2418. Management of Carbapenem-Resistant Enterobacteriaceae Infections in a Long-term Acute Care Hospital
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Background. Long-term acute care hospital (LTACH) systematically selects a unique patient population with multiple risk factors for Carbapenem-resistant Enterobacteriaceae (CRE) colonization and infection leading to an increase CRE prevalence at these facilities. This selection bias creates a fertile ground to harness scientific evidence at these facilities. This selection bias creates a fertile ground to harness scientific evidence. This selection bias creates a fertile ground to harness scientific evidence.
Methods. Baseline data, antimicrobial treatment, and outcomes were collected in patients with bacteremia, healthcare-associated pneumonia (HCAP), and complicated urinary tract infection (cUTI/acute pyelonephritis (AP) due to CRE diagnosed and treated in one LTACH.
Results. Among 893 urinary Enterobacteriaceae isolates, 28 were ESBL(+), of which 23 were included: 13 girls, 0–5 year olds; 4 girls, 26 year olds; and 6 boys, 0–5 year olds. Prior hospitalization (55 vs. 78% for cases vs. controls, respectively), prior receipt of systemic antibiotics (55 vs. 38%), index hospitalization (39 vs. 20%), mean length of stay (5.8 vs. 3.6 days), and medical comorbidities (44 vs. 56%) did not differ significantly between groups. As well, several biosocial risk factors were similar in both groups, including: race, ethnicity, non-English-speaker, access to public benefits, international travel, non-US-born, domestic violence/child abuse/neglect, and housing insecurity. Of cases and controls receiving any therapy, 16% and 96%, respectively, got empiric antibiotics to which the isolate was susceptible (P = 0.001).
Conclusion. Our data suggest that clinical improvement occurs with (and potentially ineffective) empiric regimens, regardless of ESBL phenotype. The finding of more recommending exposure warrants additional study.
Disclosures. All Authors: No reported disclosures.

2419. Standard vs. Alternative Therapy for Stenotrophomonas maltophilia Infections: Focus on Trimethoprim–Sulfamethoxazole, Minocycline, and Moxifloxacin Monotherapy
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Background. Stenotrophomonas maltophilia is a Gram-negative bacilli associated with nosocomial infections. TMP-SMX is often considered the first-line agent; however, use may be limited due to adverse effects or resistance. Both minocycline and moxifloxacin have historically been used based on in vitro data; however, there are limited studies assessing clinical outcomes. The purpose of this study was to compare the efficacy of TMP-SMX, minocycline, or moxifloxacin monotherapy for treatment of S. maltophilia infections.
Methods. This was a single-center, retrospective chart review from January 2006 to September 2017. Subjects were selected by cross-referencing pharmacy billing and culture data. Patients ≥18 years of age were included if they had isolated S. maltophilia in at least one culture and were treated for at least 5 days. Patients were excluded due to pregnancy, incarceration, cystic fibrosis, receipt of combination therapy, or having prior case of treated S. maltophilia infection. Complete success was defined as meeting all three of the following: (1) resolution of signs/symptoms, (2) no repeat isolation 30 days after end of therapy, and (3) no switch or addition of alternative agents that cover S. maltophilia. Partial success was defined as meeting at least two out of the three criteria.
Results. A total of 109 patients were included in this study. No statistically significant difference in complete clinical success achievement was identified: TMP-SMX 14/32 (43.8%) vs. minocycline 17/37 (45.9%) vs. moxifloxin 16/40 (40%), P = 0.8674. There was also no significant difference when including those that achieved partial clinical success: TMP-SMX 29/32 (90.6%) vs. minocycline 35/37 (94.6%) vs. moxifloxin 34/40 (85%), P = 0.3724. Moxifloxin use was associated with a significantly longer median LOS of 41.5 days compared with 24.5 days for TMP-SMX and 10 days for minocycline (P = 0.0340). Resistance development within 30 days post-treatment only occurred in 4 patients who received moxifloxin (P = 0.0258). There was no difference in mortality nor treatment duration.
Conclusion. Clinical success achievement was found to be similar in patients treated with TMP-SMX, minocycline, or moxifloxacin monotherapy for S. maltophilia infections.
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2420. A Real-World Perspective on the Efficacy of Fosfomycin for Treatment of Multidrug-Resistant Pathogens Causing Urinary Tract Infections
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Background. Urinary tract infections (UTI) are the most common infection associated with multidrug-resistant (MDR) pathogens. With limited treatment options, there has been an increasing interest in the efficacy of fosfomycin (FOS); however, real-world clinical data are limited. Our objective was to assess the outcomes of hospitalized patients with MDR UTIs treated with FOS.
Methods. Retrospective review of patients with carbapenem-resistant (CRE) or extended spectrum β-lactamase producing (ESBL) Enterobacteriaceae, or vancomycin-resistant Enterococcus (VRE) UTIs who received ≥1 dose of FOS. UTI was defined as a urinary culture with ≥1000 CFU/mL among patients with dysuria, increased urinary frequency, suprapubic or flank pain or tenderness, fevers, or altered mental status with or without an alternative etiology. We defined cure as resolution of symptoms within 7 days without recurrence during 30 days. Microbiological failure was defined as a positive urine culture within 14 days.
Results. 49 patients with MDR UTIs (17 ESBL, 17 VRE, 15 CRE) were included. Median age was 69 (range: 20–95), 18% were male, 14% were immunosuppressed and the median Charlson score was 4 (0–12). 33% had indwelling catheters and 10% of patients had neurogenic bladder. Increased frequency (29%) and fever (27%) were the most common symptoms. 51% of cases were healthcare associated and 64% met the CDC/NHSN definition of UTI. UTIs were complicated by pyelonephritis in 2 patients, but none had concomitant bacteremia. FOS was administered as empiric or definitive treatment in 39% and 61%, respectively. Only 12% of patients received ≥1 dose. Mortality occurred in 88% of patients, and did not vary by infecting pathogen (Figure 1, Table 2), or the number of FOS doses received. Patients with relapsing symptoms were infected by ESBL (n = 3), CRE (n = 1), and VRE (n = 3); all but one received 1 dose of FOS. Microbiologic failures occurred in 18% due to ESBL (n = 1), CRE (n = 4), and VRE (n = 4). 4% of patients died in hospital, but only 1 death was related to UTI. Overall, FOS was well-tolerated with vomiting recorded in one patient.
Conclusion. Across a range of MDR pathogens causing UTIs, FOS was well-tolerated and effective for hospitalized patients. FOS represents an attractive oral option to preserve alternative agents for systemic infections. Future studies are needed to evaluate the benefit of repeated dosing.