2364. Evaluation of Renal Function Changes in Patients With Prolonged Telavancin Therapy (>21 Days): Results From the Telavancin Observational Use Registry (TOUR)®
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Session: 249. Skin and Skin Structure Infection
Saturday, October 6, 2018: 12:30 PM
Background. Telavancin (TLV) is a lipoglycopeptide antibacterial active against a wide range of Gram-positive organisms, including methicillin-susceptible and methicillin-resistant Staphylococcus aureus. New onset or worsening renal impairment was observed in phase 3 clinical trials. This analysis was conducted to better understand changes in renal function from real-world experience during prolonged TLV therapy.
Methods. Data from the Telavancin Observational Use Registry (TOUR®)—a multicenter chart review to characterize types of infection, pathogens, and outcomes of patients treated with TLV in clinical practice—were used to characterize a subset of patients with prolonged TLV therapy duration defined as treatment >21 days. Patient demographics, pathogens, outcomes, and adverse events (AEs) were analyzed. Clinical outcomes were determined by investigator assessment. Creatinine clearance (CrCl) was estimated by Cockcroft-Gault for all patients with serum creatinine measurements at baseline and end of TLV therapy. CrCl values were grouped as ≤30, >30–50, >50–80, and >80 mL/minute; categorical changes from baseline were classified and compared.
Results. A total of 308/1063 patients were treated with TLV for >21 days. At baseline, patients had a median CrCl of 113.4 mL/minute. Median TLV dose was 756 mg (range 254–1,500 mg) or 8.3 mg/kg (range 2.2–15.0 mg/kg); and median treatment duration was 38 days (range 22–185 days). The 2 most commonly treated infection types were bone and joint infections (53.2%) and complicated skin and skin structure infections (45.6%). A total of 308 (93.9%) patients were TLV-resistant or -susceptible. TLV was used as second-line or greater therapy in 235 (76%) patients, and the majority of patients (66.5%; n = 202) were treated as outpatients prior to starting TLV. Of the 308, 134 reported baseline and end of TLV therapy CrCl. CrCl was unchanged in the majority of patients (68.7%; n = 92), 9 (6.7%) improved of CrCl decreased in 33 (24.6%) patients. A total of 25 (8.1%) patients reported renal AEs.
Conclusion. In the subset of patients with baseline and end of TLV therapy CrCl, renal function was unchanged in the majority of patients with prolonged TLV therapy >21 days.
Disclosures. A. Hassoun, Theravance Biopharma, US: Speaker’s Bureau, Speaker honorarium. M. Lacy, Theravance Biopharma, US: Employee and Shareholder. Salary. C. Barnes, Theravance Biopharma, US: Employee and Shareholder. Salary. B. Castaneda Ruiz, Theravance Biopharma, US: Employee and Shareholder. Salary.

2365. Post-operative Vertebral Osteomyelitis—A Disease With Distinct Clinical and Microbiological Characteristics
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Background. A relevant subgroup (10–14%) of patients with vertebral osteomyelitis (VO) has a history of spine surgery. Infection in these patients is often caused by coagulase-negative staphylococci (CoNS) might be clinically different from native VO. However, clinical, microbiological and outcome characteristics of this disease entity have not been well studied as most trials either excluded these patients or are limited by a short cohort and short observation period.
Methods. Between January 2008 and June 2013 patients who presented to the Department of Orthopaedics at the University Hospital of Cologne with suspected VO were prospectively enrolled into the international registry Spine Tango and observed for a period of 2 years. Survival was estimated by the Kaplan–Meier method. In addition, univariable and multivariable Cox regression models were fitted to estimate unadjusted and adjusted effect of surgery. Group comparisons between patients with or without prior surgery were performed using Fisher’s exact test or Mann–Whitney U test.
Results. 56 of 189 patients with confirmed diagnosis of VO reported a history of surgery (HR, 3.3, 95% CI, 1.4–7.9, P = 0.006).
The magnitude of the effect size remained stable in the multivariable model (HR 3.02, 95% CI 2.59–3.72, P = 0.013), adjusted for ASA score and number of comorbidities.
Conclusion. VO and post-operative VO show distinct disease characteristics. Patients with NVO more often have comorbidities, have mainly S. aureus as causative pathogen and a 3-fold increased 2-year mortality risk compared with patients with post-operative VO.
Disclosures. H. Seifert, Accelerate Diagnostics Inc.: Research Contractor, Research grant.

2366. Treatment Characteristics and Predictors of Mortality in Patients With Injured Chronic Pressure Ulcer in Detroit
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Session: 249. Skin and Skin Structure Infection
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Background. Injured chronic pressure ulcers (ICPUs) are difficult to treat and are a leading cause of mortality with up to 50% of deaths occurring within 30 days of hospitalization. The objective of this study was to describe ICPU management characteristics and to identify risk factors for all-cause 30-day mortality at a large urban health-system.
Methods. This was an IRB approved, cross-sectional study of adult patients with an ICPU diagnosis who were hospitalized and treated with systemic antimicrobials from June 2013–June 2017. The primary study endpoint was all-cause 30-day mortality after or at discharge. Patient, infection, and treatment characteristics were compared between groups.
Results. 225 patients were included: median (IQR) age was 69 (55–83) years and 54% were male. 192 (85%) patients had at least 1 infection-related symptom. Most common included fever, diarrhea, and >80 mL/minute; categorical changes from baseline were classified and compared.
Disclosures. C. Barnes, Achaogen: Scientific Advisor, Consulting fee. Melinta: Scientific Advisor, Consulting fee. Nabriva: Scientific Advisor, Consulting fee. Zervos: Achaogen: Scientific Advisor, Consulting fee.
Methods. A retrospective review of our centralized database was conducted of patient infections and therapy courses provided in POICs nationally that included complete data for 2017. All patients receiving IVAAs and drugs for CDI were included, along with dose, frequency, duration and method of administration. Descriptive measures were used to analyze data.

Results. A total of 12,930 infections were treated in 10,136 patients during 2017 among 77 POICs. Of those, 41% were treated directly from the community setting, avoiding hospitalization. Age distribution was <18 years <1%, 18–65 years 63% and >65 years 36%. Infections comprised 11 major diagnostic groups, with 47 subgroups. The most common diagnoses treated were bone and joint (37%), skin and skin structure (23%), genitourinary (14%) and bacteremia/sepsis (8%). 101 patients (1%) were treated for CDI. Geographical distribution occurred in the Midwest, Northeast, South, and West portion of the United States, where diagnoses were similar for all areas except the Northeast. This area had a significantly lower incidence of bone and joint infections (P < 0.0001) and a higher incidence of genitourinary infections (P < 0.0001).

Overall utilization included 52 different agents, with 98.5% antimicrobials, 1% antifungals and 0.5% antivirals. Ceftriaxone was the most frequently used antimicrobial representing 16% of the total use, followed by vancomycin (14.5%), daptomycin (14.2%) and etrapenem (11%). The most prevalent infections and utilization of respective drug therapy is noted in the table.

Conclusion. This study provides an annual overview of outpatient infection incidence with the utilization of IVAAs and therapy for CDI. A wide range of moderate to severe infections were treated, often avoiding hospitalization. Treatment regimens were broad, utilizing a wide variety of drugs and enabling extensive patient manage- ment in the POIC setting.

Disclosures. L. J. Van Anglen, Merck & Co.: Grant Investigator, Research grant.

2369. Clinical Experience With Telavancin for Treatment of Patients With Monomicrobial S. aureus Infections (Vancomycin MIC 21 μg/ml) From TOUR* Micael Jacobs, MD; Casimir Nwaigwe, MD; Candice Clay, PhD; Chris Barnes, PhD and Bibiana Castaneda-Ruiz, MD

Background. S. aureus is the most common causative organism for skin and soft tissue infections (SSIs). Treatment failure may result in increased length of stay, cost and impact on the patient and healthcare system. Telavancin (TLV) is a lipoglycopeptide antibiotic approved as a single 1,500 mg intravenous (IV) dose for the treatment of patients with ABSSSI. DBV offers a unique opportunity for cost avoidance by shifting more ABSSI treatment to the outpatient setting. In late 2016, (DBV) is a lipoglycopeptide antibiotic approved as a single 1,500 mg intravenous (IV) dose for the treatment of patients with ABSSSI. DBV offers a unique opportunity for cost avoidance by shifting more ABSSI treatment to the outpatient setting. In late 2016, DBV was added to Northwest Hospital formulary with a restriction to patients with ABSSSI in the emergency department (ED) and observation unit who would otherwise be admitted for IV antibiotic therapy. The objective of this study was to assess the resource-effectiveness of DBV infusion as an alternative to inpatient admission for ABSSI management.

Methods. We performed a retrospective review of patients that received DBV in calendar-year (CY) 2017. The primary outcome was avoidance of inpatient admission and 30-day return to any ED as captured by the Chesapeake Regional Information System. Secondary outcomes were reported adverse drug reactions (ADRs) and inpatient resource utilization for the diagnosis-related group of celluitis without major complicating factors. Clinical endpoints were observed in those with good or poor responses. Regarding antimicrobials, no differences in previous exposure before hospital admission, treatment with single or more than one antibiotic, antibiotic switch, days on antimicrobials or surgical treatment were observed regarding good or poor celluitis response. Prior episodes of cellulitis (P = 0.0015), venous insufficiency (P = 0.004), immunosuppression (P = 0.03), and development of sepsis (P = 0.05) were associated with poor treatment responses, and non-surgical trauma (P = 0.15) with good responses, in the multivariate analysis.

Conclusion. Prior episodes of cellulitis, nonsurgical trauma, venous insufficiency, sepsis and immunosuppression were independently associated with treatment response to cellulitis, but not the causing microorganism, the number of antimicrobials administered or its duration.

Disclosures. All authors: No reported disclosures.

2369. Clinical Experience With Telavancin for Treatment of Patients With Monomicrobial S. aureus Infections (Vancomycin MIC 21 μg/ml) From TOUR* Micael Jacobs, MD; Casimir Nwaigwe, MD; Candice Clay, PhD; Chris Barnes, PhD and Bibiana Castaneda-Ruiz, MD

Background. Telavancin (TLV) is a lipoglycopeptide antibacterial active against a wide range of Gram-positive pathogens, including methicillin-sensitive and -resistant S. aureus. Infections due to S. aureus with VAN MIC < 2 μg/ml are characterized from the Telavancin Observational Use Registry (TOUR*), a multicenter chart review to characterize infection types, pathogens, and outcomes of patients treated with TLV in clinical practice. Patient demographics, pathogens, outcomes, and adverse events (AEs) were analyzed. Clinical outcomes were determined by investigator assessment.

Results. Of 159 patients with monomicrobial S. aureus and VAN MIC 21 μg/ml 25.8% were aged 65 years (median 54.0, range 40–65 years), 60.4% were male, and 84.9% were White. At enrollment, complicated skin and skin structure infections (45.8%), wound infections (20.1%), and abscesses (15.7%), were the most common infection types. Mean TLV daily dose was 750 mg (range 285–2000 mg) or 8.5 mg/kg (range 3.5–15.7 mg/kg) and treatment duration was 8 days (range 1-185 days). TLV was used as second-line or later therapy in 77.4% patients, 73.6% failed prior therapy, and 44.8% previously received VAN. A total of 224 (65.4%) patients had VAN MIC ≥ 1 μg/mL; 4 (2.5%) had MIC = 1.5 μg/mL and 51 (32.1%) had MIC = 2 μg/mL. At end of treatment, 87 (77.0%) patients with available assessment had a positive clinical response, 17 (15.0%) had an indeterminate response, and 9 (8.0%) failed treatment. Analysis of data from 10 (8.1%) patients were missing or undocumented, and inde- terminate for 17 (13.8%) patients. AEs were reported in 17 (10.7%) patients; 9 (5.7%) reported a serious AE, and 12 (7.5%) had AEs leading to TLV discontinuation. A total of 7 (4.4%) renal AEs were reported; 5 (3.8%) patients discontinued due to renal AEs.

Conclusion. In a real-world setting, where the majority of patients had been on prior antibiotics, once-daily TLV was effective in treating a variety of infections due to S. aureus with decreased susceptibility to VAN.

Disclosures. M. Jacobs, Theravance Biopharma, US: Investigator, Fee for data collection and submission. C. Nwaigwe, Theravance Biopharma, US: Speaker’s Bureau, Service Agreement. C. Clay, Theravance Biopharma, US: Employee and Shareholder, Salary. C. Barnes, Theravance Biopharma, US: Employee and Shareholder, Salary. B. Castaneda-Ruiz, Theravance Biopharma, US: Employee and Shareholder, Salary.

2370. Dalbavancin Use in Emergency Department and Observation Unit to Prevent Inpatient Admission for Acute Bacterial Skin and Skin Structure Infection (ABSSI) Jonathan Ford, PharmD, MBA, BCPS® and Jean Lee, PharmD, BCPS AQ-ID®

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Background. ABSSSI is a common cause of hospitalization. Dalbavancin (DBV) is a lipoglycopeptide antibiotic approved as a single 1,500 mg intravenous (IV) dose for the treatment of patients with ABSSSI. DBV offers a unique opportunity for cost avoidance by shifting more ABSSI treatment to the outpatient setting. In late 2016, DBV was added to Northwest Hospital formulary with a restriction to patients with ABSSSI in the emergency department (ED) and observation unit who would otherwise be admitted for IV antibiotic therapy. The objective of this study was to assess the resource-effectiveness of DBV infusion as an alternative to inpatient admission for ABSSI management.

Methods. We performed a retrospective review of patients that received DBV in calendar-year (CY) 2017. The primary outcome was avoidance of inpatient admission and 30-day return to any ED as captured by the Chesapeake Regional Information System. Secondary outcomes were reported adverse drug reactions (ADRs) and inpatient resource utilization for the diagnosis-related group of celluitis without major complicating factors. Clinical endpoints were observed in those with good or poor responses. Regarding antimicrobials, no differences in previous exposure before hospital admission, treatment with single or more than one antibiotic, antibiotic switch, days on antimicrobials or surgical treatment were observed regarding good or poor celluitis response. Prior episodes of cellulitis (P = 0.0015), venous insufficiency (P = 0.004), immunosuppression (P = 0.03), and development of sepsis (P = 0.05) were associated with poor treatment responses, and non-surgical trauma (P = 0.15) with good responses, in the multivariate analysis.

Conclusion. Prior episodes of cellulitis, nonsurgical trauma, venous insufficiency, sepsis and immunosuppression were independently associated with treatment response to cellulitis, but not the causing microorganism, the number of antimicrobials administered or its duration.

Disclosures. No reported disclosures.