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### Diagnosing Total Joint Arthroplasty-Associated Periprosthetic Joint Infections in Immunocompromised Patient Populations

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**Poster No. P0586****Temporal, Seasonal, and Monthly Effects on Total Knee Arthroplasty Surgical Site Infection Rates****Mackenzie A. Roof, BS***Lorraine Hutzler, MHA**Anna Stachel, MPH**Scott Friedlander, MPH,**Michael Phillips, MD**Joseph A. Bosco, MD, FAAOS*

Although non-significant, this analysis found a decreasing rate of deep surgical site infections (dSSI) after TKA over a nearly 10-year period and no evidence of the July effect with respect to dSSI.

**Poster No. P0587****Diagnosing Total Joint Arthroplasty-Associated Periprosthetic Joint Infections in Immunocompromised Patient Populations****Philip Zakko, MD***Erin A. Baker, PhD**Christian M. Huber**Corinn Gehrke, MS**Brett J. Friedman, MPH**Michael A. Flierl, MD, FAAOS*

The 2018 ICM/MSIS classification system was used to assess PJI diagnosis in immunocompromised vs. non-immunocompromised patient populations to determine applicability of the scoring criteria.

**Poster No. P0588****Knee Arthrodesis is a Durable Option for the Salvage of Infected Total Knee Arthroplasty****Caleb Yeung, MD***Paul Lichstein, MD**Nathan Varady, BS**James H. Maguire, MD**Antonia F. Chen, MD, MBA, FAAOS**Daniel M. Estok, MD, FAAOS*

Patients undergoing knee arthrodesis for TKA PJI had high rates of infection control and preservation of ambulatory status, with low rates of progression to above-knee amputation in our study.

**Poster No. P0589****Intraoperative Variables Associated with Long-Term Success of Two-Stage Exchange for Periprosthetic Joint Infection after Primary Total Knee Arthroplasty****Scott Nodzo, MD, FAAOS***K. Keely Boyle, MD**Ilan Fleisher, BS**Allina A. Nocon, MPH, PhD**Michael Henry, MD**Andy Miller, MD**Geoffrey H. Westrich, MD, FAAOS*

2SE for TKA PJI continues to provide acceptable long-term (10-yr) success rates. Total Vancomycin used in the spacer construct was significantly higher in patients who had a successful 2SE.

**Poster No. P0590****The Utility of Leukocyte Esterase Test in Diagnosing Culture Negative Periprosthetic Joint Infections****Alisina Shahi, MD, PhD***Vishavpreet Singh, MD**Ali R. Oliashirazi, MD, FAAOS**Jack Shilling, MD, FAAOS**Alec S. Kellish, BS**Lawrence S. Miller, MD, FAAOS**Javad Parvizi, MD, FAAOS*

In this study we investigated the role of LE strip test in ruling out infection in patients with negatives to detect culture negative PJIs.

**Poster No. P0591****Does the Organism Profile of Periprosthetic Joint Infections Change with a Topical Vancomycin Powder and Dilute Povidone-Iodine Lavage Protocol?****Daniel B. Buchalter, MD***Greg Teo, MD**David Kirby, MD**Ran Schwarzkopf, MD, FAAOS**Vinay Aggarwal, MD**William J. Long, MD, FAAOS*

Vancomycin powder and dilute povidone-iodine lavage is associated with fewer coagulase-negative staphylococcal TJA PJIs, fewer MRSA TKA PJIs, and a strong trend towards fewer gram-negative TKA PJIs.

**Poster No. P0592****Sequencing of Microbial Cell-Free DNA from the Blood Enhances Current Pathogen Identification Criteria for Prosthetic Joint Infections****Adriana P. Echeverria Gonzalez, BS***Ian Cohn**Alberto V. Carli, MD, MSc**Peter K. Sculco, MD**Christine Mironenko, NP**Susan Goodman, MD**Geoffrey H. Westrich, MD, FAAOS**Lionel B. Ivashkiv, MD**Mathias P. Bostrom, MD, FAAOS**Thomas W. Bauer, MD, PhD**Thomas P. Sculco, MD, FAAOS**Matthew S. Hepinstall, MD, FAAOS**Barry D. Brause, MD**Michael Henry, MD**Andy Miller, MD**Asim A. Ahmed, MD**Michael B. Cross, MD, FAAOS**Laura T. Donlin, PhD**PJI 2021*

Cell-free DNA sequencing from blood complements current diagnostic criteria, allowing for increased identification of causative PJI pathogens.