316. Joint Initiative Between Infectious Diseases and Podiatry in Outpatient Settings Improves Diabetic Foot Infection Patients’ Compliance and Outcomes Yuriko Fukuda, MD, PhD;1 Danny Fajikawa, DPM;2 and Tomoko Fuji, MD, PhD;2 1Infectious Diseases, Wheeling Hospital, Wheeling, West Virginia, 2Wheeling Hospital, Wheeling, West Virginia, 1Department of Medical Research and Management for Musculoskeletal Pain 22nd Century Medical and Research Center, The University of Tokyo Hospital, Tokyo, Japan Session: 54. Bone and Joint Infections Thursday, October 4, 2018: 12:30 PM Background. Many patients with diabetic foot infections (DFI) face challenges with keeping their follow-up appointments. This can result in recurrent DFI. A joint, Infectious Diseases-Podiatry clinic (JIDPC) that an Infectious Diseases (ID) physician and a Podiatrist see their patients together in wound care center once a week was initiated in January 2017. This study was designed to investigate if JIDPC can improve patient compliance and outcomes. Methods. A retrospective analysis of the patients admitted to Wheeling Hospital with DFI from March 2013 to December 2017 and required post discharge follow-up by ID and Podiatry was performed. Initially, they were followed by ID and Podiatry in their clinics separately (preintervention group). Beginning January 2017, they were followed together at the JIDPC (postintervention group). Recurrent infection, mortality, and lost to follow-up were compared between the two groups using logistic regression models adjusting for age and sex. Results. Among 119 patients, 85 patients were in preintervention group and 34 patients were in postintervention group. Surgeries were performed in 47.1% of preintervention group and 85.3% of postintervention group (P < 0.001) (Table 1). Risk of recurrence in 6 months was significantly higher in preintervention group (odds ratio [OR] = 3.14 [1.07–9.24]), but with further adjustment for surgery, P-value was 0.05 (OR = 3.08 [0.98–9.62]). Preintervention group was more likely to be lost to follow-up (OR = 3.67 [1.16–11.59]), but the association was attenuated with further adjustment for surgery (OR = 2.17 [0.64–7.41]). Re-admission in 90 days and mortality rate were not significantly different. Conclusion. Implementation of JIDPC would be effective to decrease the incidence of recurrent infections among DFI. Table 1: Clinical Characteristics and Comparison Between Pre- and Postintervention Groups

| Characteristic                      | Preintervention Group (n = 85) | Postintervention Group (n = 34) | PValue |
|------------------------------------|--------------------------------|---------------------------------|--------|
| Male sex                           | 66 (77.7%)                     | 26 (76.5%)                      | 0.890  |
| Age ≥65                            | 30 (35.3%)                     | 17 (50.0%)                      | 0.138  |
| Osteomyelitis                      | 66 (77.7%)                     | 28 (82.4%)                      | 0.569  |
| Surgery                            | 40 (47.1%)                     | 29 (85.3%)                      | <0.001 |
| Peripheral vascular disease        | 28 (33.0%)                     | 11 (32.4%)                      | 0.859  |
| Kidney dysfunction                 | 34 (40.0%)                     | 12 (35.3%)                      | 0.634  |
| Poorly controlled diabetes         | 37 (43.5%)                     | 14 (41.2%)                      | 0.815  |
| Lost follow-up                     | 27 (31.8%)                     | 4 (11.8%)                       | 0.025  |
| Re-admission                       | 27 (31.8%)                     | 12 (35.3%)                      | 0.711  |
| Death                              | 4 (4.7%)                       | 2 (5.9%)                        | 1.000  |
| Recurrent Infection in 6 months    | 31 (36.5%)                     | 5 (16.7%)                       | 0.044  |

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317. Risk Factors for Fungal Prosthetic Joint Infections (PJIs) Talha Riaz, MD;1 Aaron Tande, MD;2 Lisa L. Steed, PhD;2 Harry Demos, MD;2 Cassandra Salgado, MD, MS;1 Douglas Osmon, MD;1 and Camelia Marculescu, MD;1 1Infectious Diseases, Medical University of South Carolina, Charleston, South Carolina; 2Mayo Clinic, Rochester, Minnesota, 1Pathology and Laboratory Medicine, Medical University of South Carolina, Charleston, South Carolina; 3Department of Orthopedics, Medical University of South Carolina, Charleston, South Carolina; 4Division of Infectious Diseases, Mayo Clinic, Rochester, Minnesota Session: 54. Bone and Joint Infections Thursday, October 4, 2018: 12:30 PM Background. Fungal PJIs are rare and often associated with poor outcome. Risk factors are not well described and thus, we sought to determine such risks among patients cared for at two large academic hospitals. Methods. This was a retrospective case-control study among patients with PJI from 2006 to 2016. Each fungal PJI case was matched 1:1 with a bacterial PJI control for joint location (hip, knee, and shoulder) and year of diagnosis. We compared demographics (age, sex, and race), co-morbid conditions (BMI, diabetes, immunosuppression, renal disease, and antibiotic use), and clinical characteristics (organism, joint age, wound factors, laboratory data, previous joint surgeries, and previous PJI) between fungal and bacterial PJI groups using chi square/Fisher’s exact or Wilconxon rank-sum test. Risk factors statistically (P < 0.05) or clinically significant were included in a multivariable logistic regression (MVLR) model in stepwise fashion (SAS 9.4, Cary, North Carolina).

Results. Forty-one fungal PJI occurred over the study period and 61% were due to Candida albicans. Median age was 64.7 years, 51% were females, and 87% were White. The hip was involved in 51.2%, followed by the knee (46.3%), and shoulder (2.4%). There were no significant differences in joint age or co-morbid conditions. Compared with bacterial PJIs, those with fungal PJIs were more likely to have received antibiotics within the past 3 months (70.7% vs. 34%, P = 0.001), had wound drainage lasting more than 5 days (48% vs. 9%, P = 0.0002), had a lower median CRP (2.95 mg/dl vs. 5.99, P = 0.013) and a higher proportion of prior two-stage exchanges (82.9% vs. 53.6%, P = 0.008). After MVLR, controlling for the center, presence of wound drainage for more than 5 days (OR, 7.3; 95% confidence interval [CI], 2.02–26.95) and receipt of antibiotics within the past 3 months (OR, 3.4; 95% CI, 1.2–9.3) were factors significantly associated with fungal PJI.

Conclusion. In our study, Candida albicans was the most common species in fungal PJIs. The presence of wound drainage for more than 5 days and receipt of antibiotics within the past 3 months were independent risk factors for fungal PJI among a cohort of PJI patients.

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318. Treatment Outcomes of Prostatic Joint Infections: An Internal Assessment of Adherence to Best Practice Guidelines Courtney Horvat, PharmD;1 Margaret Cook, PharmD;1 Katherine Torres, DO;2 Thomas J. Dilworth, PharmD;1 and Charles F. Brummitt, MD;1 1Department of Pharmacy Services, Aurora Health Care, Green Bay, Wisconsin, 2Infectious Diseases Section, Aurora Health Care, Green Bay, Wisconsin, Session: 54. Bone and Joint Infections Thursday, October 4, 2018: 12:30 PM Background. The impact of prostatic joint infections (PJI) on patient outcomes and health systems is extensive. Patients with PJI may receive nonpreferred antibiotic therapy due to ease of administration, cost, and drug interaction profile. Our objective was to compare treatment of PJI to internal guideline-recommended therapy and assess treatment outcomes.

Methods. To reduce heterogeneity of PJI treatment within a large, integrated health system, our antimicrobial stewardship program and orthopedic surgeons created an internal best-practice guideline for treatment of PJI based on published literature. The guideline includes organism and surgery specific (Figure 1). Patients who had total knee arthroplasty (TKA) or total hip arthroplasty (THA) and subsequently developed PJI from July 2016 to June 2017 were identified retrospectively. Recurrent infections were defined as recurrence of primary infections or new infections with other organisms. Rates between patients treated with guideline-concordant and guideline-discordant regimens were compared.

Results. Among 36 TKAs complicated by PJI, fewer patients who received guideline-concordant therapy experienced recurrent infection than patients who received guideline-discordant therapy (1 of 16 patients [6.25%] vs. nine of 20 patients [45%], P = 0.0219). Among 25 THAs complicated by PJI, there was a trend toward fewer recurrent infections when patients received guideline-concordant therapy (2 of 12 patients [16.7%] vs. 5 of 11 patients [45.5%], P = 0.1775). Common deviations from the guidelines included dopamine use for neurogenic bladder and Staphylococcus spp. with implant retention due to ease of administration in outpatient settings and avoidance of rifampin due to tolerability or drug interactions.

Conclusion. Deviation from treatment guidelines for PJI following TKA and THA may increase the risk of recurrent infection. Barriers to utilizing guideline-recommended antibiotics in the outpatient setting should be addressed. Institutions should develop internal consensus on PJI treatment with prospective surveillance.

Figure 1. Treatment recommendations for Staphylococcus spp. After Debridement and Implant Retention (DAIR)—one element of the comprehensive internal guideline

Disclosures. All authors: No reported disclosures.

319. Is Chronic Vertebral Disk Infection With Low Virulence Bacteria a Common Cause of Back Pain? Esteban Decker, MD;1 Naman Sabhi, MD;2 and Gary Dunbar, PhD;2 1Internal Medicine, College of Medicine, Central Michigan University, Saginaw, Michigan; 2St. Marys of Michigan Neurosurgery, Saginaw, Michigan Session: 54. Bone and Joint Infections Thursday, October 4, 2018: 12:30 PM Background. In 1998 Modic described changes in vertebral body marrow with magnetic resonance imaging, and related those changes to pathological findings in the