Table 2. Antimicrobial use and hospitalization outcomes

| Clinical outcome                      | Pre-ME Panel (n=69) | Post-ME Panel (n=68) | P value
|--------------------------------------|---------------------|---------------------|---------
| Duration of empiric antimicrobial therapy, hours, median (IQR) | 3.49 (2.8-5.17)     | 2.38 (1.3-4.00)     | 0.01    
| Duration of total antimicrobial therapy in hospital, hours, median (IQR) | 10.53 (6.5-18.06)   | 9.30 (6.0-14.24)    | 0.01    
| Frequency of seizures, %             | 70 (55.5%)          | 69 (52.2%)          | 0.03    
| Frequency of psychiatric and/or memory complaints, % | 81.8%               | 75.4%               | 0.001   

Kaplan-Meier analysis of the time from initiation of empiric antibiotic therapy to discontinuation or de-escalation of empiric antibiotic therapy between the pre- and post-ME panel periods. P value from log-rank test=0.049 (n=206). There was a significant difference in the time to discontinuation or de-escalation of empiric antibiotic therapy between the groups (sex- and immunosuppressant use-adjusted hazard ratio, 1.46 [95% confidence interval, 1.08–1.97]; P=0.01).

Conclusion. The implementation of the FilmArray ME panel for suspected bacterial meningitis appears to reduce the duration of empiric antibiotic therapy, time to targeted therapy, and hospital length of stay compared to traditional culture-based microbiological testing methods.

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107. A Phase 3, Randomized, Double-Blind Study to Evaluate the Efficacy and Safety of Oteseconazole (VT-1161) Oral Capsules versus Fluconazole and Placebo in the Treatment of Acute Vulvovaginal Candidiasis Episodes in Subjects with Recurrent Vulvovaginal Candidiasis (ultraViolet)

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Session: O-23. New Developments in Antibiotic Efficacy Background. Recurrent vulvovaginal candidiasis (RVVC) affects nearly 138 million women globally each year. Currently there are no FDA approved treatments. The study was conducted to evaluate the efficacy of oral oteseconazole (VT-1161) in the prevention of culture-verified acute VVC episodes through Week 50 and compare the efficacy of oteseconazole and fluconazole in treatment of an acute VVC episode in RVVC subjects.

Methods. 219 subjects with history of RVVC (≥ 3 acute episodes within prior 12 months) were enrolled at 51 US sites. The study consisted of two phases. Induction Phase: Subjects who presented with a vulvovaginal signs and symptoms score of ≥ 3 and positive KOH test identifying Candida were randomized to either: 600 mg oteseconazole on Day 1, 450 mg oteseconazole on Day 2 and matching placebo capsules; OR 3 sequential 150 mg doses (every 72 hours) of over-encapsulated fluconazole together with matching placebo capsules

Maintenance Phase: 185 subjects with resolved acute VVC infections (clinical signs and symptoms score of < 3) on Day 14 received: 150 mg oteseconazole or placebo weekly for 11 weeks then 37-week Follow-up period

Results. Study achieved primary and secondary efficacy endpoints. Oteseconazole was superior to fluconazole/placebo in the proportion of subjects with ≥ 1 culture-verified acute VVC episode through Week 50 in the intent-to-treat (P < 0.001). The average percentage of subjects with ≥ 1 culture-verified acute VVC episode through Week 50 was lower in the oteseconazole group (5.1%) compared to the fluconazole/placebo group (42.2%). Oteseconazole was noninferior to fluconazole in the proportion of subjects with resolved acute VVC infections at Day 14; 93.2% oteseconazole group vs 86.4% fluconazole/placebo group.

The percentage of subjects who had ≥ 1 treatment-emergent adverse event (TEAE) was similar; oteseconazole (54%), fluconazole/placebo (64%). Most TEAEs experienced were mild or moderate severity in both groups and no drug-related SAEs or adverse effects on liver function or QT intervals. 

Conclusion. Adults with encephalitis can be accurately stratified for the risk of having autoimmune encephalitis using clinical variables available upon presentation.

Disclosures. Rodrigo Hasbun, MD, MPH, Biofire (Speaker’s Bureau) Rodrigo Hasbun, MD, MPH, Biofire (Individual(s) Involved Self): Consultant, Research Grant or Support

106. Risk Classification to Differentiate Autoimmune from Viral Encephalitis

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Session: O-22. Neurologic Infections

Background. Autoimmune encephalitis is an urgent treatable etiology that needs to be differentiated from viral encephalitis. Prompt recognition and therapy is of utmost importance.

Methods. We performed a retrospective cohort of encephalitis cases in 16 hospitals in Houston, Texas, between January 2005 and December 2019.

Results. A total of 1,310 adult (age ≥ 18 years) inpatient hospital admissions were identified by the presence of an encephalitis-related discharge diagnosis per the International Classification of Disease 9th edition codes. Of these, only 279 cases met the 2013 International Encephalitis Consortium criteria for probable encephalitis. A laboratory confirmed diagnosis of autoimmune encephalitis or viral encephalitis was identified in 36 (12.9%) and 88 (31.5%) cases, respectively. There were 155 cases (55.5%) that had no identifiable cause and were considered idiopathic.

As compared to viral encephalitis, patients with autoimmune encephalitis were more likely to be younger (< 60 years old), have a subacute (6-30 days) or chronic (> 30 days) presentation, have seizures, and have psychiatric and/or memory complaints (P < 0.001). Furthermore, patients with autoimmune encephalitis were less likely to be febrile and to lack inflammatory cerebrospinal fluid (CSF) (defined as white blood cells < 50 per microliter or protein < 50 milligrams per deciliter) [See Table 1]. In the multivariable logistic regression model, subacute/chronic presentation, psychiatric and/or memory complaints, and lack of inflammatory CSF were significantly associated with autoimmune encephalitis. Using these 3 variables, patients were classified into 3 risk categories for autoimmune encephalitis: low risk (0-1 variables); intermediate risk (2 variables); and high risk (3 variables); 83% (P value < 0.001).

Table 1. Results and presenting clinical characteristics

| Autonomic | Pr Great | Adverse | P value |
|-----------|---------|---------|---------|
| Age less than 60 years | 0.006* | 1.46 (1.08–1.97) | 0.01 |
| Gender | 1.46 (1.08–1.97) | 0.01 |
| Race | 1.46 (1.08–1.97) | 0.01 |
| Hispam | 1.46 (1.08–1.97) | 0.01 |
| Asian | 1.46 (1.08–1.97) | 0.01 |
| Other | 1.46 (1.08–1.97) | 0.01 |

Conclusion. Adults with encephalitis can be accurately stratified for the risk of having autoimmune encephalitis using clinical variables available upon presentation.

Disclosures. Rodrigo Hasbun, MD, MPH, Biofire (Speaker’s Bureau) Rodrigo Hasbun, MD, MPH, Biofire (Individual(s) Involved Self): Consultant, Research Grant or Support
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 adults (≥18 years) diagnosed with osteomyelitis. Patients were matched 1:2 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 and cause of failure over 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 (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 (5.7 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). Peripheral 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.

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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 (64% vs 66%, p=0.003), but no significant differences in outcome at 6 months. Antibiotic doses was reduced in negative margin individuals (mean 18 vs 30 days; p=0.001). Negative margins also demonstrated significantly 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

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

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110. A Phase 3, Multicenter, Double-blind, Randomized Clinical Trial to Evaluate the Efficacy and Safety of Cefotelozone/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 C/T and MTZ (3.5 g q8h) or MEM (1 g q8h). 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-patient 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 difference in clinical cure rate was larger than –12.5%.