapenem-resistant *Enterobacteriaceae* (Co-CRE) as well as the factors associated with acquisition of co-CRE.

Methods. We conducted a retrospective cross-sectional study from January 2013 till December 2017 on patients admitted to a tertiary care hospital in Karachi, Pakistan. Statistical analysis was done using SPSS 19.

Results. Forty patients with Co-CRE were identified of which 29 (72.5%) were males. Median age was 54.5 years. The most common organism isolated was *Klebsiella* in 22 (55%) followed by *Providencia* in 5 (12.5%) patients. Most common source of infection was the lung in 12 (30%) followed by urine in 11 (27.5%) patients. Similarly, the most common cause of bacteremia was pneumonia followed by intra-abdominal infections (50% and 37.5% of bacteremia cases, respectively). Twenty-eight (70%) patients had prior cultures with multi-drug-resistant organisms and 36 (90%) had used antibiotics in the past. A quarter (10) patients had pan resistant co-CRE strains while of the remaining strains 66% were sensitive to Fosfomycin. All patients received Colistin-based regimen in combination with 2 or 3 of the following: carbapenem, Fosfomycin, Amikacin, co-triamoxazole, and tigecycline. Complete clinical cure was achieved in only 50% of patients whereas microbiological eradication was achieved in 75%. Higher PITT bacteremia score, solid-organ transplant, and acute kidney injury were associated with mortality in patients with co-CRE.

Conclusion. Infections with co-CRE was seen in patients with prior nosocomial exposures and led to poor outcomes, despite combination treatment guided by susceptibilities.

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

2447. Ertapenem and Faropenem for the Treatment of Drug-Resistant Tuberculosis

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Background. Carbapenems are a class of β-lactam antibiotics which include imipenem, meropenem and ertapenem. More recently, a new oral carbapenem (faropenem) have been marketed in a limited number of countries (in particular, India and Japan). Emerging evidence demonstrates that they target the mycobacterial cell wall, providing an alternative treatment for multidrug-resistant (MDR) and extensively drug-resistant (XDR) tuberculosis (TB), where options are limited. Compared with imipenem and meropenem (both only available as intravenous formulations), ertapenem (once daily administration) and faropenem (oral) are much more attractive alternatives for ambulatory or homecare treatment. However, there is a paucity of data on their efficacy against *M. tuberculosis*. The aim of this project was to test the *in vitro* activity of ertapenem and faropenem (with and without the addition of amoxicillin/clavulanate) against different clinical isolates of *M. tuberculosis* and the reference strain H37RV, to better understand their potential role as additional antibiotics in the management of drug-resistant TB.

Methods. Twenty isolates in total (19 clinical isolates, including MDR and XDR strains, plus H37Rv) were tested against different concentrations of ertapenem and faropenem (with and without the addition of amoxicillin/clavulanate). Susceptibility testing was performed using two different methods (BACTEC960 and broth microdilution). A degradation assay was also performed to evaluate the stability of ertapenem.

Results. Eighteen out of 20 samples were resistant to the highest concentration of ertapenem tested (including the addition of amoxicillin/clavulanate). Half of the samples tested showed some degree of susceptibility to faropenem and the addition of amoxicillin/clavulanate further reduced the MIC level in seven isolates.

Conclusion. The results from this project have highlighted a significant level of *in vitro* resistance to ertapenem, whilst the clinical isolates have shown different degrees of susceptibility to faropenem. Although promising agents (in particular, faropenem), carbapenems will remain a third line choice to be used only in cases of XDR TB. There is currently no evidence to prefer the use of ertapenem despite its once daily administration.

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

2448. *In vitro* Activity of Ceftazidime–Avibactam Against *Enterobacteriaceae* Causing Intra-abdominal, Urinary Tract and Lower Respiratory Tract Infections Collected in Latin America as Part of the INFORM Global Surveillance Program, 2012–2016

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Background. The dissemination of multi-drug-resistant *Enterobacteriaceae* (MDR *Eba*) threatens the treatment of Gram-negative infections. Ceftazidime–avibactam (CAZ-AVI) is a novel antimicrobial with activity against *Eba* producing Class A, C and some Class D β-lactamases. This study evaluates the *in vitro* activity of CAZ-AVI against *Eba* isolates from urinary tract infections (UTI), intra-abdominal infections (IAI) and lower respiratory tract infections (LRTI) gathered in Latin America (LA) from 2012 to 2016.