### Table 1. Multivariate analysis of variables associated with 30-day mortality

| Exposure variable | OR (95% CI) | p-value |
|-------------------|-------------|---------|
| Age               |             |         |
| 1 (1.1 (0.3–3.1)  | 0.001       |
| 2 (1.0 (0.6–2.1)  | 0.525       |
| Total CCI         |             |         |
| 1 (1.1 (0.89–1.33)| 0.412       |

Area under the receiver operating characteristic curve = 0.8196

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

### 173. Successful Treatment of Carbapenem-Resistant Klebsiella pneumoniae (CR-Kp) Aortic Valve Endocarditis with Ceftazidime–Avibactam

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**Session:** 57. Bacteremia, CLABSI, and Endovascular Infections

**Thursday, October 3, 2019:** 12:15 PM

**Background.** Emergence of carbapenem-resistant Klebsiella pneumoniae (CR-Kp) presents significant clinical challenges with our limited antibiotic armamentarium. Infective endocarditis caused by CR-Kp is rare, with few cases reported in the literature. The use of the novel β-lactam-β-lactamase inhibitor combination cefazidime–avibactam (CAZ-AVI) in this setting has only been described in one 2018 case in Italy. Guidance in how these novel antibiotics should be used becomes more prudent as the prevalence of complicated CR-Kp infections increases.

**Methods.** A 51-year-old male with a past medical history of a gunshot wound to the neck, type 2 diabetes, and osteomyelitis status post right below-the-knee and left toe amputations presented to the emergency department with altered mental status and right upper extremity weakness (ED). The patient’s hospital course was complicated by hemorrhagic stroke, left above-the-knee amputation, and intraoperative cardiac arrest. Subsequently, blood cultures on hospital days 41 and 43 grew CR-Kp and a transthoracic echocardiogram (TTE) showed moderate to severe aortic regurgitation.

**Results.** Antimicrobial therapy was changed from imipenem–cilastatin and ceftriaxone to CAZ-AVI and amikacin. The organism was found to be susceptible to CAZ-AVI and amikacin, intermediate to colistin, and resistant to all carbapenems. A transesophageal echocardiogram (TEE) confirmed the presence of a small mobile vegetation on the aortic valve with perforation and severe regurgitation. CAZ-AVI and amikacin were continued for two weeks, and then switched to CAZ-AVI and ertapenem for an additional four weeks. Follow-up blood cultures on and after day 44 were negative for CR-Kp. A TTE performed after therapy completion no longer demonstrated aortic regurgitation; however, the valves were poorly visualized. The patient then suffered anoxic brain injury after a second cardiac arrest, thought to be unrelated to endocarditis. The patient’s family then decided on hospice care and the patient expired.

**Conclusion.** We report the successful treatment of CR-Kp endocarditis with CAZ-AVI and amikacin for two weeks followed by CAZ-AVI and ertapenem for four weeks. This regimen can be a viable option for patients with this rare multidrug-resistant infection.

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

### 174. Temporizing Surgical Measures for Deep Mechanical Circulatory Support Device Infections: Case Series Report

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**Session:** 57. Bacteremia, CLABSI, and Endovascular Infections

**Thursday, October 3, 2019:** 12:15 PM

**Background.** Durable mechanical circulatory support device (MCSD) use continues to grow. MCSD deep-seated infections are a serious complication. Removal of the infected hardware is not always possible.

**Methods.** Single institution retrospective review of all culture-proven deep MCSD infection (pump and/or driveline) from 2009–2019. Patients were managed with intravenous (IV) and oral (PO) antibiotics; definitive surgical interventions included incision and drainage (I&D), device replacement, and heart transplant; and temporizing surgical measures were chronic chest tube (CCT) drainage for pump pocket and mediastinum and antibiotic impregnated bead implantation for driveline infection. Outcomes were analyzed.

**Results.** Total of 29 patients identified, 23 (79%) were male. Median age at device implantation was 44 years (20–68). MCSD were 18 (62%) destination therapy and 11 (38%) bridge to transplant. MCSD included 1 Heartmate I, 17 Heartmate II, 1 Heartmate III, 4 Heartware HVAD, and 6 Syncardia TAH. The median time to infection of 258 days (43–1551), affecting pump in 8 (28%), pump + driveline in 13 (44%), and driveline in 8 (28%). Microorganisms were 5. aureus in 17 (60%), MRSA 11 and MSSA 6; coag-negative staphylococci in 3 (10%); Vanellus streptococci in 1; Serratia marcescens in 3; P aeruginosa in 2; Klebsiella oxytoca in 1, Mycobacterium abscessus in 1 and C. albicans in 1. Antibiotics are given to 28 patients, 23 (80%) with initial IV for a median of 6 weeks (1–14) and 5 (17%) with initial PO, for a median of 7 weeks (2–20). Nineteen patients (68%) on IV received PO antibiotics after 17 patients (61%) remained on chronic suppression antibiotics (13 PO, 2 IV, 2 PO and IV). Twenty-six (90%) patients had I&D, 6 (21%) had device replacement and 11 (38%) had transplant. Of 21 patients with pump infection 16 (76%) had CCT drainage of pump pocket site or mediastinum and for a median of 116 days (range 10–487 days). Of 21 patients with driveline infections, 6 (29%) had antibiotic impregnated bead implants. Overall survival at 90 days was 28/29 (95%) and 24/29 (83%) at 1 year. Infection-related mortality in Table 1.

**Conclusion.** Deep MCSD infection remains a challenging clinical problem. CCT drainage (for pump) and antibiotic-impregnated bead implant (for driveline) may be temporizing options for patients unable to undergo timely device replacement or heart transplant.

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

### 175. There Was a Fungus Among Us: A Cohort of Fungal Infectious Endocarditis Cases in East Tennessee

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**Session:** 37. Bacteremia, CLABSI, and Endovascular Infections

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**Background.** Fungal infective endocarditis (IE) represents less than 2% of all IE cases, but it carries a mortality rate as high as 50%. While cases of IE are on the rise, the mortality rate has been stable in recent years due to the increased prevalence of persons who inject drugs (PWID), there are few published studies of fungi as the cause. Candida species is the most likely fungal pathogen in IE. Known risk factors include prothetic heart valves, healthcare-associated infections, and injection drug use. Since fungi are a rare culprit in endocarditis, there is little information on incidence, treatment recommendations, and outcomes.

**Methods.** A retrospective cohort of patients with Candida IE was analyzed between October 2013 and September 2018 at a university hospital in East Tennessee. Demographic, microbiologic, substance use status, mortality, and echocardiographic data were collected.

**Results.** Nine patients with Candida IE met inclusion criteria. Mean age was 37, 67% were males. Risk factors included PWID, oral opioid abuse, previous valve surgery and autoimmune disease. 5 (55%) were caused by Candida albicans, 3 (33.3%) Candida parapsilosis, and 1 (11%) grew both Candida tropicalis and albicans. Valves involved: 4 (66.7%) native tricuspid, 2 (22%) native aortic. 2 (22%) had native mitral, 1 (11%) had both tricuspid and mitral valve involvement. Echinocandins were used in 5 (55%) and 2 (22%) underwent surgery. There was 1 (11%) in-hospital mortality and 2 (22%) within 1 year of discharge (Table 1).

**Conclusion.** Fungal IE is a rare disease with high mortality and increasing incidence, especially in PWID. High index of suspicion is required for early diagnosis. Although, medical treatment alone can be successful in patients who are not surgical candidates, such as in PWID.