Table 2. Clinical outcomes of patients infected with *Klebsiella pneumoniae*

Clinical outcome	non-CRKP (n=58)	CRKP (n=10)	CoRKP (n=28)	P-value non-CRKP vs CRKP	P-value non-CRKP vs CoRKP	P-value CRKP vs CoRKP
14-day mortality	7 (12.07)	4 (40)	17 (60.71)	0.049	< 0.05	0.293
In hospital mortality	12 (20.69)	7 (70)	23 (82.14)	0.007	< 0.05	0.411
Microbiological failure	2/33 (6.06)	2/6 (33.33)	9/17 (52.94)	0.104	< 0.05	0.64

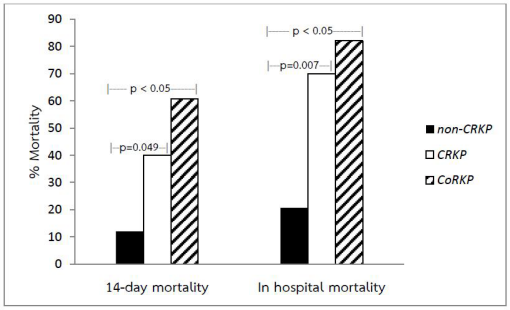

Figure 1. The 14-day and in hospital mortality of patients infected with *K. pneumoniae* bacteremia (n=96)

Table 3. The 14-day survival rate of patients infected colistin-resistant *K. pneumoniae* bactere (n=28)

Treatment regimen	14-day survival rate	P-value
colistin-including therapy	1/11 (9.09)	< 0.05
colistin-excluding therapy	10/17 (58.82)	
Fluoroquinolone-based	1/1 (100.00)	
cephalosporin-based	-	
β-lactam/β-lactamse inhibitor-based	-	
carbapenem-based	-	
aminoglycoside-based	9/16 (56.25)	
AG + FOF	3/8 (37.50)	
AG + TGC	1/3 (33.33)	
AG + FOF + TGC	3/3 (100.00)	
AG + other *	2/2 (100.00)	

Abbreviation: AG, aminoglycoside; FOF, fosfomycin; TGC, tigecycline Note: * sulbactam + ciprofloxacin, or imipenem

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

2285. Emergence of perioperative antibiotic non-susceptible pathogens causing prosthetic joint infections in monomicrobial Gram-negative and polymicrobial infections.

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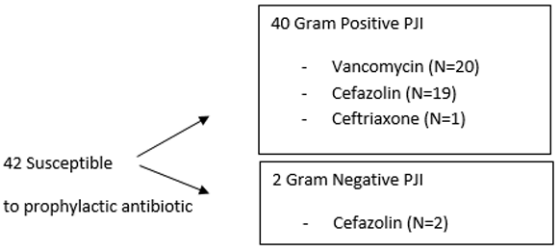
Background. Current recommendations by Infectious diseases society of America (IDSA) endorse cefazolin for perioperative use. What is less known currently is the emergence of resistance in Gram-positive (GP) and Gram-negative (GN) prosthetic joint infections (PJIs) in the setting of perioperative use of antibiotics.

Methods. A retrospective multi-centric cohort was studied at three hospitals from January 2012 to December 2018. Patients with PJIs were identified using ICD codes. We reviewed electronic medical records and identified PJIs which followed primary arthroplasties. We included cases where perioperative antibiotics records were available.

Results. 66 infected PJIs with available preoperative records were included. 40 (61%) patients were females, and 42 (64%) were caucasians. Indications for undergoing arthroplasty were degenerative joint disease (DJD) in 52 (78%), trauma in 13 (20%) and avascular necrosis in 1 (1.5%). Sites for arthroplasty were knee in 33 (50%), hip 28 (42.5%), shoulder 4 (6%), and ankle in 1(1.5%). 43 (65%) had GP monomicrobial, 6 (9%) had GN monomicrobial and 17 (26%) had polymicrobial infections. 40 (60.5%) patients received cefazolin, 25 (38%) received vancomycin and 1 (1.5%) received ceftriaxone as perioperative prophylaxis. 7 (11%) PJIs among monomicrobial infections and 6 (35%) among polymicrobial infections had non-susceptible (NS) organisms (Figure 1 and 2). 8 (47%) polymicrobial PJIs had a mixed susceptibility profile with drug susceptible and resistant organisms.

Conclusion. In general, when monomicrobial GP pathogens are causative for PJI, current use of cefazolin as perioperative drug of choice is sound and we agree with the current perioperative recommendations. It should be recognized that in situations where the PJI is due to GN or is polymicrobial, resistance to perioperative antibiotics may be present at a greater rate. From this study we conclude that in cases where the pathogen is known to be GN or polymicrobial from a diagnostic aspiration, then a broader antibiotic selection may be of benefit perioperatively.

Figure 1. Monomicrobial Infections with perioperative antibiotic regimen indicated.



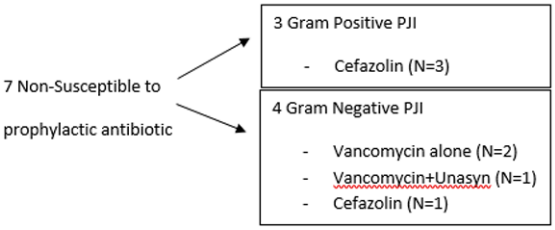
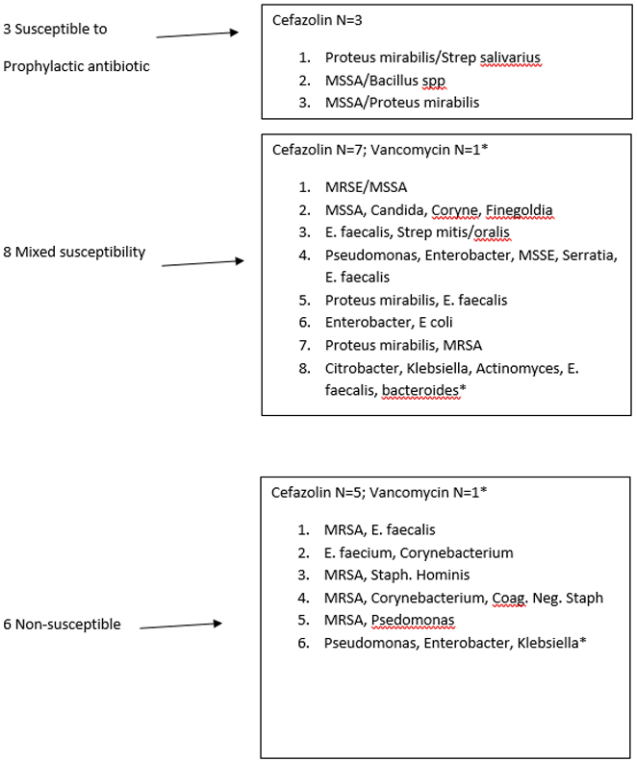


Figure 2. Polymicrobial infections with perioperative antibiotic regimen indicated.



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

2286. Evaluating the Impact of Ceftolozane/Tazobactam on Clinical Outcomes in Patients with Multi-Drug-resistant *Pseudomonas aeruginosa* Pneumonia

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Background. Ceftolozane/tazobactam is a novel cephalosporin and β-lactamase inhibitor antibiotic that has shown to have potent activity against *Pseudomonas aeruginosa* including strains exhibiting multi-drug resistance (MDR). The purpose of this study was to evaluate ceftolozane/tazobactam efficacy in MDR *P. aeruginosa* pneumonia compared with historical standard of care.

Methods. This was a retrospective cohort study of patients hospitalized across AdventHealth Central Florida campuses with MDR *P. aeruginosa* pneumonia from January 1, 2017 through December 31, 2018. This study included patients ≥ 18 years of age with a diagnosis of pneumonia and a positive respiratory culture with MDR *P. aeruginosa*. The primary outcome of this study was the rate of clinical cure by day 14 of definitive therapy. Secondary outcomes included 30-day readmission rate, average hospital length of stay (LOS), cost of admission, average ICU LOS after initiation of definitive antibiotic, and total days of antibiotic exposure for pneumonia. Data were analyzed with statistical computer software utilizing independent samples t-test and chi square tests of independence as appropriate.

Results. A total of 115 patients were included in the final analysis, 62 patients treated with ceftolozane/tazobactam and 53 patients treated with historical standard of care. Rate of clinical cure was similar between patients treated with ceftolozane/tazobactam, 72.6% ($n = 45$), and those treated with historical standard of care, 67.9% ($n = 36$), $\{X^2 (1) = 0.297, p = 0.683\}$. Other outcomes assessed were also similar between groups except for average hospital length of stay (42.7 days vs. 30.3 days $t(113) = 2.054$, $p = 0.042$), and cost of admission ($78,550 vs. $47,681, $t(113) = 2.458$, $p = 0.016$), which were significantly greater in the ceftolozane/tazobactam treatment group.

Conclusion. In patients diagnosed with MDR *P. aeruginosa* pneumonia, clinical cure rates were not significantly different between those treated with ceftolozane/tazobactam compared with historical standard of care. Significantly greater hospital length of stay and cost of admission was associated with use of ceftolozane/tazobactam, although many patient factors may have influenced these results.

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

2287. Real-world Use of Tedizolid Phosphate: A Case Series of Long-Term Tolerability

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Background. Tedizolid is an oxazolidinone antibiotic with broad-spectrum Gram-positive activity approved for the treatment of skin and skin structure infections with a 6-day course. Oxazolidinone antibiotics represent appealing options for prolonged antimicrobial therapy due to their available oral formulations with excellent bioavailability and potent *in vitro* activity against various multidrug-resistant Gram-positive organisms, *Mycobacterium* spp., and *Nocardia* spp. Although tedizolid and linezolid offer a similar clinical spectrum based on antimicrobial activity alone, long-term use of linezolid is often limited by serious adverse effects. Preliminary assessments have suggested better tolerability with tedizolid; however, these are limited by shorter exposure duration. The objective of this study was to evaluate the long-term safety and tolerability of tedizolid.

Methods. Retrospective cohort of adult patients receiving tedizolid for ≥ 28 days, with baseline complete blood cell (CBC) indices available, and CBC indices drawn ≥ 14 days into tedizolid course. The primary objective was to evaluate the long-term tolerability of tedizolid.

Results. 13 patients met inclusion criteria: median age 61 years (IQR, 51–64 years), 69% male, 85% Caucasian. The majority of patients utilized tedizolid for suppression (85%), and the median duration of tedizolid was 113 days (IQR, 71–204 days). There were no differences in CBC indices when comparing baseline to last laboratory draw throughout tedizolid exposure: platelets (baseline: 203 x 10^9/L (IQR, 186–283 x 10^9/L) vs. last: 196 x 10^9/L (IQR, 161–303 x 10^9/L; $p = 0.65$), hemoglobin (baseline: 9.8 g/dL (IQR, 8.8–11.1 g/dL) vs. last: 11.7 g/dL (IQR, 11.0–13.1 g/dL; $p = 0.10$), and white blood cells (baseline: 6.2 x 10^9/L (IQR, 5.6–7.6 x 10^9/L) vs. last: 6.5 x 10^9/L (IQR, 6.3–7.3 x 10^9/L; $p = 0.45$). The final laboratory draws were obtained a median of 78 days (IQR, 44–119 days) into therapy. No patients experienced peripheral neuropathy, optic neuritis/visual changes, or serotonin syndrome during treatment/suppression with tedizolid during the period evaluated.

Conclusion. Long-term therapy with tedizolid appears to be well-tolerated. Treatment and suppression with tedizolid seems to be a safe alternative to linezolid.

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

2288. Role of B Lactam-B Lactamase Inhibitors in Indian Tertiary Care Hospitals: Results from a Nationwide Survey

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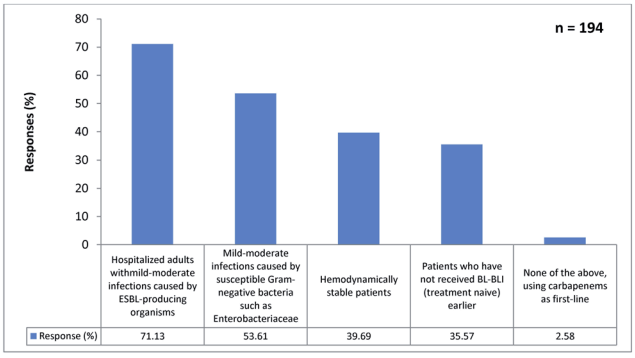
Background. Broad-spectrum antibiotics, particularly third-generation cephalosporins, are routinely used in the treatment of nosocomial infections. The emergence of Extended Spectrum B-Lactamase (ESBL)-producing pathogens in Indian tertiary care hospitals warrants the need to reassess β-lactam–β-lactamase inhibitors (BL-BLIs) as better alternative treatments.

Methods. An online survey was conducted by Pfizer India to understand the usage of BL-BLIs across Indian hospitals. The survey was administered to 334 clinicians across multiple specialties out of which 195 were from tertiary care hospitals. Results were analyzed using MS-Excel statistical tools.

Results. One-hundred ninety-five (195) clinicians from tertiary care hospitals completed the survey. About 78% of HCPs revealed the resistance to third-generation cephalosporins (e.g., ceftriaxone, ceftazidime) to be between 10–60% in their clinical settings. BL-BLIs were mostly preferred for treatment based on hospital antibiograms (64%) and used as first-line options for hospitalized adults with mild-moderate severe infections caused by ESBL-producing organisms (71%) and in mild-moderate infections caused by susceptible Gram-negative bacteria such as Enterobacteriaceae (54%). The average duration of IV BL-BLI treatment was 5–7 days (66%). The HCPs considerations while choosing BL-BLIs were mainly based on anti-microbial spectrum (81%), and rationality of BL/BLI combination (63%) and clinical experience with the BL-BLI molecule (63%). Cefoperazone-Sulbactam (CS) and Piperacillin–tazobactam (PT) were most commonly prescribed BL-BLIs and HCPs preferred the latter for pneumonia (67%), skin and soft-tissue infections (57%), bloodstream infections (67%) and cancer-associated febrile neutropenia (64%); while they preferred former for urinary tract infections (64%). CS and PT were preferred for intra-abdominal infections (57% and 64% respectively) and post-surgical infections (56% and 53% respectively).

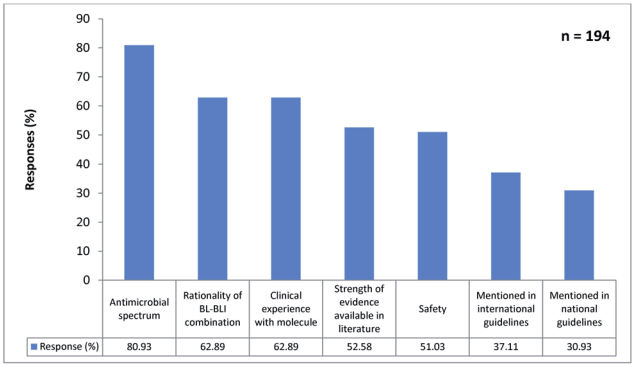
Conclusion. CS and PT were the most commonly prescribed BL-BLIs probably due to their wide antimicrobial spectrum, rationality of the BL/BLI combination and the clinical experience with the molecules. BL-BLIs are still a mainstay of treatment for infections due to ESBL producing organisms.

Graph 1: Clinical Profiles for which BL-BLIs are Considered First-line Drugs for Infections



Abbreviations: BL-BLI, beta-lactam beta-lactamase inhibitors; ESBL, extended-spectrum beta-lactamase

Graph 2: Important Considerations while Choosing a BL-BLI



Abbreviations: BL-BLI, beta-lactam beta-lactamase inhibitor

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

2289. Bacterial Causes of Acute Bacterial Skin and Skin Structure Infections (ABSSSI) in Patients with Intravenous Drug Use (IVDU): Phase 3 REVIVE Studies

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