

Table 1. Demographics and Clinical Characteristics

	Patients with CRPA (N=13)
Demographics	
Age (mean, range), years	62, 31-78
Female (n, %)	6 (46)
Risk factors	
Long-term care facility (n, %)	2 (15)
Hospitalization in prior 90 days (n, %)	6 (46)
IV antibiotics in prior 90 days (n, %)	5 (38)
ICU level care and intubation (n, %)	9 (69)
Renal failure (n, %)	10 (77)
Immunocompromised* (n, %)	3 (23)
Bone Marrow or Solid Organ Transplant	0 (0)
SARS-CoV-2 PCR positive on admission (n, %)	5 (38)
Infections from respiratory source (n, %)	9 (69)
Outcomes	
Length of stay post positive culture (median, IQ range), days	18 (7, 27)
Antibiotic days of therapy for CRPA (median, IQ range)	11 (9, 17)
Hospital Mortality (n, %)	8 (62)

* HIV/AIDS or Biologic/Steroids

attributed to multidrug-resistant *Pseudomonas aeruginosa*. A recent study of 128 patients with nosocomial pneumonia due to *P. aeruginosa* showed the noninferiority of ceftolozane-tazobactam compared to meropenem. However, the resistance of ceftolozane-tazobactam due to AmpC mutations has been described. Compared with 2019, we observed an increase from 2 to 13 cases of ceftolozane-tazobactam-resistant *P. aeruginosa* (CRPA) during the COVID-19 pandemic at our institution in the Bronx, New York. **Methods:** A report of patients with CRPA between March and August 2020 was obtained. Data collected included demographics, hospitalization/IV antibiotic use in prior 90 days, SARS-CoV-2 PCR result, ICU admission, length of stay, antibiotic days of therapy, mortality, etc. **Results:** In total, 13 patients with CRPA infection were reviewed (Table 1). Among them, 2 patients were on the same inpatient medical-surgical unit but separated by 5 months. Also, 11 patients were from different medical-surgical units or ICUs. In addition, 5 patients (38%) were SARS-CoV-2 PCR positive. None of these COVID-19 patients were cohorted on the same unit, making horizontal spread of CRPA or COVID-19 unlikely. Finally, 8 of these patients died while hospitalized (4 were COVID-19 patients). **Conclusions:** We found a high incidence of mortality in patients with CRPA infection. Many patients had prolonged hospital stay and required ICU admission. Few patients were from long-term care facilities. Given the associated morbidity and mortality, increased surveillance and intensified antimicrobial stewardship efforts are needed to mitigate the impact of CRPA during the COVID-19 pandemic.

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Subject Category: MDR GNR

Treatment of Extensively Drug-Resistant (XDR) *Acinetobacter* in US Veterans' Affairs (VA) Medical Centers

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Background: Infections caused by *Acinetobacter* spp are often healthcare acquired and associated with high mortality. Extensively drug-resistant

(XDR) *Acinetobacter* are nonsusceptible to at least 1 agent in all but 2 or fewer antibiotic classes. Few of the new antibiotics targeting multi-drug-resistant gram-negative bacteria are effective against XDR *Acinetobacter*. Recent national guidelines for treatment of resistant gram-negative infections do not include *Acinetobacter*, leaving a knowledge gap in best practices. **Methods:** This retrospective cohort study included microbiology, clinical, and pharmacy data from all patients hospitalized between 2012 and 2018 at any Veterans' Affairs medical center who had cultures that grew XDR *Acinetobacter* spp. Bivariate unadjusted analyses compared clinical outcomes by monotherapy versus combination therapy. Using mixed-effects ordinal logistic regression, propensity score-adjusted models accounting for severity of illness and other variables associated with treatment were fit to compare outcomes. **Results:** Of 11,546 patients with 15,364 cultures that grew *Acinetobacter* spp, 408 patients (3.5%) had 666 cultures (4.3%) with XDR *Acinetobacter*. Moreover, 276 of these patients (67.6%) had gram-negative targeted antibiotic treatment within -2 to +5 days from the culture. Furthermore, 118 patients (42.8%) received monotherapy, most commonly piperacillin-tazobactam (n = 54, 45.7%) or an anti-*Pseudomonas* cephalosporin (n = 21, 17.8%). Also, 158 (57.2%) patients received combination therapy, most commonly a carbapenem (n = 93, 58.9%) and/or polymyxin (n = 68, 43.0%). Moreover, 41 patients (25.9%) received both a carbapenem and polymyxin. In both unadjusted and adjusted analyses, there were no significant differences in the odds of 30-day mortality (aOR, 1.43; 95% CI, 0.86-2.38) or 1-year mortality (aOR, 1.04; 95% CI, 0.68-1.60) between combination therapy and monotherapy groups. Among 264 patients (96%) whose cultures occurred during an inpatient or long-term care admission, unadjusted analyses showed increased odds of in-hospital mortality (OR, 1.89; 95% CI, 1.08-3.29) and longer postculture length of stay in the combination therapy group: median, 23 days (IQR, 11-57) versus 14 days (IQR, 7-32) (P = .02). However, with propensity score adjustment, these associations were no longer significant. Furthermore, there was no significant difference in odds of 90-day readmission between groups in either unadjusted or adjusted analyses (aOR, 1.20; 95% CI, 0.74-1.95). **Conclusions:** In this large national cohort of patients with XDR *Acinetobacter* cultures, more patients received combination therapy than monotherapy, and carbapenems and polymyxins were the most-used classes. However, there were no significant differences in outcomes between patients receiving combination therapy and monotherapy, suggesting lack of clinical benefit to the common practice of treating XDR *Acinetobacter* infections with multiple antibiotics. Further research is needed to determine optimal treatment strategies for this pathogen.

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Extended-Spectrum B-Lactamases in *E. coli* Isolates From Hospitalized Patients: A Single-Center Snapshot From Croatia

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Background: A significant increasing trend in the prevalence of *Escherichia coli* strains that produce extended-spectrum β -lactamases (ESBLs) has been observed in recent years, both in the community setting and in the healthcare arena. We aimed to provide a snapshot of the current situation with *E. coli* β -lactamase-producing strains in a single general hospital by appraising their β -lactamase content and plasmid types, which will inform further clinical and research efforts. **Methods:** Our study population consisted of all hospitalized patients in different clinical units of the General Hospital in Slavonski Brod during a 1-year period: internal medicine, infectious disease, surgery, urology and ICU. Phenotypic tests for the detection of ESBLs and plasmid-mediated AmpC β -lactamases were initially pursued, followed by the molecular detection (polymerase chain

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