Conclusion. Oteseconazole was shown to be safe and effective in treatment of acute VVC, treatment of RVVC and prevention of recurrence of acute VVC episodes in RVVC subjects. Oteseconazole was non-inferior to fluconazole for treatment of acute VVC in subjects with RVVC.

Disclosures. **Bassem Maximos, MD**, **Evofem Biosciences** (Scientific Research Study Investigator, Speaker's Bureau)**Mycovia Pharmaceutical** (Scientific Research Study Investigator)**Sage Therapeutics** (Scientific Research Study Investigator, Speaker's Bureau) **Thorsten Degenhardt, Ph.D**, **Mycovia Pharmaceuticals** (Employee, Shareholder) **Karen Person, M.S.**, **Mycovia Pharmaceuticals, Inc.** (Employee)**Mycovia Pharmaceuticals, Inc.** (Employee) **Mahmoud Ghannoum, PhD**, **Mycovia Pharmaceuticals** (Grant/Research Support, Research Grant or Support) **Stephen Brand, Ph.D**, **Mycovia Pharmaceuticals** (Employee)

108. Efficacy of Dalbavancin Compared to Standard of Care for the Treatment of Osteomyelitis: A Retrospective Study

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Session: O-23. New Developments in Antibiotic Efficacy

Background. Preliminary data suggest that the efficacy of dalbavancin, a long-acting lipoglycopeptide, may be similar to current standard of care (SoC) treatment options for osteomyelitis, and may be associated with fewer treatment related adverse events. This study assessed the incidence of treatment failure in patients receiving either dalbavancin or SoC for the treatment of osteomyelitis.

Methods. This was a multi-center, retrospective, observational cohort study of adult patients diagnosed with osteomyelitis. Patients were matched 1:2 to either dalbavancin (1500 mg infused intravenously on days 1 and 8) or SoC for osteomyelitis (oral or intravenous antibiotics) by Charlson Comorbidity Index, site of infection, and causative pathogen. The primary objective was to determine the incidence of treatment failure after a one-year follow-up period. Secondary objectives included hospital length of stay (LOS), infection related one-year readmission rates, and treatment related adverse events.

Results. A total of 132 patients were matched to receive dalbavancin (n = 42) or SoC (n = 90). Baseline characteristics were similar between the two treatment groups. The majority of patients had lower extremity osteomyelitis (76.2% vs 73.3%) with an etiology of diabetic foot infection (45.2% vs 46.7%) in the dalbavancin and SoC groups, respectively. Treatment failure was similar between those who received dalbavancin and SoC (21.4% vs 23.3%, p = 0.808). Patients who received dalbavancin had a significantly shorter hospital LOS compared to patients who received SoC regimens (5.2 days vs 7.2 days, p = 0.013). There was no difference in the rates of infection related readmissions between the dalbavancin and the SoC group (31% vs 31.1%, p = 0.985). Peripherally inserted central catheter line related complications were reported in 17.8% of patients in the SoC group, however the lower incidence of overall adverse events in the dalbavancin group was not significantly different than the SoC group (21.4% vs 36.7%, p = 0.08).

Conclusion. Dalbavancin administered as a two-dose regimen is a safe and effective option for the treatment of osteomyelitis

Disclosures. **Dustin R. Carr, PharmD, BCPS, BCIDP, AAHIVP**, **Merck** (Speaker's Bureau) **Thomas L. Walsh, MD**, **Accelerate Diagnostics** (Other Financial or Material Support, speaking fees)

109. Evaluating Predictive Value of Surgical Resected Proximal Bone Margins in Diabetic Foot Osteomyelitis with Clinical Outcomes at One Year

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Session: O-23. New Developments in Antibiotic Efficacy

Background. Diabetic foot osteomyelitis (DFO) remains a significant comorbidity in diabetes and often requires both surgical and medical interventions. Surgical bone resection with proximal margins is performed for treatment at our institution to guide antimicrobial therapy. Optimal antibiotic duration often remains unclear, along with clinical outcomes with negative margins. We evaluate if negative bone margins predict outcomes of DFO at one year in our county hospital.

Methods. A retrospectively cohort study assessed adult patients undergoing DFO amputations between 9/2016 to 9/2019. Patient data collected included demographics, smoking history, hemoglobin A1c (HbA1c), basic labs, microbiology, antibiotic duration, bone margin pathology. Physician review of records determined if intervention was successful. Primary outcome was met if no further amputation at the same site was required in the following 12 months.

Results. Of 92 patients, 57 had negative margins and 35 had positive margins for pathology confirmed osteomyelitis. Smoking history was significant in positive margins (35.1% vs 57.1%; p=0.038). Patients with negative margins had a successful outcome at 12 months compared to positive margins (86% vs 66%; p=0.003), but no significant differences in outcome at 6 months. Antibiotic days was reduced in negative margin individuals (mean 18 vs 30 days; p=0.001). Negative margins also demonstrated significant lower rates of readmission at 12 months (p=0.015). *Staphylococcus aureus* was notable in positive vs negative margins (57.1% vs 29.8%; p=0.017). MSSA was significantly noted in positive margins (45.7% vs 14%; p=0.001). MRSA was similar regardless of margin results (15.8% vs 11.4%; p=0.399). Initial ESR, CRP and HbA1c were similar between groups.

Conclusion. Our study noted that negative proximal bone margins resulted in more successful outcomes at 12 months and less days of antimicrobial therapy. Patients with negative margins had lower rates of readmission at 12 months for surgical site complications. Negative proximal bone margins results can guide antibiotic therapy and improve outcomes of resections. Presence of *S. aureus* was significant in positive margins and likely warrant consideration for further aggressive intervention.

Clinical Characteristics of Patients with Diabetic Foot Osteomyelitis

	Negative (n = 57)	Positive (n = 35)	*p*-value
Demographics			
Age (Years)	53 ± 10	54 ± 10	0.66
Male	42 (73.7%)	30 (85.7%)	0.203
HbA1c (%)	8.9 ± 2.7	8.3 ± 2.4	0.298
Vascular Disease	24 (42.1%)	10 (28.6%)	0.192
Smoking History	20 (35.1%)	20 (57.1%)	0.038
Prior Surgery Same Site	15 (26.3%)	13 (37.1%)	0.273
Microvascular Disease			
Nephropathy	23 (40.4%)	15 (42.9%)	0.867
Neuropathy	17 (29.8%)	11 (31.4%)	0.914
Retinopathy	6 (10.5%)	4 (11.4%)	0.99
Antibiotics			
Antibiotic Duration (Days)	18 ± 15	30 ± 15	0.001
Microbiology			
S. aureus	17 (29.8%)	20 (57.1%)	0.017
MSSA	8 (14.0%)	16 (45.7%)	0.001
MRSA	9 (15.8%)	4 (11.4%)	0.399
Streptococcus species	6 (10.5%)	4 (11.4%)	0.574
Mixed Culture without *S. aureus*	9 (15.8%)	3 (8.6%)	0.253
Negative Cultures	25 (43.9%)	8 (22.9%)	0.041
Laboratory			
CRP	10.17 ± 13.54	13.0 ± 9.95	0.301
ESR	88 ± 31	92 ± 29	0.794
Procalcitonin	1.53 ± 3.72	1.9 ± 2.43	0.584
MRSA Screen	0 (0.0%)	3 (8.6%)	0.004
Outcomes			
ID Consult	22 (38.6%)	20 (57.1%)	0.083
Readmission After Surgery	15 (26.3%)	18 (51.4%)	0.015
Successful Outcome @ 6 Months	48 (84.2%)	24 (68.6%)	0.077
Successful Outcome @ 12 Months	49 (86.0%)	23 (65.7%)	0.033

Clinical demographics, antibiotic usage, microbiology and results of patients presenting for diabetic foot osteomyelitis needing surgical amputation intervention. Abbreviations: HbA1c - Hemoglobin A1c; MSSA - methicillin-susceptible Staphylococcus aureus; MRSA - methicillin-resistant Staphylococcus aureus; CRP -C-reactive protein; ESR - erythrocyte sedimentation rate

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

110. A Phase 3, Multicenter, Double-blind, Randomized Clinical Trial to Evaluate the Efficacy and Safety of Ceftolozane/Tazobactam Plus Metronidazole Versus Meropenem in Chinese Participants With Complicated Intra-abdominal Infections

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Session: O-23. New Developments in Antibiotic Efficacy

Background. In China, the prevalence of infections due to multidrug-resistant gram-negative bacteria is high and additional treatment options for complicated intra-abdominal infections (cIAI) are needed. This study compared the efficacy and safety of ceftolozane/tazobactam (C/T) + metronidazole (MTZ) versus meropenem (MEM) + placebo (pbo) for the treatment of cIAI in adult Chinese participants.

Methods. This was a phase 3, double-blind study conducted at 21 centers in China (NCT03830333). Participants aged 18-75 years with cIAI requiring surgical intervention within 24 hours of study drug administration were stratified by site of infection and randomized 1:1 to receive 1.5 g C/T (1 g ceftolozane and 0.5 g tazobactam) + 0.5 g MTZ administered intravenously (IV) every 8 hours (q8h) or 1 g MEM + pbo administered IV q8h for 4-14 days. The primary endpoint was clinical cure at test of cure (TOC) in the clinically evaluable (CE) population. Secondary endpoints included rates of clinical cure, per-participant microbiologic response, per-pathogen microbiologic response, and adverse events (AE). Non-inferiority for clinical cure at TOC in the CE population was confirmed if the lower bound of the 2-sided 95% CI for the between-treatment difference in the clinical cure rate was larger than −12.5%.

Results. A total of 134 participants were randomized to each treatment group. Demographics and baseline characteristics were generally well balanced between treatment groups (Table 1). The median (range) age in the ITT population was 50 (18-75) years and 61% were men. The most frequent sites of infection were the appendix (C/T + MTZ, 50.0%; MEM + pbo, 49.3%) and gallbladder (C/T + MTZ, 27.6%; MEM + pbo, 29.1%). Overall, the most frequently isolated pathogens were *Escherichia coli* (61.4%) and *Klebsiella pneumoniae* (17.3%); few anaerobes were isolated (Table 1). C/T + MTZ was non-inferior to MEM + pbo for clinical cure in the CE population (C/T + MTZ, 95.2%; MEM + pbo, 93.1%; difference, 2.1% [95% CI, −4.7% to 8.8%]). Results for key secondary endpoints were comparable between treatment groups (Table 2). Rates of AEs were generally similar between treatment groups (Table 3).

Table 1. Participant Demographics and Baseline Characteristics (ITT and EME Populations)

Characteristics	C/T + MTZ (n=134)	MEM + pbo (n=134)	Total (N=268)
Male, n (%)	79 (59.0)	85 (63.4)	164 (61.2)
Age, n (%), y			
≤65	108 (80.6)	103 (76.9)	211 (78.7)
66-75	26 (19.4)	31 (23.1)	57 (21.3)
Median (range)	48.0 (18-75)	55.0 (18-74)	50.0 (18-75)
APACHE II score			
Median (range)	5.0 (0.0-15.0)	5.0 (0.0-15.0)	5.0 (0.0-15.0)
Category, n (%)			
<10	119 (88.8)	126 (94.0)	245 (91.4)
≥10	15 (11.2)	8 (6.0)	23 (8.6)
Baseline creatinine clearance, mL/min			
Median (range)	105.1 (50.4-316.0)	93.0 (42.8-252.3)	96.6 (42.8-316.0)
Category, n (%)			
30 to ≤50 mL/min	0	3 (2.2)	3 (1.1)
>50 mL/min	134 (100.0)	131 (97.8)	265 (98.9)
Anatomic site of current infection,[a] n (%)			
Appendix	67 (50.0)	66 (49.3)	133 (49.6)
Diverticular	2 (1.5)	4 (3.0)	6 (2.2)
Gallbladder	37 (27.6)	39 (29.1)	76 (28.4)
Stomach	4 (3.0)	5 (3.7)	9 (3.4)
Duodenum	9 (6.7)	5 (3.7)	14 (5.2)
Jejunum/ileum	3 (2.2)	3 (2.2)	6 (2.2)
Colon	0	2 (1.5)	2 (0.7)
Peritoneum	1 (0.7)	0	1 (0.4)
Liver	9 (6.7)	10 (7.5)	19 (7.1)
Other	6 (4.5)	8 (6.0)	14 (5.2)
Procedure type			
Percutaneous aspiration	15 (11.2)	20 (14.9)	35 (13.1)
Laparoscopy	102 (76.1)	98 (73.1)	200 (74.6)
Laparotomy	17 (12.7)	16 (11.9)	33 (12.3)
Intra-abdominal pathogen (EME population), n (%)	(N1=54)	(N1=73)	(N1=127)
Gram-negative aerobes[b]	50 (92.6)	60 (82.2)	110 (86.6)
All Enterobacterales	48 (88.9)	60 (82.2)	108 (85.0)
Escherichia coli	32 (59.3)	46 (63.0)	78 (61.4)
Klebsiella pneumoniae	11 (20.4)	11 (15.1)	22 (17.3)
Pseudomonas aeruginosa	4 (7.4)	1 (1.4)	5 (3.9)
Gram-positive aerobes	10 (18.5)	17 (23.3)	27 (21.3)
Streptococcus anginosus group	3 (5.6)	8 (11.0)	11 (8.7)
Gram-negative anaerobes	0	1 (1.4)	1 (0.8)
Gram-positive anaerobes	1 (1.9)	1 (1.4)	2 (1.6)

APACHE, Acute Physiology and Chronic Health Evaluation; C/T, ceftolozane/tazobactam; EME, expanded microbiologically evaluable; ITT, intention-to-treat; MEM, meropenem; MTZ, metronidazole; pbo, placebo.

[a]Investigator may have chosen more than 1 site.

[b]Presentation of results for individual pathogens limited to those with ≥5 total isolates identified.

Table 2. Efficacy Outcomes

Efficacy endpoint, n (%)	C/T + MTZ	MEM + pbo	% Difference C/T + MTZ vs MEM + pbo Estimate (95% CI)
Clinical response at TOC (CE population)[a]	(N=105)	(N=116)	
Clinical cure	100 (95.2)	108 (93.1)	2.1 (−4.7 to 8.8)[a]
Clinical failure	5 (4.8)	8 (6.9)	
Clinical response at TOC (ITT population)[a,b]	(N=134)	(N=134)	
Clinical cure	114 (85.1)	120 (89.6)	−4.4 (−12.6 to 3.7)[a]
Clinical failure	19 (14.2)	13 (9.7)	
Clinical response at EOT (CE population)[a,b]	(N=105)	(N=116)	
Clinical cure	103 (98.1)	112 (96.6)	1.4 (−3.8 to 6.7)
Clinical failure	2 (1.9)	4 (3.4)	
Clinical response at EOT (ITT population)[a,b]	(N=134)	(N=134)	
Clinical cure	124 (92.5)	126 (94.0)	−1.5 (−8.0 to 4.8)
Clinical failure	10 (7.5)	6 (4.5)	
Per-participant microbiologic response at TOC (EME population)[a,b]	(N=54)	(N=73)	
Favorable[c]	51 (94.4)	68 (93.2)	1.2 (−9.2 to 10.4)
Unfavorable[b,d]	3 (5.6)	4 (5.5)	
Per-pathogen microbiologic response at TOC (EME population)[e]	(N=54)	(N=73)	
Gram-negative aerobes, n/N1 (%)	47/50 (94.0)	57/60 (95.0)	−1.0 (−11.9 to 8.7)
All Enterobacteriaceae, n/N1 (%)	45/48 (93.8)	57/60 (95.0)	−1.2 (−12.5 to 8.5)
Gram-positive aerobes, n/N1 (%)	8/10 (80.0)	15/17 (88.2)	−8.2 (−42.2 to 20.0)

CE, clinically evaluable; cIAI, complicated intra-abdominal infection; C/T, ceftolozane/tazobactam, EME, expanded microbiologically evaluable; EOT, end of treatment; ITT, intention-to-treat; MEM, meropenem; MTZ, metronidazole; n, number of participants with the specified pathogen; N1, number of participants in the subgroup; pbo, placebo; TOC, test of cure.

[a]Based on the Miettinen & Nurminen method with the Cochran-Mantel-Haenszel weighting stratified by anatomic site of infection (bowel [small or large] vs other site of cIAI).

[b]Indeterminate responses (not shown) were considered unfavorable.

[c]Favorable includes "eradication" and "presumed eradication."

[d]Unfavorable includes "persistence," "persistence acquiring resistance," and "presumed persistence."

[e]Based on unstratified Miettinen & Nurminen method.

Table 3. Summary of Adverse Events (All Participants as Treated Population)

Category	C/T + MTZ (N=134)	MEM + pbo (N=134)	% Difference C/T + MTZ vs MEM + pbo Estimate (95% CI)[a]
With ≥1 adverse events	67 (50.0)	68 (50.7)	−0.7 (−12.6 to 11.2)
With drug-related adverse events[b]	15 (11.2)	14 (10.4)	0.7 (−7.0 to 8.5)
With serious adverse events	7 (5.2)	7 (5.2)	0.0 (−5.9 to 5.9)
With serious drug-related adverse events[b]	0	3 (2.2)	−2.2 (−6.4 to 0.6)
Deaths	0	1 (0.7)	−0.7 (−4.1 to 2.1)
Discontinued drug due to an adverse event	3 (2.2)	3 (2.2)	0.0 (−4.4 to 4.4)
Discontinued drug due to a drug-related adverse event[b]	3 (2.2)	3 (2.2)	–
Discontinued drug due to a serious adverse event	0	1 (0.7)	–
Discontinued drug due to a serious drug-related adverse event[b]	0	1 (0.7)	–

C/T, ceftolozane/tazobactam; MEM, meropenem; MTZ, metronidazole; pbo, placebo.

[a]Based on the Miettinen & Nurminen method for protocol-defined Tier 2 events (required that ≥4 participants in ≥1 treatment group exhibited the event).

[b]Determined by the investigator to be related to the drug.

Conclusion. C/T + MTZ was non-inferior to MEM + pbo in the treatment of adult Chinese participants with cIAI and demonstrated a favorable safety profile.

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111. Duration of Antibiotic Therapy after Debridement and Implant Retention in Patients with Periprosthetic Joint Infections

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Session: O-23. New Developments in Antibiotic Efficacy

Background. Debridement, antibiotics, and implant retention (DAIR) is appropriate for select acute postoperative and hematogenous periprosthetic joint infections (PJIs). However, the optimal duration of antimicrobial therapy in patients treated with DAIR has not been defined. Therefore, we aimed to identify the ideal duration of parenteral and oral antibiotics after DAIR.

Methods. We performed a retrospective study of patients >18 years of age with hip or knee PJI managed with DAIR between January 1, 2008, and December 31, 2018, at Mayo Clinic. PJI was defined using criteria adapted from the International Consensus Meeting on PJI. The outcome was defined as either PJI recurrence or unplanned reoperation due to infection. Joint-stratified Cox proportional hazards regression models with time-dependent covariates were used to assess nonlinear effects of antibiotic duration. Hazard ratios were computed based on prespecified time points for comparison, whereas p-values represented the overall effect across the entire range of durations.

Results. There were 247 unique episodes of PJI in 237 patients during the study period. Parenteral antibiotics were given in 99.2% of cases (n=245). This was followed by chronic oral antibiotic suppression in 92.2% (n=226) with a median duration of 2.2 years (1.0-4.1).

DAIR failed in 65 cases over a median follow-up of 4.4 years, with a 5-year cumulative incidence of 28.1%. After adjustment for risk factors, there was no significant association between duration of parenteral antibiotics and treatment failure (p=0.203), with no difference between four versus six weeks (HR 1.11; 95% CI 0.71-1.75) (Figure 1). However, both use and longer duration of oral antibiotic therapy was associated with a lower risk of failure (p=0.006). To account for the possibility that this association was driven by results during early follow-up, conditional analyses at one- and two-year follow-up were performed. Both showed a significantly lower risk for a longer duration of antibiotics (Figure 2).

Figure 1. Time-Dependent Analysis of Parenteral Antibiotic Duration